POST & SCHELL
ATTORNEYS AT LAW
CELEBRATING 50 YEARS

17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
717-731-1970 Main
717-731-1985 Main Fax
www.postschell.com

Devin Ryan

dryan@postschell.com
717-612-6052 Direct
717-731-1985 Direct Fax
File #: 180048

April 3, 2020

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: In the Matter of the Application of The York Water Company, under Sections 507, 1102(a)(1) and 1102(a)(3) of the Public Utility Code, for approval of the right of The York Water Company to (1) enter into a municipal contract to acquire certain public wastewater facilities from Letterkenny Township Municipal Authority; and (2) begin to offer or furnish wastewater service to the public in a portion of Letterkenny Township, Franklin County, Pennsylvania
Docket No. A-2020-

Dear Secretary Chiavetta:

Attached please find the Application of The York Water Company, under Sections 507, 1102(a)(1) and 1102(a)(3) of the Public Utility Code, for approval of the right of The York Water Company to (1) enter into a municipal contract to acquire certain public wastewater facilities from Letterkenny Township Municipal Authority; and (2) begin to offer or furnish wastewater service to the public in a portion of Letterkenny Township, Franklin County, Pennsylvania in the above-referenced matter. Copies will be provided per the attached Certificate of Service.

Respectfully submitted,

Devin Ryan

DR/kls
Attachments

cc: Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing Application of The York Water Company has been served by certified mail, return receipt requested, upon the following:

Franklin County Planning Commission
340 N. 2nd St.
Chambersburg, PA 17201

Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923

Letterkenny Township Board of Supervisors
4924 Orrstown Road
Letterkenny, PA 17244

Office of Small Business Advocate
Commerce Building
300 North Second Street, Suite 1102
Harrisburg, PA 17101

Bureau of Investigation and Enforcement
PA Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor West
Harrisburg, PA 17105-3265

Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Dated: April 3, 2020

Devin T. Ryan, Esq.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

IN THE MATTER OF THE APPLICATION OF THE YORK WATER COMPANY, under Sections 507, 1102(a)(1) and 1102(a)(3) of the Public Utility Code, for approval of the right of THE YORK WATER COMPANY to (1) enter into a municipal contract to acquire certain public wastewater facilities from Letterkenny Township Municipal Authority; and (2) begin to offer or furnish wastewater service to the public in a portion of Letterkenny Township, Franklin County, Pennsylvania.	:	Docket No. A-2020-_____

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

1. Name and Address of Applicant:

   THE YORK WATER COMPANY
   130 East Market Street
   York, PA 17401

2. Name and Address of Applicant's Attorneys:

   Michael W. Hassell, Esq.
   Devin T. Ryan, Esq.
   Post & Schell, P.C.
   17 North Second Street – 12th Floor
   Harrisburg, PA 17101-1601

3(a). Brief Corporate History and Purpose:

Under Special Act of the Assembly of February 8, 1816, The York Water Company ("York Water" or the "Company") was incorporated under the laws of the Commonwealth of Pennsylvania on February 23, 1816, for the purpose of supplying water in the Borough, now City of York, York County, Pennsylvania, and subsequent thereto duly extended

its franchised territory from time to time so as to include the 48 municipalities in which water service and four municipalities in which wastewater service is now being rendered as more fully set forth in Paragraph 4 hereof.

York Water has amended its Corporate Charter by filing its Articles of Amendment with the Pennsylvania Department of State on June 29, 1990 (#9033866 to 9033870) with Certificate of Amendment issued thereon on June 29, 1990, so as to consolidate into one description its chartered territory. A subsequent amendment was issued February 28, 1994, to include additional portions of Jackson, North Codorus, Lower Windsor and Hellam Townships, and East Prospect, Wrightsville and Abbottstown Boroughs, York County, Pennsylvania (Microfilm Numbers 09415.0349-0352). On May 20, 1996, York Water's Articles of Incorporation were restated and amended. The amended area added Jefferson Borough and portions of Codorus Township. On March 3, 1997, the Applicant filed Articles of Amendment to include the area encompassing the Boroughs of Glen Rock, Shrewsbury, New Freedom and Railroad, Shrewsbury Township and portions of North Hopewell and Hopewell Townships (Microfilm Numbers 09719.1725-1727).

On May 1, 2000, the Applicant's Articles of Incorporation were amended and restated (Microfilm Numbers 200035.389-392). The amended and restated Articles authorize the Company to provide wastewater service in the area that is the subject of this application.

3(b). Description of Service Furnished to the Public:

York Water now furnishes a supply of water to the public in the major portion of its franchised territory as hereinafter specified in Paragraph 4 hereof and wastewater service to portions of its franchised wastewater territory as hereinafter specified in Paragraph 4 hereof.

3(c). Amount of Stock and Bonds:

York Water has authorized, issued and outstanding as of December 31, 2019, 13,014,898 shares of Common Stock, with no stated par value. York Water has in force and effect an Optional Dividend Reinvestment and Direct Stock Purchase and Sale Plan, an Employee Stock Purchase Plan, and a Long-Term Incentive Plan.

There are also outstanding as of December 31, 2019, the following Senior Notes, Industrial Development Authority Revenue Bonds, and Pennsylvania Economic Development Financing Authority Exempt Facilities Revenue Refunding Bonds as follows:

10.05% Senior Notes, Series C, due 2020 (Securities Certificate No. S-900076 of 1990)	6,500,000
8.43% Senior Notes, Series D, due 2022 (Securities Certificate No. S-920287 of 1992)	7,500,000
3.00% Pennsylvania Economic Development Financing Authority Exempt Facilities Revenue Bonds Series A of 2019, due 2036 (Securities Certificate No. S-2019-3011066 of 2019)	10,500,000
Variable Rate Exempt Facilities Revenue Refunding Bonds, Series 2008A, due 2029 (Securities Certificate No. S-00041015 of 2004)	12,000,000
3.10% Pennsylvania Economic Development Financing Authority Exempt Facilities Revenue Refunding Bonds, Series B of 2019, due 2038 (Securities Certificate No. S-2019-3011066 of 2019)	14,870,000
3.23% Senior Notes, due 2040 (Securities Certificate No. S-2019-3011035 of 2019)	15,000,000
4.00% - 4.50% York County Industrial Development Authority Exempt Facilities Revenue Bonds, Series 2015, due 2029 – 2045 (Securities Certificate No. S-2014-2405684 of 2014)	10,000,000

4.54% Senior Notes, due 2049 (Securities Certificate No. S-2018-3006371 of 2018)	20,000,000

4. Location of Existing Service Area:

York Water is now furnishing water service to the public in the major portion of its franchised territory which contains therein all or portions of 48 municipalities for water service as follows: The City of York, the Boroughs of East Prospect, Glen Rock, Hallam, Jacobus, Jefferson, Loganville, Manchester, Mount Wolf, New Freedom, New Salem, North York, Railroad, Seven Valleys, Shrewsbury, Spring Grove, West York, York Haven and Yorkana, and the Townships of East Manchester, Manchester, Spring Garden, Springettsbury and West Manchester, and parts of the Townships of Codorus, Conewago, Hellam, Hopewell, Jackson, Lower Windsor, Newberry, North Codorus, North Hopewell, Paradise, Shrewsbury, Springfield, West Manheim, Windsor and York, all in the County of York and the Boroughs of Abbottstown and Carroll Valley, and parts of Berwick, Cumberland, Hamilton, Mount Pleasant, Oxford, Reading and Union Townships, County of Adams, Commonwealth of Pennsylvania. In addition, York Water is now furnishing wastewater service to the public in portions of East Manchester Township, portions of Lower Windsor Township, and the Boroughs of East Prospect, West York, and Jacobus, all of which are located in York County.

The water community served has an estimated population of approximately 201,000 as of December 31, 2019, with water furnished to 68,463 customers as of December 31, 2019. Of these there were 4,842 metered commercial (including apartment complexes) and industrial customers, 62,293 metered residential customers and 1,328 public and private fire protection customers. The wastewater community served has an estimated population of

approximately 15,000 as of December 31, 2019, with wastewater service furnished to 2,948 customers as of December 31, 2019.

All such water and wastewater service rendered to the public has been approved by virtue of the authority granted initially in York Water's Charter by Special Act of Assembly of February 8, 1816, and at various times subsequently by Certificates of Public Convenience duly granted by the Pennsylvania Public Service Commission and by the Pennsylvania Public Utility Commission ("Commission") under The Public Service Company Law, Public Utility Law or Public Utility Code of Pennsylvania.

5. Proposed Acquisition and Expansion of Service Territory:

York Water proposes to acquire the wastewater collection, pumping, and treatment system owned by Letterkenny Township Municipal Authority ("LTMA"), Franklin County, Pennsylvania and to expand its service territory to begin to offer or furnish wastewater service to the public in a portion of Letterkenny Township. There is no public water supply serving the portion of Letterkenny Township through which this Application proposes to serve. According to page 6 of Letterkenny Township's Act 537 Plan dated March 2003 (Exhibit "T-1"), public water systems exist in three areas of Letterkenny Township: the Roxbury Holiness Camp, Old Kensington Heights, and the Letterkenny Army Depot. The mailing address and street address for LTMA is 4924 Orrstown Rd., Orrstown, PA 17244.

The purpose of this proposed acquisition of LTMA's wastewater assets and expansion of York Water's service territory is to enable York Water to serve wastewater customers in a portion of Letterkenny Township, Franklin County. LTMA currently provides wastewater service to approximately 185 public wastewater customers. As a municipal corporation serving customers within Letterkenny Township, LTMA is not certificated by the

Commission. According to LTMA's 2018 Chapter 94 Report (Exhibit "H"), the number of wastewater customers served is 185, mostly residential, with a total of 185 equivalent dwelling units ("EDUs"). On page 2 of Part 3 of Letterkenny Township's 2019 Act 537 Plan Update Special Study (Exhibit "T-2"), it states that "[t]he wastewater treatment plant (WWTP) and sanitary collection system provide service to 185 customers. The customer base is mainly residential with two commercial customers."[1] For planning, revenue, and expense projections, York Water is adopting the customer projections from the 2019 Act 537 Plan Update Special Study.

LTMA provides wastewater service to these approximately 185 customers pursuant to its wastewater rules and regulations. Attached hereto as Exhibit "F-1" is Letterkenny Township Ordinance No. 1-2007, together with Letterkenny Township Ordinance Nos. 1980-1 and 1980-2. Ordinance No. 1980-1, as amended by Ordinance No. 1-2007, requires the owner of any Improved Property located within 300 feet from LTMA's Sewer System to connect to and use that Sewer System. According to LTMA, all Improved Properties in Letterkenny Township are compliant with this mandatory connection requirement set forth in the amended Ordinance No. 1980-1. Further, Section 905 of Letterkenny Township's Subdivision and Land Development Ordinance (Exhibit "F-2") describes the standards for sewer and water systems for proposed subdivisions, mobile home parks, and land developments.

LTMA determined that it was in the best interest of its current customers to sell its wastewater system to a company that has sufficient wastewater operations and maintenance experience to meet the wastewater demands of the public and has more experience in dealing with utility service and the regulatory requirements associated with providing such service.

[1] The number of customers varies in the different reports prepared by LTMA, based upon the time the reports were prepared. The customer count as of December 31, 2019, is 185.

Indeed, LTMA has concluded that its investment in maintaining the wastewater system in future years will be insufficient to provide reliable wastewater collection and treatment services. By example, in September 2018, the Pennsylvania Department of Environmental Protection ("DEP") entered into a Consent Order and Agreement ("COA") (Exhibit "Q-2") with LTMA for discharges between April 2013 and August 2017 that, as stated on page 2 of the COA, were "contrary to the terms and conditions set forth in its NPDES Permit." The specific effluent violations are listed in Exhibit 1 of the COA. On January 2, 2018, DEP conducted an inspection of the Wastewater Treatment Plant and identified accumulated sewage solids at the outfall. Subsequently, DEP issued a Notice of Violation on January 5, 2018. DEP concluded that LTMA had violated Sections 201 and 202 of The Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, as well as LTMA's National Pollutant Discharge Elimination System ("NPDES") Permit No. PA0082201. LTMA was ordered to take certain corrective actions as enumerated in Exhibit "Q-2" and pay a civil penalty of $4,008.00. The findings in the COA are indicative of LTMA's difficulties with operating its wastewater system. These issues contributed to LMTA evaluating alternatives and ultimately deciding to sell its wastewater system to York Water.[2]

York Water has entered into an Agreement with LTMA dated June 25, 2019, to purchase the LTMA wastewater collection and treatment system. A copy of this Agreement is attached hereto as Exhibit "I" and describes the assets that will be acquired. York Water notes that there is no affiliation between York Water and LTMA and that all negotiations were conducted at arm's length. Attached hereto as Exhibit "M" are minutes from LTMA's June 25, 2019 public meeting, when it approved the sale of the wastewater collection and treatment system to York Water.

[2] Details on LMTA's evaluation of selling its wastewater system to York Water can be found in Section VI.A of Part 3 of LTMA's 2019 Act 537 Plan Update Special Study (Exhibit "T-2").

The Company's proposed additional certificated service area encompasses LTMA's current service area, which can be seen in Figure 1 of LTMA's 2019 Act 537 Plan Update Special Study (Exhibit "T-2"). York Water's proposed service territory has been discussed with Franklin County officials, who concluded that the Company's proposed expansion of its service territory to include LTMA's current service area is consistent with Franklin County's comprehensive plan. A planning consistency letter request to and response from the Franklin County Planning Commission is attached as Exhibit "J."

The LTMA wastewater system is located approximately 49 miles from the closest York Water Company wastewater system (Exhibit "W"). Following acquisition of the LTMA wastewater system, York Water will operate the existing wastewater system as part of its wastewater operations, and LTMA will cease to provide public wastewater service. Specifically, York Water will begin providing wastewater service to the former LTMA customers within five days after the date of closing. Closing is contingent upon York Water obtaining Commission approval of this acquisition.

York Water has met with representatives of DEP to discuss this acquisition and anticipates no issues. By letter dated December 9, 2019 (Exhibit "T-2"), DEP approved Letterkenny Township's 2019 Act 537 Plan Update Special Study and acknowledged that the proposal to transfer ownership of the collection conveyance and treatment facilities to the York Water Company is consistent with the planning requirements in Chapter 71 of DEP regulations. LTMA holds a NPDES permit (Exhibit "Q-1") from DEP. York Water acknowledges DEP's comment in Exhibit "T-2" that "[a]ll sewage permits (NPDES and WQM Part II) currently held

by Letterkenny Township[3] must be transferred to York Water Company." Application for transfer of the LTMA NPDES permit and Water Quality Management ("WQM") Part II permit is complete and has been submitted to the DEP, as evidenced by Exhibit "Q-4". The permits will be transferred to York Water concurrent with closing and initiation of service. In addition, York Water is committed to resolving the outstanding compliance requirements found in DEP's COA with LTMA dated September 11, 2018 (Exhibit "Q-2"), as demonstrated by York Water's correspondence to DEP, dated March 5, 2020 (Exhibit "Q-3").

6. Additional Capital Requirements:

York Water's capital requirements for the acquisition consist of the purchase price of Two-Hundred Twenty Five Thousand dollars ($225,000[4]) (as agreed upon in the Agreement of Sale entered into with LTMA dated June 25, 2019, a copy of which is attached hereto as Exhibit "I"); Sixty Thousand ($60,000) dollars for the installation of Supervisory Control and Data Acquisition ("SCADA") equipment; Fifty-One Thousand ($51,000) dollars for Relocation of Effluent Outfall Sewer; Twenty Thousand ($20,000) dollars for Flow Metering Manhole, Flow Meter Equipment, and Installation; and approximately Thirty Thousand dollars ($30,000) for legal fees. The estimated total cost of Three-Hundred Eighty-Six Thousand dollars ($386,000 = $225,000 + $60,000 + $51,000 + $20,000 + $30,000) will be financed by internally generated funds, proceeds from the issuance of common stock under York Water's dividend reinvestment and direct stock purchase and employee stock purchase plans, and, if necessary, borrowings against York Water's lines of credit. All system improvements described in this

[3] York Water notes that DEP's references to Letterkenny Township in Exhibit "Q-4" and "T-2" should actually be references to LTMA, as LTMA actually owns the wastewater collection and treatment facilities.

[4] Under Paragraph 3 of the Agreement of Sale (Exhibit "I"), York Water notes that the purchase price of $225,000 is "less an amount equal to the total amount of prepaid tapping fees paid to the Authority for all reserved capacity as evidenced by any reservation of capacity agreements, a list of which is set forth on Appendix A.1."

paragraph will be completed and in service within twelve months of closing. Future system improvement plans will be based upon York Water's assessment of the condition of the wastewater collection and treatment system, the Company's effort to reduce inflow and infiltration into the collection system, and York Water's effort to resolve outstanding compliance requirements of the active LTMA COA (Exhibit "Q-2"). The York Water Company provides a quote for the Effluent Outfall Relocation in Exhibit "Q-2a" and a detailed design drawing for that project in Exhibit "Q-2b".

York Water and LTMA are not seeking to establish fair market value or a determination of ratemaking rate base under the provisions of Section 1329 of the Public Utility Code. *See* 66 Pa. C.S. § 1329. The final purchase price was established as a result of arm's length negotiations between LTMA and York Water. In assessing its negotiating position, York Water considered, among other things, the age, material, and condition of the wastewater system assets as identified by LTMA and compared them to similar assets in York Water's existing inventory of assets. York Water also considered the proximity of the LTMA wastewater system to York Water's existing wastewater facilities. As explained previously, the LTMA wastewater system is approximately 49 miles from the nearest York Water wastewater system (Exhibit "W").

8. Plant in Service and Plant to be Acquired:

Attached as Exhibit "A" is a summary, by major plant category, of used and useful plant in service of York Water as of December 31, 2019.

Exhibit "B" is a balance sheet of York Water as of December 31, 2019, which provides the capitalization of the Company.

York Water will acquire the wastewater system owned and operated by LTMA. The system includes all of the physical plant, property, and equipment used for the collection and treatment of sanitary waste in Letterkenny Township, including the Company Laterals as defined in York Water's Wastewater Tariff. Additionally, York Water will acquire the utility easements and rights-of-way of LTMA. York Water will not acquire the Customer Laterals as defined in York Water's Wastewater Tariff, and these will remain owned by customers. The wastewater system will be operated, maintained, and managed by York Water's Operations Department.

An identification of the assets that York Water will acquire is included in Exhibit "D-1". LTMA has not maintained a detailed inventory of assets but provided paper drawings showing the as-built condition of the collection system and records related to the treatment works. Further, LTMA's 2019 Act 537 Plan Update Special Study (Exhibit "T-2") quantifies the sanitary sewer pipe footage and components of the Septic Tank Effluent Gravity ("STEG") components. Based upon the as-built drawings and the data provided in the 2019 Act 537 Plan Update Special Study, York Water representatives added this data to York Water's Geographic Information System ("GIS") database, and created the graphic representation of the LTMA system in Exhibit "D". By comparing the plotted collection system in York Water's GIS database to the as-built drawings and the data provided in the 2019 Act 537 Plan Update Special Study, York Water estimates that the wastewater system consists of the following components.

361.21	Manholes	63	4' Precast Concrete
361.20	Gravity Collection Mains	10,834 ft	8" SDR 35 PVC
361.20	Gravity Collection Mains	8,247 ft	6" SDR 35 PVC
361.20	Gravity Collection - STEG	1,730 ft	4" SDR 35 PVC
361.20	Gravity Collection - STEG	116 ft	3" SDR 35 PVC
361.20	Gravity Collection - STEG	679 ft	2.5" SDR 35 PVC
361.20	Gravity Collection – STEG	585 ft	2" SDR 35 PVC
363.20	Company Laterals	185 units/ var. ft.	4" SDR 35 PVC
380.40	STEG Tanks	24	Concrete Septic Tanks
380.40	Treatment Plant	1	42,000 GPD

York Water will perform an original cost study for the purchase of the LTMA wastewater system. A more detailed listing and description of assets will be provided when the original cost study is completed and submitted.

The tentative journal entries for booking the purchase of LTMA's wastewater assets are shown in the tables below. The numbers in journal entry 2, including the amount of any acquisition adjustment, are approximates and cannot be confirmed until the final original cost study has been completed.

1. Record Purchase of System

Account No.	Account Description	Debit	Credit
105	Construction Work in Process	$285,000	
131	Cash		$285,000

2. Close Project to Utility Plant

Account No.	Account Description	Debit	Credit
101	Utility Plant in Service	$514,000	
108	Accumulated Depreciation		$334,000
114	Utility Plant Acquisition Adj.	$105,000	
105	Construction Work in Process (Purchase price + other acquisition costs)		$285,000

3. Record Other Project Costs

Account No.	Account Description	Debit	Credit
105	Construction Work in Process	$131,000	
224	Line of Credit Borrowings (SCADA)		$131,000

4. Close Projects to Utility Plant

Account No.	Account Description	Debit	Credit
101	Utility Plant in Service	$131,000	
105	Construction Work in Process (SCADA)		$131,000

9. Map of Service Area and Location of Facilities to Be Acquired:

Attached as Exhibit "D" is a map showing LTMA's existing wastewater service area. Attached as Exhibit "D-1" is a system narrative and asset summary listing. A map of York Water's proposed wastewater service territory is included in Exhibit "E", along with the accompanying metes and bounds description in Exhibit "E-1". York Water's proposed additional service territory is consistent with LTMA's existing service area shown in Figure 1 in the 2019 Act 537 Plan Update Special Study (Exhibit "T-2") and the map of LTMA's existing wastewater service area shown in Exhibit "D". The applied-for territory contains approximately 839.58 acres.

York Water requests approval to adopt LTMA's existing service territory, as defined by Figure 1 in the 2019 Act 537 Plan Update Special Study (Exhibit "T-2").

In addition to the sanitary sewer collection network, Exhibit "D" is a map showing the general location of the wastewater treatment plant, which is the major facility to be acquired from LTMA, as described in Sections 5 and 8 above.

10. Future Capacity:

Based upon LTMA's 2018 Chapter 94 Report (Exhibit "H"), the LTMA wastewater treatment plant is projected to have adequate hydraulic and organic capacity for the next five (5) years. Based upon current loadings and projected development growth, York Water does not anticipate wastewater conveyance or treatment capacity restrictions. Exhibit "H-1" contains a table showing current and projected connections through the year 2023. According to LTMA, there were no new connections in 2019. The Company expects to be able to meet projected requirements through the year 2023. York Water's long-range plans consider various collection, sanitary waste transportation, and system maintenance alternatives to ensure the collection system is able to meet future requirements. Further, future requests for public wastewater

service in Letterkenny Township will be considered in accordance with the Company's tariff and line extension rules.

11. Rates for Service:

York Water proposes to adopt LTMA's existing rates. LTMA's rates are charged quarterly as follows: $135.00/quarter for each Connection as established in Ordinance 2018-1 (Exhibit "R") by motion of the Board of the LTMA at its September 25, 2018 meeting (Exhibit "R-1"). According to LTMA's Resolution 2016-1 (Exhibit "R-2"), the previous rate was $120.00 per quarter for each Dwelling Unit. Because York Water bills monthly, LTMA's quarterly rate of $135.00 will be prorated to $45.00 per month. Those rates are reflected in York Water's pro forma tariff supplement, which is attached as Exhibit "P". Because the current LTMA rates and the proposed York Water rates are the same, no comparison is provided. While York Water's definition of an EDU is not identical to Letterkenny Township's definition of an EDU,[5] there is sufficient similarity that York Water believes it would be reasonable to apply the Company's definition of EDU. Wastewater charges will not change for any customer or class of customer with the transition to York Water's tariff.

[5] In Exhibit "R-2", LTMA defines an EDU as "the unit of measure by which the User Charge and the Tapping Fee shall be imposed upon each Improved Property, as determined in the Ordinance, in any subsequent ordinance of the Borough or by other governing law, which shall be deemed to constitute the estimated, equivalent amount of Domestic Sanitary Sewage discharged by a single-family Dwelling Unit." The definition of a "Dwelling Unit" for LTMA is set forth in Letterkenny Township's Ordinance No. 1981-1. Specifically, Ordinance No. 1981-1 defines "Dwelling Unit" as "any room, group of rooms, house trailer, building or other enclosure connected, directly or indirectly, to the Sewer System and occupied or intended for occupancy as separate living quarters by a family or any other group of Persons living together or by a Person or Persons living alone, excluding Institutional Establishments." This generally corresponded with York Water's definition of a Dwelling Unit as "[a]structure or dwelling intended to be occupied as a whole by one family." *See* Supplement No. 3 to Wastewater – PA P.U.C. No. 1, First Revised Page No. 8, Definition 15.

12. Profit and Loss Statement:

Attached as Exhibit "C" is a Statement of Income of York Water for the 12 months ended December 31, 2019. A calculation of the estimated annual revenue and expense figures for the proposed, additional territory is attached as Exhibit "N".

13. Compliance with DEP Requirements:

York Water has been in contact with DEP and conducted a five-year compliance review to determine if LTMA is in current violation or has had previous violations attributed to its sewer treatment system. As mentioned previously, Exhibit "Q-2" is the current DEP COA issued to LTMA, dated September 11, 2018, which established compliance requirements and a completion timeline. York Water is committed to resolving all outstanding compliance items contained in the COA within 12-months of acquisition of the LTMA wastewater system. The Company is not required to comply with 25 Pa. Code § 109.503(a)(3), and no business plan is required.

14. No Competitive Condition:

No corporation, partnership or individual is now furnishing or has corporate or franchise rights to furnish service similar to that to be rendered by York Water in the territory covered by this Application other than LTMA, and no competitive condition will be created.

15. Facilities for Furnishing Service:

York Water will employ the facilities acquired from LTMA to furnish wastewater service to customers currently served by LTMA. The facilities have sufficient capacity to provide service to all existing dwellings within the proposed service area.

16. Approval's Necessity and Propriety:

Approval of the Application is necessary and proper for the service, accommodation, convenience and safety of the public for the following reasons:

(a) LTMA is no longer willing to provide wastewater service to its customers due to the regulatory requirements necessary to continue to provide service and the difficulties in maintaining a viable wastewater system, as indicated in the current COA dated September 11, 2018 (Exhibit "Q-1");

(b) York Water will bring significant resources to the LTMA wastewater system and keep it in compliance with existing and proposed regulatory requirements; and

(c) The Commission encourages utilities, such as York Water, to acquire small wastewater systems such as the system owned and operated by LTMA. *See* 52 Pa. Code § 69.711.

17. Notification to Customers:

On July 2, 2019, York Water and LTMA jointly notified the residents of Letterkenny Township of the proposed acquisition and future filing of this Application, as well as York Water's proposed rates for wastewater service. A copy of the July 2, 2019 letter is attached hereto, made a part hereof, and marked as Exhibit "K."

WHEREFORE, The York Water Company requests that the Pennsylvania Public Utility Commission issue all necessary certificates of public convenience under Section 1102(a)(1) and (a)(3) of the Public Utility Code and grant approval under Section 507 of the Public Utility Code for The York Water Company to: (1) acquire the public wastewater facilities of Letterkenny Township Municipal Authority; and (2) expand its wastewater service territory to include the current service area of Letterkenny Township Municipal Authority. Further, The York Water Company requests that the Pennsylvania Public Utility Commission grant all additional approvals as may be required to acquire the specified wastewater facilities owned by Letterkenny.

ATTEST:

Secretary

THE YORK WATER COMPANY

By _____
President and CEO

By _____
Counsel for THE YORK WATER COMPANY

Letterkenny PUC Application Exhibit Index

Exhibit A, Plant in Service, YWC 12-2019
Exhibit B, Balance Sheet, YWC 12-2019
Exhibit C, Income Statement, YWC 12-2019
Exhibit D, Existing Service Area and LTMA Assets
Exhibit D-1, LTMA Asset Narrative and Inventory Summary
Exhibit E, Letterkenny Twp Municipal Authority - Certificated Territory Map
Exhibit E-1, Certificated Wastewater Territory Description (LTMA)
Exhibit F-1, LTMA Ordinance 1-2007 Sewer Connection Ordinances and Amendments
Exhibit F-2, Letterkenny Twp Subdivision and Land Development Ordinance
Exhibit F-3, Ordinance 1981-1 Section 1 Articles B, D defining EDU
Exhibit H, LTMA Chapter 94 Report 2018
Exhibit H-1, Current and Projected Connections Table
Exhibit I, Agreement of Sale, LTMA, June 25, 2019
Exhibit J, York Water Co - LTMA - Franklin County Planning Commission Consistency Letter
Exhibit K, Letter to LTMA Customers, July 2, 2019
Exhibit M, Minutes of June 25, 2019 Meeting
Exhibit N, Revenue and Expense Projections
Exhibit P, Draft Pro Forma Tariff Supplement
Exhibit Q-1, 2018 NPDES Permit & WQMP (UV)
Exhibit Q-2, COA 2018 - Fully Executed
Exhibit Q-2a, Outfall Relocation Quote - KCI Scope - LTMA - 09-11-19
Exhibit Q-2b, LTMA Proposed Outfall Design 12-2018
Exhibit Q-3, YWC - COA Ltr to DEP March 5, 2020
Exhibit Q-4, WQM - NPDES Permit Transfer Documents
Exhibit R, Rate Ordinance Resolution 2018-1
Exhibit R-1, LTMA Meeting Minutes Establishing Wastewater Rate 9-2018
Exhibit R-2, Resolution 2016-1, Setting Rates and Tapping Fee
Exhibit T-1, LTMA Act 537 Plan, Revised March 2003 and DEP Approval
Exhibit T-2, 2019 Act 537 Letterkenny Special Study STP and DEP Approval
Exhibit W, Locator Map - Distance from Nearest YWC System

Exhibit “A”

THE YORK WATER COMPANY
UTILITY PLANT

	As of December 31, 2019
Organization	$ 5,302
Franchises and consents	4,918
Water rights	39,972
Reservoir land	858,813
Power and pumping land	1,078,522
Purification land	26,734
Transmission & distribution land rights-of-way	123,659
Distribution reservoir and standpipe land	621,756
Office land	115,023
Stores, shop and garage land	135,845
Collecting and impounding reservoirs	6,056,489
Lake, river and other intakes	3,683,677
Wells and springs	50,350
Supply mains	8,350,917
Other water source structures	211,038
Power and pumping structures	14,899,979
Purification buildings	3,126,737
Office buildings	1,360,568
Stores, shop and garage buildings	2,878,547
Miscellaneous structures and improvements	394,014
Power generation equipment	2,823,674
Oil engine pumping equipment	1,858,676
Electric pumping equipment	4,103,607
Scada system	698,223
Purification system	20,036,185
Distribution reservoirs and standpipes	22,111,393
Mains and accessories	196,822,574
Services	47,477,428
Meters	19,941,836
Fire hydrants	8,761,819
Backflow preventors	519,434
Office furniture and equipment	10,378,622
Transportation equipment	1,662,746
Stores equipment	109,224
Shop equipment	67,395
General equipment	673,290
Tractor	34,371
Laboratory equipment	77,550
Construction equipment	128,072
Communication equipment	2,592,659
Miscellaneous equipment	462,887
Wastewater pumping land	238,390
Wastewater treatment land	144,503
Wastewater treatment structures	406,329
Wastewater power generation equipment	203,705
Wastewater collection sewers	4,131,322
Wastewater services	800,430
Wastewater pumping equipment	423,659
Wastewater treatment and disposal equipment	841,277
Wastewater monitoring equipment	83,706
Wastewater detention pond	2,682
Wastewater outfall lines	10,963
Wastewater office computer	80,265
Wastewater transportation equipment	74,009
Wastewater shop equipment	16,121
Wastewater communication equipment	132,693
Wastewater miscellaneous equipment	11,906
Total Utility Plant in Service	$ 392,966,485
Construction work in progress	8,416,577
Utility plant acquisition adjustment	(3,317,631)
TOTAL UTILITY PLANT	$ 398,065,431

Exhibit “B”

THE YORK WATER COMPANY
BALANCE SHEET

	As of December 31, 2019
ASSETS	
UTILITY PLANT:	
Utility Plant, at original cost	$398,065,431
Less-Reserve for depreciation	84,841,439
	313,223,992
OTHER PHYSICAL PROPERTY:	
Less-Reserve for depreciation	769,052
CURRENT ASSETS:	
Cash and cash equivalents	(1,381,894)
Accounts receivables, less reserves	4,421,122
Unbilled revenue	2,275,776
Materials and supplies, at cost	1,006,802
Prepaid expenses	1,131,476
	7,453,282
OTHER LONG-TERM ASSETS:	
Notes receivable	255,481
Deferred regulatory assets	34,189,222
Other	5,744,774
	40,189,477
	$361,635,803

THE YORK WATER COMPANY
BALANCE SHEET

	As of December 31, 2019
CAPITALIZATION AND LIABILITIES	
CAPITALIZATION:	
Common stock, no par value	$83,976,595
Earnings retained in the business	50,208,821
	134,185,416
Long-term debt	97,541,604
Less-Unamortized discount and debt expense	3,007,028
	228,719,992
CURRENT LIABILITIES:	
Current portion of long-term debt	6,500,000
Accounts payable	2,105,957
Dividends payable	2,095,968
Accrued taxes	(533,888)
Accrued interest	914,168
Deferred regulatory liabilities	608,885
Other accrued expenses	1,571,580
	13,262,670
DEFERRED CREDITS:	
Customers' advances for construction	7,843,765
Contributions in aid of construction	40,028,607
Deferred employee benefits	4,317,937
Deferred regulatory liabilities	24,789,532
Deferred income taxes	40,425,610
Other deferred credits	2,247,690
	119,653,141
	$361,635,803

Exhibit “C”

THE YORK WATER COMPANY
STATEMENT OF INCOME

	Twelve Months Ended December 31, 201
OPERATING REVENUES:	
Residential	33,408,629
Commercial and industrial	14,440,719
Other	3,728,727
	51,578,075
OPERATING EXPENSES:	
Operation and maintenance	10,386,696
Administrative and general	9,968,338
	20,355,034
Depreciation	7,688,136
Taxes other than income taxes	1,199,784
Income taxes	2,240,224
	31,483,178
Operating income	20,094,897
INTEREST EXPENSE AND OTHER INCOME:	
Interest on debt	5,123,984
Allowance for funds used during construction	(366,117)
Other (income) expenses, net	934,966
	5,692,833
NET INCOME	$14,402,064

EXHIBIT "C"

Exhibit “D”

Exhibit D, Existing Service Area and LTMA Assets

Letterkenny Township Municipal Authority Sanitary Sewer Assets

Legend

- LTMA - STEG System Tanks
- LTMA WWTP
- Manholes LTMA
- Sewer Mains LTMA
- Franklin County Parcels
- Existing Service Area - LTMA
- Municipal Boundary

Letterkenny Township

Lugan Township

Letterkenny Township

LTMA WWTP

Forge Hill Rd

Roxbury Rd

Newburg Rd

Cumberland Rd

Short Rd

Trim Rd

Conodoguinet Creek

0 500 1,000 2,000 3,000 4,000 Feet

N

The York Water Company
130 EAST MARKET STREET, YORK, PENNSYLVANIA 17405
"That good York water"
SINCE 1816

bing
© 2020 Microsoft Corporation © 2020 HERE

Exhibit “D-1”

Letterkenny Township Municipal Authority

Treatment and Collection System Narrative

The LTMA WTP collection system consists of approximately 22191' of PVC pipe ranging from 2" to 8" diameter conveying wastewater from the Hillview Estates development and nearby users located on Mountain Road and Skyline Road. The system was constructed over several phases beginning in the 1980s with the last extension built in 2017. The collection system is predominately a typical gravity sewer, however, there is an approximately 3110' Septic Tank Effluent Gravity (STEG) component located along Mountain Rd. The STEG system incorporates a total of 24 septic tanks serving 23 properties/users and utilizes a small diameter sewer pipe ranging in size from 2" to 4". Review of available information indicates that some properties served may contain multiple users/EDUs per service lateral.

The wastewater treatment plant was originally constructed as a 17,000 GPD extended aeration package plant in the 1980s (est.). The plant was expanded, with the addition of a second treatment train, to 42,000 GPD in approximately 1996. The current configuration consists of flow equalization, two parallel aeration basin flow paths, clarifiers, sludge holding tank, and a UV disinfection system (installed in 2018). The treated effluent is discharged to the Conodoguinet Creek under NPDES Permit# PA0082201 expiring May 31, 2023. The facility is currently under a PaDEP Consent Order and Agreement (COA) to address recurring effluent non-compliance issues.

The current system consists of 185 EDUs billed at $135/quarter ($99,900/year). There is a total of 170 billing accounts representing 168 unique entities. The majority of the users represent single family homes. The balance consists of several trailers, two commercial businesses, and the multiple facilities of the Roxbury Holiness Retreat. All properties are served by private wells.

Collection System Asset Summary

Sanitary Sewer Pipe

Diameter	Material	Footage	System
2"	PVC	585	S.T.E.G.
2.5"	PVC	679	S.T.E.G.
3"	PVC	116	S.T.E.G.
4"	PVC	1730'	S.T.E.G.
6"	PVC	8247'	Hillview Estates
8"	PVC	10834'	Interceptors, Cardinal Rd. (West), Skyline Rd.
Total		**22190'**	

Manholes: 63
Clean-outs: 9 (plus an undetermined number of clean-outs located on the STEG system)
Septic Tanks - LTMA owned/maintained as part of the Mountain Rd. Septic Tank Effluent Gravity Sewer (S.T.E.G.): **24 Tanks**

Exhibit “E”

Exhibit E - Proposed Wastewater Service Territory

TIE LINE: S 57-4-58 E 16,007.65'
(FROM NATIONAL GEODETIC SURVEY REFERENCE MARKER-
DESIGNATION - PTC 1933.9, PID - AJ4743, STATE/COUNTY
- PA/FRANKLIN, USGS QUAD - DOYLESBURG 2019)

POINT OF BEGINNING
(POINT A)

S.R. 641

S.R. 997

Roxbury

S.R. 4004

S.R. 997

S.R. 997

SERVICE AREA
839.58 ACRES +/-

SERVICE AREA LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S 29-56-24 E	978.65'
L2	S 32-29-54 E	1,030.74'
L3	S 33-19-32 E	891.80'
L4	S 33-59-22 E	472.33'
L5	N 34-51-47 E	1,026.99'
L6	S 30-17-16 E	310.68'
L7	S 57-2-3 E	828.06'
L8	N 82-31-50 E	864.26'
L9	N 14-7-37 E	351.45'
L10	S 51-31-52 E	138.20'
L11	S 24-31-0 E	141.68'
L12	S 65-6-1 E	233.94'
L13	S 40-44-16 E	336.01'
L14	N 82-30-43 E	489.95'
L15	N 76-54-22 E	487.03'
L16	S 81-22-43 E	634.46'
L17	S 72-9-20 E	270.60'
L18	S 54-39-19 E	242.54'
L19	S 68-9-23 E	201.30'
L20	N 60-13-4 E	264.00'
L21	S 80-24-27 E	169.95'
L22	S 34-29-12 E	241.94'
L23	S 38-47-14 E	202.94'
L24	S 20-47-9 E	85.80'
L25	S 36-47-14 E	103.95'
L26	S 72-46-19 E	545.76'
L27	N 44-57-52 E	95.18'
L28	S 27-44-15 E	140.16'
L29	S 58-1-52 E	199.13'
L30	S 70-53-13 E	128.07'
L31	S 69-11-6 E	150.83'
L32	N 88-4-2 E	168.22'
L33	S 89-0-44 E	139.00'
L34	S 73-34-58 E	139.89'
L35	S 60-41-3 E	178.63'
L36	S 69-26-39 E	122.84'
L37	S 78-20-26 E	154.14'
L38	N 84-35-17 E	114.33'
L39	N 89-24-11 E	115.02'
L40	N 82-59-1 E	215.78'

SERVICE AREA LINE TABLE		
LINE #	DIRECTION	LENGTH
L41	S 88-34-23 E	168.39'
L42	S 69-0-26 E	110.36'
L43	S 58-6-30 E	80.12'
L44	S 26-47-17 E	144.95'
L45	S 38-58-52 E	168.30'
L46	S 15-58-52 E	125.40'
L47	S 54-0-55 W	130.57'
L48	N 62-58-59 W	247.50'
L49	S 45-50-8 W	2,855.92'
L50	N 72-39-8 W	493.42'
L51	S 73-32-52 W	1,724.27'
L52	S 57-12-3 W	57.62'
L53	S 4-47-16 E	98.53'
L54	S 7-24-56 E	227.40'
L55	S 80-45-54 W	136.59'
L56	N 26-58-8 W	355.64'
L57	S 47-15-35 W	169.35'
L58	S 50-17-18 W	686.31'
L59	N 56-29-24 W	1,110.93'
L60	N 70-28-25 W	709.05'
L61	N 72-13-46 W	755.43'
L62	S 50-44-24 W	571.58'
L63	N 46-40-11 W	945.96'
L64	N 69-16-56 W	39.67'
L65	N 46-48-2 W	1,331.29'
L66	S 43-17-25 W	293.70'
L67	N 73-32-59 W	1,036.80'
L68	N 7-5-8 W	249.44'
L69	S 87-5-9 E	92.40'
L70	N 17-54-51 E	670.27'
L71	N 14-6-55 E	211.20'
L72	N 39-37-20 E	628.40'
L73	N 34-24-40 W	936.93'
L74	N 23-0-11 E	931.09'
L75	N 60-27-58 W	749.28'
L76	N 57-8-29 E	153.40'
L77	N 27-38-38 E	561.00'
L78	N 15-23-52 E	198.00'
L79	N 13-23-36 E	412.50'
L80	N 4-56-51 W	323.38'

0 200' 400' 800'

NOTE:
BOUNDARY INFORMATION SHOWN IS APPROXIMATE. THEREFORE, THIS DRAWING SHOULD NOT BE CONSIDERED A SURVEY.

The York Water Company
130 EAST MARKET STREET, YORK, PA 17401 (717) 845-3601

Title:	LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY - CERTIFICATED TERRITORY MAP		
YORK COUNTY			PENNSYLVANIA
Scale: 1"=400'	Drawn By: JAR	Drawing No.	
Date: 03/04/2020	Checked By: JML/JTH	1 OF 1	

Exhibit “E-1”

NOTE: THE METES AND BOUNDS DESCRIBED HEREIN ARE APPROXIMATE. THEREFORE, THIS DOCUMENT SHOULD NOT BE CONSIDERED A LEGAL DEED.

ENCOMPASSING approximately 839.58 acres of land located in Franklin County, Pennsylvania, the Letterkenny Municipal Authority Certificated Territory is described by metes and bounds as follows:

From National Geodetic Survey Marker designated as PTC 193.9, PID – AJ4743, said Monument being located at NAD 83 (1992) Position: 40°08'19.52698" (N), 77°43'51.91830" (W), proceeding S 57°4'58" E, 16,007.65’ (3.03 mi) to Point A, and thence along the following segments:

1. S 29°56'24" E, 978.65’
2. S 32°29'54" E, 1,030.74’
3. S 33°19'32" E, 891.80’
4. S 33°59'22" E, 472.33’
5. N 34°51'47" E, 1,026.99’s

6. S 30°17'16" E, 310.68’
7. S 57°2'3" E, 828.06’
8. N 82°31'50" E, 864.26’
9. N 14°7'37" E, 351.45’
10. S 51°31'52" E, 138.20’

11. S 24°31'0" E, 141.68’
12. S 65°6'1" E, 233.94’
13. S 40°44'16" E, 336.01’
14. N 82°30'43" E, 489.95’
15. N 76°54'22" E, 487.03’

16. S 81°22'43" E, 634.46’
17. S 72°9'20" E, 270.60’
18. S 54°39'19" E, 242.54’
19. S 68°9'23" E, 201.30’
20. N 60°13'4" E, 264.00’

21. S 80°24'27" E, 169.95’
22. S 34°29'12" E, 241.94’
23. S 38°47'14" E, 202.94’
24. S 20°47'9" E, 85.80’
25. S 36°47'14" E, 103.95’

26. S 72°46'19" E, 545.76’
27. N 44°57'52" E, 95.18’
28. S 27°44'15" E, 140.16’
29. S 58°1'52" E, 199.13’

30. S 70°53'13" E, 128.07'

31. S 69°11'6" E, 150.83'
32. N 88°4'2" E, 168.22'
33. S 89°0'44" E, 139.00'
34. S 73°34'58" E, 139.89'
35. S 60°41'3" E, 178.63'

36. S 69°26'39" E, 122.84’
37. S 78°20'26" E, 154.14'
38. N 84°35'17" E, 114.33'
39. N 89°24'11" E, 115.02'
40. N 82°59'1" E, 215.78’

41. S 88°34'23" E, 168.39’
42. S 69°0'26" E, 110.36’
43. S 58°6'30" E, 80.12’
44. S 26°47'17" E, 144.95'
45. S 38°58'52" E, 168.30'

46. S 15°58'52" E, 125.40'
47. S 54°0'55" W, 130.57'
48. N 62°58'59" W, 247.50'
49. S 45°50'8" W, 2,855.92'
50. N 72°39'8" W, 493.42'

51. S 73°32'52" W, 1,724.27'
52. S 57°12'3" W, 57.62'
53. S 4°47'16" E, 98.53'
54. S 7°24'56" E, 227.40'
55. S 80°45'54" W, 136.59'

56. N 26°58'8" W, 355.64
57. S 47°15'35" W, 169.35'
58. S 50°17'18" W, 686.31'
59. N 56°29'24" W, 1,110.93'
60. N 70°28'25" W, 709.05'

61. N 72°13'46" W, 755.43'
62. S 50°44'24" W, 571.58'
63. N 46°40'11" W, 945.96'
64. N 69°16'56" W, 39.67'
65. N 46°48'2" W, 1,331.29'

66. S 43°17'25" W, 293.70'
67. N 73°32'59" W, 1,036.80'
68. N 7°5'8" W, 249.44'
69. S 87°5'9" E, 92.40'
70. N 17°54'51" E, 670.27'

71. N 14°6'55" E, 211.20'
72. N 39°37'20" E, 628.40'
73. N 34°24'40" W, 936.93'
74. N 23°0'11" E, 931.09'
75. N 60°27'58" W, 749.28

76. N 57°8'29" E, 153.40'
77. N 27°38'38" E, 561.00'
78. N 15°23'52" E, 198.00'
79. N 13°23'36" E, 412.50'
80. N 4°56'51" W, 323.38'

to Point A, the point and place of beginning.

Exhibit “F-1”

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

COPY

ORDINANCE NO. 1-2007

AN AMENDMENT TO ORDINANCE 1980-1, OF THE BOARD OF SUPERVISORS OF LETTERKENNY TOWNSHIP REQUIRING ALL OWNERS OF IMPROVED PROPERTY LOCATED WITHIN THE LETTERKENNY TOWNSHIP ACCESSIBLE TO AND WHOSE PRINCIPAL BUILDING IS WITHIN 300 FEET FROM THE SEWER SYSTEM TO BE ACQUIRED AND TO BE CONSTRUCTED BY LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY TO CONNECT SUCH IMPROVED PROPERTY WITH AND TO USE SUCH SEWER SYSTEM.

SECTION 2.01- Amended Section

DULY ENACTED AND ORDAINED this 23rd day of January, 2007, by the Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, in lawful session duly assembled.

TOWNSHIP OF LETTERKENNY
Franklin County, Pennsylvania

Charles H. Myers

Jack R. Holmes

Daniel B. Timmons

ATTEST:

Joann L. Wright
Secretary

(seal)

TOWNSHIP OF LETTERKENNY

Franklin County, Pennsylvania

ORDINANCE NO. 1980 - 1

Connecting to Sewage Systems

AN ORDINANCE

OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF LETTERKENNY, FRANKLIN COUNTY, PENNSYLVANIA, REQUIRING ALL OWNERS OF IMPROVED PROPERTY LOCATED WITHIN THIS TOWNSHIP AND ACCESSIBLE TO AND WHOSE PRINCIPAL BUILDING IS WITHIN 150 FEET FROM THE SEWER SYSTEM TO BE ACQUIRED AND TO BE CONSTRUCTED BY LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY TO CONNECT SUCH IMPROVED PROPERTY WITH AND TO USE SUCH SEWER SYSTEM; REGULATING THE MANNER OF MAKING SUCH CONNECTIONS; AUTHORIZING THIS TOWNSHIP TO MAKE CONNECTIONS AT THE COST AND EXPENSE OF ANY OWNER OF IMPROVED PROPERTY FAILING TO MAKE SUCH CONNECTION; ADOPTING CERTAIN RULES AND REGULATIONS AND PROVIDING FOR ADOPTION OF ADDITIONAL RULES AND REGULATIONS; PROHIBITING THE CONNECTION OF PRIVY VAULTS, CESSPOOLS, SINKHOLES, SEPTIC TANKS AND SIMILAR RECEPTACLES TO ANY SEWER; PROHIBITING THE MAINTENANCE OF CERTAIN RECEPTACLES AND REQUIRING ABANDONMENT THEREOF WHERE A SEWER IS AVAILABLE; SETTING FORTH RELATED MATTERS; AND PRESCRIBING PENALTIES FOR VIOLATIONS.

Amended 2007-1
300 ft

The Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, enacts and ordains as follows:

ARTICLE I

DEFINITIONS

SECTION 1.01. Unless the context specifically and clearly indicates otherwise, the meaning of terms and phrases used in this Ordinance shall be as follows:

A. "Authority" shall mean Letterkenny Township Municipal Authority, a municipality authority of the Commonwealth.

B. "Building Sewer" shall mean the extension from the sewage drainage system of any structure to the Lateral of a Sewer and shall include any existing sewer line which shall continue as part of a Building Sewer.

C. "Commonwealth" shall mean the Commonwealth of Pennsylvania.

D. "Improved Property" shall mean any property within this Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Sanitary Sewage and/or Industrial Wastes shall be or may be discharged.

E. "Industrial Establishment" shall mean any Improved Property located within this Township and used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article, or any other Improved Property located within this Township from which wastes, in addition to or other than Sanitary Sewage, shall be discharged.

F. "Industrial Wastes" shall mean any and all wastes discharged from an Industrial Establishment other than Sanitary Sewage.

G. "Lateral" shall mean that part of the Sewer System extending from a Sewer to the curb line or, if there shall be no curb line, to the property line or, if no such Lateral shall be provided, then "Lateral" shall mean that portion of, or place in, a Sewer which is provided for connection of any Building Sewer.

H. "Owner" shall mean any Person vested with ownership, legal or equitable, sole or partial, of any Improved Property.

I. "Person" shall mean any individual, partnership. company, association, society, trust, corporation or other group or entity.

J. "Sanitary Sewage" shall mean normal water-carried household and toilet wastes from any Improved Property, including such ground, surface or storm water as may be present.

K. "Sewer" shall mean any pipe or conduit constituting a part of the Sewer System used or usable for sewage collection purposes.

L. "Sewer System" shall mean all facilities, as of any particular time, for collecting, pumping, transporting, treating and disposing of Sanitary Sewage and/or Industrial Wastes situate in or adjacent to this Township and owned by the Authority.

M. "Street" shall mean and shall include any street, road, lane, court, cul-de-sac, alley, public way or public square.

N. "Township" shall mean the Township of Letterkenny, Franklin County, Pennsylvania, a municipal subdivision of the Commonwealth, acting by and through its Board of Supervisors or, in appropriate cases, acting by and through officials or employees empowered to so act by the Board of Supervisors.

ARTICLE II

USE OF PUBLIC SEWERS REQUIRED

SECTION 2.01. The Owner of any Improved Property accessible to and whose principal building is within 150 feet 300 feet - Amended 2009-1 from the Sewer System acquired or constructed by the Authority shall connect such Improved Property with and shall use such Sewer System, in such manner as may be required, within 60 days after notice to such Owner from this Township to make such connection, for the purpose of discharge of all Sanitary Sewage and Industrial Wastes from such Improved Property; subject, however, to such limitations and restrictions as shall be established herein or otherwise shall be established by this Township from time to time.

SECTION 2.02. All Sanitary Sewage and Industrial Wastes from any Improved Property, after connection of such Improved Property with a Sewer, shall be required, under Section 2.01. to be conducted into a Sewer; subject, however, to such limitations and restrictions as shall be established herein or otherwise shall be established by this Township from time to time.

SECTION 2.03. No Person shall place, shall deposit or shall permit to be placed or to be deposited upon public or private property within this Township any Sanitary Sewage or Industrial Wastes in violation of Section 2.01.

No Person shall discharge or shall permit to be discharged to any natural outlet within this Township any Sanitary Sewage or Industrial Wastes in violation of Section 2.01, except where suitable treatment has been provided which is satisfactory to this Township and appropriate state and federal agencies.

SECTION 2.04. No privy vault, cesspool, sinkhole, septic tank or similar receptacle shall be used or shall be maintained at any time upon any Improved Property which has been connected to a Sewer or which shall be required under Section 2.01 to be connected to a Sewer.

Every such privy vault, cesspool, sinkhole, septic tank or similar receptacle in existence shall be abandoned and, at the discretion of this Township, shall be cleansed and shall be filled, at the expense of the Owner of such Improved Property, under the direction and supervision of this Township; and any such privy vault, cesspool, sinkhole, septic tank or similar receptacle not so abandoned and, if required by this Township, not cleansed and filled, shall constitute a nuisance, and such nuisance may be abated, as provided by law, at the expense of the Owner of such Improved Property.

SECTION 2.05. No privy vault, cesspool, sinkhole, septic tank or similar receptacle at any time shall be connected with a Sewer.

SECTION 2.06. The notice by this Township to make a connection to a Sewer, referred to in Section 2.01, shall consist of a copy of this Ordinance, including any amendments and/or supplements at the time in effect, or a summary of each Section hereof, and a written notification requiring the connection in accordance with the provisions of this Ordinance and specifying that such connection shall be made within 60 days after the date such notice is given or served. Such notice may be given or served at any time after a Sewer is in place which can receive and can convey Sanitary Sewage and Industrial Wastes for treatment and disposal from the particular Improved Property. Such notice shall be given or served upon the Owner in accordance with law.

ARTICLE III

BUILDING SEWERS AND CONNECTIONS

SECTION 3.01. No Person shall uncover, shall connect with, shall make any opening into or shall use, shall alter or shall disturb, in any manner, any sewer or any part of the Sewer System without first obtaining a permit from the Authority.

SECTION 3.02. All Building Sewers and connections shall conform to and be governed by the rules, regulations and specifications adopted by the Authority.

Section 3.03. Application for a permit required under Section 3.01 shall be made by the Owner of the Improved Property served or to be served or by the duly authorized agent of such Owner.

SECTION 3.04. No Person shall make or shall cause to be made a connection of any Improved Property with a Sewer until such Person shall have fulfilled each of the following conditions:

A. Such Person shall have notified the Authority of the desire and intention to connect such Improved Property to a Sewer.

B. Such Person shall have applied for and shall have obtained a permit as required by Section 3.01.

C. Such Person shall have given the Authority at least 24 hours notice of the time when such connection will be made so that the Authority may supervise and inspect the work of connection and necessary testing.

D. Such Person shall have furnished satisfactory evidence that any tapping (or connection) fee charged and imposed by the Authority against the Owner of each Improved Property who connects such Improved Property to a Sewer has been paid.

SECTION 3.05. All costs and expenses of construction of a Building Sewer and all costs and expenses of connection of a Building Sewer to a Sewer shall be borne by the Owner of the Improved Property to be connected; and such Owner shall indemnify and shall save harmless this Township and the Authority from all loss or damage that may be occasioned, directly or indirectly, as a result of construction of a Building Sewer or of connection of a Building Sewer to a Sewer.

SECTION 3.06. A Building Sewer shall be connected to a Sewer at the place designated by the Authority.

SECTION 3.07. If the Owner of any Improved Property abutting on or adjoining any Street in which a Sewer constituting part of the Sewer System is located, after 60 days notice from this Township requiring the connection of such property to the Sewer System, shall fail to connect such Improved Property, as required, this Township may make such connection and may collect from such Owner the costs and expenses thereof by a municipal claim, an action in assumpsit or such other legal proceeding as may be permitted by law.

SECTION 3.08. Every Building Sewer hereafter constructed shall meet standards of construction and conditions imposed by the Authority, duly adopted and promulgated. No Building Sewer hereafter constructed or uncovered shall be covered until it has been inspected and approved by the Authority. If any part of a Building Sewer hereafter constructed or uncovered is covered before so being inspected or approved, it shall be uncovered for inspection, at the cost and expense of the Owner of the Improved Property to be connected to a Sewer.

SECTION 3.09. Every Building Sewer of any Improved Property shall be maintained in a sanitary and safe operating condition by the Owner of such Improved Property.

SECTION 3.10. Every excavation for a Building Sewer shall be guarded adequately with barricades and lights to protect all Persons from damage and injury. Any street, sidewalk and other public property disturbed in the course of installation of a Building Sewer shall be restored, at the cost and expense of the Owner of the Improved Property being connected, in a manner satisfactory to this Township.

ARTICLE IV

ENFORCEMENT

SECTION 4.01. Any Person who shall violate this Ordinance shall be liable, upon summary conviction for a first offense and upon summary conviction for each subsequent offense, to a fine of not less than $50.00 nor more than $100.00, together with costs of prosecution in each case. Each day that a violation shall continue shall be deemed and shall be taken to be a separate offense and shall be punishable as such.

SECTION 4.02. Fines and costs imposed under provisions of this Ordinance shall be enforceable and recoverable in the manner at the time provided by law.

ARTICLE V

EFFECTIVE DATE

SECTION 5.01. This Ordinance shall become effective in accordance with law.

ARTICLE VI

SEVERABILITY

SECTION 6.01. In the event any provision, section, sentence, clause or part of this Ordinance shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause or part of this Ordinance, it being the intent of this Township that such remainder shall be and shall remain in full force and effect.

ARTICLE VII

DECLARATION OF PURPOSE

SECTION 7.01. It is declared that enactment of this Ordinance is necessary for the protection, benefit and preservation of the health, safety and welfare of inhabitants of this Township.

ARTICLE VIII

REPEALER

SECTION 8.01. All ordinances or parts of ordinances and all resolutions or parts of resolutions which are inconsistent with this Ordinance shall be and the same expressly are repealed.

DULY ENACTED AND ORDAINED this 10th day of November, 1980, by the Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, in lawful session duly assembled.

ATTEST:

TOWNSHIP OF LETTERKENNY
Franklin County, Pennsylvania

(Beverly Babb)
Secretary

By: (Ross Foust)
Chairman of the
Board of Supervisors

(SEAL)

CERTIFICATE

I, the undersigned, Secretary of the Township of Letterkenny, Franklin County, Pennsylvania (the "Township"), certify that: the foregoing is a true and correct copy of an Ordinance which duly was enacted by the Board of Supervisors of the Township, in accordance with law, at a public meeting duly held on November 10, 1980 ; said Ordinance has been certified and recorded by me, as Secretary of the Township, in the book provided for the purpose of such recording; said Ordinance, upon enactment, as aforesaid, was assigned Ordinance No. 1980 - 1 ; said Ordinance has been advertised as required by law; and said Ordinance has not been amended, altered or repealed, as of the date of this Certificate.

IN WITNESS WHEREOF, I set my hand and affix the official seal of the Township this 10th day of November , 1980.

Beverly Babb
Township Secretary

(SEAL)

TOWNSHIP OF LETTERKENNY

Franklin County, Pennsylvania

ORDINANCE NO. 1980 - 2

LTMA Rights and Privileges

AN ORDINANCE

OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF LETTERKENNY, FRANKLIN COUNTY, PENNSYLVANIA, GRANTING TO LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY CERTAIN RIGHTS AND PRIVILEGES IN, ALONG, OVER AND UNDER STREETS, ROADS, LANES, COURTS, CUL-DE-SACS, ALLEYS, PUBLIC WAYS, PUBLIC SQUARES AND OTHER PROPERTIES OF THIS TOWNSHIP FOR USE IN CONNECTION WITH SAID AUTHORITY'S SEWER SYSTEM; AND PROVIDING FOR REGULATING THE MANNER IN WHICH SUCH RIGHTS AND PRIVILEGES SHALL BE EXERCISED.

WHEREAS, Letterkenny Township Municipal Authority (the "Authority"), pursuant to authority vested in it by law, plans to acquire a privately constructed sewer system and to construct and to acquire certain sanitary sewage collection, transmission, treatment and disposal system facilities required for rendering sewage service in and for parts of this Township, which facilities collectively are referred to herein as the "Sewer System."

NOW, THEREFORE, BE IT ENACTED AND ORDAINED, and it is enacted and ordained, by the Board of Supervisors of this Township, as follows:

SECTION 1. This Township does grant to the Authority, its successors and assigns, all easements, rights-of-way and other rights and privileges necessary and desirable in, along, over and under the full width of streets, roads, lanes, courts, cul-de-sacs, alleys, public ways, public squares and other properties of this Township, together with free ingress, egress and regress therein and thereto, along with other persons having interests or rights therein, for use in connection with constructing, replacing, repairing, altering and maintaining the Sewer System, as the same shall exist, from time to time.

SECTION 2. The rights and privileges granted to the Authority under SECTION 1 shall be exercised by the Authority under and subject to such reasonable rules and regulations as may be adopted and specified, from time to time, by resolution or ordinance of this Township; and this Township does reserve the right to adopt and specify, from time to time, such reasonable rules and regulations in connection with exercise by the Authority of such rights and privileges.

SECTION 3. This Ordinance shall become effective as provided by law.

SECTION 4. In the event any provision, section, sentence, clause or part of this Ordinance shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause or part of this Ordinance, it being the intent of this Township that such remainder shall be and shall remain in full force and effect.

SECTION 5. All other ordinances or parts of ordinances inconsistent herewith shall be and the same expressly are repealed.

DULY ENACTED AND ORDAINED, this 10th day of November, 1980, by the Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, in lawful session duly assembled.

TOWNSHIP OF LETTERKENNY
Franklin County, Pennsylvania

By: _____
Chairman of the Board
of Supervisors

ATTEST:

_____

Exhibit “F-2”

LETTERKENNY TOWNSHIP

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

As Amended April 26, 1988
Amended - Oct 25, 1988

TABLE OF CONTENTS

			Page.No.
ARTICLE I		**SHORT TITLE, AUTHORITY, PURPOSE AND INTENT, INTERPRETATIONS**	
Section	100:	Short Title	01
Section	101:	Authority	01
Section	102:	Purpose and Intent	01
Section	103:	Interpretation	01
ARTICLE II		**CONTROL OF SUBDIVISIONS**	
Section	200:	Control of Subdivisions & Land Development . . .	02
Section	201:	The Effect of Land Development	02
Section	202:	Recording of Final Plans	03
Section	203:	Timing of Governing Regulations.	03
ARTICLE III		**DEFINITIONS**	
Section	300:	Definitions.	05
ARTICLE IV		**PROCEDURES AND JURISDICTION**	
Section	400:	Plan Approving Agency.	11
Section	401:	Submittal of Plans	11
Section	402:	Review of Plans.	11
Section	403:	Approval of Plans.	11
Section	404:	Overall Master Plan Requirements	12
ARTICLE V		**PRE-APPLICATION CONSULTATION**	
Section	500:	Pre-Application Consultation	13
Section	501:	Sketch Plan Submission	13

ARTICLE VI **MINOR SUBDIVISIONS**

Section 600: Qualifications 14

Section 601: Plan Requirements. 14

ARTICLE VII **PRELIMINARY PLANS**

Section 700: Preliminary Plan Specifications. 16

Section 701: Preliminary Plan Procedure 17

ARTICLE VIII **FINAL RECORD PLANS**

Section 800: Plan Requirements. 19

Section 801: Review Procedure - Approval of Plans 20

Section 802: Completion of Improvements or Guarantee Thereof. Pre-Requisite to Final Plan Approval 22

ARTICLE IX **DESIGN STANDARDS**

Section 900: Application of Standards 24

Section 901: General Site Suitability 24

Section 902: Blocks and Lots. 24

Section 903: Streets. 30

Section 904: Street and Road Construction 31

Section 905: Standards for Sewer and Water Systems. 33

Section 906: Driveway Permit. 33

ARTICLE X **MOBILE HOME PARK REGULATIONS**

Section 1000: Procedure. 34

Section 1001: Plan Requirements. 34

Section 1002: Renewable Park Permit. 34

Section 1003: Lot Requirements 34

Section 1004: Yard and Set-Back Requirements 35

Section 1006: Required Off-Street Parking. 35

Section 1007: Utility Improvements 36

Section 1008: Usable Open Space. 37

Section 1009: Screening. 37

Section 1010: Walkways 37

Section 1011: Other Site Improvements. 37

Section 1012: Park Areas for Non-Residential Uses. 38

Section 1013: Existing Mobile Home Parks 38

Section 1014: Anchoring 38

ARTICLE XI **LAND DEVELOPMENTS INVOLVING SANITARY LANDFILLS OR SURFACE MINING OPERATIONS**

Section 1100: Landfills. 39

ARTICLE XII **TOWNSHIP REVIEW FEE FOR SUBDIVISION & LAND DEVELOPMENT; TOWNSHIP ENGINEERING FEE**

Section 1200: Township Review Fee for Subdivision and Land Development. 40

Section 1201: Township Engineering Fee 40

Section 1202: Franklin County Planning Commission Fee. 41

ARTICLE XIII **STORM WATER MANAGEMENT**

Section 1300: Purposes & Scope 42

Section 1301: Application Procedures & Requirements. 42

Section 1302: Preliminary Plan Requirements for Storm Water Management. 43

Section 1303: Final Plan Requirement 46

Section 1304: Review Fee 47

Section 1305: Waiver of Plan Requirements. 47

ARTICLE XIV **ENFORCEMENT, PENALTIES, SEVERABILITY, AND ADOPTION**

Section 1400: Enforcement. 48

Section 1401: Appeals to Court 48

Section 1402: Penalties. 48

Section 1403: Repealer 48

Section 1404: Severability 49

Section 1405: Ordinance Adoption 49

ARTICLE I

SHORT TITLE, AUTHORITY, PURPOSE AND INTENT, INTERPRETATION

SECTION 100: SHORT TITLE

This Ordinance shall be known as the Letterkenny Township Subdivision and Land Development Ordinance.

SECTION 101: AUTHORITY

This Ordinance is adopted pursuant to the provisions of the "Pennsylvania Municipalities Planning Code" (Act 247) effective January 1, 1969, as amended.

SECTION 102: PURPOSE AND INTENT

This Ordinance is enacted for the purpose of assuring sites suitable for building purposes and human habitation, and to provide proper accommodation of surface drainage over lots and accumulations on roads; to assure adequate and safe water and sewer services; to provide for proper access of emergency and fire fighting equipment; and to coordinate the operations of the Township and other agencies involved with land development; and for the general purpose of guiding and accomplishing coordinate and harmonious development within Letterkenny Township.

It is the intent of this Ordinance to accomplish these objectives in as practical a way as possible to promote the health, safety and general welfare of the present and future populations of Letterkenny Township and to expedite, not hinder, acceptable construction.

SECTION 103: INTERPRETATION

The provisions of this Ordinance shall be held to be minimum requirements to meet the above stated purposes; where the provisions of this Ordinance impose greater restrictions than those of any statute, other ordinance or regulation, the provision of this Ordinance shall prevail. When the provisions of any statute, other ordinance or regulation impose greater restrictions than those of this Ordinance, the provisions of such statute, ordinance or regulation shall prevail.

ARTICLE II

CONTROL OF SUBDIVISIONS AND LAND DEVELOPMENTS, RECORDING OF PLANS, DEDICATIONS OF PROPERTY AND IMPROVEMENTS

SECTION 200: CONTROL OF SUBDIVISIONS AND LAND DEVELOPMENT

From and after the effective date of This Ordinance, no subdivision or development of any lot, tract, or parcel of land within the Township shall be made, and no street, sanitary sewer, storm sewer, water main or other facility in connection therewith shall be laid out, constructed, opened or dedicated for public use of travel or for the common use of occupants of buildings abutting thereon, except in strict accordance with the provisions of This Ordinance. No lot in a subdivision or land development may be sold, no permit to erect, alter or repair any building upon land in a subdivision or land development may be issued, no building may be erected, and no changes may be made in the contour of the land, no grading, excavating, removal or destruction of the topsoil, trees or other vegetative cover of the land may be commenced in a subdivision or land development unless and until a plan for the subdivision on land development has been approved by the Board of Supervisors and recorded, and until the improvements required by the Board of Supervisors in connection therewith have either been constructed in strict accordance with the standards and specifications of the Township or guaranteed as provided in Sections 800, j., and 802 of This Ordinance. Said standards and specifications, particularly as presented in Article X of This Ordinance are declared to be a minimum guarantee that all streets shown on any proposed plan are of sufficient width and proper grade and so located as to accommodate the probable volume of traffic thereon, afford adequate light and air, facilitate fire protection, provide a coordinated system of streets conforming to the Township's Official Plan of streets; and further, that the land whereon buildings are to be constructed is of such character that it can be used for building purposes without danger to health or peril from fire, flood or other hazard and that all necessary or required erosion and sedimentation facilities be installed prior to or during the initial phase of construction of the subdivision or land development.

SECTION 201: THE EFFECT OF LAND DEVELOPMENT

If a tract or parcel of land is planned and designed for separate developments or uses, although said tract or parcel remains under single ownership, each such development or use shall contain the minimum lot area, setback, and yard requirements as stipulated in the Township Zoning Ordinance. In the event the ownership of a particular development or use is to be subdivided for transfer or sale, such subdivision shall contain the minimum area, setback, yard and all other requirements of the Township.

SECTION 202: RECORDING OF FINAL PLANS AND DEDICATION OF PROPERTY AND IMPROVEMENTS

Upon approval of a final subdivision or land development plan, the developer shall within ninety (90) days of such final approval record such plan in the office of the Recorder of Deeds of the County, and the streets, parks, erosion and sedimentation and water management control facilities and other public improvements shown thereon shall then be considered to be a part of the Official Plan of the Township. Offers of dedication of such public improvements to the Township shall be submitted on a written, recordable document setting forth by metes and bounds the offer; or the owner may note on the plan that such improvements have not been offered for dedication to the Township. Every street, park, erosion and sediment facility or other public improvements shown on a recorded subdivision or land development plan shall be deemed to be a private street, park, or improvement until such time as the same has been accepted by ordinance or resolution.

SECTION 203: TIMING OF GOVERNING REGULATIONS

From the time an application is made for approval, whether preliminary or final, is duly filed as provided in this Ordinance, and while the application is pending action, no change or amendment of zoning, subdivision and land development ordinance or comprehensive plan shall affect the decision on such application adversely and the applicant shall be entitled to the governing regulations at the time the application was filed. In addition, when preliminary application has been duly approved, the applicant shall be entitled to final approval in accordance with terms of the approved preliminary application for a period of five (5) years from the date of such preliminary approval. However, if an application is properly and finally denied, any subsequent application shall be subject to any intervening change in governing regulations. When an application is approved or approved subject to conditions acceptable to the applicant, no subsequent change or amendment in zoning, subdivision and land development ordinances or comprehensive plan shall be applied to affect any aspect of the approved plan for a 5-year period from such approval, which shall be counted from the date of preliminary approval, or in case of any doubt when the application for such approval was duly filed. Furthermore, where the applicant (owner/developer) has substantially completed the required improvements as depicted upon the plat plan within the 5-year limit, or any extension granted by the Township Board of Supervisors, no change or zoning, subdivision and land development ordinances or comprehensive plan enacted subsequent to the date of filing of the preliminary application shall modify or revoke any aspect of approved final plans pertaining to zoning district, density, lot, building, street or utility location.

In the case of preliminary plan requiring the installation of improvements beyond the five-year period, a schedule shall be filed by the applicant with the preliminary plat delineating all proposed sections as well as deadlines within which applications for final plat approval of each section are intended to be filed. Such schedule shall be updated annually by the applicant on or before the anniversary of the preliminary plat approval, until final plat approval of the final section has been granted and any modification in the aforesaid schedule shall be subject to approval of the Township Board of Supervisors in its discretion. Each section in any residential subdivision or land development, except for the last section, shall contain a minimum of 25 percent of the total number of dwelling units as depicted on the preliminary plan, unless a lesser percentage is approved by the Township Board of Supervisors in its discretion. Provided the applicant has not defaulted with regard to or violated any of the conditions of the preliminary plat approval, including

compliance with the aforesaid schedule of submission of final plats for the various sections, then the foregoing protections afforded by substantially completing the improvements shown upon the final plans within five years shall apply and for any section or sections, beyond the initial section, in which the required improvements have not been substantially completed within said five-year period these protections shall apply for an additional term or terms constituting three years from the date of final plan approval for each section. Failure of applicant to adhere to the aforesaid schedule of submission of final plats for the various sections shall subject any such section to any and all changes in zoning, subdivision and land development ordinances enacted by the Township subsequent to the date of the initial preliminary application.

ARTICLE III

DEFINITIONS

SECTION 300: DEFINITIONS

As used in This Ordinance words in the singular include the plural, and in the plural include the singular. The word "person" includes corporation, unincorporated association and partnership, as well as an individual. The word "building" includes the meaning of "structure" and shall be construed as if followed by the phrase "or part thereof." The following words as used in This Ordinance shall have the meanings indicated below:

1. Accelerated Erosion: The removal of surface materials by the action of natural elements caused by man's manipulation of the landscape.

2. Agricultural Purpose: The regular and continuous cultivation of the soil for general farm crop purpose, commercial truck growing, commercial orchards, or commercial nurseries, excluding the construction of buildings or residential structures, or streets on roadways.

3. Applicant: A land owner or developer, as hereinafter defined, who has filed an application for development including his heirs, successors and assigns.

4. Application For Development: Every application, whether preliminary or final, required to be filed and approved prior to start of construction or development; including but not limited to an application for a building permit or the approval of a subdivision plan or the approval of a development plan.

5. Block: An area bounded by streets or proposed streets.

6. Board: The Board of Supervisors of Letterkenny Township, Franklin County, Pennsylvania.

7. Building: Any structure having a roof supported by columns or walls and intended for the shelter, housing or enclosure of persons, animals, or chattels, and including covered porches or bay windows and chimneys.

8. Cartway: The portion of a street intended for vehicular use.

9. Central Sewerage: Any public sewerage system or a private sewerage system designed for the collection of sewage or industrial wastes of a liquid nature from two or more lots and the treatment and disposal of the sewage or industrial wastes; provided such private sewage system is approved by the Township Municipal Authority and the Department of Environmental Resources.

10. Clear-Sight Distance: A line of unobstructed vision from a point four and one-half feet (4-1/2') above the center line of a street to the farthest point on the top of an object four and one-half feet (4-1/2') high on the same center line.

11. Clear-Sight Triangle: An area of unobstructed vision at street intersections defined by lines of sight between points at a given distance from the intersection of street center lines.

12. County: Franklin County, Pennsylvania.

13. Cul-de-sac: A street with access closed at one end and with a vehicular turn-around at the closed end.

14. Detention Structure: A vegetated pond, swale, or other structure designed to drain completely after storing runoff only for a given storm event and release it at a predetermined rate. Also known as a dry pond.

15. Developer: Any landowner, agent of such landowner or tenant with the permission of such landowner, who makes or causes to be made a subdivision of land, land development, or mobile home park.

16. Drainage: The flow of water or liquid waste and the methods of directing such flow.

17. Driveway: Every entrance or exit used by vehicular traffic to or from residential or commercial properties and the existing or proposed public roadway.

18. Dwelling: A building designed for residential purposes and used as living quarters for one or more persons.

    A. Dwelling Unit: One or more rooms used for living and sleeping purposes and having a kitchen with fixed cooking facilities arranged for occupancy by one (1) family or a single person.

19. Earthmoving activity: Any construction or other activity which disturbs the surface of the land including but not limited to, grading, excavation, embankments, land development, subdivision development, mineral extraction and the moving, depositing, or storing of soil, rock or earth.

20. Easement: A right granted for the use of private land for certain public, quasi-public or private purposes, also the land to which such right pertains.

21. Energy Dissipator: A device used to slow the velocity of storm water, particularly at points of concentrated discharge such as pipe outlets.

22. Engineer: The Township Engineer or any consultant designated by the Board of Supervisors to review a subdivision or land development plan and perform the duties of engineer in behalf of the Township.

23. Engineer, Registered: A person duly registered as a professional engineer by the State of Pennsylvania.

24. Excavation: Any act by which earth, sand, gravel, rock or any other similar material is dug into, cut, quarried, uncovered, removed, displaced, relocated or bulldozed and shall include the conditions resulting therefrom.

25. Freeboard: The difference between the design flow elevation in the emergency spillway and the top of the settled embankment.

26. Fill:

    a. Any act by which earth, sand, gravel or rock or any other material is placed, pushed, dumped, pulled, transported or moved to a new location above the stripped surface and shall include the conditions resulting therefrom; and/or

    b. The difference in elevation between a point on the original ground and a designated point of higher elevation on the final grade; and/or

    c. The material used to make a fill.

27. Grassed Waterway: A natural or man-made drainage way of parabolic or trapezoidal cross-section shaped to required dimensions and vegetated for safe disposal of runoff. (Also known as a swale).

28. Holding Pond: A retention or detention pond.

29. Landowner: The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option of contract is subject to any condition), a lessee if he is authorized under the lease to exercise the rights of the landowner, or other person having a proprietary interest in land, shall be deemed to be a landowner for the purposes of this act.

30. Land Development: The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving: (a) erection of one (1) or more commercial structures, or buildings and/or a group of two (2) or more residential units, structures, buildings or mobile homes, (b) the division or allocation of land, buildings or space between or among two (2) or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features.

31. Lot: A tract or parcel of land intended for separate development, use, lease or transfer of ownership.

32. Mobile Home: A dwelling intended for use or occupancy; office or place of assembly; which is transportable and contained in one (1) unit or two (2) or more units designed to be joined into one integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, and constructed so that it may be used with or without a permanent foundation, excluding modular or pre-manufactured housing having a width of at least 24 feet.

33. Mobile Home Lot: A parcel of land in a mobile home park, improved with the necessary utility connections and other appurtenances necessary for the erections thereon of a single mobile home, which is leased by the park owner to the occupants of the mobile home erected on the lot.

34. Mobile Home Park: A parcel of land under single ownership which has been planned and improved for the placement of two (2) or more mobile homes for residential use at a density which is not in compliance with the applicable minimum lot size, yard area, and setback requirements for single family detached dwellings.

35. Municipal Authority: The Letterkenny Township Municipal Authority, or its successor.

36. Net Density: The number of dwelling units per net acre of land devoted to residential buildings and accessory uses on the same tract within the site but excluding land for streets, public parking, playgrounds, and non-residential uses.

37. Percolation Test: A procedure to determine the absorption rate of the soil in an area proposed as the installation site for an on-lot septic system, to be carried out according to the requirements of the Pennsylvania Department of Environmental Resources.

38. Planning Commission: The Planning Commission of Letterkenny Township.

39. Reserve Strip: A parcel of ground in separate ownership separating a street or road from adjacent properties or from another street.

40. Retention Structure: A pond, swale, or other structure containing a permanent pool of water designed to store runoff for a given storm event and release it at a predetermined rate.

41. Sanitary Sewer: A pipe for conveying sewage; excluding storm, surface and ground water.

42. Sanitary Sewer Facility: A public sanitary sewer system or a comparable common or package sanitary sewer facility approved by the appropriate governmental agencies.

43. Runoff: The surface water discharge or rate of discharge of a given watershed after a fall of rain or snow that does not enter the soil but runs off the surface of the land.

44. Runoff from a Fully Developed Area Upstream: The surface water runoff that can be reasonably anticipated upon maximum development of that area of the watershed located upstream from the subject tract, as permitted by prevailing zoning or the township comprehensive plan; if such exists.

45. Screening: A well maintained fence, wall, hedge, or vegetative material at least five feet (5') in height and of a density to conceal from the view of adjoining property owners the structures and uses on the premises on which the screening is required to be located.

46. Secretary: The Letterkenny Township Secretary.

47. Sedimentation: The process by which mineral or organic matter is accumulated or deposited by moving wind, water or gravity. Once this matter is deposited (or remains suspended in water), it is usually referred to as "sediment".

48. Sediment Basin: A temporary dam or barrier constructed across a waterway or at other suitable locations to intercept the runoff and to trap and retain the sediment.

49. Slope: Slopes are to be expressed in a percentage based upon vertical difference in feet per one-hundred feet (100') of horizontal distance.

50. Soils Analysis: A procedure to permit visual inspection of geological formations and water table level in an area proposed as the installation site for an on-lot septic system. Such tests will consist of a trench which shall be as a minimum two feet (2') wide and six feet (6') deep or four feet (4') below the proposed installation level of the septic field, whichever is deeper. Such tests may be referred to as a "Deep Probe" or inspection trench and shall be open for inspection by the Township and the Department of Environmental Resources.

51. Street: A strip of land which is intended primarily as a means of vehicular and pedestrian traffic, whether public or private, which may be used also as a space, when public, for sewers, public utilities, shade trees and sidewalks.

52. Storage Structure: A retention or detention structure.

53. Storm Sewer: A pipe, open ditch or drainage channel for conveying rain water, surface water, condensate, cooling water or similar liquid wastes; exclusive of sewage or industrial wastes; to a natural water course or other outlet.

54. Storm Water Management: The control of runoff to allow water falling on a given site to be absorbed or retained on site to the extent that after development the peak rate of discharge leaving the site is not significantly different than if the site had remained undeveloped.

55. Street, Public: A strip of land, including the entire right-of-way, intended to be dedicated for use as a means of vehicular and pedestrian circulation by the public at large.

56. Structure: Any combination of materials, other than a building which forms a construction, including but not limited to flagpoles, stadiums, platforms, towers, sheds, storage bins, fences exceeding four feet (4') in height, signs, sign posts, lights and light standards for other than residential use but excepting patios, driveways, walks, and parking area to yard grade.

57. Subdivider: The owner, developer or the authorized agent of the owner of a subdivision or land development.

58. Subdivision: The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future for lease, transfer of ownership, or building or lot development provided, however, that the subdivisions by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street, or easement of access, buildings or residential dwellings, shall be exempted.

59. Subdivision, Minor: Any division abutting an existing public street or road involving three (3) or less lots, parcels of land, or other division of land which does not require a new street, the installation of sanitary sewers, storm sewers, water mains or pipes, or other public improvements.

60. Surface Mining Operation: The removal of any substance from the earth for use as fuel, roadway material, manufacturing, or for re-sale, excepting shale, slate or soil excavation and removal operations.

61. Surveyor, Registered: A person duly registered as a professional surveyor by the State of Pennsylvania.

62. Swale: A low lying stretch of land which gathers or carries surface water runoff.

63. Topsoil: Fertile surface and subsurface soils rich in organic matter or humus debris.

64. Township: Letterkenny Township, Franklin County, Pennsylvania.

65. Water Course: A permanent stream, intermittent stream, river, brook, creek, channel or ditch for water, whether natural or man-made.

66. Usable Open Space: A parcel or parcels of land or an area of water, or a combination of land and water within a development site and designed and intended for the use or enjoyment of residents of the subdivision or mobile home park or other development, not including streets, off-street parking areas and areas set aside for public facilities.

67. Substantial Completion: Wherein the judgement of the Township Engineer at least 90 percent of those improvements required as a condition for final subdivision approval have been completed in accordance with an approved plan, so that the project will be able to be used, occupied or operated for its intended use. This shall be based on the cost of the required improvements for which financial security was posted pursuant to Section 802 of this Ordinance.

ARTICLE IV

PROCEDURES AND JURISDICTION

SECTION 400: PLAN APPROVING AGENCY

All Final Subdivision and Land Development Plans shall be subject to approval or rejection by the Board of Supervisors. In the event such a plan is disapproved, the reasons therefore shall be setforth in writing. All plans shall be referred to the Planning Commission for its review and recommendations.

SECTION 401: SUBMITTAL OF PLANS

The subdivider or land developer shall submit to the Township Secretary all plans and documents required in this Ordinance along with a completed and signed subdivision application form at least ten (10) calendar days prior to the next regular scheduled meeting of the Planning Commission. All plans, when first submitted, shall be considered Preliminary Plans, except Minor Subdivisions. If the subdivider or land developer makes substantial revisions in his plans after they have been approved in Preliminary form, such revised plans shall be treated as Preliminary Plans when re-submitted.

Upon approval of the Preliminary Plans, Final Plans shall be submitted by the subdivider or land developer in the same manner as Preliminary Plans and the Township Secretary shall distribute the required number of copies to the appropriate agencies concerned as provided for in this Ordinance.

SECTION 402: REVIEW OF PLANS

Subdivision and land development plans will usually be reviewed by Letterkenny Township Planning Commission at its first regular meeting following the date of submittal, providing that such plans are submitted at least ten (10) calendar days prior to that meeting. The subdivider, or his duly authorized representative, shall attend the meeting of the Planning Commission to discuss the subdivision plan unless excused by the Commission. The Planning Commission shall forward the Plans and the Commissions recommendation to the Board of Supervisors, for consideration.

SECTION 403: APPROVAL OF PLANS

Approval of Preliminary Plans by the Letterkenny Township Board of Supervisors shall be considered approval of the design of streets and lots and such other features as may be shown on the plans, subject to any conditional or specified changes to be incorporated in the Final Plans. No subdivision or land development plan shall be approved unless all specified items within this Ordinance have been included or addressed in a manner satisfactory to the Township Board of Supervisors.

The Board's approval of the Final Plans shall be given only after the requirements and conditions indicated on or in connection with Preliminary Plan approval have been met, and the said approval shall constitute a Revision in the Official Plan of the Township of which it is made a part thereof.

No subdivision or land development plans shall be approved unless: (1) All of the requirements of this Ordinance have been met, and (2) There has been an erosion and sedimentation control plan approved by the Board of Supervisors that provides for minimizing erosion and sedimentation, or (3) There has been a determination by the Board of Supervisors that a plan for minimizing erosion and sedimentation is not necessary. The Board's approval of the final plans shall be given only after the requirements and conditions indicated on or in connection with the preliminary plans have been met; and said approval shall constitute final Township approval for the purpose of recording the plans in the Office of the County Recorder of Deeds. Before acting on any plan, the Board of Supervisors may arrange for a public hearing thereon after giving such notice as it may deem necessary and desirable in each case.

SECTION 404: OVERALL MASTER PLAN REQUIREMENTS

A. When the total of all lots subdivided from a parcel or tract of land exceeds five (5) lots within the last 5 years, it shall be incumbent upon the subdivider to submit to the Township an Overall Master Plan parcel or tract of land before any further subdivision or land development plans may be approved by the Township. Such Overall Master Plan shall illustrate the following features in general terms without necessity of detailed engineering design.

1. The property lines of the host parcel and other lot previously subdivided.

2. Generalized lot layout with intended consideration for sewer, water, roadway, and storm drainage control.

3. Generalized location of major topographic features such as swales, water courses, rock outcroppings, and related characteristics.

4. Generalized indication of the use or uses of the property in terms of the uses permitted by the Township Zoning Ordinance.

5. The Overall Master Plan shall be submitted at a scale of not smaller than 1" = 200.

B. Effect of Overall Master Plan: The Overall Master Plan will be used by the Township to assist in evaluating further subdivision submittals of the applicant. When on the recommendation of the Planning Commission and action of the Board of Supervisors, it is deemed that further subdivisions depart substantially from the concepts presented in the Overall Master Plan, a revised Master Plan shall be required prior to approval of any future subdivision plans of the applicant.

ARTICLE V

PRE-APPLICATION CONSULTATION

SECTION 500: PRE-APPLICATION CONSULTATION

The pre-application consultation with the Township, is voluntary, and communications shall be kept as confidential as possible. The subdivider or developer, before going ahead with the Preliminary Plan procedure or with steps to acquire land or subdivide, should familiarize himself with the regulations and should consult with the Township about the following factors:

A. The suitability of the site for development.

B. The demand for a development, the type proposed, and the particular location proposed.

C. The accessibility of the site.

D. The availability of public facilities such as schools, parks, water, sanitary and storm sewers, etc., and the public services of police, fire, refuge disposal, etc.

E. The effect on the project of any contemplated improvements or the proposals of any comprehensive plan and these regulations.

F. Sewage facility requirements of the Department of Environmental Resources and the Township.

G. Erosion and sedimentation control plans and permits as required by the Department of Environmental Resources and as reviewed by the Franklin County Soil Conservation District.

H. Precautionary measures to preserve or protect environmental, historic and natural features.

I. Approvals by the applicable State and Federal agencies.

Section 501: SKETCH PLAN SUBMISSION

It is suggested that prior to the consultation with the Planning Commission, the subdivider prepare a sketch plan of his proposed development. It is suggested that the subdivider or developer submit sufficient data to the Planning Commission for purposes of generally illustrating and discussing the proposed project.

ARTICLE VI

MINOR SUBDIVISIONS

SECTION 600: QUALIFICATIONS

A Minor Subdivision, as defined, may be directly submitted for Final Plan approval in accordance with Section 800 of this Ordinance and the plans and data requirements set forth herein. However, with multiple Minor Subdivisions within any given tract; exceeding five (5) lots within the preceding five years, or adjacent or adjoining tracts having been or expected to be subdivided, or whenever other circumstances warrant, the Commission may deny the Minor Subdivision provision within this Ordinance and may require such additional data as included within the Preliminary and Final Plan requirements and procedures, of this Ordinance.

SECTION 601: PLAN REQUIREMENTS

The following materials and data shall be submitted with an applications for review and approval of the Minor Subdivision Plans:

A. Six copies of the subdivision or land development plans in the form of a map on sheet sizes either 8 1/2 inches by 14 inches; 18 inches by 24 inches; or 24 inches by 36 inches, and shown to a nominal scale not smaller than 100 feet to the inch and showing the following:

1. A location map showing the proposed project in relation to the adjacent properties and existing streets in the vicinity of the Township.

2. A tract map showing the boundaries of the entire tract to be subdivided, the new lot or lots to be formed, and the names of the adjoining property owners, as well as major significant physical features such as streams, roads, lanes, ponds, cemeteries, wooded areas and flood plains.

3. The limits and dimensions of the tract or tracts to be subdivided or developed and the proposed name or identifying title of the project.

4. The date, scale, and north point.

5. The location and dimensions where applicable of existing buildings, roads, easements, rights-of-way, public lanes, streams and any other monuments.

6. The location and dimensions of proposed easements or other rights-of-way and land reserved for public purposes, the dimensions of existing or proposed sanitary or storm sewers and water facilities.

7. Existing topographic contours at not more than ten (10) foot vertical intervals or at such intervals that the contours shall have a maximum horizontal spacing of not more than 100 feet.

   For any project not being connected to any public facilities within the Township, an assumed datum may be used for the topographic contours, but shall be stated on the plans as assumed datum.

Any project connecting or adjoining proposed public facilities within the Township shall be referenced to the Township Municipal Datum as supplied by the Township.

8. The name and address of the subdivider or developer.

9. The name, seal and signature of the Registered Engineer or Registered Surveyor who shall have prepared the plans.

10. The name and address of the owner of the tract, and the names of the owners of the adjoining tracts together with the deed references.

11. The building restriction lines, percolation test sites and the location and description of the survey monuments.

12. The bearing and dimensions of all proposed property lines, the acreage of all parcels including the residue of the parent tract, and lot numbers.

13. A plan supplement or revision sewage Planning Module to the Township's Official Liquid Wastes Plan complete with all necessary data.

14. An erosion and sedimentation control plan and narrative as required pursuant to the provisions of the Clean Streams Law.

ARTICLE VII

PRELIMINARY PLANS

SECTION 700 PRELIMINARY PLAN SPECIFICATIONS

The following materials and data shall be submitted with an application for review and approval of the Preliminary Plans:

A. Eight copies of the subdivision or land development plan in the form of a map or series of maps on sheet sizes either 8 1/2 inches by 14 inches; 18 inches by 24 inches; or 24 inches by 36 inches drawn to a scale not smaller than 100 feet to the inch and showing the following:

1. A location map showing the proposed project in relation to the adjacent properties and existing streets in the vicinity.

2. The layout of lots showing dimensions, lot numbers, and approximate areas of each lot, location of existing and proposed streets, including the name and widths of the rights-of-way and cart way.

3. The limits and dimensions of the tract or tracts being subdivided or developed and the proposed name or identifying title of the project.

4. The date, scale and north point.

5. The location and dimensions where applicable of existing buildings, roads, easements, rights-of-way, public lands, streams, and any other monuments.

6. The location and dimensions of proposed easements or rights-of-way and land reserved for public purposes, the dimensions of existing or proposed sanitary or storm sewers and water facilities.

7. Existing topographic contours at not more than ten feet (10'0") vertical intervals or at such horizontal intervals of not more than one hundred feet (100'0"). For any project which proposes ten or more lots or dwelling units, elevations shall be referenced to vertical controls established by an accepted Federal agency (N.O.S., U.S.C.G.S., U.S.G.S., or A.M.S.) and a suitable benchmark shall be established within the project and referenced on the plan. The Planning Commission may also require supplemental plans showing proposed final contour. For any project not being connected to any public facilities within the Township, an assumed datum may be used for the topographic contours but shall be stated on the plans as assumed datum.

   Any project connecting or adjoining proposed public facilities within the Township shall be referenced to the Township Municipal Datum as supplied by the Township.

8. The name and address of the subdivider or developer.

9. The name, seal and signature of the Registered Engineer or Registered Surveyor who shall have prepared the plans.

10. The name and address of the owner of the tract and the names of the owners of the adjoining tracts together with the deed references.

11. Building restriction lines, percolation test sites, and the location and description of the survey monuments.

B. Five copies of cross-section drawings of all proposed streets showing rights-of-way, cart way widths, location of sidewalks and planting strips.

C. Five copies of profile drawings of all proposed streets showing existing and proposed grades.

D. Five copies of plans and profiles of existing and/or proposed sanitary sewer and storm sewer systems, water distribution systems, and any other pertinent utilities. The plans shall include grades, pipe sizes, and location of valves and fire hydrants. All storm sewer plans shall indicate the point or points where surface water enters and leaves the project, contributing area of runoff and the estimated volume and method of determination.

E. When any subdivision or land development is subject to the rules and regulations of the Department of Environmental Resources with regard to the disposal of liquid wastes, the applicant shall submit a Supplemental Planning Module or Plan Revision Module to the Township's Official Liquid Wastes Plan for the subdivision or land development of which the subdivider shall prepare six copies of the form supplied by the Department of Environmental Resources for use of the Township.

F. In the event the plan proposes extension of utility service into the project by any Authority or Municipality other than Letterkenny Township or its agencies, a statement from that authority or municipality regarding the adequacy of such service extension shall be submitted.

G. Whenever the subdivision or land development is subject to the rules and regulations of the Department of Environmental Resources with regard to control of erosion and sedimentation control, the applicant shall file five (5) copies of an erosion and sedimentation control plan, provided, however, that in the case of the applications not requiring any erosion and sedimentation control permit, the Commission may require the applicant to submit his plan to the Franklin County Soil Conservation District office for review and comment. The design standards and specifications for said plan are contained in the"Erosion and Sedimentation Control" handbook which has been prepared and provided by the Franklin County Conservation District and is on file in the Township Office.

H. Five copies of the Storm Water Management Plan required by this Ordinance.

SECTION 701: PRELIMINARY PLAN PROCEDURE

A. The applicant, at least ten (10) days prior to the meeting of the Commission at which initial consideration is desired, shall file with the Township Secretary ten (10) copies of the Preliminary Plan and the accompanying documentation.

B. Copies of the Preliminary Plan and supporting data shall immediately be distributed by the Secretary to the following agencies, when applicable, for review and comment:

1. Three (3) copies to the Franklin County Planning Commission.

2. One (1) copy to the Township Engineer.

3. One (1) copy to the Township Municipal Authority as required.

4. One (1) copy to the Pennsylvania Department of Transportation if applicable.

5. One (1) copy to the Electric Power Company.

6. One (1) copy to the Township Sewage Enforcement Office.

7. One (1) copy to the Franklin County Conservation District.

8. The remaining copies to the Township Planning Commission.

9. Supplemental Sewage Planning Module and/or Plan Revision Module for Subdivision or Land Development to:

   a. Department of Environmental Resources, if applicable.

   b. Franklin County Planning Commission, if applicable.

   c. Township Municipal Authority.

   d. Remaining copies to the Township File.

C. The Township Planning Commission shall take official action on the Preliminary Plan within sixty (60) days of the Township's receipt of the plans and data. The Commission shall note it's action on three (3) copies of the plans. The three (3) noted copies of the plan then shall be forwarded to the Board of Supervisors along with recommendations concerning the Preliminary review.

D. Approval or Rejection of Plans:

1. The Board of Supervisors shall take official action on the Preliminary Plan after it has received the review of the Commission and within the time limits and in the manner provided in Section 801 (c.) of this Ordinance.

ARTICLE VIII

FINAL RECORD PLANS

SECTION 800: PLAN REQUIREMENTS

The Planning Commission may require that the following materials be submitted with an application for approval of a Final Plan. Final Plans shall conform in all important details with Preliminary Plans as previously approved and any conditions specified in the approval of the Preliminary Plans shall be incorporated in the Final Plans.

The Final Plan submission shall occur not more than five (5) years following the date of approval of the Preliminary Plan. Failure to submit the Final Plan within this time period shall make the approval of the Preliminary Plan null and void unless an extension of time is requested by the subdivider or land developer prior to the five (5) years time limit and an extension is granted by the Board of Supervisors. The applicant may constitute only that portion of the approved Preliminary Plan which the applicant proposes to record and develop at that time, provided that such portion conforms with all requirements of the approved Preliminary Plan and this Ordinance.

The Final Plan shall contain the following data:

A. Ten (10) copies of the plan in the form of a map or series of maps on sheet sizes either 8 1/2 inches by 14 inches; 18 inches by 24 inches; or 24 inches by 36 inches, drawn to a scale not smaller than 100 feet to an inch and showing the following:

   1. The items required to be shown in Preliminary Plans, as specified in Article VII, Section 700.

   2. Final topographic contours in those areas recommended by the Commission and approved by the Supervisors at not more than five foot vertical intervals.

   3. The location and method of proposed street lighting facilities and the location of street signs.

   4. The location of minimum building set-back lines.

   5. The complete metes and bounds description of each lot, tract or parcel with a minimum error of closure of one part in ten thousand.

   6. Lot and section numbers.

   7. Offer of Dedication to the Township or Township Authority wherever and whichever case is applicable of streets, rights-of-way, easements and sites for other public use.

B. Four copies of a utility map or maps showing the tract boundaries, existing and proposed streets, lot lines, sanitary sewer and storm sewer facilities, water lines, and, where applicable, curbs, sidewalks, fire hydrants and manholes.

C. Four copies of profile and cross-section maps or diagrams of streets showing proposed grades of curbs, sanitary and storm sewers, water lines, underground utilities, and storm water management facilities. Grades shall be shown at a minimum scale of fifty (50) feet horizontal and five (5) feet vertical.

D. An erosion and sedimentation control plan, together with an earth-moving permit when required pursuant to the provisions of the Clean Streams Law.

E. Suitable documentation that the plans are in conformity with building, sanitation and other applicable Township Ordinances and regulations; and with the regulations governing the extension of the utility services into the Township. In any instance where such plans do not conform, evidence shall be presented that an exception has been officially authorized.

F. Such certificates, affidavits, endorsements or dedications as may be required by the Commission or the governing body of the Municipality in the enforcement of these regulations.

G. Evidence of the issuance of any driveway permit required by PennDot or Letterkenny Township.

H. A statement of the types of structures to be erected, and summary table of the number of structures and dwelling units proposed.

I. Suitable documentation that the plans are in conformity with building, sanitation and other applicable Township ordinances and regulations and with the regulations governing the extension of utility services into the Township. In any instance where such plans do not conform, evidence shall be presented that an exception has been officially authorized.

J. Evidence that the subdivider or developer has installed the necessary street and other improvements as required in Section 900 in accordance with Township standards and specifications, or that the subdivider has furnished the Township the guarantees required by Section 802.

SECTION 801: REVIEW PROCEDURE - APPROVAL OF PLANS

A. At least ten (10) days prior to the meeting of the Planning Commission at which initial consideration is desired, the subdivider or developer shall submit eight (8) copies of the Final Plan and accompanying documentation to the Township Secretary. The Final Plan submission shall occur not more than five (5) years following the date of approval of the Preliminary Plan. Failure to submit the Final Plan within the time period shall make the Preliminary Plan null and void unless an extension of time is requested by the subdivider or developer and granted in writing by the Board of Supervisors.

B. Copies of the Final Plan and supporting data shall be distributed by the Township Secretary to the following agencies where applicable:

1. Three (3) copies to the County Planning Commission for review and comment.

2. One (1) copy to the Township Engineer for review and preparation of cost estimates on improvement construction.

3. One (1) copy to the Township Municipal Authority if applicable.

4. One (1) copy to the Electric Power Company.

5. Remaining copies to the Township Planning Commission.

C. Approval or Rejection of Plans: All applications for approval of a plan, whether preliminary or final, shall be acted upon by the Board of Supervisors which shall render its decision and communicate it to the applicant not later than ninety (90) days following the date of the regular meeting of the Planning Commission next following the date the application is filed, provided that should the said next regular meeting occur more than thirty (30) days following the filing of the application, the said ninety (90) day period shall be measured from the thirtieth (30th) day following the day the application has been filed.

1. The decision of the Board of Supervisors shall be in writing and shall be communicated to the applicant personally or mailed to him at his last known address not later than 15 days following the decision.

2. When the application is not approved in terms as filed, the decision shall specify the defects found in the application and describe the requirements which have not been met and shall in each case, cite to the provision of the statute or ordinance relied upon.

D. Distribution of the copies of the plan as finally approved shall be as follows:

1. One (1) copy to the Engineer

2. One (1) copy to be retained in the Township Secretary's File.

3. One (1) copy to the Planning Commission.

4. Two (2) copies to the subdivider or developer.

E. Within ninety (90) days following approval by the Board of Supervisors, the Final Plan shall be recorded by the subdivider or developer at the County Recorder of Deeds Office. The subdivider or developer shall not present a plan for recording and the Recorder of Deeds shall not accept any plan for recording unless the plan has been officially approved and signed by the Board of Supervisors.

F. The Township Board of Supervisors shall not approve a Final Plan without a favorable report from the Department of Environmental Resources regarding the Official Plan Revision or Supplement where applicable. However, failure of the Department of Environmental Resources to report to the Township within the time prescribed by law from the date the last supplement was sent shall constitute approval. (As amended April 28, 1987)

SECTION 802: COMPLETION OF IMPROVEMENTS OR GUARANTEE THEREOF PRE-REQUISITE TO FINAL PLAN APPROVAL

No plan shall be finally approved unless the streets shown on such plan have been approved to a permanently passable condition, as specified in Article IX, Sections 903 and 904, and any walkways, curbs, gutters, street light, fire hydrants, shade trees, water mains, sanitary sewers, storm drains and any other improvements as may be required by the Letterkenny Township Subdivision and Land Development Ordinance, as amended, have been installed in accordance with such Ordinance.

In lieu of the completion of any improvements required as a condition for final approval, the developer shall deposit with Letterkenny Township, financial security in an amount sufficient to cover the cost of any improvements or common amenities, including, but not limited to, road, storm water detention and/or retention basins, other related drainage facilities, recreational facilities, open space improvements, or buffer or screen plantings, all improvements recited above, and all improvements as shown on the developers subdivision or development plan. The type of financial security to be posted with Letterkenny Township shall be in such form as may, from time to time, be approved by the Legislature of the Commonwealth of Pennsylvania, or such other form as may be deemed acceptable by the Letterkenny Township Board of Supervisors.

Such bond or other security shall provide for and secure to the public the completion of any improvements which may be required within one year of the date fixed in the subdivision plan for completion of such improvements. The amount of financial security shall be equal to 110% of the cost of the required improvements for which financial security is to be posted. The cost of improvements shall be established by submission to the Letterkenny Township Board of Supervisors or the Planning Commission of bona fide bid or bids from the contractor or contractors chosen by the party posting the financial security to complete the improvements, or in the absence of such bona fide bids, the cost shall be established by estimate prepared by the Letterkenny Township engineer. If the party posting the financial security requires more than one year from the date of posting the financial security to complete the required improvements, the amount of financial security shall be increased by an additional 10% for each one year beyond the first anniversary date from the posting of financial security, or to an amount not exceeding 110% of the cost of completing the required improvements as re-established on or about the expiration of the preceding one year period by using the above bidding procedure. In a case where development is projected over a period of years, the Letterkenny Township Board of Supervisors may authorize submission of final plans by sections or stages of development subject to requirements or guarantees as to improvements in future sections or states of development as it finds essential for the protection of any finally approved section of the development. As the work of installing the required improvements proceeds, the party posting the financial security may request the Letterkenny Township Board of Supervisors to release or authorize the release, from time to time of such portions of the financial security necessary for payment to the contractor or contractors performing the work. Any such requests shall be in writing addressed to the Letterkenny Township Board of Supervisors and the Board shall have 45 days from receipt of such request within which to allow the municipal engineer to certify, in writing, to the Board that such portion of the work upon the improvements has been completed in accordance with the approved plan. Upon such certification the governing body shall authorize the release by the bonding company or lending institution of an amount as estimated by the municipal engineer which fairly represents the value of the improvements completed or, if the Board of Supervisors

fails to act within said 45-day period, the Board shall be deemed to have approved the release of the funds as requested. The Board of Supervisors may, prior to final release at the time of completion and certification by its engineer, require retention of 10% of the estimated cost of the aforesaid improvements. Where the Board of Supervisors accepts dedication of all or some of the required improvements following completion, the Board may require the posting of financial security to secure structural integrity of said improvements as well as the functioning of said improvements in accordance with the designs and specifications as depicted on the final plan, for a term not to exceed 18 months from the date of acceptance of dedication. Said financial security shall be of the same type as otherwise required in this section and otherwise required by law, with regard to the installation of such improvements and the amount of the financial security shall not exceed 15% of the actual cost of installation of said improvements.

If water mains or sanitary sewer lines, or both, along with apparatus or facilities related thereto, are to be installed under the jurisdiction and pursuant to the rules and regulations of a public utility or a municipal authority separate and distinct from Letterkenny Township, financial security to assure proper completion and maintenance thereof shall be posted in accordance with the regulations of the controlling public utility or municipal authority and shall not be included within the financial security otherwise required by this section.

If financial security has been provided in lieu of the completion of improvements required as a condition for the final approval of a plan as set forth herein, the municipality shall not condition in issuance of building, grading or other permits relating to the erection of placement of improvements, including building upon the lot or land as depicted upon the final plan upon actual completion of the improvements depicted upon the final approved plan. Moreover, if said financial security has been provided, building or other permits shall not be withheld following the improvement of the streets providing access to and from existing public roads to such building or buildings to a mud-free or otherwise permanently passable condition as required in Article IX, Section 904 hereof, as well as the completion of all other improvements as depicted upon the approved plan, either upon the lot or lots or beyond the lot or lots in question if such improvements are necessary for the reasonable use and occupancy of the building or buildings. (Adopted April 28, 1981)

ARTICLE IX

DESIGN STANDARDS

SECTION 900: APPLICATION OF STANDARDS

In considering applications for subdivision of land and land development, the Planning Commission shall be guided by the standards set forth hereinafter. The said standards shall be considered to be minimum requirements and shall be waived by the Township Supervisors only under circumstances adjudged, in their opinion, that the literal application of these standards in certain cases would work undue hardship or would be plainly unreasonable; the Township Supervisors may grant such reasonable exceptions as will not be contrary to the public interest.

SECTION 901: GENERAL SITE SUITABILITY

No land shall be subdivided if such land is considered by the Commission to be unsuitable for the use proposed by reason of flooding or improper drainage, topography or other features harmful to the health, safety and general welfare of future residents and the community as a whole, unless the plans for the project shall provide adequate safeguards against such hazards.

All development shall be coordinated with the existing nearby neighborhoods so that the community as a whole may develop harmoniously.

SECTION 902: BLOCKS AND LOTS

A. BLOCK LENGTH: The design of blocks shall be not less than 600 feet nor more than 1200 feet long.

B. BLOCK WIDTH: Blocks shall be designed to a width of two tiers of lots and shall conform to the standards set forth herein.

C. GRADING: Blocks and lots shall be graded to sufficient elevation to secure drainage away from buildings and to prevent undesirable collection of storm water. Drainage shall be provided for according to recommendations of the Engineer or such other official as may be designated by the Board of Supervisors. Topsoil shall be preserved and redistributed as ground cover, consistent with the erosion and sedimentation control measures as shown in the Conservation Manual prepared by the Franklin County Conservation District.

Amended 10-25-88

D. RESIDENTIAL UNITS:

1. Single Family Residential Lots: (Minimum requirements):

	On-Lot Water and Sewer (1)	On-Lot Sewer/ Central Water(1)	On-Lot Water/ Central Sewer	Central Water and Sewer
Frontage	125 feet	125 feet	90 feet	80 feet
Lot Depth	175 feet	175 feet	150 feet	120 feet
Lot Area	25,000 sq.ft.	25,000 sq.ft.	15,000 sq.ft.	10,000 sq.ft.

2. Single Family Semi-Detached Dwelling Unit: (Minimum requirements for each dwelling unit)

	On-Lot Water and Sewer (1)	On-Lot Sewer/ Central Water(1)	On-Lot Water/ Central Sewer	Central Water and Sewer
Lot Size	30,000 sq.ft.	15,000 sq.ft.	10,000 sq.ft.	8,500 sq.ft.
Lot Width	125 feet	100 feet	75 feet	75 feet
Lot Depth	175 feet	175 feet	100 feet	100 feet

Set-Backs for Single Family and Semi-Detached Units:

Public or private street and front yard	35 ft. from R/W	35 ft. from R/W	35 ft. from R/W	30 ft. from R/W
Side yards(ea)	15 feet	15 feet	12 feet	12 feet
Rear yards	35 feet	35 feet	30 feet	30 feet
Height(max.)	35 feet	35 feet	35 feet	35 feet
Off-street parking (2) per dwelling	2 spaces	2 spaces	2 spaces	2 spaces

a. When on-lot sewer facilities are to be utilized, the minimum lot size may be increased by the Township's Sewage Enforcement Officer or the Department of Environmental Resources for factors related to health and sanitation.

b. Businesses conducted out of a residence shall provide adequate parking off-street for all business related clientele, plus two spaces for the residents.

c. Set backs for non-permanent storage buildings on not more than 120 square feet and 1 story shall be reduced to 5 feet on side and rear yards only.

3. Townhouses: Attached residences: (Minimum requirements)

a. For each attached residential dwelling project there shall be a minimum lot area of twenty-five thousand square feet (25,000 sq.ft.).

Per Dwelling Unit:

Lot Area.....	2,500 sq.ft.
Interior.....	18 feet
Public or Private Street and Front Yard.....	20 feet
Side Yard for End Units....	20 feet
Rear Yard.....	30 feet
Off-street Parking.....	2.0 spaces
Height.....	35 feet
Active Play Area.....	100 sq.ft.
Minimum Distance between Groups or Units.....	40 feet

b. No less than three (3) and no more than eight (8) dwellings shall be permitted in a unit or group.

c. Central water supply and sewerage shall be provided for developments containing more than three (3) dwelling units.

d. A recreation area shall be furnished in townhouse development projects containing more than eighteen (18) dwelling units. Such area shall not be less than ten thousand (10,000) square feet in land area, nor less than fifty (50) feet in its smallest dimension. For each dwelling unit above eighteen (18), an additional three hundred (300) square feet per dwelling unit shall be allocated to the total recreation area.

e. Where any townhouse project is proposed to be developed in conjunction with apartments, the recreation area requirements as provided in Section 4(a) shall be designed for and made accessible to the townhouse residents in addition to the requirements for multiple dwelling residents. The Board of Supervisors reserve the right to increase the active play area requirements upon recommendation of the Planning Commission when in its opinion additional area is necessary to accommodate the needs of the mixed use development in accordance with the spirit and objectives of the Ordinance.

4. Multiple Dwelling Residences - Garden Apartments. (Minimum requirements)

a. Each multiple dwelling residential project shall contain a minimum of forty thousand (40,000) square feet of lot area in accordance with the following standards.

Lot Width.....	150 feet
Lot Depth.....	150 feet
Each Side Yard (exterior)....	20 feet
Rear Yard.....	30 feet
Public or Private Street and Front Yard.....	30 feet
Off-street Parking per dwelling unit.....	2.0 spaces
Minimum Distance between Units.....	40 feet
Height (maximum).....	35 feet (2-1/2 stories)
Recreation Area (minimum)....	5,000 sq.ft.
Per Dwelling Unit:	
Efficiency.....	75 sq.ft.
1 Bedroom.....	100 sq.ft.
2 Bedroom.....	125 sq.ft.
3 or more Bedrooms....	150 sq.ft.

b. The maximum number of dwellings units permitted shall be determined on the basis of two thousand (2,000) square feet of lot area exclusive of public rights-of-way for each dwelling unit.

c. The length of any unit shall not exceed one hundred and fifty feet (150'0").

d. Central water supply and sewerage shall be provided.

e. There shall be one hundred foot (100'0") setback from the property line adjacent to any existing dwelling or residential district.

5. Homeowners Associations

a. Whenever a developer or owner proposes to provide land or structures for the benefit of only particular home owners of a project such as usable open space and active play areas, a Homeowners Association shall be established in accordance with the following provisions.

aa. The Homeowners Association shall be established as an incorporated, organization operating under recorded land agreements through which each lot owner (and any succeeding owner) is automatically a member, and each lot is automatically subject to a charge for a proportionate share of the expenses for the organization's activities. Additionally, specific provisions shall be established, which

define completely all membership requirements of all non-lot owners in the event rental units are included in the project.

bb. The Homeowners Association's Declaration of Covenants, Conditions, and Restrictions shall as a minimum establish the following:

aaa. Property Rights including the owner's easements of enjoyment and delegation of use.

bbb. Membership and Voting Rights including any distinction between membership classes.

ccc. Covenant for Maintenance Assessments including the creation of the lien and personal obligation of assessments, purpose of assessments, the maximum annual assessments, special assessments for capital improvements, uniform rate of assessment, due dates, effect of non-payment of assessments, and subordination of the lien to mortgages.

ddd. Architectural and Exterior Maintenance Control.

eee. General Provisions including enforcement, amendments, and property annexation procedures.

cc. The developer or owner shall assume all responsibilities for the Homeowners Association until seventy-five percent (75%) of the dwelling sites are sold or until such time as the Homeowner's formally assume such responsibility. Once the Homeowners Association is established, the developer or owner shall be responsible for payment of dues to the Homeowners Association for lots which he owns.

dd. Staged Developments: If the developer or owner proposes to construct the project over a period of separate stages, the Homeowners Association shall also be staged consistent with the development time schedule.

ee. Approval: The Township Supervisors shall retain the right to review and approve the articles of incorporation and all Declarations of Covenants, Conditions, and Restrictions of the Homeowners Association. (For the sake of consistency within the Township, it is recommended that the United States Department of Housing and Urban Development, Federal Housing Administration's Suggested Legal Documents for Planned Unit Developments, FHA Form 1400 and VA Form 26-8200 be consulted.)

E. COMMERCIAL LOTS: (Minimum requirements)

Minimum frontage - 200 feet
Minimum Depth - 200 feet
Minimum Area - 40,000 sq.ft.

Set-Backs:

Front Yard - 50 feet
Side Yard - 25 feet
Rear Yard - 50 feet

Maximum lot coverage by impervious area, including building and parking, will be 75%.

For lot area over 40,000 square feet, the general lot configuration shall not exceed two and one-half times the frontage for the depth as a maximum factor.

For all commercial and industrial business not conducted within a residence, the general standards above shall apply.

When on-lot sewer facilities are to be utilized, the minimum lot size may be increased by the Township Sewage Enforcement Officer or the Department of Environmental Resources for factors relating to health and sanitation.

F. SOIL ANALYSIS AND PERCOLATION TESTS: For each application, a soil analysis and percolation test shall be required by the Township on each proposed lot. From the results of these tests, the lot size shall be established large enough to provide for the specified minimum area required for the absorption field as prescribed in accordance with the requirements of the Pennsylvania Department of Environmental Resources; but in no case shall the lot size be less than that set forth in Section 902, Paragraph 5 and 6 of this Ordinance.

G. LOT DESIGN: Double fronting lots shall not be permitted. Lots shall be designed to have side-lines at approximately right angles or be radial to street lines so long as reasonably shaped lots result.

H. HOUSE NUMBERS: House numbers may be assigned to each lot by the Township in accordance with the approved Franklin County Plan.

SECTION 903: STREETS

A. STREET PATTERN: The arrangement, character, extent, width, grade and location of all streets shall conform to the Official Map and shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets.

When the streets are not shown on the Official Map, the following design standards shall be met for the arrangement of new streets: where reasonable and practical, new streets shall be laid out to continue existing streets at no reduction in width, or when adjoining areas are not subdivided, the arrangement of streets in a subdivision or land development shall make provisions for the proper projection of streets into such adjoining areas with considerations for drainage and extensions of public utilities.

B. STREET WIDTHS: Streets shall be designed with a minimum right-of-way of fifty (50) feet and a minimum paved cart way of twenty-two (22) feet in width; however, additional street width may be required as determined by the Township.

C. ALLEYS: No alleys will be permitted by the Township under this Ordinance.

D. STREET NAMES: Continuations of existing streets shall be known by the same name; but names of other streets shall not duplicate or closely resemble names for existing streets within the community and must be approved by the County Civil Defense Office.

E. DEAD END STREETS: Dead end streets are prohibited unless constructed as cul-de-sacs not exceeding 1200 feet in length, with a turn around having a diameter of 100 feet of which a minimum of 80 feet shall be paved.

F. CLEAR SIGHT DISTANCE: Clear sight distance along the centerline of streets shall be maintained at not less than 250 feet. For any streets intersecting existing major streets or highways, PennDOT's sight distance will prevail for the respective speed limit posted.

G. GRADES: There shall be a minimum centerline grade of 5/10th of one percent and a maximum of 10 percent.

H. HORIZONTAL CURVES: Changes in street direction by horizontal curves shall have a minimum radius of 200 feet, measured at the centerline. Shorter radii will be permitted on the recommendation of the Township Engineer.

I. CROWNS: The slope of the crown shall be between 1/8" and 1/3" per foot as directed by the Township Engineer.

J. VERTICAL CURVES: Changes in grade shall be joined by vertical curves; and the maximum rate of change of grade shall be seven percent per hundred feet of road, provided that the clear sight distances specified above are maintained at all points.

K. SIDE SLOPES: Streets cuts and fills shall be provided with side slopes no steeper than one vertical to three horizontal. Such slopes shall be suitably planted with perennial grasses or other vegetation to prevent gullying and erosion.

L. INTERSECTIONS: Street intersections shall be designed according to the following standards:

1. No more than two (2) streets shall cross at the same point. Street intersections shall be at right angles wherever possible, and intersections of less than sixty (60) degrees (measured at the centerlines of the streets) will not be permitted.

2. Intersecting streets shall not enter into the same side of collector or major streets at intervals of less than eight-hundred feet (800'0"). Minor streets entering another street from opposite sides should be directly opposite each other; or, if necessary, they may be separated by at least one-hundred fifty feet (150'0") between centerlines measured along the centerlines of the cross street. Greater off-set may be required by the Township Supervisors depending on the importance of the cross street.

3. Maximum grade within any intersection shall not exceed five percent in any direction, and approaches to any intersection shall follow a straight course within one-hundred feet (100'0") of the intersection.

4. Curb radii at intersections shall be according to the following schedule of minimum lengths: Fifteen feet (15'0") for intersections of alleys and all streets; twenty feet (20'0") for minor streets; and thirty feet (30'0") for major and collector streets. Where streets of different categories intersect, requirements for the larger radius shall hold. The minimum radius of intersecting rights-of-way lines shall be forty feet (40'0").

5. Except where buildings are permitted to front on property lines, a seventy-five foot (75'0") clear sight triangle shall be provided, in which no building or structure, wall, fence, hedge, tree, shrub or other growth over thirty inches (30") in height shall be placed except for utility poles, light standards, street signs and fire hydrants.

SECTION 904: STREET AND ROAD CONSTRUCTION

All streets and roads to be dedicated to the Township shall be paved with the use of a motor-paver and shall meet the following minimum standards:

1. Adequate surface and subsurface drainage shall be provided in accordance with approved plans.

2. All topsoil and unsuitable material shall be removed from the area to be paved.

A. SPECIFICATIONS FOR USING MOTOR-PAVER INSTALLING FB-1

1. There shall be installed a base to consist of six inches (6") of compacted stone, or as an alternate, four inches (4") of compacted shale and four inches (4") of compacted stone, under the paved surface of the cart way. A minimum of four inches (4") of compacted stone shall be installed in the shoulder of the road which shall extend four feet (4') on both sides of the pavement. All stone shall be 2-RC and 2-A modified. Supervisors shall approve base before FB-1 is applied.

2. The bituminous binder course shall be FB-1, a minimum compacted depth of three inches (3") using Number 57 PennDOT approved aggregate with a minimum of 5% by weight of E-5 emulsion for each ton of aggregate.

3. The bituminous wearing course shall be FB-1, a minimum compacted depth of one inch (1") using Number 8 PennDOT approved aggregate with a minimum of 6% by weight of E-5 emulsion for each ton of aggregate.

4. The binder and wearing course shall be tightly rolled with an 8 to 12 ton roller.

5. All road oil and aggregate used shall meet Pennsylvania Department of Transportation specifications as per (PUB No. 408, 1983).

6. Supervisors shall reserve the right to increase the percentage of Emulsion needed based on the condition of the aggregate used.

B. SPECIFICATIONS FOR USING MOTOR PAVING INSTALLING ID-2

1. There shall be installed a base to consist of six inches (6") of compacted stone or, an alternate, four inches (4") of compacted shale and four inches (4") of compacted stone under the paved surface of the cart way. A minimum of four inches (4") of compacted stone shall be installed in the shoulder of the road which shall extend four feet (4') on both sides of the pavement. All stone shall be 2-RC or 2-A modified. Supervisors shall approve base before ID-2 is applied.

2. The bituminous binder course shall meet ID-2, PennDOT standards as per Publication 408, Section 421. It shall be a minimum compacted depth of two inches (2").

3. The bituminous wearing course shall be ID-2, PennDOT standards per Publication 408, Section 420. It shall be a minimum compacted depth of one inch (1").

4. The binder and wearing course shall be tightly rolled with an 8 to 12 Ton Roller.

5. All Road Oil and Aggregate used shall meet Pennsylvania Department of Transportation specifications as per (Pub. No. 408, 1983).

6. Where curbs are required, the pavement shall extend from curb to curb and shall not be less than thirty-two feet (32') wide.

C. PRIVATE STREETS

When a private street or streets are proposed to serve not more than three (3) dwellings, there shall be installed a base to consist of 6" of compacted stone or as an alternate, eight inches (8") of compacted shale, a minimum of twenty feet (20') in width. Private streets serving more than three dwellings must be paved in accordance to specifications above.

SECTION 905: STANDARDS FOR SEWER AND WATER SYSTEMS

If a public sanitary sewer system in available (within five-hundred feet (500'0") of any part of the proposed subdivision, mobile home park or land development) the subdivider or developer shall design and install a system including laterals which shall be connected to the public system and which shall serve every property within the proposed project. All plans and installations shall be subject to the approval of Letterkenny Township Municipal Authority.

SECTION 906: DRIVEWAY PERMIT

No driveway shall be connected to any township road without first obtaining a driveway permit for an existing lot or subdivision approval for a new lot.

In the event the driveway connects to a State road, the applicant shall follow the procedures and comply with the requirements of PennDot.

In the event the drive connects to a Letterkenny Township road, the applicant shall present a drawing of the lot and the proposal and/or existing structure, the proposed drive in reference to the Township road on the form prescribed by the Township. The drawing shall be accompanied by the following information:

- posted speed limit;
- clear sight distance in either direction (which must comply with PennDot regulations, unless a lesser clear sight distance is approved by the Township Engineer);
- grade of the connecting roadway at intersection with proposed drive for a distance equal to the required clear sight distance;
- the driveway shall be marked on the site by use of a survey staple, with colored ribbon attached.

All applicants shall be reviewed and granted or denied by the Township Engineer.

The cost of each driveway permit shall be $35.00.

ARTICLE X

MOBILE HOME PARK REGULATIONS

SECTION 1000: PROCEDURE

No person, firm, or corporation shall construct, maintain, or operate a Mobile Home Park within the Township without obtaining a Mobile Home Park Permit from both Letterkenny Township and the Department of Environmental Resources. The procedures for reviewing mobile home park plans shall be the same as for subdivisions and land development plans in accordance with the provisions of this Ordinance. Unless specified in this Article, the design standards and improvement requirements for mobile home parks shall be the same as for subdivision and land development projects in accordance with the provisions of this Ordinance.

SECTION 1001: PLAN REQUIREMENTS

Prior to the issuance of a Mobile Home Park Permit, plans shall be submitted to and approved by the Township in accordance with the requirements and procedures of the Ordinance regarding pre-application consultation, Preliminary Plans, and Final Record Plans. In addition to the site plan information required elsewhere in this Ordinance, the following shall be provided on the plans:

A. The location and use of proposed buildings or structural improvements.

B. The location and design of all uses not requiring structures, such as, recreation areas and landscaping.

SECTION 1002: RENEWABLE PARK PERMIT

A. The Board of Supervisors may grant a Mobile Home Park Permit for a period not to exceed twelve (12) months from the date of approval of such permit which shall be renewable every twelve (12) months. The Board of Supervisors or its duly authorized representative shall inspect each Mobile Home Park prior to granting an annual permit for conformance with the provisions of this Ordinance and any other applicable regulations. The permit fee shall be established by the Board of Supervisors.

B. It shall be incumbent upon the proprietor of a Mobile Home Park to keep a register and to report therein the name of person or head of family occupying each said mobile home, showing the date of entry on said land, make and size of the mobile home, and the names of all persons living in said mobile home. Said register shall be subject to inspection periodically by the Board of Supervisors.

SECTION 1003: LOT REQUIREMENTS

A. Individual mobile home lots located in a mobile home park shall contain at least five thousand (5000) square feet of lot area and shall not be less than fifty (50) feet wide at the building set-back line; exclusive of easements or rights of way.

B. All mobile home lots shall be given street numbers and all park streets shall be given names.

SECTION 1004: YARD AND SET-BACK REQUIREMENTS

A. All mobile homes shall be located at least thirty-five (35) feet from any street right-of-way which abuts a mobile home park boundary and at least fifty (50) feet from any other boundary of the park.

B. There shall be a minimum distance of twenty-five (25) feet between individual mobile homes and adjoining pavement of a park street or common parking area or other areas.

C. No mobile home or patio on a mobile home lot shall be located closer than ten (10) feet to any internal lot line of the park.

SECTION 1005: PARK STREET SYSTEM

A. PARK ACCESS: Each mobile home park shall be provided with at least two (2) points of ingress and egress and a distance of at least one-hundred and fifty (150) feet shall be maintained between centerlines of access streets.

B. LOT ACCESS: All mobile home parks shall be provided with safe and convenient paved access streets to and from each and every mobile home lot. Alignment and gradient shall be properly adapted to topography.

C. STREETS: All streets within any mobile home park shall be designed with a minimum right-of-way of fifty (50) feet and a minimum cartway of twenty (20) feet with three (3) foot shoulder on each side and improved in accordance with Article IX, Sections 903 and 904.

D. INTERSECTIONS: Not more than two (2) streets shall intersect at any point and if not directly opposite from each other, a distance of at least one-hundred and fifty (150) feet shall be maintained between centerlines of offset intersecting streets.

SECTION 1006: REQUIRED OFF-STREET PARKING

A. Off-street parking areas shall be provided in all mobile home parks for the use of park occupants and guests. Such areas shall be furnished at the rate of at least two (2) vehicular spaces for each mobile home lot.

B. Each off-street parking space shall contain at least two-hundred (200) square feet and shall not exceed a distance of one hundred and fifty (150) feet from the mobile home lot that it is to serve.

SECTION 1007: UTILITY IMPROVEMENTS

A. SEWER AND WATER: All mobile homes shall be connected to sewer and water systems approved by the Department of Environmental Resources and the Township Municipal Authority.

B. ELECTRICAL DISTRIBUTION: All mobile home parks shall have underground electrical distribution systems which shall be installed and maintained in accordance with the local electric power company's specifications regulating such system.

C. NATURAL GAS SYSTEMS: Any natural gas system shall be installed and maintained in accordance with the regulations and specifications of the company supplying said natural gas.

D. LIQUIFIED PETROLEUM GAS SYSTEM: Liquified petroleum gas systems provided for mobile homes, service buildings or other structures shall include the following:

1. Systems shall be provided with safety devices to relieve excessive pressures and shall be arranged so that the discharge terminates at a safe location.

2. Systems shall have at least one (1) accessible means for shutting off gas. Such means shall be located outside the mobile home and shall be maintained in effective operating condition.

3. All LPG piping outside of the mobile homes shall be well supported and protected against mechanical injury. Undiluted liquified petroleum gas in liquid form shall not be conveyed through piping equipment and systems in mobile homes.

4. Any vessel containing liquified petroleum gas shall be securely but not permanently fastened to prevent accidental overturning.

5. No LPG vessel shall be stored or located inside or beneath any storage cabinet, carport, mobile home, or any other structure unless such installations are specifically approved by the Township.

E. FUEL OIL SUPPLY SYSTEMS: All fuel oil supply systems provided for mobile homes, service buildings and other structures shall be installed and maintained in conformity with the following regulations:

1. All piping from outside fuel storage tanks or cylinders to mobile homes shall be securely, but not permanently, fastened in place.

2. All fuel oil supply systems provided for mobile homes, service buildings and other structures shall have shutoff valves located within five (5) inches of storage tanks.

3. All fuel storage tanks or cylinders shall be securely placed and shall not be closer than ten (10) feet from any mobile home exit.

4. Storage tanks located in areas subject to traffic shall be protected against physical damage.

SECTION 1008: USABLE OPEN SPACE

A. All mobile home parks provide not less than ten (10) percent of the total land area for usable open space purposes. Usable open space shall be so located as to be free of traffic hazards and should, where the topography permits, be centrally located and easily accessible to all park residents.

B. Exposed ground surfaces in all parts of every park shall be paved or covered with stone screenings, and other solid material, or protected with a vegetation growth that is capable of preventing soil erosion and the emanation of dust during dry weather.

C. Park grounds shall be maintained free of vegetation growth which is poisonous or which may harbor rodents, insects, or other pests harmful to man.

SECTION 1009: SCREENING

Screening as defined herein shall be provided by the developer along all of the property and street boundary lines separating the park from adjacent uses, excepting the public street or road.

SECTION 1010: WALKWAYS

A common walk system shall be provided and maintained between locations where pedestrian traffic is concentrated. Such common walks shall have a width of four (4) feet.

SECTION 1011: OTHER SITE IMPROVEMENTS

A. One (1) fire alarm box or public telephone shall be provided for each mobile home park. A dry chemical fire extinguisher, not less than five (5) pounds in capacity, in working condition, shall also be provided in each mobile home.

B. Provision shall be made by the Park Operator to have garbage and waste collected at least once every week.

C. Each mobile home lot may be provided with a concrete slab which shall be at least four (4) inches thick on a stable surface no larger than ten (10) feet by thirty (30) feet in size for use as a patio and so located as to be adjoining and parallel to the mobile home. Such slab shall contain an electrical outlet to which the electrical system of the mobile home shall be connected.

D. Individual tenants at the mobile home park may construct attached enclosures or covered patios to individual mobile homes, provided that such enclosure does not exceed the slab area noted in Section 1011, Paragraph C above and is confined to same.

E. An enclosure of compatible design and material shall be erected around the entire base of each mobile home. Such enclosure shall provide sufficient ventilation to inhibit decay and deterioration of the structure.

F. All means of ingress, egress, walkways, streets and parking lots shall be adequately lighted.

SECTION 1012: PARK AREAS FOR NON-RESIDENTIAL USES

A. No part of any mobile home park shall be used for a non-residential purpose, except such uses that are required for the direct servicing and well being of park residents and for the management and maintenance of the park.

B. Nothing contained in this section shall be deemed as prohibiting the sale of a mobile home located on an individual lot and connected to the pertinent utilities.

SECTION 1013: EXISTING MOBILE HOME PARKS

The operators of existing mobile home parks shall have six (6) months from the date of enactment of this Ordinance to comply with the provisions of the Ordinance and to obtain a permit or to apply for an exception where such compliance would be undue hardship.

SECTION 1014: ANCHORING

A. Every mobile home shall be firmly anchored to withstand a lateral wind pressure of fifteen (15) pounds per square foot.

B. The dead load resisting moment of a mobile home shall not be less than one and one-half (1 1/2) times the overturning moment due to wind and other lateral forces. The foundation and superimposed earth loads may be included provided the anchorage is sufficient to develop these weights. The Township Engineer shall determine the sufficiency of the method of anchorage.

ARTICLE XI

LAND DEVELOPMENTS INVOLVING SANITARY LANDFILLS OR SURFACE MINING OPERATIONS

SECTION 1100:

All sanitary landfills and surface mining operations shall have minimum lot area of one-thousand (1000) acres. The area utilized for landfill operations shall have a minimum setback line of one-thousand (1000) feet from any street, road, vehicular or pedestrian right-of-way, adjacent property line or stream, creek, or other flowing body of water.

Fencing and Vegetative Screening:

All sanitary landfills and surface mining operations shall be enclosed by a high chain link fence and said fence shall be screened from view on all perimeters by vegetative screening. Vegetative screening shall consist of trees, a hedge, or vegetative material at least eight (8) feet in height and of a density to conceal from the view of adjacent property owners and the general public the fence enclosing the perimeter and the structure and uses on the premises.

Environmental Impact:

No subdivision or land development plan shall be approved for the operation of a sanitary landfill or surface mining operation in Letterkenny Township, Franklin County, Pennsylvania, if such subdivision or land development plan shall reveal that the operation of the landfill is either bordered by, or has passing through it, a creek, run, stream, or other moving body of water into which drainage, surface runoff, leachate, sediment, or effluent will be deposited.

Construction of Landfills:

All landfills shall be constructed so as to insure that no liquid or solid waste or product thereof shall escape from the area utilized for landfill operations for a period twenty (20) years from the time of deposit of the material on the site.

Change in Topography:

No landfill, surface mining operation or shale or slate excavating operation shall be permitted to permanently alter the natural grade or topography by more than +/- 12 feet.

Liability Insurance:

The owner and/or operator of any sanitary landfill or surface mining operation shall provide evidence of liability insurance in an amount of not less than one million dollars ($1,000,000) covering damage to property and personal injury which may be caused by the operation or maintenance of the facility.

ARTICLE XII

TOWNSHIP REVIEW FEE FOR SUBDIVISION AND LAND DEVELOPMENT; TOWNSHIP ENGINEERING FEE

SECTION 1200: TOWNSHIP REVIEW FEE FOR SUBDIVISION AND LAND DEVELOPMENT

At the time of application for subdivision approval or for approval of land development, by submission or a preliminary plan, or a final plan, for any tract of land located totally or partially within the boundaries of Letterkenny Township, the applicant shall pay to the Township, a fee, as listed below, for the cost to the Township for review of such plan and any relevant data pertaining thereto. The review fee is payable for township review and is not contingent in any way upon approval for disapproval of the plan submitted. The review fee shall cover both preliminary and final plans. The review fee shall be determined on the basis of the following schedule:

SUBDIVISION

First lot $10; each additional lot, $1.50 per lot.

LAND DEVELOPMENT

$3.00 per acre, 1 to 10 acres inclusive; plus
$1.50 per acre, 10 to 50 acres inclusive; plus
$1.00 per acre, 50 to 100 acres inclusive; plus
$ .50 per acre, over one hundred acres.

SECTION 1201: TOWNSHIP ENGINEERING FEE

Subsequent to submission of the preliminary plan, and in no event later than ten days prior to the time the township will consider the final plan for approval or disapproval, the township shall notify the applicant in writing that the applicant must file with the township a check, payable to the township, for an amount recommended by the township engineer, and approved by the township, which will be sufficient to cover the cost of: (1) Reviewing the plan's engineering details. (2) Inspecting the layout of the site for conformance to the plan. (3) Reviewing the results of perculation tests. (4) Preparing cost estimates of required improvements for bonds or other purposes. (5) Inspecting required improvements during installation. (6) Final inspection of the required improvements. (7) Review of storm water management facilities design.

In the event the applicant objects to or is dissatisfied with the amount of the township engineering fee as determined by the township, the applicant shall forward specific written objections to the township within ten days of receipt of demand from the township for the payment of the township engineering fee. The township Board of Supervisors shall review the written objections of the applicant, and forthwith, notify the applicant in writing of its determination.

In no event, shall the township engineering fee to be charged to the applicant exceed the fee set forth in the original notice to the applicant.

SECTION 1202: FRANKLIN COUNTY PLANNING COMMISSION FEE

Each application for subdivision or land development plan approval submitted to the township of Letterkenny shall also be accompanied by a check from the applicant made payable to the County Planning Commission in the amount of the fee which the commission may impose from time to time for review of plans and related documents.

ARTICLE XIII

STORM WATER MANAGEMENT

SECTION 1300: PURPOSES AND SCOPE

A. The specific purpose of these provisions is:

1. To plan and manage storm water runoff in each water shed consistent with the Franklin County's official storm water management plan, or as determined by the Township.

2. To regulate the subdivision, mobile home parks, and/or development of land within any designated watershed in a manner consistent with the Franklin County's official storm water management plan, or as determined by Letterkenny Township, as set forth herein.

3. To protect the life and property of homeowners located downstream and out of the designated flood zone.

4. To maintain and restore the flood carrying capacity of streams.

5. To protect and conserve groundwater and groundwater recharge area.

6. To protect the "Water of the Commonwealth" from excessive sedimentation resulting from development of land and earthmoving activities.

B. Scope:

A Storm Water Management Plan shall be required for each subdivision or land development plan at both the preliminary and final plan submittal stage. As an intergal part of the SWMP, Erosion and Sedimentation Control measures shall be included.

SECTION 1301: APPLICATION PROCEDURES AND REQUIREMENTS

Preapplication Procedures:

A. Prior to the preparation of any plans, the prospective developer or subdivider shall consult any applicable County storm water management plan in conjunction with the requirements set forth in this Ordinance.

B. Prospective subdivider or developers shall consult the County Conservation District representative to determine the most effective erosion and sedimentation control measures to be utilized on the development site.

SECTION 1302: PRELIMINARY PLAN REQUIREMENTS FOR STORM WATER MANAGEMENT

A. Content: The SWMP shall contain the following:

1. A general description of the proposal project.

2. Project location on a 7.5 minute USGS map or equivalent.

3. A map showing:

   a. The location of the proposed subdivision and/or land development, or mobile home park development.

   b. The one hundred (100) year flood elevation, or municipality's designated 100-year flood prone area.

   c. Streams, swales, and drainage patterns both existing and proposed.

   d. Project size and lot dimensions.

   e. Proposed storm water management plan.

   f. Areas subject to special deed restrictions affecting storm water management, and a copy of deed restrictions in form for recording.

   g. Scope.

   h. Contours of existing and proposed final development elevations at intervals of 1 foot. In areas containing steep slopes (greater than 15%), 5-foot contour intervals shall be used.

   i. Locations of all buildings, roads, utility lines, structures, and culverts (existing and proposed).

   j. Storm water management control devices, both existing and proposed.

   k. That part of the watershed up-slope of the subdivision.

   l. The area affected down-slope of the subdivision by storm water runoff.

4. Topographic features of the site and adjacent roads that are considered to impact upon the storm water management design.

5. Runoff calculations and related design computations of the total drainage basin necessary to substantiate the proposed temporary and permanent storm water management facilities.

6. Design and specifications of temporary and permanent storm water management facilities.

7. Staging or Implementation Schedule for constructing the proposed storm water control system.

8. Maintenance and Ownership provisions.

B. Design Standard Computations for determining storm water runoff and for the design of storm water management facilities shall be based upon the Soil-Cover-Complex method described in TR-55, Urban Hydrology for Small Watersheds and based upon the following standards:

1. All pre-development calculations shall be based upon existing land use features, excepting however that agricultural uses shall be categorized by the following descriptions: Cultivated Land with Conservation Treatment; Pasture, Good Condition; Meadow, Good Condition; Farmstead; Pre-development stormwater runoff shall be calculated for a ten year storm event.

2. Release rates from structures shall be based on the runoff from the ten year predevelopment storm event.

3. Storage structures shall be designed such that the post development ten year peak discharge will not exceed the predevelopment ten year peak discharge for the primary outlet structure.

4. All storage structures or facilities will be designed with emergency spillways sufficient to handle the 25-year post development storm event.

5. Culverts, pipes, and other water carrying structures shall be designed to handle the peak discharge from the ten-year post development storm event.

6. The SWMP shall include calculations indicating velocities of flow, grades, sizes, and capacities of water carrying structures, debris or sediment basins, and retention and detention ponds and sufficient design information to construct such facilities.

7. Storm water runoff shall be based on the following 24-hour storm events:

STORM FREQUENCY	INCHES OF RAINFALL
2 years	2.9 inches
5 years	3.8 inches
10 years	4.8 inches
25 years	5.1 inches
50 years	5.9 inches
100 years	6.4 inches

8. Maximum permitted velocities are as follows:

   a. Three (3) feet per second where only sparse vegetation can be established.

   b. Four (4) feet per second under normal condition where vegetation can be established by seeding.

   c. Five (5) feet per second where a dense vigorous sod can be quickly established or where water can be temporarely diverted during establishment of vegetation.

   d. Six (6) feet per second where well established sod is in existence.

e. For lined water carrying channels the following velocities are required:

aa. 6-inch rock rip-rap up to 4 feet per second
bb. 9-inch rock rip-rap up to 8 feet per second
cc. Asphalt up to 7 feet per second
dd. Durable Bedrock up to 8 feet per second
ee. 12-inch rock rip-rap up to 9 feet per second
ff. Concrete or steel up to 12 feet per second
gg. The normal maximum velocity of open channels flows-shall not exceed 10 feet per second.

9. Energy dissipators shall be placed at the outlets of all pipes where flow velocities exceed maximum permitted channel velocities.

10. Vertical pipes, inlets and other surface water receiving structures shall be installed with trash racks which can be easily maintained.

11. Storm water runoff channels shall be designed and installed to avoid trapping excess sediment.

12. The rate of runoff after development must not exceed the rate of runoff before development.

13. The storm water management plan must consider the management of all storm water runoff flowing over the development site.

14. All storm water runoff retention and detention controls shall be designed by an individual qualified and experienced in the design of storm water management structures.

15. Storm water roof drains and pipes may discharge water into cisterns, French drains, sheet drains or any other storm water runoff dispersion and absorption control devices, when not part of a storm water collection system.

C. Erosion and Sedimentation: Control measures shall be in accordance with the applicable standards and specifications set forth in the "Soil Erosion and Sedimentation Control" handbook as prepared by the Franklin County Soil Conservation District.

D. Ownership and Maintenance Program: Each SWMP shall contain provisions which clearly set forth the ownership and maintenance responsibility of all permanent storm water management facilities. Including:

1. Description of Maintenance Requirements.

2. Establishment of suitable easements for access to all facilities.

3. Identification of the responsible party or entity for ownership and maintenance of both temporary and permanent storm water management erosion control facilities. In meeting this requirements, the following priority is herein established.

   a. As a first priority, the facilities should be incorporated within individual lots so that the respective lot owners will own and be responsible for maintenance in accordance with recorded deed restrictions.

   b. As a second priority, in the event the first priority cannot be achieved, ownership and maintenance should be the responsibility of a Home Owners Association. The stated responsibilities of the Home Owners Association in terms of owning and maintaining the storm water management facilities shall be submitted with final plans for determination of their adequacy, and upon their approval shall be recorded with the approved subdivision plan among the deed records of Franklin County, Pennsylvania. In addition, the approved subdivision plan and any deed written from said plan for a lot or lots shown herein shall contain a condition that it shall be mandatory for the owner or owners of said lot to be members of said Home Owners Association.

   c. The Township, its agents, and employees shall have the right to enter all lands where storm water management and erosion and sedimentation control structures are located for the purpose of inspecting said facilities.

   d. Municipal Ownership. Where municipal ownership is requested by the applicant, the following shall be provided by the applicant:

      aa. Easements to all facilities.

      bb. A financial resource acceptable to the Township to defray 100% of the maintenance cost for a period of at least 10 years, as agreed to by the Township.

SECTION 1303: FINAL PLAN REQUIREMENT

The following information shall be required as part of the final plan:

A. All information required for the submission of the preliminary plan incorporating any changes required by this Ordinance or State Law, or made by the developer.

B. All required permits or letters stating such permits will be issued pending municipality approval from the Department of Environmental Resources, Pennsylvania Department of Transportation, Public Utility Commission, Department of Community Affairs, or other state agency, if so applicable.

C. The developer shall either have fully constructed the SWMP controls or provide a performance bond or financial guarantee for storm water management and erosion and sedimentation controls. The guarantee shall be sufficient to cover the cost of installing and repairing the controls and the secondary cost to the municipality. The financial guarantee shall be determined in accordance with Act No. 230 or 231 (as appropriate) of 1980.

D. All deed restrictions, easements and rights-of-way shall be included in the final recorded plan.

SECTION 1304: REVIEW FEE

The fee for review of the storm water management and the erosion and sedimentation control portions of the subdivision plan shall be governed by Article XII, Section 1201.

SECTION 1305: WAIVER OF PLAN REQUIREMENTS

No storm water management plan shall be required for residential subdivisions or land developments which consist of 2 lots or less on 2 acres or less. Subdivisions or land developments involving only single family dwellings which consist of less than 5 lots on less than 4 acres may apply to the township engineer for a waiver of any requirement in Article XIII. The determination of the township engineer shall be final.

ARTICLE XIV

ENFORCEMENT, PENALTIES, SEVERABILITY AND ADOPTION

SECTION 1400: ENFORCEMENT

It shall be the duty of the Building Inspector, Zoning Officer, or other such duly authorized representative of the Board of Supervisors to enforce the provisions of this Ordinance. Said enforcement officer shall require that the application for a building permit contain all information necessary to enable him to ascertain whether the proposed building, alteration or use is located in an approved subdivision or land development. No building permit shall be issued until the Enforcement Officer has certified that the site for the proposed building, alteration, or use complied with all of the provisions of this Ordinance and conforms to the site description as indicated on the approved and recorded Final Plat.

SECTION 1401: APPEALS TO COURT

The decisions of the Board of Supervisors or the Planning Commission with respect to the approval or disapproval of plans may be appealed in accordance with the law.

SECTION 1402: PENALTIES

Any person, partnership, or corporation who or which being the owner or agent of the owner of any lot, tract or parcel of land shall lay out, construct, open or dedicate any street, sanitary sewer, storm sewer, water main or other improvements for public use, travel or other purposes or for the common use of occupants of buildings abutting thereon, or who sells, transfers or agrees or enters into an agreement to sell any land in a subdivision or land development whether by reference to or by other use of a plat of such subdivision or land development or erect any building thereon, unless and until final plat has been prepared in full compliance with the provisions of this Ordinance and of the regulations adopted thereunder and has been recorded as provided herein, shall be guilty of a misdemeanor and, upon conviction thereof, such person or the members of such partnership or the officers of such corporation or the agent of any of them responsible for such violation pay a fine not exceeding one thousand dollars ($1000.00) per lot or parcel or per dwelling within each lot or parcel. All fines collected for such violations shall be paid over to the municipality. The description of metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the seller or transferer from such penalties or from the remedies herein provided.

SECTION 1403: REPEALER

All ordinances or parts of ordinances inconsistent herewith are hereby repealed. Nothing in this ordinance hereby adopted shall be construed to affect any suit or proceeding now pending in any court or any rights accrued or liability incurred or any cause or caused of action accrued or existing under any ordinance repealed by this Ordinance. Nor shall any right or remedy of any character be lost, impaired or affected by this Ordinance.

SECTION 1404: SEVERABILITY

The provisions of this Ordinance are severable and any provision, sentence, clause, section, part of application thereof shall be held illegal, invalid or unconstitutional, such illegality or unconstitutionality shall not affect or impair any of the remaining provisions, sentences, clauses, sections or applications. It is hereby declared to be the legislative intent of the Board of Supervisors that this Ordinance would have been adopted had such illegal, invalid or unconstitutional provision, sentence, clause, section or part not been included therein and if such illegal, invalid or unconstitutional application had been specifically exempted therefrom.

In any case where a provision of this Ordinance is found to conflict with the provision of a building, fire, safety or health ordinance or code of this Municipality of law, rule or regulation of the Commonwealth of Pennsylvania, the provisions which establishes the higher standard for the promotion and protection of the health and safety of the people shall prevail. In any case where a provision of this Ordinance is found to be in conflict with the provisions of another ordinance or code of this Municipality or law, rule or regulation of the Commonwealth of Pennsylvania which establishes a lower standard for the promotion and protection of the health and safety of the people, the provisions of this Ordinance shall be deemed to prevail and such other ordinances or codes are hereby declared to be repealed to the extent that they may be found in conflict with this Ordinance.

SECTION 1405:

This ordinance, amending the Letterkenny Township Subdivision Ordinance of 1979 is adopted this 26th day of April, 1988.

Letterkenny Township Supervisors

Attest:

Secretary

TOWNSHIP OF LETTERKENNY

Franklin County, Pennsylvania

ORDINANCE NO. 1988 - 3

AN ORDINANCE

OF THE TOWNSHIP OF LETTERKENNY, FRANKLIN COUNTY, PENNSYLVANIA, AMENDING ARTICLE IX, SECTION 902 (D)(1) OF THE LETTERKENNY TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE OF 1979, TO PROVIDE DECREASED MINIMUM LOT SIZE REQUIREMENTS FOR LOTS HAVING CENTRAL WATER AND SEWER.

The Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, enacts and ordains, and it is hereby enacted and ordained as follows: Article IX, Section 902 (D)(1) of the Letterkenny Township Subdivision and Land Development Ordinance of 1979, enacted and ordained by the Letterkenny Township Board of Supervisors on May 21, 1979, and revised by Ordinance No. 1987-2 on January 27, 1987, entitled "Residential Lots" is amended as follows:

D. RESIDENTIAL UNITS:

1. Single Family Residential Lots: (Minimum requirements):

	On-Lot Water and Sewer (1)	On-Lot Sewer/ Central Water(1)	On-Lot Water/ Central Sewer	Central Water and Sewer
Frontage	125 feet	125 feet	90 feet	80 feet
Lot Depth	175 feet	175 feet	150 feet	120 feet
Lot Area	25,000 sq.ft.	25,000 sq.ft.	15,000 sq.ft.	10,000 sq.ft.

2. Single Family Semi-Detached Dwelling Unit: (Minimum requirements for each dwelling unit)

	On-Lot Water and Sewer (1)	On-Lot Sewer/ Central Water(1)	On-Lot Water/ Central Sewer	Central Water and Sewer
Lot Size	30,000 sq.ft.	15,000 sq.ft.	10,000 sq.ft.	8,500 sq.ft.
Lot Width	125 feet	100 feet	75 feet	75 feet
Lot Depth	175 feet	175 feet	100 feet	100 feet

Set-Backs for Single Family and Semi-Detached Units:

Public or private street and front yard	35 ft. from R/W	35 ft. from R/W	35 ft. from R/W	30 ft. from R/W
Side yards(ea)	15 feet	15 feet	12 feet	12 feet
Rear yards	35 feet	35 feet	30 feet	30 feet
Height(max.)	35 feet	35 feet	35 feet	35 feet
Off-street parking (2) per dwelling	2 spaces	2 spaces	2 spaces	2 spaces

a. When on-lot sewer facilities are to be utilized, the minimum lot size may be increased by the Township's Sewage Enforcement Officer or the Department of Environmental Resources for factors related to health and sanitation.

b. Businesses conducted out of a residence shall provide adequate parking off-street for all business related clientele, plus two spaces for the residents.

Repealer. All ordinances or parts of ordinances and all resolutions or parts thereof which are inconsistent with this amendment shall be, and the same are, expressly repealed.

Effective Date. This Ordinance shall take effect immediately.

This amendment is duly enacted and ordained, after advertisement and public hearing, as provided by law, this 25 day of October, 1988, by the Board of Supervisors of Letterkenny Township, Franklin County, Pennsylvania, in lawful session, duly assembled.

ATTEST:

Joann L. Knight

TOWNSHIP OF LETTERKENNY
Franklin County, Pennsylvania

Dale F. K[illegible]

Robert R. Kilgore

Glen C. Black

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

ORDINANCE NO. 2-2001

AN ORDINANCE AMENDING THE LETTERKENNY TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

NOW, THEREFORE, BE IT ENACTED AND ORDAINED by the Board of Supervisors of Letterkenny Township, Franklin County, Pennsylvania, and it is hereby enacted and ordained by the authority of the same as follows:

That the Letterkenny Township Subdivision and Land Development Ordinance shall be amended as follows:

1.) The following new Section 905 shall be added to Article IX and shall replace the existing Section 905 in its entirety:

Section 905: Standards for Sewer and Water Systems

A planning revision module established by the Department of Environmental Protection shall be used as the format for the formal revision. No preliminary plan shall be approved until such revision is completed and filed in accordance with the Department of Environmental Protection's Rules and Regulations and approved by the Department of Environmental Protection.

If a public sanitary sewer system is available within five-hundred feet (500'0") of any part of the proposed subdivision, mobile home park or land development, the subdivider or developer shall design and install a system including laterals, which shall be connected to the public system and shall serve every property within the proposed project. All plans and installations shall be subject to the approval of Letterkenny Township Municipal Authority.

All proposed subdivisions within 1/4 mile of well test sites with known and documented nitrate/nitrogen sample results of 5 mg/L or greater will require a preliminary hydrogeologic study. No mini modules (component one) may be approved in these areas. The subdivider must identify a suitable replacement area for each lot.

ORDAINED AND ENACTED into an ordinance this 28th day of August, 2001.

LETTERKENNY TOWNSHIP
SUPERVISORS

Exhibit “F-3”

COPY

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

Franklin County, Pennsylvania

1981-1

A RESOLUTION

OF THE BOARD OF the LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY, FRANKLIN COUNTY, PENNSYLVANIA, IMPOSING SEWER RENTALS OR CHARGES, UPON OWNERS OF IMPROVED PROPERTY CONNECTED TO THE SEWER SYSTEM, FOR USE OF THE SYSTEM, TO BE OPERATED BY THIS AUTHORITY, AND FOR THE TREATMENT OF SANITARY SEWAGE AND INDUSTRIAL WASTES DISCHARGED THERETO; ESTABLISHING RULES AND REQUIREMENTS FOR BUILDING SEWERS AND CONNECTION TO SAID SEWER SYSTEM; REGULATING THE DISCHARGE OF SANITARY SEWAGE AND INDUSTRIAL WASTES INTO SUCH SEWER SYSTEM; AND ADOPTING CERTAIN RULES AND REQUIREMENTS AND PROVIDING FOR ADOPTION OF ADDITIONAL RULES AND REQUIREMENTS.

WHEREAS, This Authority is a municipality authority existing under and governed by the Pennsylvania Municipality Authorities Act, Act of May 2, 1945, P.L. 382, as amended; and

WHEREAS, This Authority, pursuant to authority vested in it by law and pursuant to the consent of the Township of Letterkenny, Franklin County, Pennsylvania (the "Township"), plans to acquire certain sanitary sewage collection and transmission lines and further plans to construct certain sanitary sewage collection and transmission lines, (the "Sewer System") required for rendering sewage service in and for portions of the Township; and

COPY

WHEREAS, The Township has enacted an ordinance requiring all owners of improved property located within the Township which is accessible to and whose principal building is within 150 feet from the Sewer System to connect with and use the Sewer System; and changed to 300 ft

WHEREAS, This Authority has power and authority under the Pennsylvania Municipalities Authorities Act to sewer rental or charges whenever the owner of any property connects such property with the Sewer System.

NOW, THEREFORE, BE IT RESOLVED, by the Board of this Authority, as follows:

SECTION 1 - DEFINITIONS

Unless the context specifically and clearly indicates otherwise, the meaning of terms and phrases used in this Resolution shall be as follows:

A. "Authority" shall mean Letterkenny Township Municipal Authority, a municipality authority of the Commonwealth.

B. "Billing Unit" shall mean and shall include, as applicable, a Commercial Establishment, a Dwelling Unit, an Industrial Establishment or an Institutional Establishment.

C. "Building Sewer" shall mean the extension from the sewage drainage system of any structure to the lateral of a Sewer and shall include any existing sewer line which shall continue as part of a Building Sewer.

D. "B.O.D." (Biochemical Oxygen Demand) shall mean the quantity of oxygen, expressed in ppm, utilized in the biochemical oxidation of organic matter under standard laboratory procedure for 5 days at 20 degrees Centigrade. The Standard laboratory procedure shall be that found in the latest edition of "Standard Methods for the Examination of Water and Sewage", as published by the American Public Health Association.

E. "Borough" shall mean the Borough of Chambersburg, Franklin County, Pennsylvania, a municipal corporation of the Commonwealth.

F. "Commercial Establishment" shall mean any room, group of rooms, building or enclosure connected, directly or indirectly, to the Sewer System and used or intended for use in the operation of a business enterprise for the sale and distribution of any product, commodity, article or service.

G. "Commonwealth" shall mean the Commonwealth of Pennsylvania.

H. "Dwelling Unit" shall mean any room, group of rooms, house trailer, building or other enclosure connected, directly or indirectly, to the Sewer System and occupied or intended for occupancy as separate living quarters by a family or any other group of Persons living together or by a Person or Persons living alone, excluding Institutional Establishments.

I. "Improved Property" shall mean any property upon which there is erected a structure intended for continuous or periodic habitation,

occupancy or use by human beings or animals and from which structure Sanitary Sewage and/or Industrial Wastes shall be or may be discharged.

J. "Industrial Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly, to the Sewer System and used or intended for use, in whole or in part, in the operation of a business enterprise for manufacturing, processing, cleaning, laundering or assembling any product, commodity or article or from which Industrial Wastes, as distinct from Sanitary Sewage, shall be or may be discharged.

K. "Industrial Wastes" shall mean any wastes and all liquids discharged from any Industrial Establishment, other than Sanitary Sewage.

L. "Institutional Establishment" shall mean any room, group of rooms, building or other enclosure connected, directly or indirectly, to the Sewer System, including Institutional dormitories, which do not or does not constitute a Commercial Establishment, a Dwelling Unit or an Industrial Establishment.

M. "Multiple Unit" shall mean any Improved Property in which shall be located more than one Billing Unit.

N. "Owner" shall mean any Person vested with ownership, legal or equitable, sole or partial, of any Improved Property which shall be connected, directly or indirectly, to the Sewer System.

O. "Person" shall mean any individual, partnership, company, assocation, society, municipality, corporation or other group or entity.

P. "pH" (Hydrogen Ion Content) shall mean the logarithm of the reciprocal of the concentration of hydrogen ions, expressed in grams per liter of solution, indicating the degree of acidity or alkalinity of a substance.

Q. "ppm" shall mean parts per million, by weight.

R. "Sanitary Sewage" shall mean all normal water-carried household, lavatory, laundry and toilet wastes discharged from any Improved Property.

S. "Sewage Treatment Plant" shall mean the facilities for treatment and disposal of Sanitary Sewage and Industrial Wastes which are operated and maintained in and for the Borough by the Borough.

T. "Sewer" shall mean any pipe or conduit constituting a part of the Sewer System and used or usable for sewage collection and transportation purposes.

U. "Sewer Service Agreement" shall mean the Agreement dated between the Authority, Letterkenny Township and Hamilton Township providing for sharing of capital costs and costs of operation for jointly used sewage and waste treatment facilities.

V. "Sewer System" shall mean all facilities, as of any particular time, for collecting, pumping, transporting and disposing of Sanitary Sewage and/or Industrial Wastes, to be acquired and to be constructed and to be owned by the Authority.

W. "Sewage Treatment Agreements" shall mean the Agreement, dated August 17, 1970, between the Township of Hamilton and the Township, with respect to costs of transportation, treatment and disposal of Sewage, and the Agreement dated August 17, 1970, among the Borough, the Township of Hamilton and the Township of Guilford, Franklin County, Pennsylvania, with respect to capital additions to certain sewage transportation, treatment and disposal facilities of the Borough.

X. "Suspended Solids" shall mean such solid matter as is found floating or in suspension in Sanitary Sewage or in Industrial Wastes, and which is removable by laboratory filtering.

Y. "Township" shall mean the Township of Letterkenny, Franklin County, Pennsylvania, a municipal subdivision of the Commonwealth, acting by and through its Board of Supervisors, or, in appropriate cases, acting by and through its authorized representatives.

SECTION 2 - SEWER RENTALS OR CHARGES

Sewer rentals or charges are imposed upon and shall be collected from the Owner of each Improved Property which is connected with the Sewer System, for direct or indirect use of the Sewer System, whether or not such use shall occur during the applicable billing period, and for

services rendered in connection therewith, including services pursuant to the Sewer Service Agreement and the Sewage Treatment Agreements, which sewer rentals or charges shall commence and shall be effective as of the date of connection of each such Improved Property to the Sewer System. Provided, however, that in the case of unimproved property improved for re-sale, the sewer rentals or charges shall commence on the date the premises is first occupied, or the date the improved property is sold or transferred by the builder or developer, whichever first occurs. Said sewer rentals or charges shall be payable in the amounts, at the times and in the manner as follows:

A. Residential

Each private Dwelling Unit shall pay a sewer rental or charge of $198.00 per annum, payable $16.50 per month.

Each Dwelling Unit in a Multiple Unit shall be treated as a Billing Unit for billing purposes, and shall be billed at the private Dwelling Unit rate. If 2 or more families use separate cooking and/or toilet facilities in an Improved Property, the sewer rental or charge shall be computed as though each such family was a separate user with a separate connection to a Sewer.

B. Non-Residential

1. Where Sanitary sewage and/or Industrial Wastes are discharged into the Sewer System from any Improved Property constituting a Commercial Establishment, an Industrial Establishment or an Institutional Establishment, such sewer rentals or charges shall be based on the volume of flow of Sanitary Sewage and/or Industrial Wastes discharged to the Sewer System, measured in gallons in accordance with this Resolution or determinations made pursuant to provisions hereof, and shall be subject to the minimum and other monthly charges and additional changes herein provided, as follows:

Quantity of Sanitary Sewage and/or Industrial Wastes Discharged	Monthly Rates and/or Charges
0 to 3,000 gallons per month	$16.50
each 1,000 gallons in excess of 3,000 gallons per month	$ 5.50

2. If two or more Billing Units shall be connected to the Sewer System through a single lateral, or if two or more types of use are made of the same Improved Property, the sewer rentals or charges shall be computed as though each such Billing Unit and each such type of use were a separate Improved Property or user with a separate connection to a Sewer.

C. The Authority may require the Owner of a Commercial Establishment, an Industrial Establishment or an Institutional Establishment, to install, to pay for and to maintain a meter approved by this Authority for measuring monthly volumes of Sanitary Sewage and/or Industrial Wastes discharged into the Sewer System, in which case the sewer rentals or charges shall be such as are established herein, or such as shall be deemed necessary or desirable by this Authority.

D. The Owner of any Commercial Establishment, Industrial Establishment or Institutional Establishment which shall discharge Sanitary Sewage and Industrial Wastes to the Sewer System having a B. O. D. demand greater than 200 milligrams per liter or Suspended Solids content greater than 200 milligrams per liter, shall pay a strength of waste surcharge, in addition to sewer rates or charges otherwise provided, for each monthly billing period, which surcharge shall be calculated in accordance with applicable provisions of subsection (b) of Section 7 of the Agreement between Hamilton Township and the Borough of Chambersburg dated August 17, 1970, with respect to sewage transportation, treatment and disposal

services to be provided by the Borough to Hamilton Township and this Authority. The strength of Sanitary Sewage and Industrial Wastes to be used for establishing the amount of surcharge shall be determined at least once quarterly either: (1) by suitable sampling and analysis of such wastes for a consecutive 3 day period during a time of normal business operation; or (2) from estimates made by this Authority or (3) from known relationships of products produced to strenghts of such wastes for those industries where such factors have been established. In establishing such waste strengths for surcharge purposes by analysis, analysis shall be made in accordance with procedures outlined in the latest edition of "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Assocation.

The Owner of any Commercial Establishment, Industrial Establishment or Institutional Establishment discharging Sanitary Sewage and/or Industrial Wastes to the Sewer System shall furnish to this Authority, upon written request, all information deemed essential by this Authority for the determination of applicable sewer rental surcharges for excess strength wastes. The costs of obtaining such information shall be borne by such Owner of such Commercial Establishment, Industrial Establishment or Institutional Establishment.

E. In the event that the Owner of any Improved Property shall discharge Sanitary Sewage and/or Industrial Wastes to the Sewer System that originate in more than one Dwelling Unit, Commercial Establishment, Industrial Establishment and/or Commercial Establishment located upon such Improved Property, the appropriate sewer rentals or

charges shall be computed, for each Billing Unit. Separate sewer rentals or charges so computed for each Billing Unit shall be consolidated into a single total amount for the purpose of determining the aggregate monthly sewer rentals or charges to such Owner of such Improved Property.

F. If the Owner of any Improved Property shall fail to provide this Authority with any and all information required to compute the sewer rentals or charges applicable to such Improved Property, this Authority reasonably may estimate appropriate sewer rentals or charges for such Improved Property and such estimated sewer rentals or charges shall be the actual sewer rentals or charges payable until required information is filed with this Authority; Provided, however, that no rebates will be paid by this Authority if the information subsequently filed would support lower indicated sewer rentals or charges than those estimated by this Authority.

G. Nothing contained in this Resolution shall be construed as prohibiting special agreements between this Authority and the Owner of any Improved Property constituting a Commercial Establishment, an Industrial Establishment or an Institutional Establishment when conditions and circumstances making such special agreements advisable and/or necessary, in the opinion of the Township, are present.

H. Sewer rentals or charges shall be billed monthly, on or about the twentieth day of each month or on such other dates as this Authority shall determine.

The Owner of any Improved Property which shall be connected to the Sewer System for a fraction of a monthly billing period shall pay pro rata sewer rentals or charges for the effected billing period.

I. If sewer rentals or charges are not paid or mailed payments not postmarked within 15 calendar days after each applicable billing date, an additional sum of 5% shall be added to the net bill.

J. The Owner of an Improved Property which is connected to the Sewer System initially shall provide this Authority with and thereafter shall advise the Authority of the correct address of such Owner. Failure of any Person to receive monthly bills for sewer rentals or charges shall not be considered an excuse for non-payment, nor shall such failure result in an extension of the period of time during which the net bill shall be payable.

SECTION 3 - PERMITS;
RULES AND REQUIREMENTS GOVERNING
BUILDING SEWERS AND CONNECTION TO SEWERS

A. No Person shall connect any improved property, not currently connected to the Sewer System, with any part of said Sewer System without first applying for and securing a permit, in writing, from the Authority, as provided for by Ordinance 1980-1 of the Township. Such application shall be made on a form to be provided by the Authority.

B. Except as otherwise provided in this Section 3.04, each Improved Property shall be connected separately and independently with a sewer through a Building Sewer. Grouping of more than one Improved Property on one Building Sewer shall not be permitted, except under special circumstances and for good sanitary reasons or other good cause shown, but then only after special permission of the Township and the Authority, in writing, shall have been secured and only subject to such rules, regulations and conditions as may be prescribed by this Township or the Authority.

The invert of a Building Sewer at the point of connection shall be at the same or a higher elevation than the invert of the Sewer. A smooth, neat joint shall be made and the connection of a Building Sewer to the Lateral shall be made secure and watertight.

C. If any Person shall fail or shall refuse, upon receipt of a notice of the Township or the Authority, in writing, to remedy any unsatisfactory condition with respect to a Building Sewer, within 60 days of receipt of such notice, the Authority may refuse to permit such Person to discharge Sanitary Sewage and Industrial Wastes into the Sewer System until such unsatisfactory condition shall have been remedied to the satisfaction of this Township and the Authority.

D. This Authority reserves the right to adopt, from time to time, additional rules and regulations as it shall deem necessary and proper relating to connections with a Sewer and with the Sewer System, which additional rules and regulations, to the extent

appropriate, shall be and shall be construed as part of this Resolution.

SECTION 4 - MEASURING DEVICES, METER READINGS AND ACCESS

A. The furnishing and installation of meters or other devices which shall not be owned by this Authority, but which shall be installed under provisions of this Resolution, shall be the sole responsibility of the Owner. The installation or use of such meters or other measuring devices at all times shall be subject to the approval of this Authority and may be inspected by this Authority whenever necessary. The Owner shall be responsible for the maintenance, proper functioning, safekeeping and repair of any such meters or other measuring device, whether necessitated by ordinary wear and tear or other causes.

B. This Authority shall be responsible for the reading of all meters or other measuring devices and the same shall be available to employes and agents of this Authority at all reasonable times.

C. Representatives of this Authority shall have the right of access at reasonable times to any part of any Improved Property served by the Sewer System and any meters or other measuring devices used for purposes of establishing or determing strengths or volumes for purposes of this Resolution, and for purposes of inspection, testing and other functions relating to the service provided by this Authority.

SECTION 5 - PROHIBITED WASTE

A. No Person shall discharge or shall cause to be discharged any storm water, surface water, spring water, ground water, roof runoff, sub-surface drainage, building foundation drainage, or drainage from roof leader connections into any Sewer.

B. This Authority reserves the right to refuse permission to connect to the Sewer System, to compel discontinuance of use of the Sewer System or to compel pretreatment of Industrial Wastes by an Owner of an Improved Property, in order to prevent discharges deemed to be harmful or to have a deleterious effect upon any Sewer or the Sewer System or the Sewage Treatment Plant.

C. No Sanitary Sewage or Industrial Wastes shall be discharged to the Sewer System which:

1. shall have a temperature higher than 150° Fahrenheit;

2. shall contain more than 100 milligrams per liter of fat, oil and/or grease; or which may solidify or become viscous at temperatures between 32° Fahrenheit and 150° Fahrenheit.

3. shall contain any gasoline, benzine, naphtha, fuel oil or other inflammable or explosive liquids, solids or gases;

4. shall contain any solid wastes resulting from preparation, cooking and dispensing of food and from handling, storage and sale of produce, which wastes commonly are known as garbage, which have not been ground by household type garbage disposal units or other suitable garbage grinders;

5. shall contain any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, cotton, wool or other fibers, plastics, wood, paunch manure or any other solid or viscous substances capable of causing obstructions to or other interferences with proper operation of the Sewer System or any Sewer or the Sewage Treatment Plant;

6. shall have a pH lower than 6 or higher than 9, or shall have any other corrosive property capable of causing damage or hazards to structures or equipment of the Sewer System or any Sewer or the Sewage Treatment Plant or to any Person engaged in operation and maintenance of the Sewer System or any Sewer or the Sewage Treatment Plant;

7. shall contain toxic or poisonous substances in sufficient quantity to injure or to interfere with any sewage treatment process, to constitute hazards to humans or animals or to create any hazards in waters which shall receive treated effluent from the Sewer System and the Sewage Treatment Plant. Toxic wastes shall include, but shall not be limited to, wastes containing cyanide, chromium, copper and nickel ions;

8. shall contain noxious or malodorous gases or substances capable of creating a public nuisance; or

9. shall contain B.O.D. of such strength or Suspended Solids of such character and quantity that special and unusual attention is required for handling at the Sewage Treatment Plant.

D. Where necessary, in the opinion of this Authority, the Owner of an Improved Property shall provide, at the expense of the Owner, suitable pretreatment facilities in order to comply with subsection C of this Section.

Plans, specifications and any other pertinent information relating to proposed facilities for preliminary treatment

shall be submitted for approval of this Authority and no construction of any such facility shall be commenced until approval thereof first shall have been obtained, in writing, from this Authority, the Township, and from any governmental regulatory body having jurisdiction.

Facilities for preliminary treatment and handling of Industrial Wastes provided by any Owner shall be continuously maintained, at the expense of such Owner, in satisfactory operating condition; and this Authority shall have access to such facilities at reasonable times for purposes of inspection and testing.

E. Nothing contained in this Section shall be construed as prohibiting any special agreement or arrangement between this Authority and any Owner whereby Industrial Wastes of unusual strength or character may be admitted into the Sewer System by this Township, either before or after preliminary treatment.

SECTION 6 - RESPONSIBILITY OF OWNERS OF IMPROVED PROPERTY

The Owner of any Improved Property connected to the Sewer System shall be responsible for all acts of tenants or other occupants of such Improved Property insofar as such acts shall be governed by provisions of this Ordinance.

SECTION 7 - ADOPTION OF ADDITIONAL RULES, AMENDMENTS, SUPPLEMENTS

This Authority reserves the right to adopt, from time to time, such modifications, amendments or supplements hereto as it

shall deem necessary and proper in connection with use and operation of the Sewer System, which shall become and shall be construed as part of this Resolution.

SECTION 8 - EFFECTIVE DATE

This Resolution shall become effective immediately.

SECTION 9 - CONSTRUCTION AND SEVERABILITY

In the event any provision, section, sentence, clause or part of this Resolution shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause or part of this Resolution, it being the intent of this Authority that such remainder shall be and shall remain in full force and effect.

SECTION 10 - REPEALER

All resolutions or parts of resolutions which shall be inconsistent herewith shall be and are expressly repealed.

DULY ADOPTED, this day of , 1980, by the Board of the Letterkenny Township Municipal Authority, Franklin County, Pennsylvania, in lawful session duly assembled.

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
Franklin County, Pennsylvania

ATTEST:

Secretary

By: _____
Chairman of the Board

Exhibit “H”

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

August 27, 2019

Charles Myers
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244-9536

Re: Annual Wasteload Management (Chapter 94) Report
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Dear Mr. Myers:

The Department of Environmental Protection (DEP) has completed its review of your 2018 Annual Wasteload Management Report as required by 25 Pa. Code § 94.12.

The report is considered acceptable. Thank you for submitting the chapter 94 report template as requested. DEP appreciates your cooperation in meeting the Chapter 94 reporting requirements.

DEP's website at www.dep.pa.gov/chapter94 includes a "Chapter 94 Spreadsheet" for presenting hydraulic and organic data and graphs and a "Chapter 94 Report Template" for treatment plants. Thank you for using these templates. DEP strongly encourages the use of this tool for future reports to facilitate statewide consistency in the preparation of Chapter 94 reports.

If you have any questions concerning this notice, please contact me at 717-705-4767 or dkumar@pa.gov.

Sincerely,

Dharmendra Kumar, P.E.
Environmental Engineer, Planning Section
Clean Water Program

cc: W. Dwayne DelGrande, P.E. DelGrande & Associates, LLC

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT INSTRUCTIONS

This form has been developed to promote consistency in the development of annual municipal wasteload management reports ("Chapter 94 reports") required by 25 Pa. Code § 94.12. At least two copies of the complete report must be submitted to the appropriate regional office of the Department of Environmental Protection (DEP) by March 31.

Enter the calendar year that the report covers at the top of the form. Check the appropriate box to indicate whether the permittee is the owner/operator of a publicly owned treatment works (POTW) or other sewage treatment facility, or is the owner/operator of a sewage collection system that is tributary to a POTW owned/operated by a different entity.

General Information

Record the name of the permittee, the permittee's full mailing address, the permittee's contact person and this person's title, phone number and email address. Also record the permit number (NPDES or WQM), the effective date of permit coverage, the expiration date of permit coverage (if applicable), the date by which an application or NOI is due for reissuance (renewal) (if applicable), the municipality and county where the sewage treatment facility or collection system is located, and the name of the consultant (company name), if any, who assisted in the preparation of the form.

Chapter 94 Report Components

This section requests responses to 12 questions that, if applicable, must be addressed for a complete Chapter 94 report. Questions 1 – 9 and 12 come directly from the Chapter 94 regulations, i.e., 25 Pa. Code §§ 94.12(a)(1) – 94.12(a)(9) and 94.13(b). Some questions request that you check an appropriate box, attach the information requested, and specify the attachment number, while responses to other questions may be entered directly on the form.

For Questions 1 and 2, permittees may use DEP's Chapter 94 Spreadsheet to satisfy 25 Pa. Code §§ 94.12(a)(1) and 94.12(a)(2), respectively. DEP encourages use of the Chapter 94 Spreadsheet to provide consistency in the format and calculations associated with hydraulic and organic load evaluations (see www.depweb.state.pa.us/chapter94). If the Chapter 94 Spreadsheet was used, check the appropriate box(es) and attach printouts of the data and graphs to the Chapter 94 report. If this report is being used for a collection system only, these graphs are not needed.

For Question 6, if the permittee checks the box that there were capacity-related bypasses or SSOs during the report year, in general the box for existing hydraulic overload in Question 9 should be checked. If the permittee checks the box in Question 6 because surcharging occurred during the report year, in general the box for projected hydraulic overload in Question 9 should be checked.

For Question 8, if the permittee has an EPA-approved pretreatment program, attachment of an annual pretreatment report as required in an NPDES permit will satisfy the requirement for an industrial waste report.

For Question 10, if a permit requires a "Sewage Sludge Management" inventory, check the appropriate box if the inventory is attached to the Chapter 94 report.

For Question 11, if an NPDES permit (individual permit or, for satellite collection systems, PAG-06 General NPDES permit coverage) requires an Annual CSO (Status) report, attach the CSO report to the Chapter 94 report and check the appropriate box.

Certification

In accordance with 25 Pa. Code § 94.12(a), both the individual who prepared the report and (a responsible official of) the permittee must sign the report. The term "responsible official" for a municipality is a principal executive officer or ranking elected official.

Questions on the completion of Chapter 94 reports may be directed to DEP's Bureau of Point and Non-Point Source Management at (717) 787-8184 or to the appropriate DEP regional office (contact information available by visiting DEP's website, www.depweb.state.pa.us, and selecting Regional Resources).

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2018

☒ Permittee is owner and/or operator of a POTW or other sewage treatment facility
☐ Permittee is owner and/or operator of a collection system tributary to a POTW not owned/operated by permittee

GENERAL INFORMATION			
Permittee Name:	**Letterkenny Twp. Mun Authority**	Permit No.:	**PA0082201**
Mailing Address:	**4924 Orrstown Road**	Effective Date:	
City, State, Zip:	**Orrstown, PA 17244-9536**	Expiration Date:	**1/31/17**
Contact Person:	**Charles Myers**	Renewal Due Date:	**8/4/16**
Title:	**Chairman**	Municipality:	**Letterkenny Twp.**
Phone:	**717-532-8716**	County:	**8716Franklin**
Email:	**letterkenny@embarqmail.com**	Consultant Name:	**W.D. DelGrande, P.E.**

CHAPTER 94 REPORT COMPONENTS

1. Attach to this report a line graph depicting the monthly average flows (expressed in MGD) for each month for the past 5 years and projecting the flows for the next 5 years. The graph must also include a line depicting the hydraulic design capacity per the WQM permit. (25 Pa. Code § 94.12(a)(1))

   Check the appropriate boxes:
   ☒ Line graph for flows attached (**Attachment**)
   ☒ DEP Chapter 94 Spreadsheet used (**Attachment**)
   ☐ Section 1 is not applicable (report is for a collection system).

2. Attach to this report a line graph depicting the monthly average organic loads (express as lbs BOD5/day) for each month for the past 5 years and projecting the organic loads for the next 5 years. The graph must also include a line depicting the organic design capacity of the treatment plant per the WQM permit. (25 Pa. Code § 94.12(a)(2))

   Check the appropriate boxes:
   ☒ Line graph for organic loads attached (**Attachment**)
   ☒ DEP Chapter 94 Spreadsheet used (**Attachment**)
   ☐ Section 2 is not applicable (report is for a collection system).

3. If the DEP Chapter 94 Spreadsheet was not used to determine projections, discuss the basis for the hydraulic and organic projections. In all cases, include a description of the time needed to expand the plant to meet the load projections, if necessary, and data used to support the projections should be included in an appendix to this report. (25 Pa. Code § 94.12(a)(3))

4. Attach a map showing all sewer extensions constructed within the past calendar year, sewer extensions approved or exempted in the past year in accordance with Act 537 and Chapter 71, but not yet constructed, and all known proposed projects which require public sewers but are in the preliminary planning stages. The map must be accompanied by a list summarizing each extension or project and the population to be served by the extension or project. If a sewer extension approval or proposed project includes schedules describing how the project will be completed over time, the listing should include that information and the effect this build-out-rate will have on populations served. (25 Pa. Code § 94.12(a)(4))

Check the appropriate boxes:

☐ Map showing sewer extensions constructed, approved/exempted but not yet constructed, and proposed projects attached (**Attachment**)

☐ List summarizing each extension or project attached (**Attachment**)

☐ Schedules describing how each project will be completed over time and effects attached (**Attachment**)

Comments:

No sewer extensions occurred during the report period.

5. Discuss the permittee's program for sewer system monitoring, maintenance, repair and rehabilitation, including routine and special activities, personnel and equipment used, sampling frequency, quality assurance, data analyses, infiltration/inflow monitoring, and, where applicable, maintenance and control of combined sewer regulators during the past year. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(5))

Approximately twenty-five (25) residents utilize septic tank effluent systems to convey wastewater to the LTMA conventional gravity sewers. Two of these systems required repair (pumps and clogs) during the report year. No problems occurred within the conventional gravity (8" diameter) during the report year. The system last received televisual inspection and cleaning in 2010. At that time, technicians discovered a broken sewer main that LTMA subsequently repaired, eliminating a significant source of infiltration. The line break appeared to result from heavy truck activity over a shallow (< 4') sewer. The Authority contracts with other municipalities or technicians to provide sewer maintenance and repair as needed. The Authority intends to sell the system to York Water Company in the near future.

6. Discuss the condition of the sewer system including portions of the system where conveyance capacity is being exceeded or will be exceeded in the next 5 years and portions where rehabilitation or cleaning is needed or is underway to maintain the integrity of the system and prevent or eliminate bypassing, CSOs, SSOs, excessive infiltration and other system problems. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(6))

Check the appropriate boxes:

☐ System experienced capacity-related bypassing, SSOs or surcharging during the report year. On a separate sheet, list the date, location, and reason for each bypass, SSO or surcharge event.

☒ System did not experience capacity-related bypassing, SSOs or surcharging during the report year.

Comments:

7. Attach a discussion on the condition of sewage pumping (pump) stations. Include a comparison of the maximum pumping rate with present maximum flows and the projected 2-year maximum flows for each station. (25 Pa. Code § 94.12(a)(7))

Check the appropriate boxes:

☒ The collection system does not contain pump stations
☒ The collection system does contain pump stations (Number –)
☐ Discussion of condition of each pump station attached (**Attachment**)

8. If the sewage collection system receives industrial wastes (i.e., non-sanitary wastes), attach a report with the information listed below. (25 Pa. Code § 94.12(a)(8))

a. A copy of any ordinance or regulation governing industrial waste discharges to the sewer system or a copy of amendments adopted since the initial submission of the ordinance or regulation under Chapter 94, if it has not previously been submitted.

b. A discussion of the permittee's or municipality's program for surveillance and monitoring of industrial waste discharges into the sewer system during the past year.

c. A discussion of specific problems in the sewer system or at the plant, known or suspected to be caused by industrial waste discharges and a summary of the steps being taken to alleviate or eliminate the problems. The discussion shall include a list of industries known to be discharging wastes which create problems in the plant or in the sewer system and action taken to eliminate the problem or prevent its recurrence. The report may describe pollution prevention techniques in the summary of steps taken to alleviate current problems caused by industrial waste dischargers and in actions taken to eliminate or prevent potential or recurring problems caused by industrial waste dischargers.

Check the appropriate boxes:

☐ Industrial waste report as described in 8 a., b. and c. attached (**Attachment**)
☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

☐ This report demonstrates an existing hydraulic overload condition.
☐ This report demonstrates a projected hydraulic overload condition.
☐ This report demonstrates an existing organic overload condition.
☐ This report demonstrates a projected organic overload condition.

If one or more boxes above have been checked, attach a Corrective Action Plan (CAP) to reduce or eliminate present or projected overloaded conditions under §§ 94.21 and/or 94.22 (relating to existing overload and projected overload). (25 Pa. Code § 94.12(a)(9))

☐ Corrective Action Plan attached (**Attachment**)

10. Where required by the NPDES permit, attach a Sewage Sludge Management inventory that demonstrates a mass balance of solids coming in and leaving the facility over the previous calendar year.

☒ Sewage Sludge Management Inventory attached (**Attachment**)

11. For facilities with CSOs and where required by the NPDES permit, attach an Annual CSO Report (including satellite combined sewer systems).

☐ Annual CSO Report attached (**Attachment**)

12. For POTWs, attach a calibration report documenting that flow measuring, indicating and recording equipment has been calibrated annually. (25 Pa. Code § 94.13(b))

☐ Flow calibration report attached (**Attachment**)

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Charles Myers, Chairman
Name of Responsible Official

Charles H. Myers
Signature

717-532 - 8716
Telephone No.

August 26, 2019
Date

PREPARER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

William Dwayne DelGrande, P.E.
Name of Preparer

Signature

717-870-5170
Telephone No.

Date

RE
APR 01 2019
DEP SOUTHCENTER
CLEAN WATER

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

LETTERKENNY TOWNSHIP

FRANKLIN COUNTY, PENNSYLVANIA

PENNSYLVANIA TITLE 25

"CHAPTER 94 REPORT"

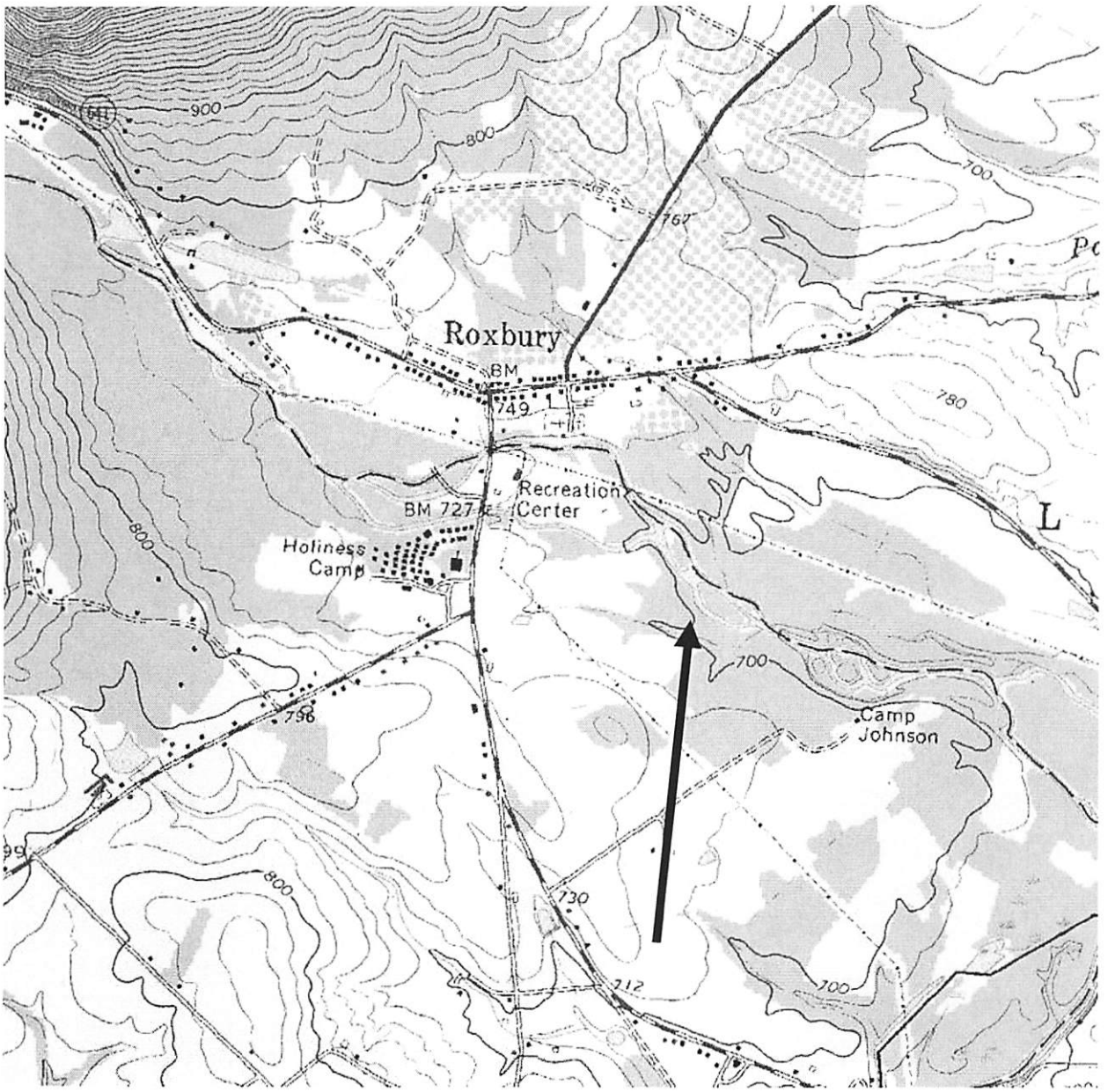
FOR

2018

Prepared by: W. Dwayne DelGrande, Operator of Record

Introduction

This report provides the requirements of Pennsylvania Code, Title 25, Chapter 94.12 – "Annual Report" to submit a summary municipal "waste load management report" for the Letterkenny Township Municipal Authority (LTMA), Franklin County, Pennsylvania. LTMA provides public sewerage services to Township residents south of Roxbury, PA (Mountain Road & Route 997 areas). The LTMA treatment facility (Hillview plant) lies east of Route 997, adjacent to a tributary of the Conodoguinet Creek (LAT 40°06'33"N, LON 77°39'17W). The topographic map below shows the general area with an arrow indicating the approximate treatment plant location.



Flow Data

The Hillview wastewater treatment facility possesses a hydraulic design capacity[1] of 0.042 MGD. Annual average flow and three-month maximum flow (February through April) averaged 0.041 MGD and 0.047 MGD respectively during the year. An attached chart and graph (PADEP format) illustrates monthly average and the three-consecutive month maximum flow recordings in conjunction with the hydraulic design capacity of the wastewater treatment facility for the last five years with projections for the next five years. The treatment facility serves a customer base of about 180 equivalent dwelling units (EDU's), according to Authority records. The apparent base flow (limited inflow or infiltration) approximates 0.018 MGD more or less, the product of the estimated EDU's, the estimated equivalent population of 2 persons per EDU and a typical value for rural water use, (about 50 gpcd).

The difference (0.023 MGD) between the recorded annual average flow and the estimated base flow (0.041 MGD – 0.018 MGD) represents an estimate of daily average infiltration/inflow (I/I) for the report year. Precipitation totaled 67 inches during the year at a local rain gauge, a possible annual record that included several monthly records as well.

Flow Projections

The aforementioned PADEP graph illustrates projected LTMA flows for the next five years based upon an assumption of modest growth, including that associated with connecting new Township residents/dwellings to the new public sewer along Skyline Drive. This report does not project hydraulic overload [2].

Organic Loading (BOD_5[3]), Sludge

Annual average BOD_5 and monthly maximum BOD_5 averaged 26 lbs/D and 35 lbs/D (February) respectively during the year. Organic loads (lbs per day of BOD_5) remain well below the design

---

[1] *Hydraulic design capacity*—The maximum monthly design flow, expressed in millions of gallons per day, at which a plant is expected to consistently provide the required treatment or at which a conveyance structure, device or pipe is expected to properly function without creating a backup, surcharge or overflow.

[2] *Hydraulic overload*—The condition that occurs when the monthly average flow entering a plant exceeds the hydraulic design capacity for 3-consecutive months out of the preceding 12 months or when the flow in a portion of the sewer system exceeds its hydraulic carrying capacity. Pennsylvania Code, Title 25, Chapter 94.

[3] BOD_5 – Five day biochemical oxygen demand, the amount of dissolved oxygen consumed in five days by biological processes breaking down organic matter as defined by EPA and Standard Methods for the Examination of Water and Wastewater.

rating (82 lbs/D) for the facility. An attached PADEP-generated graph illustrates past and projected organic loads. This report does not project an organic overload[4].

Plant Operations

The Authority entered into a Consent Order & Agreement (COA) during September, chiefly as a result of solids accumulation within the intermittent stream discharge point as well as DMR effluent violations that occurred between 2013 and 2018 as follows:

DMR Month	Parameter	Criterion	DMR Value	Permit Limit
April, 2013	Total Residual Chlorine	IMAX	2.07 mg/l	2.0 mg/l
August, 2015	Total Residual Chlorine	Mo. Avg	0.57 mg/l	0.5 mg/l
August, 2015	Total Residual Chlorine	IMAX	2.2 mg/l	1.6 mg/l
March, 2016	Fecal Coliform	Mo. Geo Mean	2,839 CFU/100ml	2.000 CUF/100ml
July, 2016	Fecal Coliform	Mo. Geo Mean	210 CFU/100ml	200 CFU/100 ml
July, 2016	pH	Minimum	5.9 S.U.	6.0 S.U.
July, 2016	Dissolved Oxygen	Minimum	4.5 mg/l	5.0 mg/l
June, 2017	Dissolved Oxygen	Minimum	4.9 mg/l	5.0 mg/l
August, 2017	Fecal Coliform	IMAX	1,330 CFU/100ml	1,000 CUF/100ml
June, 2018	Fecal Coliform	Mo. Geo Mean	300 CFU/100ml	200 CFU/100 ml

The COA required several actions including an engineering evaluation of treatment plant facilities and operations, improvements to the disinfection system and relocation of the outfall approximately 200' to discharge directly into the receiving stream. The new ultraviolet light disinfection equipment became operational in November. The outfall relocation remains at the design/permit stage. The engineering evaluation concluded in December and confirmed that the treatment facility tanks, processes and appurtenances, including the aeration system, conform to the design guidelines of the Domestic Wastewater Facilities Manual[5].

However, the report also noted that final-effluent aeration practices in the existing chlorine-contact tank must improve to consistently meet discharge-permit requirements for dissolved oxygen. These improvements require that operating staff optimize air flow (increase) to the existing final-effluent aeration system in the chlorine-contact tank. This practice requires relocation and reinstallation of the flow-meter downstream of the new ultraviolet light

[4] *Organic overload*—The condition that occurs when the average daily organic load exceeds the organic design capacity upon which the permit and the plant design are based. Pennsylvania Code, Title 25, Chapter 94.

[5] Domestic Wastewater Facilities Manual – A Guide For The Preparation of Applications, Reports and Plans, Bureau of Water Quality Protection, Pennsylvania Department of Environmental Protection, Commonwealth of PA – October 1997.

wastewater disinfection unit. Flow-meter relocation resolves the problem of excessive diffused air interfering with the flow-metering weir. The relocation of the meter should occur in early 2019.

A flow-meter technician (WG Malden) also recently confirmed the need to relocate the flow-meter as well, due to false high readings ($\leq$ 4 gpm) that appear to result from a "backwater effect" from both excessive diffused air and the installation of the new disinfection unit. Past operation practices throttled post-aeration air flow due to flow metering accuracy concerns.

Continuous successful operation of the treatment facility depends chiefly upon the proper utilization of the flow equalization basin (maintaining functional pumps) on peak flow days and the application of proper operating practices, especially the maintenance of reasonable "Food to Microorganism" or F:M ratios (minimum > 0.04 at all times) in the aeration basins, a condition maintained by systematic sludge wasting.

Sewer Extensions

No sewer extensions occurred during the report year.

Pumping

Authority-owned pumping equipment consists of two (2) submersible pumps (30 gpm @ 30' TDH each) within the flow equalization tank, operated in lead/lag arrangement with conventional float switches. Routine operations require one pump. Significant snowmelt and storm events require simultaneous pumping as the flow equalization tank fills and empties. Gravity flow through the plant can occur if pumps fall short or fail. A high wet well alarm/telephone dialer remains functional. Pumps remain in generally good, functional condition. Spare pumps exist on site if needed.

Sludge Solids

Authority records indicate that the facility generated about 2 dry tons during 2018, typical of the facility. This report includes a PADEP-generated spreadsheet relative to sludge production. A licensed hauler disposes of liquid sludge within the aerobic digester.

Sewer Maintenance, Repair

Approximately twenty-five (25) residents utilize septic tank effluent systems to convey wastewater to the LTMA conventional gravity sewers. Two of these systems required repair (pumps and clogs) during the report year. No problems occurred within the conventional gravity (8" diameter) during the report year. The system last received televisual inspection and cleaning in 2010.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreads
Sewage Treatment Pl

Reporting Year: 2018

Facility Name: Letterkenny Twp. - Hillview WWTP

Permit No.: 82201

Persons/EDU: 2.2

Existing Hydraulic Design Capacity:	0.042	MGD	Existing Organic Design Capacity:	82	lbs BOD5/day
Upgrade Planned in Next 5 Years?	NO	Year:	Upgrade Planned in Next 5 Years?	NO	Year:
Future Hydraulic Design Capacity:		MGD	Future Organic Design Capacity:		lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2014	2015	2016	2017	2018
January	0.021	0.02447	0.033	0.022	0.028
February	0.025	0.02358	0.051	0.021	0.049
March	0.025	0.03405	0.033	0.025	0.04
April	0.028	0.02645	0.023	0.025	0.052
May	0.035	0.02575	0.025	0.034	0.037
June	0.03	0.02548	0.02	0.034	0.038
July	0.02	0.01875	0.018	0.023	0.029
August	0.018	0.01733	0.019	0.023	0.038
September	0.018	0.02117	0.018	0.018	0.052
October	0.019	0.02267	0.021	0.026	0.035
November	0.019	0.02283	0.021	0.03	0.051
December	0.023	0.0265	0.021	0.023	0.048
Annual Avg	0.023	0.02408611	0.025	0.025	0.041
Max 3-Mo Avg	0.031	0.02875	0.039	0.031	0.047
Max : Avg Ratio	1.35	1.19	1.56	1.24	1.15
Existing EDUs	155.0	158.0	158.0	180.0	186.0
Flow/EDU (GPD)	148.4	152.4	158.2	138.9	220.4
Flow/Capita (GPD)	67.4	69.3	71.9	63.1	100.2
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2014	2015	2016	2017	2018
January	19	18	19	28	27
February	29	26	31	24	35
March	18	42	29	21	32
April	12	20	29	16	28
May	25	28	17	21	24
June	24	22	29	14	35
July	38	24	19	26	25
August	20	21	13	11	17
September	29	17	18	14	22
October	33	23	22	37	22
November	25	22	19	33	25
December	31	27	16	27	19
Annual Avg	25	24	22	23	26
Max Mo Avg	38	42	31	37	35
Max : Avg Ratio	1.50	1.74	1.43	1.63	1.35
Existing EDUs	155	158	158	180	186
Load/EDU	0.163	0.153	0.138	0.126	0.139
Load/Capita	0.074	0.070	0.063	0.057	0.063
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2019	2020	2021	2022	2023
New EDUs	5.0	5.0	5.0	5.0	5.0
New EDU Flow	0.0008	0.0008	0.0008	0.0008	0.0008
Proj. Annual Avg	0.02842	0.02922	0.03002	0.03082	0.03162
Proj. Max 3-Mo Avg	0.03687	0.03791	0.03895	0.03999	0.04103
Proj. Overload?	NO	NO	NO	NO	NO

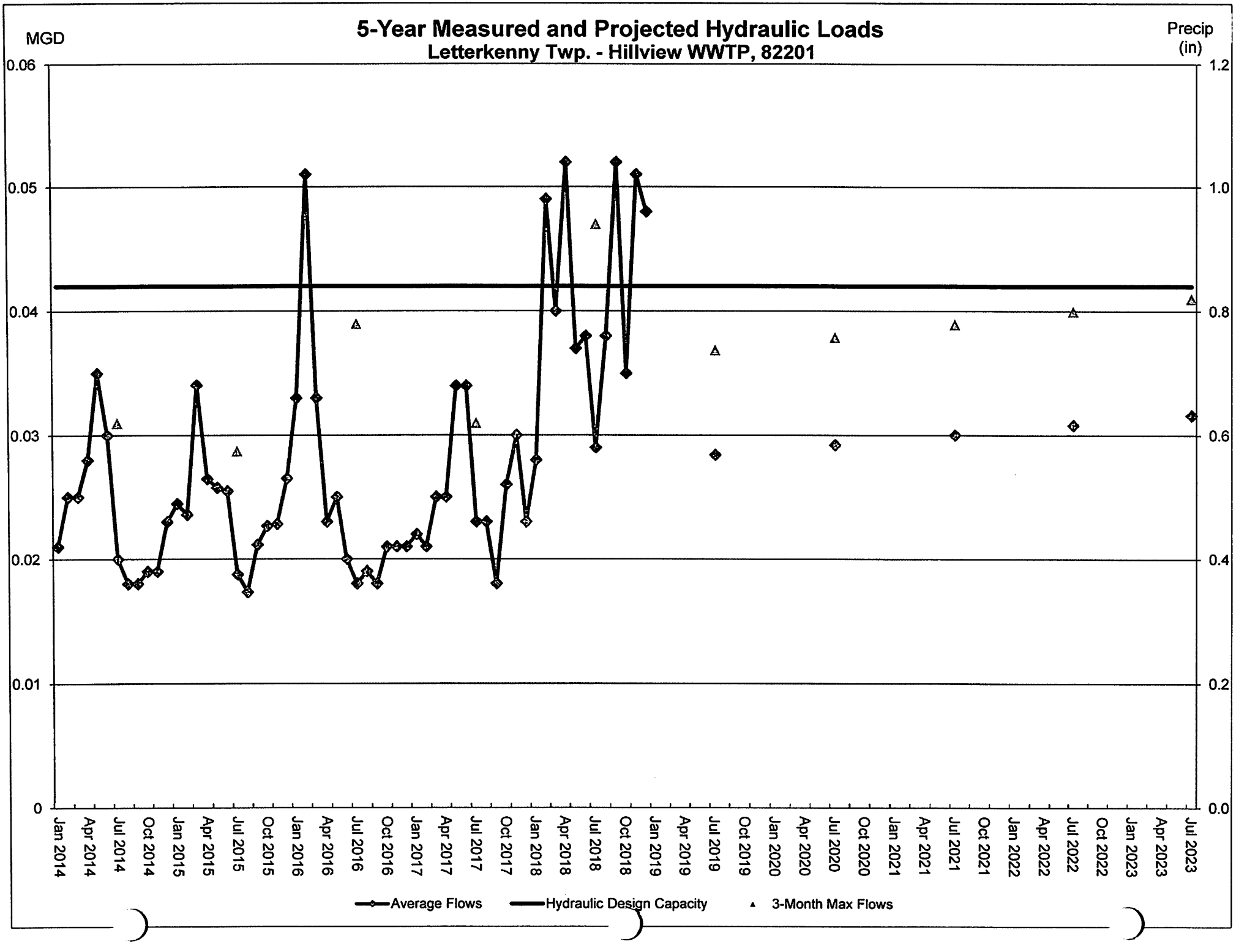
Projected BOD5 Loads for Next Five Years (lbs/day)

	2019	2020	2021	2022	2023
New EDUs	5	5	5	5	5
New EDU Load	0.719	0.719	0.719	0.719	0.719
Proj. Annual Avg	25	25	26	27	28
Proj. Max Avg	38	39	40	41	42
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

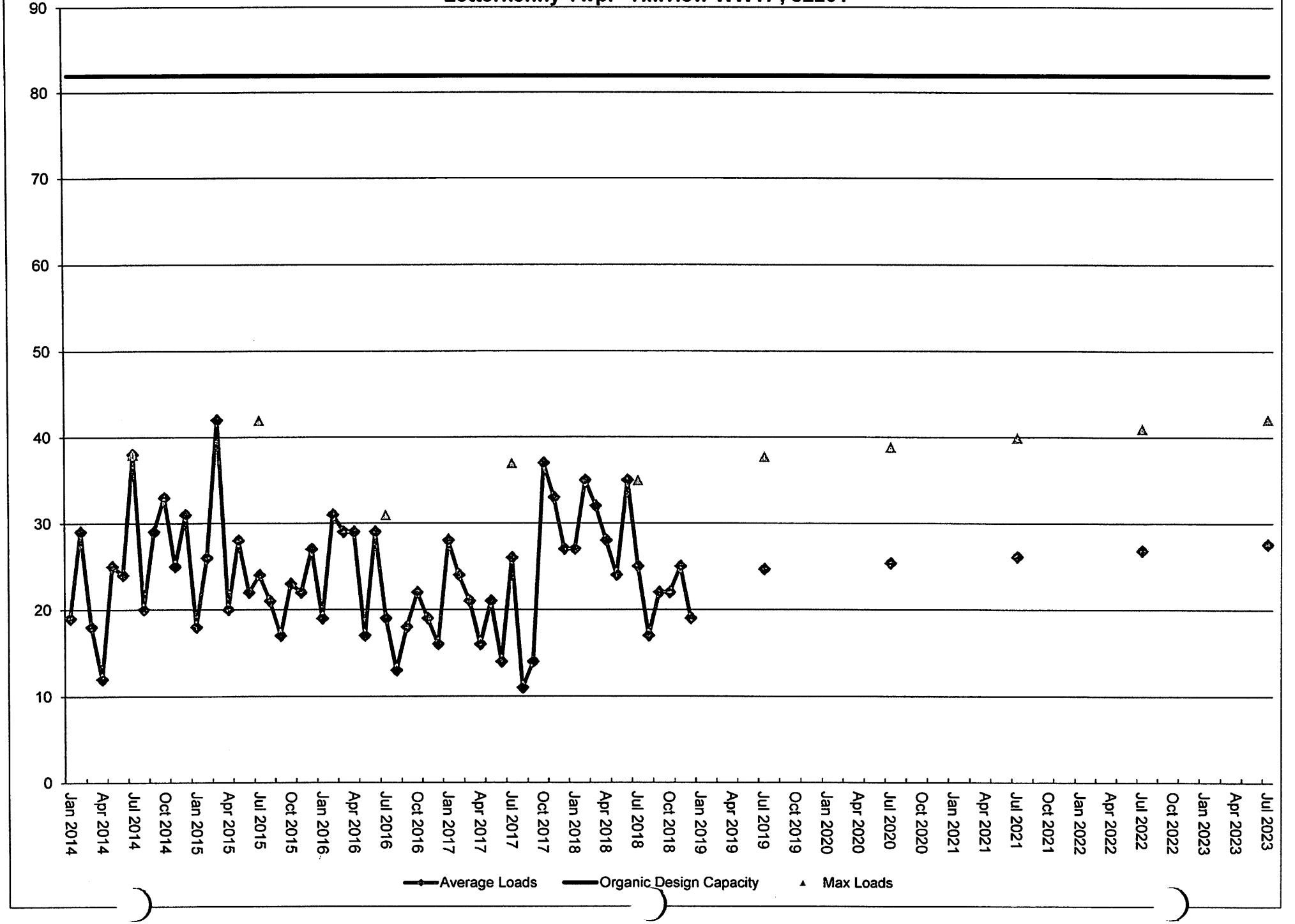
Total Monthly Precipitation for Past Five Years (Inches)

Month	2014	2015	2016	2017	2018
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					


5-Year Measured and Projected Hydraulic Loads
Letterkenny Twp. - Hillview WWTP, 82201
MGD
Precip (in)
0.06
0.05
0.04
0.03
0.02
0.01
0
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Jan 2016
Apr 2016
Jul 2016
Oct 2016
Jan 2017
Apr 2017
Jul 2017
Oct 2017
Jan 2018
Apr 2018
Jul 2018
Oct 2018
Jan 2019
Apr 2019
Jul 2019
Oct 2019
Jan 2020
Apr 2020
Jul 2020
Oct 2020
Jan 2021
Apr 2021
Jul 2021
Oct 2021
Jan 2022
Apr 2022
Jul 2022
Oct 2022
Jan 2023
Apr 2023
Jul 2023
Average Flows
Hydraulic Design Capacity
3-Month Max Flows

5-Year Measured and Projected Organic Loads

Letterkenny Twp. - Hillview WWTP, 82201



SLUDGE GENERATION CALCULATION

Facility Name: LTMA - Hillview Wastewater Treatment Plant
Permit Number: PA 82201
Date of Calculation: 3/22/2019

Required Information For Calculation

Average Daily Flow (mgd):	0.041	Digester Capacity (gal):	18000
Influent BOD (mg/l):	92	%Solids of Outgoing Sludge:	1.8
Effluent BOD (mg/l):	11	Monitoring Period (days):	365

Wastewater Treatment Processes

Place an "X" in the box beside the corresponding treatment process. Select a maximum of Primary Clarification and one other treatment process.

Primary Clarification [ ]	Contact Stabilization [ ]	RBC [ ]
Conventional Activated Sludge [ ]	SBR [ ]	ABF [ ]
Extended Aeration [x]	Trickling Filter [ ]	Small Plant with low SOR [ ] (<500 gpd/sq ft)

Operational Information

BOD Removed (lbs/day):	28	TSS Removed (lbs/day):	18

Digester Information

Type of Digester

Place an "X" in the box beside the corresponding treatment process.

Aerobic Digestion [x]	Anaerobic Digestion [ ]	None [ ]

Sludge Feed Rate to Digesters (gpd):	287.82
Digester Hydraulic Detention Time (days):	63
Estimated Total Solids Reduction (%):	0.35

Sludge Generation

dry lbs/day	12	wet lbs/day	650
dry tons/monitoring period	2	wet tons/monitoring period	119
gal/day	78	gal/monitoring period	28452

Amount of Sludge Reported as Being Generated by the Facility

wet tons/monitoring period [ ]

OR

dry tons/monitoring period [1.9]

Enter only one of the above values. The remaining value should be "0".

Is the amount reported by the generator within 15% of the calculated value? YES

NO explanation:

What type of information was used to calculate the above information: Hauling and testing records

Dates used: 1/1/2018 TO 12/31/2018

Name of person performing the calculation: W. Dwayne DelGrande, P.E.

WG Malden
P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

*** SERVICE REPORT ***

LETTERKENNY TOWNSHIP MUN. AUTH.
4924 ORRSTOWN ROAD
ORRSTOWN, PA 17244

SERVICE DATE: FEBRUARY 12, 2018
METER#: C8161 AA
LOCATION: HILLVIEW ESTATES
SERIAL #: 16109/1092298-0012
MANUFACTURER: EASTECH/PARTLOW
RECORDER: MRC 5000
TRANSMITTER: 2210
PRIMARY: WEIR V-NOTCH 22 ½°
MAXIMUM CAPACITY: 50 GPM
SERVICE CONTRACT: ANNUAL

*** WORK PERFORMED ***

TRANSMITTER CALIBRATION
LEVEL MEASUREMENTS AND FLOW CHECKS
ERROR: 0% **TOLERANCE:** ±1%

RECORDER CALIBRATION
CHECKED AT: 0, 50, 100% **ERROR:** 0,0,0% **TOLERANCE:** ±1%

TOTALIZER CALIBRATION
CHECKED AT: OPERATING VALUE **ERROR:** 0% **TOLERANCE:** ±1%

*** TECHNICIAN COMMENTS ***

REQUESTED SERVICE
INSTALLED EASTECH 2210
COULD NOT PULL CABLE THROUGH EXISTING CONDUIT
WILL STOP BACK WHEN GROUND THAWS
PROGRAMMED AND CALIBRATED
WENT OVER OPERATION WITH OPERATOR
LEFT EQUIPMENT OPERATING PROPERLY

SERVICE REPRESENTATIVE(S): JERRY LAWREY

Exhibit “H-1”

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreads
Sewage Treatment Pl

Reporting Year: 2018

Facility Name: Letterkenny Twp. - Hillview WWTP

Permit No.: 82201

Persons/EDU: 2.2

Existing Hydraulic Design Capacity:	0.042	MGD	Existing Organic Design Capacity:	82	lbs BOD5/day
Upgrade Planned in Next 5 Years?	NO	Year:	Upgrade Planned in Next 5 Years?	NO	Year:
Future Hydraulic Design Capacity:		MGD	Future Organic Design Capacity:		lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2014	2015	2016	2017	2018
January	0.021	0.02447	0.033	0.022	0.028
February	0.025	0.02358	0.051	0.021	0.049
March	0.025	0.03405	0.033	0.025	0.04
April	0.028	0.02645	0.023	0.025	0.052
May	0.035	0.02575	0.025	0.034	0.037
June	0.03	0.02548	0.02	0.034	0.038
July	0.02	0.01875	0.018	0.023	0.029
August	0.018	0.01733	0.019	0.023	0.038
September	0.018	0.02117	0.018	0.018	0.052
October	0.019	0.02267	0.021	0.026	0.035
November	0.019	0.02283	0.021	0.03	0.051
December	0.023	0.0265	0.021	0.023	0.048
Annual Avg	0.023	0.02408611	0.025	0.025	0.041
Max 3-Mo Avg	0.031	0.02875	0.039	0.031	0.047
Max : Avg Ratio	1.35	1.19	1.56	1.24	1.15
Existing EDUs	155.0	158.0	158.0	180.0	186.0
Flow/EDU (GPD)	148.4	152.4	158.2	138.9	220.4
Flow/Capita (GPD)	67.4	69.3	71.9	63.1	100.2
Exist. Overload?	NO	NO	NO	NO	NO

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2014	2015	2016	2017	2018
January	19	18	19	28	27
February	29	26	31	24	35
March	18	42	29	21	32
April	12	20	29	16	28
May	25	28	17	21	24
June	24	22	29	14	35
July	38	24	19	26	25
August	20	21	13	11	17
September	29	17	18	14	22
October	33	23	22	37	22
November	25	22	19	33	25
December	31	27	16	27	19
Annual Avg	25	24	22	23	26
Max Mo Avg	38	42	31	37	35
Max : Avg Ratio	1.50	1.74	1.43	1.63	1.35
Existing EDUs	155	158	158	180	186
Load/EDU	0.163	0.153	0.138	0.126	0.139
Load/Capita	0.074	0.070	0.063	0.057	0.063
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2019	2020	2021	2022	2023
New EDUs	5.0	5.0	5.0	5.0	5.0
New EDU Flow	0.0008	0.0008	0.0008	0.0008	0.0008
Proj. Annual Avg	0.02842	0.02922	0.03002	0.03082	0.03162
Proj. Max 3-Mo Avg	0.03687	0.03791	0.03895	0.03999	0.04103
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2019	2020	2021	2022	2023
New EDUs	5	5	5	5	5
New EDU Load	0.719	0.719	0.719	0.719	0.719
Proj. Annual Avg	25	25	26	27	28
Proj. Max Avg	38	39	40	41	42
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2014	2015	2016	2017	2018
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Exhibit “I”

AGREEMENT OF WASTEWATER COLLECTION SYSTEM SALE

THIS AGREEMENT is made this 25th day of June 2019, by and between, Letterkenny Township Municipal Authority, a municipal corporation of Franklin County, Pennsylvania ("Authority") and The York Water Company, a public utility corporation organized under the laws of the Commonwealth of Pennsylvania, having its principal office in the City of York, York County, Pennsylvania ("York Water").

WHEREAS, the Authority is a duly organized municipal corporation that owns facilities used for and is engaged in the business of collecting and treating wastewater from inhabitants in a portion of the Township of Letterkenny; and

WHEREAS, the Authority is willing to sell, and York Water is willing to purchase substantially all of the Wastewater Collection and Treatment System of the Authority (as defined in Paragraph 2.1 of this Agreement); and

WHEREAS, York Water is a Pennsylvania public utility engaged in the business of collecting, treating, and disposing wastewater to the public in various portions of York County, Pennsylvania; and

WHEREAS, York Water is willing to operate such Wastewater Collection and Treatment System, subject to York Water's regular rules, regulations and tariffs applicable from time to time to wastewater customers of York Water.

NOW THEREFORE, in consideration of the premises and the mutual covenants and agreements herein contained, and intending to be legally bound hereby, the parties hereto agree as follows:

1. **SALE AND PURCHASE OF ASSETS.** At Closing (as defined in Paragraph 5 of this Agreement), subject to the terms and conditions of this Agreement, the Authority shall sell, assign, transfer and convey to York Water and York Water shall purchase the Assets (as defined

in Paragraph 2 of this Agreement) for the Purchase Price (as defined in Paragraph 3 of this Agreement).

2. **DESCRIPTION OF ASSETS.** The term "Assets" means the Wastewater Collection and Treatment System, as defined in Paragraph 2.1 of this Agreement.

2.1. **Description of Wastewater Collection and Treatment System.** The term Wastewater Collection and Treatment System means all of the real property, physical property, equipment and facilities comprising the existing Wastewater Collection and Treatment System owned and operated by the Authority, with attendant easements (if any), rights-of-way (if any), personal property, fixtures and equipment, all as more fully described on **APPENDIX A** hereto attached and made a part hereof.

2.2. **Excluded Assets.** There is excluded from the sale and the Authority reserves unto itself all funds designated as funds of the Authority including, specifically, any checking accounts, savings accounts, accounts receivables, insurance, and other investments related to the Wastewater Collection and Treatment System and the provision of wastewater services by the Authority.

3. **PURCHASE PRICE.** The Authority agrees to sell, assign, transfer and convey the Assets, and York Water agrees to purchase the Assets, for the consideration of Two Hundred Twenty-Five Thousand ($225,000.00) Dollars less an amount equal to the total amount of prepaid tapping fees paid to the Authority for all reserved capacity as evidenced by any reservation of capacity agreements, a list of which is set forth on APPENDIX A.1. The Authority will take all actions necessary to authorize the sale of the Wastewater Collection and Treatment System to York Water, and will prosecute all such actions in good faith and with due diligence.

4. **REPRESENTATIONS, WARRANTIES AND COVENANTS.**

4.1. **Title.** The Authority represents and warrants to York Water that it has good title to its Wastewater Collection and Treatment System as defined in Section 2 and described in **APPENDIX A** free and clear of all liens and encumbrances except existing easements, conditions and restrictions, if any, that do not materially impact the operation of the Wastewater Collection and Treatment System.

4.2. **Current Service.** The Authority represents and warrants to York Water that it is presently serving approximately 180 wastewater customers on a regular basis with 10 additional customers anticipated to connect in 2019 and four additional customers anticipated to connect in 2020 for a total of approximately 194 customers connected by the close of calendar year 2020. The Authority represents and warrants to York Water that it holds sufficient permitted treatment capacity at the Authority's Hillview Wastewater Treatment Plant through the current 2020 customer projection of 194 customers.

4.3. **Compliance with Statutes and Regulations.** The Authority represents and warrants to York Water that to the best of its knowledge it complies with any and all applicable statutes and regulations relevant to the operation of the Wastewater Collection System. The Authority has served a copy a Consent Order and Agreement (COA) dated September 10, 2018 upon York Water and represents that it is fully compliant with the terms of the COA, a copy of which is at **APPENDIX C** hereto attached and made a part hereof.

4.4. **Outstanding Obligations.** Any existing refunding arrangements, agreements or contracts have been disclosed to York Water and shall remain the obligation of the Authority.

4.5. **Delinquency.** The Authority represents and warrants that it is not delinquent or in default on any loan.

4.6. **Litigation.** The Authority represents and warrants that there is no litigation of any nature, pending or threatened against or involving the Authority seeking to restrain or enjoin, or restraining or enjoining, the sale of the Wastewater Collection and Treatment System to York Water or the execution and delivery by the Authority of this Agreement or the Closing Documents. The Authority has received no notice and has no knowledge of any action, claim or proceeding pending or threatened against it or the Authority which questions the validity of the Agreement or actions of the Authority to be taken hereunder.

4.7. **Authorization to Sell.** The Authority consents to the sale and transfer of the Wastewater Collection and Treatment System to York Water by official and proper action taken by the Authority at a regularly scheduled public meeting held on March 26, 2019 and as further represented by execution of this Agreement. The Authority has taken all actions necessary to authorize the execution of a Bill of Sale and other Closing documents necessary to complete this transaction.

4.8. **Representations of York Water.** York Water represents that it is properly licensed and authorized by the Commonwealth of Pennsylvania and Public Utility Commission and has the full right, power and authority to execute, deliver and carry out the terms of this Agreement and to consummate the transaction contemplated on its part as buyer herein once approval has been granted by the Commission to provide wastewater service to the Authority. The individuals who have executed this Agreement and other documents herein on behalf of York Water have the authority to legally bind the Company in the present Agreement. This Agreement and all other agreements and documents executed in connection herewith by York Water, upon due execution and delivery thereof, shall constitute the valid binding obligation of York Water, enforceable in accordance with their respective terms, except as enforcement may be limited by law or equity.

4.9 **Provision of Service by York Water.** The Authority will take all necessary action to permit York Water to provide Wastewater Collection and Treatment within the Service Territory.

4.10 **Continuance of Representations and Warranties.** The parties hereto agree that the foregoing respective representations and warranties shall be true as of the date of the Agreement and as of the Closing, subject, however, to any changes after the date of the Agreement because of any action expressly contemplated by this Agreement or otherwise approved in writing by both parties. The Authority further agrees that its representations and warranties to York Water in this Agreement shall survive closing for a period of two (2) years.

5. **CLOSING.** The Closing shall take place within 30 days after all conditions set forth in Paragraph 6 have been met.

6. **CONDITIONS TO CLOSING.** The obligation of York Water to proceed to Closing is subject to fulfillment of the following further conditions:

6.1. **Regulatory Approvals.** This Agreement is subject to York Water receiving all requisite permits and approvals for the transaction contemplated by this Agreement, as required, from the Pennsylvania Public Utility Commission ("Commission"), the Pennsylvania Department of Environmental Protection ("DEP"), and any and all other applicable authorities having jurisdiction. York Water shall initiate and timely prosecute in good faith and with due diligence, at its sole expense, necessary proceedings to obtain such permits and approvals. The Authority agrees to provide such information, documents and assistance as may be reasonably requested by York Water in order to obtain such approvals.

7. **CLOSING DOCUMENTS.** At the Closing, The Authority shall sell, transfer, assign and convey to York Water the property described on **APPENDIX A** and shall deliver or cause to be delivered the following documents:

7.1. **Bill of Sale** for the real property, personal property, assignments of the easements and rights-of-way, if any. The Authority's real property assets are identified on APPENDIX A.

7.2. **Certificates** duly signed by the Authority Chair and Authority Secretary to the effect that the representations and warranties set forth in Paragraph 4 hereof are true and correct as of the Closing.

7.3. **Certified copies of all Resolutions** of the Authority **and certified copies of all Ordinances** of Letterkenny Township that relate to the provisions of this Agreement, together with certifications that said Resolutions and Ordinances are in full force and effect and were duly adopted.

7.4. **Copies of operating records** relating to the Wastewater Collection and Treatment System as may be reasonably required by York Water including, but not limited to, a copy of the customer list stating the names and addresses of all wastewater users and documentation substantiating the methodology and Authority's conclusion for assigning Equivalent Dwelling Unit (EDU) equivalency for multi-EDU properties.

7.5. **A favorable opinion of the solicitor** for the Authority to the effect that to the best of the solicitor's knowledge:

i. The Authority has the legal capacity to sell its Wastewater Collection and Treatment System as contemplated by this Agreement; and that this Agreement has been duly executed and delivered by the Authority;

ii. The Closing Documents have been duly executed and delivered;

iii. The Authority has duly complied with the provisions of the Pennsylvania Authority Code applicable to this transaction; and

iv. To the best of the solicitor's knowledge, there is no litigation or proceedings pending or threatened against the Authority, which relate adversely to the Authority's ability (a) to conduct its business, (b) to transfer its assets or (c) to consummate the transactions contemplated by this Agreement.

7.6. **Covenants of Further Assurances** to the effect that the Authority shall from time to time take such further actions and execute and deliver such other documents and instruments at the request and cost of York Water as may be necessary or desirable to give full force and effect to the provisions of the Agreement.

8. **PLACEMENT OF UTILITY FACILITIES IN PUBLIC ROAD RIGHTS-OF-WAY.** The Authority agrees to assign to York Water the Authority's use, without charge, of the streets, highways, and alleys of Letterkenny Township for the laying, maintenance, use, repair, and relaying of such laterals, collectors, pipes, manholes, and other facilities deemed necessary or desirable by York Water for the collection and transportation of wastewater in Service Territory; provided, however, that York Water shall lay, maintain, use, repair and relay such facilities in accordance with the requirements set forth in the Township's Street Occupancy Ordinance , as may be amended from time to time, and subject to Authority inspection, and shall restore such streets, highways and alleys to the similar condition existing prior to performing any such work; and provided further, that nothing contained herein or in the grant of such franchise shall be deemed in derogation of the police power of the Authority.

9. **COVENANTS OF YORK WATER.** York Water hereby covenants and agrees as follows:

9.1 **Rates to Customers.** York Water shall bill monthly for wastewater service and adopt the wastewater rate set by the Authority and in effect at the time

of execution of this Agreement. Said rates are quarterly rates as described in APPENDIX B. York Water shall prorate to a monthly basis as described in APPENDIX B.

9.2 **Service Territory.** York Water agrees to provide wastewater service to the Service Territory that includes all current customers and those customers projected to connect in 2019 and 2010 ("Service Territory").

9.3 **Insurance Coverage.** As of the date of Closing, York Water agrees to secure all necessary insurance coverage for the ownership and operation of the Wastewater Collection and Treatment System.

10. **COMMISSION.** No broker's, finder's or agent's fees or commission shall be due or payable by York Water for or in connection with this Agreement for either the sale or the purchase of the Authority Wastewater Collection System. York Water represents that it has had no dealing with any broker, or agent in connection with this transaction except elected or appointed officers of the Authority.

11. REGULAR COURSE OF BUSINESS.

11.1. **Conduct of Business.** At all times between the dates of this Agreement and the Closing, the Authority agrees to conduct its business of providing wastewater collection and treatment service to its wastewater customers and the operation of its Wastewater Collection and Treatment System and to keep the books relating thereto in the ordinary manner and regular and customary course of business and the Authority further agrees not to dispose of any of the assets of said Wastewater Collection and Treatment System without the prior written consent of York Water, and further agrees not to enter into any collection system extension agreements that call for the Authority to make the extension at its cost, or changes to the system or any other material change or agreement without prior written approval of York Water, except further, as to all of the foregoing, as may be necessary or

appropriate in order to comply with applicable law. The Authority will not terminate or fail to renew any of its insurance coverage prior to Closing. At all times between the dates of this Agreement and the Closing, the Authority shall continue as the certified operator in responsible charge of the Wastewater Collection and Treatment System.

11.2. **Final Bill.** On the date of Closing, the Authority will bill its customers for all wastewater furnished by it prior to the Closing and shall retain all funds received for wastewater collection furnished as of that date. To the extent possible, the closing date shall be on or about the last working day of the calendar month following receipt of all permits necessary for York Water to operate the Wastewater Collection System, including, but not limited to, a Certificate of Public Convenience from the Commission, but no less than 30 days from the issuance of such permit unless both parties agree to an alternate closing date. York Water will bill its customers within the Service Territory for all wastewater collection after the date of Closing and shall retain all funds received for wastewater service from that date forward.

12. **ASSUMPTION OF LIABILITIES.** It is understood and agreed that York Water is purchasing assets and does not assume any obligations or liabilities of the Authority except as specifically provided herein. The Authority will indemnify and hold York Water harmless from any liability or claim arising from the Authority's obligations or liabilities not expressly assumed by York Water.

13. RISK OF LOSS. Except as otherwise provided in this Agreement, the Authority assumes all risks of destruction, loss, or damage to the Wastewater Collection System due to fire or other casualty up to the date of Closing. In the event any of the Wastewater Collection System shall be destroyed or damaged prior to the date of Closing, the part or parts so destroyed or damaged shall be replaced or repaired by the Authority at its sole

cost and expense, except as otherwise provided in this Agreement, and unless York Water agrees that the purchase price provided herein may be reduced by an amount equal to the estimated cost of replacement or repair of the part or parts so destroyed or damaged; provided, however, if any such destruction or damage shall, in the opinion of York Water, be so extensive as to materially and adversely affect the operating condition of the Wastewater Collection System, then, and in that event, York Water shall not have any obligations whatsoever to the Authority by reason hereof.

14. ACCESS AND INFORMATION. The Authority will give to authorized representatives of York Water, upon reasonable notice, full access during normal business hours throughout the period prior to the Closing to the assets, inventory, books, contracts, extension agreements, and records of the Authority relating to the Wastewater Collection System, and furnish York Water during such period with all such material and information relating thereto as York Water may reasonably request.

15. RIGHTS OF THE PUC, DEP AND OTHER REGULATORY AGENCIES. York Water is regulated by the PUC as well as other governmental agencies. Nothing in this Agreement is intended to supersede, expand, or limit any powers of these regulatory agencies. In all conflicts between this Agreement and another regulatory agency, the regulatory agency requirements shall supersede this Agreement.

16. CAPTIONS. The paragraph captions contained in this Agreement shall not be construed as part of the Agreement, but are used merely for ready reference purposes.

17. SUCCESSORS AND ASSIGNS. This Agreement shall be binding upon and inure to the benefit of the parties hereto, their successors and assigns.

18. **CONSTRUCTION.** This Agreement shall be construed in accordance with the laws of the Commonwealth of Pennsylvania.

19. NOTICES. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given if delivered or mailed, first class, postage prepaid, registered mail, return receipt requested:

If to The Authority, to:

Mr. Charles H. Myers
Chairman
Letterkenny Township Municipal Authority
4924 Orrstown Rd.
Orrstown, PA 17244

If to York Water, to:

Jeffrey R. Hines
President and CEO
The York Water Company
130 East Market Street
York, PA 17401

20. **DEFAULT.** Time shall be of the essence with respect to performance of any obligation arising under this Agreement. Should either party violate or fail to fulfill and perform any of the terms and conditions of this Agreement, the non-breaching party may elect to proceed against the breaching party for either actual damages incurred by the non-breaching party or to pursue specific performance of this Agreement.

21. **RECORDING.** This Agreement shall not be recorded in the Office of the Recorder of Deeds or in any other office or place of public record.

22. **ENTIRE AGREEMENT.** This Agreement contains the entire agreement between the Authority and York Water. There are no other terms, obligations, covenants, representations, statements or conditions, oral or otherwise of any kind whatsoever concerning this sale. Further, this Agreement shall not be altered, amended, changed or modified except in writing executed by all parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their authorized officials and officers as of the date first above written.

ATTEST: LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

Melissa W Kibbe
Secretary, Melissa W Kibbe

By: Charles H. Myers
Chairman, Charles H. Myers

(SEAL)

ATTEST: THE YORK WATER COMPANY

Joseph T. Hand
Secretary

By:
Jeffrey R. Hines, President and CEO

(SEAL)

APPENDIX A – ASSETS

A. All sanitary pressure sewer, sanitary gravity sewer, sewage force main, sanitary laterals (from the collection facilities of the Authority to the sewer to edge of right-of-way or street), curb boxes and appurtenant fixtures and equipment in place and used in the wastewater collection system. This includes the entirety of the Septic Tank Effluent Gravity (STEG) component along Mountain Road and the approximate 24 septic tanks owned and maintained by Authority. From York Water's preliminary investigation, the assets consist of the following:

Sanitary Sewer Pipe

Diameter	Material	Footage	System
2"	PVC	585	S.T.E.G.
2.5"	PVC	679	S.T.E.G.
3"	PVC	116	S.T.E.G.
4"	PVC	1730'	S.T.E.G.
6"	PVC	8247'	Hillview Estates
8"	PVC	10834'	Interceptors, Cardinal Rd. (West), Skyline Rd.
Total		22190'	

Septic Tanks – Authority owned/maintained as part of the Mountain Rd. Septic Tank Effluent Gravity Sewer (S.T.E.G.): 24 Tanks

B. All sanitary manholes and clean outs presently in place in the wastewater collection and treatment system.

Manholes: 63
Clean-outs: 9 (plus an undetermined number of clean-outs located on the STEG system)

C. 42,000 GPD rated Wastewater Treatment Plant referred to as the Hillview WWTP, including all spare motors, pumps, fittings and appurtenant fixtures.

D. Franklin County Parcel ID No. 12-0F05-083-EX0000 consisting of approximately 1.22 acres.

APPENDIX C– CONSENT ORDER AND AGREEMENT
DATED SEPTEMBER 10, 2018

Good afternoon,

In response to the Departments correspondence with Mr. DelGrande and Mr. Rahauser, we have revised the proposed Consent Order and Agreement (clean copy and markup copies attached).

The Department reduced the proposed civil penalty to $4,008.00, which represents an amount that is less than 20% of the total penalty calculated using the Department's SOP for Determining Civil Penalties under the Clean Streams Law (Doc No. BPNPSM-ENF-004) and Section 605 of the Clean Streams Law.

Additionally, we provided the requested revisions to the COA to add corrective actions for an engineering evaluation and upgrade/modification of the aeration system at the Letterkenny Twp. WWTP.

The timelines I included were taken from similar cases, but if the timelines for the upgrade/modification of the WWTP aeration system need to be adjusted, please let me know and I can provide a new revision.

If Letterkenny Township has additional requests or comments regarding the revised COA, please submit them to me within ten (10) calendar days.

I will mail a hard copy of the revised COA to Letterkenny Township and Mr. DelGrande by the end of the week.

If Letterkenny Township finds the revised COA acceptable, please sign three copies of the attached clean copy of the COA (last page only) and return them, along with payment of the civil penalty and copies of the Authority's Resolution, to me within forty-five (45) calendar days.

We will send you a fully executed copy for your records when finalized by the Department.

If you have any further comments or questions, please feel free to contact me.

Thanks,

Erick

Erick M. Ammon | Environmental Protection Compliance Specialist
Clean Water Program | Southcentral Regional Office
Department of Environmental Protection
909 Elmerton Avenue | Harrisburg, PA 17110
Phone: 717.705.4775 | Fax: 717.705.4760

24-Hour Emergency Response: 1.866.825.0208
www.dep.pa.gov

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

September 11, 2018

CERTIFIED MAIL NO. 9171 9690 0935 0150 2174 09

Mr. Charles H. Myers
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244

Re: Executed Consent Order and Agreement-3A
LTMA STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Dear Mr. Meyers,

Enclosed is a fully executed copy of the Consent Order and Agreement (COA). This will also acknowledge receipt of check number 3555 in the amount of $4,008.00, in accordance with the COA dated September 10, 2018.

Thank you for your cooperation in settling your violations of the Clean Streams Law. If you have any questions regarding this COA, please contact me at 717.705.4775 or eammon@pa.gov.

Sincerely,

Erick M Ammon
Environmental Protection Compliance Specialist
Clean Water Program

cc: (with enclosures): Mr. William D. DelGrande P.E.

Enclosure: September 10, 2018 COA with Exhibits

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In The Matter Of:

Letterkenny Township Municipal Authority	:	Clean Streams Law
4924 Orrstown Road	:	NPDES Permit No. PA0082201
Orrstown, PA 17244	:	Letterkenny Township
	:	Franklin County

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement ("COA") is entered into this 10th day of September 2018, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department") and the Letterkenny Township Municipal Authority ("Letterkenny").

The Department has found and determined the following:

A. The Department is the agency with the duty and authority to administer and enforce the Pennsylvania Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §§ 691.1 et seq. ("The Clean Streams Law"); Section 1917-A of the Administrative Code, the Act of April 9, 1929, P.L. 177, as amended, 71 P.S. § 510-17 ("Administrative Code") and the rules and regulations promulgated thereunder, and which has been delegated authority to administer the National Pollutant Discharge Elimination ("NPDES") permit program under Section 402 of the Federal Clean Water Act, 33 U.S.C § 1342.

B. Letterkenny is a municipal authority formed under the laws of the Commonwealth of Pennsylvania, with a business and mailing address of 4924 Orrstown Road. Orrstown, PA 17244.

C. Letterkenny owns a municipal wastewater treatment plant ("Plant"), which is located in Letterkenny Township, Franklin County, Pennsylvania. The Plant discharges treated sewage to the Conodoguinet Creek, a Water of the Commonwealth, as "waters of the Commonwealth" is defined in Section 1 of the Clean Streams Law, 35 P.S. § 691.1.

D. The Plant's discharge constitutes sewage pursuant to Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202.

E. The discharge from the Plant is authorized by NPDES Permit No. PA0082201 ("NPDES Permit") issued by the Department to Letterkenny on May 18, 2018, pursuant to Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202. NPDES Permit No. PA0082201 became effective on June 1, 2018, and expires on May 31, 2023.

F. All dischargers, including Letterkenny, are required by their NPDES Permits and Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, to fully comply with the effluent limits set forth in their NPDES permits.

G. At times between April 2013 and August 2017, Letterkenny discharged wastewater contrary to the terms and conditions set forth in its NPDES Permit. The monthly Discharge Monitoring Report ("DMR") violations are fully listed in Exhibit Number 1, which is attached hereto and incorporated herein by reference.

H. On January 2, 2018, the Department conducted an inspection of the Plant. During this inspection, the Department observed and documented a one to three-inch-thick blanket of accumulated sewage solids at Plant outfall 001 extending approximately 100 feet downstream in the Conodoguinet Creek.

I. On January 5, 2018, the Department mailed a Notice of Violation ("January 5, 2018 NOV") to Letterkenny for the violations noted in Paragraph H, above. In its January 5, 2018 NOV, the Department requested that Letterkenny provide a response within fifteen days that summarized the cause of the accumulation of sewage sludge in the Conodoguinet Creek and include any planned mitigation activities that Letterkenny would undertake to prevent recurrence of the violations along with a corrective action schedule.

J. On January 10, 2018, the Department conducted a follow-up inspection at the Plant to observe the removal of accumulated sewage solids at Plant outfall 001 and in downstream areas in the Conodoguinet Creek. During this inspection, the Department observed remaining accumulations of sewage solids from approximately seventy-five to one hundred feet downstream of Plant outfall 001. The Department's inspection report dated January 10, 2018, requested Letterkenny to remove the remaining accumulated sewage solids from the stream.

K. On January 18, 2018, the Plant certified operator notified the Department that the requested stream cleanup had not been completed due to weather conditions. The Plant certified operator stated that he planned to have a septage hauler remove accumulated solids from the Conodoguinet Creek using a vacuum truck.

L. On January 18, 2018, the Department conducted a second follow-up inspection at the Plant to observe conditions at Plant outfall 001 and in downstream areas of the Conodoguinet Creek. During the inspection the Department noted no sewage solids accumulations at Plant outfall 001 or in downstream areas of the Conodoguinet Creek. The Department's inspection report noted that the Plant daily operations log contained an entry for January 12, 2018, stating that the operator had "cleaned stream during high water flow."

M. On January 22, 2018, the Department requested that the Plant certified operator provide clarification as to what the daily operator meant by the statement "cleaned during high water flow."

N. On January 23, 2018, the Department received correspondence from the Plant certified operator stating that the daily operator's statement of "cleaned during high water flow" in the Plant daily log meant that they manually brushed the stream substrate during higher stream flows to disperse the accumulated solids. This method of disposal is contrary to the Plant certified operator's plan to have a septage hauler remove accumulated solids from the Conodoguinet Creek using a vacuum truck.

O. On January 25, 2018, Letterkenny submitted a response to the Department's January 5, 2018 NOV noted in Paragraph I, above. In its response, Letterkenny states that the sewage sludge accumulation at the Plant outfall and in the Conodoguinet Creek was most likely due to activated sludge inventory management issues in the Plant treatment units, increased final effluent solids discharge to Plant outfall 001, and low flows in the Conodoguinet Creek. Letterkenny's response proposed Plant process control optimization, and operation and maintenance changes to address the solids accumulation issues.

P. Section 201 of the Clean Streams Law provides: "No person or municipality shall place or permit to be placed, or discharge or permit to flow, or continue to discharge or permit to flow, into any of the waters of the Commonwealth any sewage, except as hereinafter provided in this act."

Q. Section 202 of the Clean Streams Law provides that no person or municipality shall discharge or permit the discharge of sewage without first obtaining a permit from the Department. A discharge of sewage without a permit or contrary to the terms and conditions of a permit is declared a nuisance.

R. The conditions at Letterkenny's Plant described in Paragraphs G, H, J, L, & N, above, constitute violations of Sections 201 and 202 of The Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, and NPDES Permit No. PA0082201.

S. The violations described in Paragraph R, above, constitutes unlawful conduct under Sections 402(b) and 611 of The Clean Streams Law, 35 P.S. §§ 691.402(b) and 691.611; a statutory nuisance under Sections 202, 402(b), and 601 of The Clean Streams Law, 35 P.S. §§ 691.202, 691.402(b), and 691.601; and subjects Letterkenny to civil penalty liability under Section 605 of The Clean Streams Law, 35 P.S. § 691.605.

ORDER

After full and complete negotiation of all matters set forth in this Consent Order and Agreement, and upon mutual exchange of covenants contained herein, the parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by Letterkenny as follows:

1. Authority. This Consent Order and Agreement is an Order of the Department authorized and issued pursuant to Section 5 of the Clean Streams Law, 35 P.S. § 691.5; and Section 1917-A of the Administrative Code, 71 P.S. §§ 510-17.

2. Findings.

a. Letterkenny agrees that the findings in Paragraph A through S are true and correct and, in any matter or proceeding involving Letterkenny and the Department, Letterkenny shall not challenge the accuracy or validity of these findings.

b. The parties do not authorize any other persons to use the findings in this Consent Order and Agreement in any matter or proceeding.

3. Corrective Action.

a. Immediately upon execution of this Consent Order and Agreement, Letterkenny shall begin inspecting Plant outfall DP001 and downstream areas of the Conodoguinet Creek at least daily for accumulations of sewage solids. Letterkenny shall log outfall conditions daily and keep such logs available at the Plant for inspection. If accumulations of sewage solids are detected, Letterkenny shall contract a licensed septage hauler to properly remove and dispose of the solids within two (2) calendar days.

b. Within thirty (30) calendar days of the execution of this Consent Order and Agreement, Letterkenny shall submit for Department review and approval a Process Control Plan ("PCP"), which complies with requirements 25 Pa. Code § 302.1203(c). The PCP shall contain a Standard Operating Procedure ("SOP") for the implementation of process control activities to properly balance the amount of solids within the treatment system. The SOP shall instruct all operators at the Plant to compute and set the wasting rates to maintain an appropriate balance of sludge in the system. Seasonal variations shall be considered in developing sludge wasting rates.

Relocation of Plant Outfall 001

c. Within thirty (30) calendar days of the execution of the Consent Order and Agreement, Letterkenny shall submit, for Department review and approval, a Preliminary Investigation Report regarding the relocation of the Plant outfall to a new section of the Conodoguinet Creek. The Preliminary Investigation shall determine whether a Water Quality Management Permit ("WQM Part II Permit"), Erosion and Sedimentation Permit, Wetlands Permit or any other authorization is required for the relocation of the Plant discharge.

d. Within thirty (30) calendar days of the Department's approval of the Preliminary Investigation, Letterkenny shall submit complete applications to the appropriate authorities for any authorizations which the Department or Letterkenny determine are required to relocate the Plant discharge, as listed in the Preliminary Investigation Report submitted pursuant to Paragraph 3.c, above.

e. Within sixty (60) calendar days of receiving all permits and authorizations for the relocation of the Plant discharge location, Letterkenny shall begin construction and relocation of the discharge.

f. Within forty-five (45) calendar days of beginning construction, Letterkenny shall complete relocation of the Plant discharge and issue WQM Post Construction Certification (Department Document No. 3800-PM-WSFR0179a 9/2005) as required by the WQM Part II Permit.

Upgrade/Modification of Plant Aeration System

g. Within sixty (60) calendar days of the execution of the Consent Order and Agreement, Letterkenny shall submit, for Department review and approval, a report summarizing a professional engineer's evaluation of the condition and operability of the Plant. The report shall include, but not be limited to, an evaluation of the efficacy of the Plant treatment units and aeration system to ensure and to maintain compliance with NPDES Permit requirements. Any upgrades or modifications of the aeration system for treatment optimization shall be included in the report, with a proposed timeline of activities. The report must be submitted under the seal of a Professional Engineer.

h. Within forty-five (45) calendar days of the Department's approval of the report, Letterkenny shall submit an administratively and technically complete application for WQM Part II Permit for the upgrade or modification of the Plant aeration system, pursuant to Paragraph 3.g, above.

i. Within sixty (60) calendar days of receiving the WQM Part II Permit for the upgrade or modification the Plant aeration system, Letterkenny shall begin construction.

j. Within forty-five (45) calendar days of beginning construction, Letterkenny shall complete the upgrade or modification the Plant aeration system, and issue the Post Construction Certification as required by the WQM Part II Permit.

k. Upon execution of this COA, Letterkenny shall submit quarterly progress reports on the status of the maintenance, repair, or replacement projects at the Plant until this COA is Terminated.

l. If the Department or any other entity requests additional information to review or approve any submittal necessary to comply with this Consent Order and Agreement, Letterkenny shall submit the requested information within ten (10) calendar days of the date of the Department's or the entity's notice that such information is required; however, upon written request, including a justification from Letterkenny, the Department may allow an extension for such a submittal.

4. Civil Penalty Settlement. Letterkenny consents to the assessment of a civil penalty in the amount of $4,008.00, which shall be paid in full immediately upon signing this Consent Order and Agreement. This payment is in settlement of the Department's claim for civil penalties for the violations set forth in Paragraph G, H, J, L, N, Q, and R, above. The payment shall be by corporate check or the like, made payable to "Commonwealth of Pennsylvania" with a notation of "Clean Water Fund" on the memo line and sent c/o Erick M. Ammon, Environmental Protection Compliance Specialist, DEP Clean Water Program, 909 Elmerton Avenue, Harrisburg, PA 17110-8200.

5. Stipulated Civil Penalties.

a. Until termination of this Consent Order and Agreement, Letterkenny shall pay a stipulated penalty of $1,000.00 for any Department inspection where sewage solids accumulations are discovered at and/or below the Plant outfall in the Conodoguinet Creek.

b. In the event Letterkenny fails to comply in a timely manner with the provisions of Paragraphs 3.a through 3.j of this Consent Order and Agreement, Letterkenny shall be in violation of this Consent Order and Agreement and, in addition to other applicable remedies, shall pay a civil penalty in the amount determined under the following schedule:

i. For any violation of paragraph 3, Letterkenny shall pay the Department a civil penalty of $100 per day for the first 30 days of each violation and $200 per day for each violation extending beyond the first 30 days;

ii. For any violation of its NPDES Permit effluent limits, Letterkenny shall pay the Department a civil penalty as outlined in Exhibit 2.

c. Stipulated civil penalty payments shall be due automatically and without notice, and are payable monthly on or before the fifteenth day of each succeeding month, and shall be forwarded as described in Paragraph 4 (Civil Penalties) above.

d. Any payment under this paragraph shall neither waive the Letterkenny's duty to meet its obligations under this Consent Order and Agreement nor preclude the Department from commencing an action to compel Letterkenny's compliance with the terms and conditions of this Consent Order and Agreement. The payment resolves only Letterkenny's liability for civil penalties arising from the violation of this Consent Order and Agreement, for which the payment is made.

6. Additional Remedies.

a. In the event Letterkenny fails to comply with any provision of this Consent Order and Agreement, the Department may, in addition to the remedies prescribed

herein, pursue any remedy available for a violation of an order of the Department, including an action to enforce this Consent Order and Agreement.

b. The remedies provided by this paragraph and Paragraph 5 (Stipulated Civil Penalties) are cumulative and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated penalty is paid.

7. Reservation of Rights. The Department reserves the right to require additional measures to achieve compliance with applicable law. Letterkenny reserves the right to challenge any action which the Department may take to require those measures.

8. Liability of Operator. Letterkenny shall be liable for any violations of the Consent Order and Agreement, including those caused by, contributed to, or allowed by its officers, agents, employees, or contractors. Letterkenny also shall be liable for any violation of this Consent Order and Agreement caused by, contributed to, or allowed by its successors and assigns.

9. Transfer of Site.

a. The duties and obligations under this Consent Order and Agreement shall not be modified, diminished, terminated or otherwise altered by the transfer of any legal or equitable interest in the Plant or any part thereof.

b. If Letterkenny intends to transfer any legal or equitable interest in the Plant which is affected by this Consent Order and Agreement, Letterkenny shall serve a copy of this Consent Order and Agreement upon the prospective transferee of the legal and

equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the Regional Office of the Department of such intent.

c. The Department in its sole discretion may agree to modify or terminate Letterkenny's duties and obligations under this Consent Order and Agreement upon transfer of the Plant. Letterkenny waives any right that it may have to challenge the Department's decision in this regard.

10. Correspondence with Department. All correspondence with the Department concerning this Consent Order and Agreement shall be addressed to:

Erick M. Ammon
Environmental Protection Compliance Specialist
Clean Water Program
PADEP Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: 717.705.4775
Facsimile: 717.705.4760
Email: eammon@pa.gov

11. Correspondence with Letterkenny. All correspondence with Letterkenny concerning this Consent Order and Agreement shall be addressed to:

Chairman
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244-9503
Phone: 717.532.8716
Email: letterkenny@embarqmail.com

Letterkenny shall notify the Department whenever there is a change in the contact person's name, title, or address. Service of any notice or any legal process for any purpose under this Consent

Order and Agreement, including its enforcement, may be made by mailing a copy by first class mail to the above address.

12. Force Majeure.

a. In the event that Letterkenny is prevented from complying in a timely manner with any time limit imposed in this Consent Order and Agreement solely because of a strike, fire, flood, act of God, or other circumstance beyond Letterkenny's control and which Letterkenny, by the exercise of all reasonable diligence, is unable to prevent, then Letterkenny may petition the Department for an extension of time. An increase in the cost of performing the obligations set forth in this Consent Order and Agreement shall not constitute circumstances beyond Letterkenny's control. Letterkenny's economic inability to comply with any of the obligations of this Consent Order and Agreement shall not be grounds for any extension of time.

b. Letterkenny shall only be entitled to the benefits of this paragraph if it notifies the Department within five (5) working days by telephone and within ten (10) working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by Letterkenny to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten working days of its submission. Letterkenny's failure to

comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. the Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by Letterkenny and other information available to the Department. In any subsequent litigation, the Letterkenny shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

13. Severability. The paragraphs of this Consent Order and Agreement shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

14. Entire Agreement. This Consent Order and Agreement shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

15. Attorney Fees. The parties shall bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Consent Order and Agreement.

16. Modifications. No changes, additions, modifications, or amendments of this Consent Order and Agreement shall be effective unless they are set out in writing and signed by the parties hereto.

17. Titles. A title used at the beginning of any paragraph of this Consent Order and Agreement may be used to aid in the construction of that paragraph, but shall not be treated as controlling

18. Decisions Under Consent Order. Any decision which the Department makes under the provisions of this Consent Order and Agreement, including a notice that stipulated civil penalties are due, is intended to be neither a final action under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa. C.S.A. § 101. Any objection which Letterkenny may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.

19. Termination. The obligations of this Consent Order and Agreement shall terminate after Letterkenny has completed to the Department's satisfaction the actions required in Paragraphs 3.a through 3.j, above, demonstrated six (6) consecutive months of compliance with its NPDES Permit final effluent limits after completing the corrective action required by Paragraph 3.j above, and paid any stipulated penalties due under Paragraph 5.

20. Execution of Agreement. This Consent Order and Agreement may be signed in counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

21. Resolution. Attached hereto as Exhibit 3 is a resolution of the Board of Supervisors of Letterkenny Township Municipal Authority authorizing its signatories below to enter into this Consent Order and Agreement on its behalf.

IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of Letterkenny certify under penalty of law, as provided by 18 Pa. C.S.A. 4904, that they are authorized to execute this Consent Order and Agreement on behalf of Letterkenny; that Letterkenny consents to the entry of this Consent Order and Agreement as a final ORDER of the Department; and that Letterkenny hereby knowingly waives its rights to appeal this Consent Order and Agreement and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, Act of July 13, 1988, P.L. 530, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa. C.S.A. § 103(a) and Chapters 5A and 7A; or any other provisions of law. Signature by Letterkenny's attorney certifies only that the agreement has been signed after consulting with counsel.

FOR LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY:

Name Charles H. Myers Date: 8-28-18
Title Chairman of the Board

Name Lance G. Norton Date: 8-28-18
Title Vice Chairman

Name David W Rahauser Date: 8/28/18
Attorney for Letterkenny Twp. M.A. 8-28-18

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:

Maria D. Bebenek P.E. Date: 9/10/18
Program Manager, Clean Water Program

Janna Williams Date: 9/11/18
Assistant Counsel

Exhibit 1
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County
DMR final effluent violations reported between April 2013 and August 2017

DMR Month	Parameter		DMR Value	Permit Limit
April-13	Total Residual Chlorine	IMAX	2.07 mg/L	2.0 mg/L
August-15	Total Residual Chlorine	Ave. Mo.	0.57 mg/L	0.5 mg/L
August-15	Total Residual Chlorine	IMAX	2.2 mg/L	1.6 mg/L
March-16	Fecal Coliform	Mo. GeoMean	2,839 CFU/100 ml	2,000 CFU/100 ml
July-16	Fecal Coliform	Mo. GeoMean	210 CFU/100 ml	200 CFU/100 ml
July-16	pH	Minimum	5.9 S.U.	6.0 S.U.
July-16	Dissolved Oxygen	Minimum	4.5 mg/L	5.0 mg/L
June-17	Dissolved Oxygen	Minimum	4.9 mg/L	5.0 mg/L
August-17	Fecal Coliform	IMAX	1,330 CFU/100 ml	1,000 CFU/100 ml
June-18	Fecal Coliform	Mo. GeoMean	300 CFU/100 ml	200 CFU/100 ml

Exhibit 2
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Stipulated penalties for violations of NPDES effluent limits (all limits except pH and DO)

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Monthly/Geometric Average Violations	**Assessed**	**Monthly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100%	$125.00	$250.00
Weekly Average Violations	**Assessed**	**Weekly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00
Instantaneous/Daily Maximum Violations	**Assessed**	**Monthly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00

Stipulated penalties for violations of pH

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Instantaneous/Daily Maximum Violations	**Assessed**	**Daily**
9.1 – 9.6 S.U.	$50.00	$100.00
9.7 – 10.2 S.U.	$75.00	$150.00
10.3 – 10.8 S.U.	$100.00	$200.00
≥ 10.9 S.U.	$125.00	$250.00
Instantaneous/Daily Maximum Violations	**Assessed**	**Daily**
5.4 – 5.9 S.U.	$50.00	$100.00
4.8 – 5.3 S.U.	$75.00	$150.00
4.2 – 4.7 S.U.	$100.00	$200.00
≤ 4.2 S.U.	$125.00	$250.00

Stipulated penalties for violations of Dissolved Oxygen

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Instantaneous/Daily Minimum Violations	**Assessed**	**Daily**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00

Exhibit 3
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County
Resolution of the Board of Supervisors of Letterkenny Township Municipal Authority

RESOLUTION 2018-1

A RESOLUTION OF THE BOARD FOR THE LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY (LTMA) AUTHORIZING CHARLES H. MYERS AND LANCE G. NORTON TO ACT AS AGENTS AND SIGNATORIES ON BEHALF OF LTMA FOR THE PURPOSE OF SIGNING AND SUBMITTING AGREEMENTS.

WHEREAS, Charles H. Myers is the Chairman of the Board and Lance G. Norton is the Vice Chairman of the Board for the Letterkenny Township Municipal Authority (LTMA); and,

WHEREAS, the DEP Consent Order and Agreement requires two authorized signatures;

NOW, THEREFORE, BE IT RESOLVED by the Board representing the Letterkenny Township Municipal Authority (LTMA), Franklin County, Pennsylvania, that Charles H. Myers and Lance G. Norton are authorized to act on behalf of LTMA for the purpose of signing and submitting agreements.

RESOLVED AND ENACTED this 28th day of August 2018, by the Board representing the Letterkenny Township Municipal Authority.

Attest:

Melissa W Kibbe
Melissa W Kibbe, Secretary

LTMA BOARD

Charles H. Myers
Charles Myers, Chairman

Lance G. Norton
Lance Norton, Vice Chairman

Barry Atherton
Barry Atherton

Donald E. Potteiger
Donald Potteiger

Wanda J. Stouffer
Wanda Stouffer

Exhibit “J”

"That good York water"
SINCE 1816

The York Water Company

RECEIVED
JUL 10 2019

July 2, 2019

Franklin County Planning Commission
340 N. 2nd St.
Chambersburg, PA 17201

Re: York Water Application to Serve Letterkenny Township Municipal Authority (LTMA), Letterkenny Township, Franklin County

The York Water Company is submitting a request to the Pennsylvania Public Utility Commission (PUC) to (1) enter into a municipal contract to acquire certain public wastewater facilities from Letterkenny Township Municipal Authority (LTMA), and (2) to offer or furnish wastewater service to the public in a portion of the Township of Letterkenny. A portion of Letterkenny Township is served by public wastewater but does not have access to public water. We are applying to the PUC to adopt the existing LTMA Sanitary Sewer service area and will provide wastewater service to Letterkenny Township in that service area. The LTMA owns both a wastewater treatment plant and sewer collection assets and holds a NPDES permit from PA DEP.

As part of York Water's request to the PUC, we have been asked to receive input from the County to determine if York Water's proposed wastewater service complies with Franklin County's land use planning.

Specifically, the PUC requests that the County reviews the following questions:

1. Are there adopted municipal comprehensive plans for the township involved? Yes
2. Is there an adopted county comprehensive plan? Yes
3. Is there an adopted multi-municipal or multi-county comprehensive plan? Yes
4. Is there an adopted county or municipal zoning ordinance or joint municipal zoning ordinance? No
5. Is the proposed project consistent with these comprehensive plans and/or zoning ordinances? Yes
6. If the answer is "yes" to any of the above questions, please sign below, or submit a letter, indicating that the application is consistent with the applicable comprehensive plans and zoning ordinances. If the application is not consistent with the applicable comprehensive plans and zoning ordinances, please provide an explanation.

Thank you in advance for your timely review of this request. If you have any questions, please call me at (717)718-7554 or email: jth@yorkwater.com.

Sincerely,

Joseph T. Hand

J.T. Hand
Chief Operating Officer

We concur that York Water's application is consistent with the applicable comprehensive plans and zoning ordinances.

Franklin County Planning Commission Signature Rochelle Barvinchack

Printed Name/Title Rochelle Barvinchack, Planner Date 8/16/19

Exhibit “K”

The York Water Company

"That good York water"
SINCE 1816

July 2, 2019

Dear Letterkenny Township Municipal Authority Wastewater Customer:

The York Water Company ("YWC") and Letterkenny Township Municipal Authority ("LTMA") are happy to announce that they have reached an agreement for the sale and purchase of the LTMA Sanitary Sewer System. As you may be aware, LTMA solicited proposals for the sale of the system and York Water was the successful offeror.

YWC will soon apply to the Pennsylvania Public Utility Commission ("PUC") for a Certificate of Public Convenience in order to serve the wastewater needs of LTMA. Once approved by the PUC, our goal is to provide a smooth transition to all LTMA customers. YWC is working with the Pennsylvania Department of Environmental Protection to secure the necessary permits and will begin surveying the LTMA Sanitary Sewer System, locating and marking manholes, inventorying sewer assets, and inspecting the wastewater treatment plant.

As a current LTMA customer, there is nothing you will need to do in order to initiate wastewater service nor will you incur any additional costs. Once approved by the PUC and upon receipt of the necessary permits from the Pennsylvania Department of Environmental Protection, you will receive a follow-up letter informing you of the transition date. Until that time, you will continue to be customers of LTMA and you should contact their office for any sewer-related questions.

Once you are a wastewater customer of YWC and subject to approval by the PUC, residential customers will be billed monthly at a base rate of $45.00, which is the same rate that is in effect with LTMA, though prorated from the $135 quarterly fee. For customers enrolled in our Timely Automatic Payment "TAP" plan, York Water can automatically deduct the amount of the sewer bill directly from your bank account. Customers may choose to pay their sewer bills conventionally by mail, electronically through their banking system or by accessing York Water's online payment portal. There are no convenience fees for paying your sewer bill electronically by echeck, debit or credit card.

York Water has been locally owned and operated since 1816 and now provides water/wastewater service to 48 municipalities in York and Adams Counties and we look forward to providing the same superior service to the new wastewater customers in Letterkenny Township. Please read the back of this letter for Commonly Asked Questions. If you have any questions about this information or need additional information about the transition of wastewater service by YWC, please do not hesitate to contact me at jth@yorkwater.com or one of our helpful customer service representatives at (717) 845-3601.

Sincerely,

Joseph T. Hand

J.T. Hand
Chief Operating Officer

The York Water Company
Letterkenny Township Municipal Authority Wastewater Project

July 2, 2019

Dear Letterkenny Township Municipal Authority Sewer Customer:

The York Water Company ("York Water") has entered into an agreement to purchase the Letterkenny Township Municipal Authority ("LTMA") sanitary sewer system. The following are commonly asked questions:

1. Why is LTMA selling the sewer system? After many years of operation, LTMA recognized that due to increasing costs beyond its control, increasing environmental and regulatory costs, and its ability to keep its sewer rates at reasonable and consistent rates was disappearing. This realization is a result of the fixed customer base in LTMA. By selling the system to York Water, the costs of operating the sewer system may be spread among the customers of York Water. In addition, with many professionals and equipment at its disposal, York Water will be able to operate the system in a more cost-effective manner and will be able to do so for the long term. Taken together, this translates into a cost savings to its customers.

2. When do I become a sewer customer of York Water? Probably not for another 6 months or so. We will send out a "Welcome Packet" when that date gets closer.

3. Who must stay connected to the sewer system? All current customers of LTMA's sewer system will automatically become wastewater customers of York Water.

4. What must I do to become a sewer customer of York Water? Nothing. If you are a sewer customer of LTMA your service will automatically transfer to York Water.

5. I see York Water employees around the area, what are they doing? We will have workers and contractors marking facilities, manholes, sanitary cleanouts and laterals and inventorying assets.

6. Are there any transfer fees? No.

7. How much will my sewer service cost? Subject to Pennsylvania Public Utility Commission (PUC) approval, York Water expects to bill monthly for wastewater service at a rate of $45.00 per month. This is the same rate that is currently in effect (prorated from the quarterly fee of $135.00). York Water will maintain this rate until adjusted from time to time by the PUC. Any future rate increases can only occur with approval of the PUC and the public has the ability to provide comment during the PUC approval process.

8. Who do I call for information?
You will still be an LTMA sewer customer for the next 6 months, so if you have any questions regarding your existing sewer service, you should contact them. If you want to talk about this transition with a York Water representative, you can contact our Customer Service Department at 717-845-3601 or toll free at 1-800-750-5561 or email us at customer.service@yorkwater.com.

Exhibit “M”

Letterkenny Township Municipal Authority
Board Meeting and Special Public Meeting
June 25, 2019

PRESENT WERE:
Board Members: Atherton, Myers, Norton, Potteiger, Stouffer — Secretary: Kibbe
Representatives from The York Water Co: J.T. Hand, Jack Longstreet — Solicitor: Rahauser

The regular monthly meeting of the Letterkenny Township Municipal Authority was held on June 25, 2019, in conjunction with a special public meeting regarding the selling of the wastewater treatment plant. Letters were mailed to all LTMA customers on June 13, 2019, inviting them to attend the special public meeting if they had any question concerning the sale. The meeting was called to order at 7:30 p.m. by Chairman Myers.

Special Public Meeting

-Three LTMA customers and one Lurgan Township Supervisor attended the meeting.
-Following an introduction by Chairman Myers, Mr. J.T. Hand shared several positive facts about The York Water Company. He offered many reasons why selling the wastewater treatment plant to a private company was in the best interest of the township, the municipal authority, and the customers.
-Board member, Stouffer, and customers, Ray Heisey and Dale Winger, asked several questions.
-Following the discussion, Myers and Kibbe signed the "Agreement of Wastewater Collection System Sale" entering into an agreement with The York Water Company.
-The York Water Company will now submit an application to the Public Utilities Commission (PUC) for authorization to purchase the wastewater treatment plant.

Regular Monthly Meeting

The May 28, 2019, minutes were approved by the Board following a motion by Atherton, seconded by Stouffer. Paying the bills as listed was approved by the board following a motion by Stouffer, seconded by Norton. The Treasurer's Report was approved by the Board following a motion by Norton, seconded by Atherton.

Information and Discussion Items

-David H. Martin Excavating, along with two township employees, replaced the damaged sewer line and filled in the sink hole at 10190 Cardinal Drive. David H. Martin will reseed the yard within the next few days.

There being no further business, the meeting adjourned at 9:00 p.m. following a motion by Norton, seconded by Potteiger.

Respectfully submitted,

Melissa W Kibbe
Secretary

Exhibit “N”

EXHIBIT "N"

Estimated Annual Revenue and Expense Figures for the Proposed, Additional Customers

Projected annual revenue is based upon flat rate billing for the number of customers connected.

Monthly Customer Charge	$ 45.00
	X 185
Monthly Revenue	$ 8,325
Monthly Revenue	$ 8,325
	X 12
Total Annual Revenue	$ 99,900

Estimated expenses are calculated based on the Company's latest cost of service study performed with the latest rate filing effective March 1, 2019. The Company expects the expenses for the new Letterkenny Township customers to mirror those of the current system.

O & M Expenses (35.5% of revenue)	$35,465
Depreciation (14.2% of revenue)	14,186
General Taxes (2.1% of revenue)	2,098
Income Taxes (5.8% of revenue)	5,794
Total Operating Expenses	$57,543
Operating Income	$42,357

Exhibit “P”

THE YORK WATER COMPANY

RATES, RULES AND REGULATIONS GOVERNING

THE PROVISION OF WASTEWATER COLLECTION, TREATMENT

AND/OR DISPOSAL SERVICE TO THE PUBLIC IN

THE BOROUGHS OF EAST PROSPECT, JACOBUS AND WEST YORK

AND THE

TOWNSHIPS OF EAST MANCHESTER (ASBURY POINTE RESIDENTIAL SUBDIVISION)

AND LOWER WINDSOR IN YORK COUNTY

AND THE

TOWNSHIP OF LETTERKENNY IN FRANKLIN COUNTY, PENNSYLVANIA (C)

ISSUED: xxxxxxxxxxxxxxx

EFFECTIVE: xxxxxxxxxxxx

By: Joseph T. Hand (C)
President and CEO
130 East Market Street
York, Pennsylvania

(C) Indicates Change

☞ **NOTICE**

Filed in compliance with the order of the Pennsylvania Public Utility Commission of XXXXXXXXXXX, at

Docket No. A-XXXX-XXXXXXX.
(SEE PAGE NO. 2)

LIST OF CHANGES

This tariff supplement authorizes The York Water Company – Wastewater to begin to offer or furnish wastewater service to the public in a portion of Letterkenny Township, Franklin County, Pennsylvania, as previously served by Letterkenny Township Municipal Authority, in accordance with the Pennsylvania Public Utility Commission Order at Docket No. A-XXXX-XXXXXXX, entered XXXXXXXXXXX.

TABLE OF CONTENTS

	Page	
Title Page	Supplement No. X	(C)
List of Changes	2 XXXXXX Revised	(C)
Table of Contents	3 XXXXXX Revised	(C)
Part I		
Schedule of Rates and Charges	4 XXXXXX Revised	(C)
Schedule of Miscellaneous Fees and Charges	5 Second Revised	
State Tax Adjustment Surcharge	6 First Revised	
Part II		
Definitions	7 First Revised	
Part III		
Rules and Regulations	11 First Revised	
Section A — Applications for Service	11 First Revised	
Section B — Construction and Maintenance of Facilities	11 First Revised	
Section C — Discontinuance, Termination and Restoration of Service	13 First Revised	
Section D — Billing and Collection	14 First Revised	
Section E — Deposits	15 First Revised	
Section F — Wastewater Control Regulations	16 First Revised	
Section G — Line Extensions	20 First Revised	
Section H — Service Continuity	24 First Revised	
Section I — Waivers	25 First Revised	
Section J — Amendment of Commission Regulations	25 First Revised	
Section K — Industrial & Commercial Service Limitations	25 First Revised	
Section L — Privilege to Investigate/Rights of Access	26 First Revised	

(C) Indicates Change

PART I: SCHEDULE OF RATES AND CHARGES

Asbury Pointe Area

A flat rate of $62.50 per month per equivalent dwelling unit.

East Prospect and Lower Windsor Area

A metered rate (based on water consumption) as follows:

	Per Month	Rate
East Prospect and Lower Windsor area	1st 4,000 Gals.	$62.50
Over	4,000 Gals.	$2.50 per 1,000 Gals.

West York Borough Area	Rate per Month
A flat rate per equivalent dwelling unit.	
Residential	$32.71
Commercial/Industrial	$40.42

Jacobus Borough Area

A metered rate (based on water consumption) per equivalent dwelling unit as follows:

	Per Month	Rate
Jacobus Borough Area	1st 4,000 Gals.	$55.00
Over	4,000 Gals.	$5.00 per 1,000 Gals.

Letterkenny Township Area (C)

A flat rate of $45.00 per month per equivalent dwelling unit.

(C) Indicates Change

Exhibit “Q-1”

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FILE

MAY 18 2018

CERTIFIED MAIL NO. 9171 9690 0935 0108 1325 94

Charles Myers
Authority Chairman
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244-9536

Re: Final NPDES and WQM Permits- Sewage
Letterkenny Township STP
NPDES Permit No. PA0082201
WQM Permit No. 2895401 ✓
Letterkenny Township, Franklin County

Dear Mr. Myers:

Your NPDES permit and Water Quality Management (WQM) permit are enclosed. Please read the permits carefully before starting construction. You must comply with all conditions in these permits. Construction must be done in accordance with the WQM permit application and all supporting documentation.

Please note that you are responsible for securing all other required permits, approvals and/or registrations associated with the project, if applicable, under Chapters 102 (erosion and sedimentation control), 105 (stream obstructions and encroachments) and 106 (floodplains) of DEP's regulations. Construction may not proceed until all other required permits have been obtained.

The NPDES permit expires on the date identified on page 1 of the NPDES permit. If you intend to continue discharging beyond the permit expiration date, you must submit a complete application to renew your permit at least 180 days prior to the expiration date.

Enclosed are Discharge Monitoring Report (DMR) templates and DMR instructions. It is recommended that you retain the DMR templates in the event you are unable to submit DMRs electronically through DEP's eDMR system. Routine use of the eDMR system is a requirement of the permit unless the conditions in Part A III.B of the permit are met to withdraw from the eDMR system.

Also enclosed is a Supplemental Form Inventory, which identifies the forms that are attached to the permit and must be submitted as attachments to eDMR reports, as applicable (see individual form instructions). The submission of other supplemental forms may be required in accordance with the permit. We encourage you to use the spreadsheet versions of supplemental forms that contain appropriate validation and DEP-approved calculations.

Enclosed is the "Water Quality Management Post Construction Certification" form. A Pennsylvania-registered Professional Engineer must sign and complete this form prior to startup of the facilities. You or your authorized representative must also sign the form. This certification and other post-construction documentation must be submitted to DEP within 30 days of completion of the project and must be received by DEP prior to commencing operation of the facilities.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

During construction or upon completing construction, please contact Jinsu Kim at 717.705.4825 or jikim@pa.gov so that an inspection of the facilities may be conducted, at DEP's discretion.

Sincerely,

Maria D. Bebenek, P.E.
Environmental Program Manager
Clean Water Program

Enclosures

cc: William DelGrande, P.E., DelGrande & Associates, LLC
Operations Section, PA DEP
Central Office, Division of Operations, Monitoring and Data Systems, PA DEP
File

Supplemental Form Inventory

The following supplemental forms (indicated in the check box column) are attached to this permit and must be completed and submitted to DEP in accordance with the permit and the supplemental form instructions. If the eDMR system is used to submit DMR reports, the spreadsheet versions of these supplemental forms, where applicable, should be used and attached to the eDMR submissions. A link to DEP's supplemental form website is available when logging into the eDMR system.

Check Box	Supplemental Form Name and No.
☒	Daily Effluent Monitoring (3800-FM-BPNPSM0435)
☒	Influent & Process Control (3800-FM-BPNPSM0436)
☒	Hauled in Municipal Wastes (3800-FM-BPNPSM0437)
☒	Sewage Sludge/Biosolids Production and Disposal (3800-FM-BPNPSM0438)
☐	Chemical Additives Usage (3800-FM-BPNPSM0439)
☒	Non-Compliance Reporting Form (3800-FM-BPNPSM0440)
☐	CSO Monthly Summary Report (3800-FM-BPNPSM0441)
☐	CSO Detailed Report (3800-FM-BPNPSM0442)
☐	Groundwater Monitoring Data Report (3800-FM-BPNPSM0443)
☐	TMDL Annual Load Summary (3800-FM-BPNPSM0448)
☐	Land Application Systems (3800-FM-BPNPSM0449)
☒	Hauled in Residual Wastes (3800-FM-BPNPSM0450)
☐	Surface Water Monitoring Data Report (3800-FM-BPNPSM0461)
☒	Lab Accreditation Form (3800-FM-BPNPSM0189)
☐	Whole Effluent Toxicity Test Summary Report (3800-FM-BPNPSM0485)
☐	Storm Water Annual Inspection Form (3800-PM-WSFR0083v)
☐	Storm Water Additional Information (3800-PM-WSFR0083t)
☐	Other:

3800-PM-WSFR0015 1/2011
Permit

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

PERMIT NO. 2895401 A-1

AMENDMENT NO. 1

APS ID. 324074

AUTH. ID. 1210625

WATER QUALITY MANAGEMENT PERMIT

A. PERMITTEE (Name and Address): CLIENT ID#: 68020 **Letterkenny Township Municipal Authority** **4924 Orrstown Road** **Orrstown, PA 17244-9536**	B. PROJECT/FACILITY (Name): **Letterkenny Township STP**
C. LOCATION (Municipality, County): **Letterkenny Township, Franklin County**	SITE ID#: **623**

D. This (permit/amendment) approves the (construction/modification/operation) of sewage facilities consisting of:
-Installation of a new ultraviolet disinfection system to replace the existing chlorine contact tank.
-Installation of all other appurtenances for the proposed modification.

Pump Stations: _____	Manure Storage:	Sewage Treatment Facility:
Design Capacity: _____ GPM	Volume: _____ MG	Annual Average Flow: 0.042 MGD
	Freeboard: _____ inches	Design Hydraulic Capacity: 0.042 MGD
		Design Organic Capacity: 82 lb/day

E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:

1. **Amendments:** All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated **November 29, 2017** and its supporting documentation and addendums dated **December 22, 2017**, which are hereby made a part of this amendment.

   Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. **2895401** dated **August 04, 1995** shall remain in effect.
2. Permit Conditions Relating to Sewerage are attached and made part of this permit.
3. Special Conditions **N/A** are attached and made part of this permit.

F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:

1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.
2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.
3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 *et seq.* Issuance of this permit shall not relieve the permittee of any responsibility under any other law.

PERMIT ISSUED:
MAY 18 2018

BY: Maria D Bebenek

TITLE: **Maria D. Bebenek, P.E.**
Clean Water Program Manager
Southcentral Regional Office

Permit No. 2895401 A-1

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

PERMIT CONDITIONS RELATING TO SEWERAGE

For use in Water Quality Management Permits

(Check boxes that apply)

General

☒ 1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.

☒ 2. The permittee shall adopt and enforce an ordinance requiring the abandonment of privies, cesspools or similar receptacles for human waste and onlot sewage disposal systems on the premises of occupied structures accessible to public sewers. All such structures must be connected to the public sewers.

☒ 3. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.

☒ 4. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along or across private property with full rights of ingress, egress and regress.

☒ 5. When construction of the approved sewerage facilities is completed and before they are placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities.

☐ 6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 2 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the second anniversary of the permit date.

☒ 7. If, at any time, the sewerage facilities covered by this permit create a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.

☒ 8. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.

☒ 9. This permit does not relieve the permittee of its obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.

☒ 10. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confirm any right, easement or interest in, on, to or over any lands which belong to the Commonwealth.

☒ 11. The authority granted by this permit is subject to all effluent requirements, monitoring requirements and other conditions as set forth in NPDES Permit No. **PA0082201** and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

Construction

☒ 12. This permit is issued under the authorization of The Clean Streams Law and 25 Pa. Code Chapter 91. The permittee shall obtain all necessary permits, approvals and/or registrations under 25 Pa. Code Chapters 102, 105 and 106 prior to commencing construction of the facilities authorized by this permit, as applicable. The permittee should contact the DEP office that issued this permit if there are any questions concerning the applicability of additional permits.

☒ 13. The facilities shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications.

☒ 14. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the application and design plans submitted to DEP, using "Post Construction Certification" form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the facilities. The certification must be submitted to DEP before the facility is placed in operation. As-built drawings, photographs (if available) and a description of all deviations from the application and design plans must be submitted to DEP within 30 days of certification.

☒ 15. Manhole inverts shall be formed to facilitate the flow of the sewage and to prevent the stranding of sewage solids. The manhole structure shall be built to prevent undue infiltration, entrance of street wash or grit and provide safe access to facilitate manhole maintenance activities.

☒ 16. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

Operation and Maintenance

☒ 17. The permittee shall maintain records of "as-built" plans showing all the treatment facilities as actually constructed together with facility operation and maintenance (O&M) manuals and any other relevant information that may be required. Upon request, the "as-built" plans and O&M manuals shall be filed with DEP.

☒ 18. The sewers shall have adequate foundation support as soil conditions require. Trenches shall be back-filled to ensure that sewers will have proper structural stability, with minimum settling and adequate protection against breakage. Concrete used in connection with these sewers shall be protected from damage by water, freezing, drying or other harmful conditions until cured.

☒ 19. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the sanitary sewers.

☒ 20. The approved sewers shall be maintained in good condition, kept free of deposits by flushing or other cleaning methods and repaired when necessary.

☒ 21. The sewerage facilities shall be properly operated and maintained to perform as designed.

☒ 22. The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air and to the highly toxic character of certain gases arising from such digestion or from sewage in poorly ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion or danger from toxic gases may occur, the permittee shall post conspicuous permanent and legible warnings. The permittee shall instruct all employees concerning the aforesaid hazards, first aid and emergency methods of meeting such hazards and shall make all necessary equipment and material accessible.

☒ 23. An operator certified in accordance with the Water and Wastewater Systems Operator Certification Act of February 21, 2002, 63 P.S. §§1001, *et seq.* shall operate the sewage treatment plant.

☒ 24. The permittee shall properly control any industrial waste discharged into its sewerage system by regulating the rate and quality of such discharge, requiring necessary pretreatment and excluding industrial waste, if necessary, to protect the integrity or operation of the permittee's sewerage system.

☒ 25. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.

☒ 26. All connections to the approved sanitary sewers must be in accordance with the official Act 537 Plan and, if applicable, a corrective action plan as contained in the approved Title 25 Pa. Code Chapter 94 Municipal Wasteload Management Annual Report.

☒ 27. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations 40 CFR 257 and the Federal Clean Water Act and its amendments.

3800-PM-WSFR0179a 9/2005
Post Construction Certification

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

WATER QUALITY MANAGEMENT
POST CONSTRUCTION CERTIFICATION

PERMITTEE IDENTIFIER	
Permittee	Letterkenny Township Municipal Authority
Municipality	Letterkenny Township
County	Franklin
WQM Permit No.	2895401 A-1
Facility Type	Sewage

All of the above information should be taken directly from the Water Quality Management Permit.

CERTIFICATION

This certification must be completed and returned to the permits section of the DEP's regional office issuing the WQM permit within 30 days of completion of the project and received by DEP prior to operation, and if requested, as-built drawings, photographs (if available) and a discussion of any DEP-approved deviations from the design plans during construction.

I, being a Registered Professional Engineer in Pennsylvania, do hereby certify to the best of my knowledge and belief, based upon personal observation and interviews, that the above facility approved under the Water Quality Management Permit has been constructed in accordance with the plans, specifications and modifications approved by DEP.

Construction Completion Date (MM/DD/YYYY): _____

	Professional Engineer
	Name _____ (Please Print or Type)
	Signature
	Date
	License Expiration Date
	Firm or Agency
	Telephone
	Permittee or Authorized Representative
	Name _____ (Please Print or Type)
	Signature
Engineer's Seal	Title
	Telephone

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM DISCHARGE REQUIREMENTS FOR PUBLICLY OWNED TREATMENT WORKS (POTWs)

NPDES PERMIT NO: PA0082201

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244-9536

is authorized to discharge from a facility known as **Letterkenny Township STP**, located in **Letterkenny Township, Franklin County**, to **Conodoguinet Creek** in Watershed(s) **7-B** in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

THIS PERMIT SHALL BECOME EFFECTIVE ON June 1, 2018

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON May 31, 2023

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))

3. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d))

   In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code §§ 92a.7(b), (c))

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

DATE PERMIT ISSUED MAY 18 2018

ISSUED BY Maria D. Bebenek

Maria D. Bebenek, P.E.
Clean Water Program Manager
Southcentral Regional Office

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 40° 6' 16.00" , **Longitude** 77° 39' 15.00" , **River Mile Index** 82.15 , **Stream Code** 10194

Receiving Waters: Conodoguinet Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **June 1, 2018** through **May 31, 2019**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	8.8	14	XXX	25.0	40.0	50	2/month	24-Hr Composite
Total Suspended Solids	10.5	15.7	XXX	30.0	45.0	60	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	8.4	XXX	XXX	24.0	XXX	XXX	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	2.8	XXX	XXX	8.0	XXX	16	2/month	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
at discharge from facility

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 001 , **Latitude** 40° 6' 16.00" , **Longitude** 77° 39' 15.00" , **River Mile Index** 82.15 , **Stream Code** 10194

Receiving Waters: Conodoguinet Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **June 1, 2019** through **May 31, 2023**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Daily Max	XXX	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Ultraviolet light intensity (mW/cm²)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Carbonaceous Biochemical Oxygen Demand (CBOD5)	8.8	14	XXX	25.0	40.0	50	2/month	24-Hr Composite
Total Suspended Solids	10.5	15.7	XXX	30.0	45.0	60	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	8.4	XXX	XXX	24.0	XXX	XXX	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	2.8	XXX	XXX	8.0	XXX	16	2/month	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
at discharge from facility

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. C. For Outfall 001 , **Latitude** 40° 6' 16.00" , **Longitude** 77° 39' 15.00" , **River Mile Index** 82.15 , **Stream Code** 10194

Receiving Waters: Conodoguinet Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **June 1, 2018** through **May 31, 2023**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Nitrate-Nitrite as N	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/quarter	24-Hr Composite
Total Nitrogen	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/quarter	Calculation
Total Kjeldahl Nitrogen	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/quarter	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at discharge from facility (Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.)

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS (Continued)

Additional Requirements

1. The permittee may not discharge:

   a. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code § 92a.41(c))

   b. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code § 92a.47(a)(7), § 95.2(2))

   c. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code § 93.6(a))

   d. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))

2. The monthly average percent removal of BOD_5 or $CBOD_5$ and TSS must be at least 85% for POTW facilities on a concentration basis except where 25 Pa. Code 92a.47(g) and (h) are applicable to facilities with combined sewer overflows (CSOs) or as otherwise specified in this permit. (25 Pa. Code § 92a.47(a)(3))

3. If the permit requires the reporting of average weekly statistical results, the maximum weekly average concentration and maximum weekly average mass loading shall be reported, regardless of whether the results are obtained for the same or different weeks.

4. The permittee shall monitor the sewage effluent discharge(s) for the effluent parameters identified in the Part A limitations table(s) during all bypass events at the facility, using the sample types that are specified in the limitations table(s). Where the required sample type is "composite", the permittee must commence sample collection within one hour of the start of the bypass, wherever possible. The results shall be reported on the Daily Effluent Monitoring supplemental form (3800-FM-BCW0435) and be incorporated into the calculations used to report self-monitoring data on Discharge Monitoring Reports (DMRs).

Footnotes

(1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.

(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

(1) The hydraulic design capacity of 0.042 million gallons per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to help determine whether a "hydraulic overload" situation exists, as defined in Title 25 Pa. Code Chapter 94.

(2) The effluent limitations for Outfall 001 were determined using an effluent discharge rate of 0.042 MGD.

(3) The organic design capacity of 82 lbs BOD_5 per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to determine whether an "organic overload" condition exists, as defined in 25 Pa. Code Chapter 94.

II. DEFINITIONS

At Outfall (XXX) means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

Average refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

Bypass means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

Calendar Week is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

Clean Water Act means the Federal Water Pollution Control Act, as amended (33 U.S.C.A. §§ 1251 to 1387).

Composite Sample (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

Composite Sample (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

Daily Average Temperature means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Daily Maximum Discharge Limitation means the highest allowable "daily discharge."

Discharge Monitoring Report (DMR) means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Estimated Flow means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

Geometric Mean means the average of a set of n sample results given by the n^{th} root of their product.

Grab Sample means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

Hauled-In Wastes means any waste that is introduced into a treatment facility through any method other than a direct connection to the sewage collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

Immersion Stabilization (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

Indirect Discharger means a non-domestic discharger introducing pollutants to a Publicly Owned Treatment Works (POTW) or other treatment works. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Industrial User means a source of Indirect Discharge. (40 CFR 403.3)

Instantaneous Maximum Effluent Limitation means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code § 92a.2)

Measured Flow means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

Monthly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code § 92a.2)

Municipality means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. (25 Pa. Code § 92a.2)

Municipal Waste means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

Publicly Owned Treatment Works (POTW) means a treatment works as defined by §212 of the Clean Water Act, owned by a state or municipality. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. The term also includes sewers, pipes or other conveyances if they convey wastewater to a POTW providing treatment. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (25 Pa Code § 92a.2, 40 CFR 122.2)

Residual Waste means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

Severe Property Damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

Stormwater means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code § 92a.2)

Stormwater Associated With Industrial Activity means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, and as defined at 40 CFR §122.26(b)(14)(i) – (ix) and (xi) and 25 Pa. Code § 92a.2.

Toxic Pollutant means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code § 92a.2)

Weekly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

III. SELF-MONITORING, REPORTING AND RECORDKEEPING

A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)

2. Records Retention (40 CFR 122.41(j)(2))

   Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application, unless a longer retention period is required by the permit. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

   For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

   a. The exact place, date and time of sampling or measurements.
   b. The person(s) who performed the sampling or measurements.
   c. The date(s) the analyses were performed.
   d. The person(s) who performed the analyses.
   e. The analytical techniques or methods used; and the associated detection level.
   f. The results of such analyses.

4. Test Procedures

   a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.

   b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))

   c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))

b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(j)(4))

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))

2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see www.dep.pa.gov/edmr). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:

   a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.

   b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).

4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:

   - Monthly DMRs must be received within 28 days following the end of each calendar month.
   - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
   - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
   - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.

5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

6. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above and for co-permittees, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR § 122.22(b))

7. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

C. Reporting and Notification Requirements

1. Planned Changes to Physical Facilities – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

   Notice is required when:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b). (40 CFR 122.41(l)(1)(i))

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))

   d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))

2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code § 92a.24(a) and 40 CFR 122.42(b), the permittee shall provide notice to DEP and EPA as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BCW0482), available on DEP's website. The permittee shall provide information on the quality and quantity of waste introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW (40 CFR 122.42(b)(3)). The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.

   a. Introduction of New Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(1))

      New pollutants are defined as parameters that meet one or more of the following criteria:

(i) Any pollutants that were not detected in the facilities' influent waste stream as reported in the permit application; and have not been approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants (40 CFR 122.42(b)(1)).

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(2))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

(i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or have been previously approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP and/or EPA, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the POTW, or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations, may not result in a hydraulic or organic overload condition as defined in 25 Pa. Code § 94.1, and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

(i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

(1) The dates that residual wastes were received.

(2) The volume (gallons) of wastes received.

(3) The license plate number of the vehicle transporting the waste to the treatment facility.

(4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.

(5) The name and address of the generator of the residual wastes.

(6) The type of wastewater.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code § 299.219). If the transporter is unable to provide this information or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

(ii) The following conditions apply to the characterization of residual wastes received by the permittee:

(1) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R except as noted in paragraph (2), below. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

(2) For wastewater generated from hydraulic fracturing operations ("frac wastewater") within the first 30 production days of a well site, the chemical analysis may be a general frac wastewater characterization approved by DEP. Thereafter, the chemical analysis must be waste-specific and be reported on the Form 26R.

b. Receipt of Municipal Waste

(i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

(1) The dates that municipal wastes were received.

(2) The volume (gallons) of wastes received.

(3) The BOD_5 concentration (mg/l) and load (lbs) for the wastes received.

(4) The location(s) where wastes were disposed of within the treatment facility.

(ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes. The influent BOD_5 characterization for the treatment facility, as reported in the annual Municipal Wasteload Management Report per 25 Pa. Code Chapter 94, must be representative of the hauled-in municipal wastes received.

4. Unanticipated Noncompliance or Potential Pollution Reporting

   a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b).

      (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.

      (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.

      (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.

   b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:

      (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

         (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

         (2) Any upset which exceeds any effluent limitation in the permit; and

         (3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement.

      (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

      (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))

5. Other Noncompliance

   The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

PART B

I. MANAGEMENT REQUIREMENTS

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))

2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code § 92a.72 and 40 CFR 122.41(f).

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))

3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))

2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))

3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))

4. The permittee shall provide the following information in the annual Municipal Wasteload Management Report, required under the provisions of Title 25 Pa. Code Chapter 94:

   a. The requirements identified in 25 Pa. Code § 94.12.

   b. The identity of any indirect discharger(s) served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTW by the indirect discharger.

   c. A "Solids Management Inventory" if specified in Part C of this permit.

   d. The total volume of hauled-in residual and municipal wastes received during the year, by source.

   e. The Annual Report requirements for permittees required to implement an industrial pretreatment program listed in Part C, as applicable.

D. General Pretreatment Requirements

1. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (MGD) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless specifically exempted by the Approval Authority. A POTW with a design flow of 5 MGD or less may be required to develop a POTW Pretreatment Program if the Approval Authority finds that the nature or volume of the industrial influent, treatment process upsets, violations of effluent limitations, contamination of sludge, or other circumstances warrant in order to prevent interference or pass through. (40 CFR 403.8)

2. Each POTW with an approved Pretreatment Program pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b), and shall continue to develop these limits as necessary and effectively enforce such limits. This condition applies, for example, when there are planned changes to the waste stream as identified in Part A III.C.2. If the permittee is required to develop or continue implementation of a Pretreatment Program, detailed requirements will be contained in Part C of this permit.

3. For all POTWs, where pollutants contributed by indirect dischargers result in interference or pass through, and a violation is likely to recur, the permittee shall develop and enforce specific limits for indirect dischargers and other users, as appropriate, that together with appropriate facility or operational changes, are necessary to ensure renewed or continued compliance with this permit or sludge use or disposal practices. Where POTWs do not have an approved Pretreatment Program, the permittee shall submit a copy of such limits to DEP when developed. (25 Pa. Code § 92a.47(d))

E. Proper Operation and Maintenance

1. The permittee shall employ operators certified in compliance with the Water and Wastewater Systems Operators Certification Act (63 P.S. §§ 1001-1015.1).

2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

F. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

G. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))

2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:

a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance. (40 CFR 122.41(m)(4)(i)(B))

c. The permittee submitted the necessary notice required in paragraph G.4 below. (40 CFR 122.41(m)(4)(i)(C))

3. DEP may approve an anticipated bypass, after considering its adverse effects, if DEP determines that it will meet the conditions listed in paragraph G.2 above. (40 CFR 122.41(m)(4)(ii))

4. Notice

a. Anticipated Bypass – If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the bypass. (40 CFR 122.41(m)(3)(i))

b. Unanticipated Bypass – The permittee shall submit oral notice of any other unanticipated bypass within 24 hours, regardless of whether the bypass may endanger health or the environment or whether the bypass exceeds effluent limitations. The notice shall be in accordance with Part A III.C.4.b.

H. Sanitary Sewer Overflows (SSOs)

An SSO is an overflow of wastewater, or other untreated discharge from a separate sanitary sewer system (which is not a combined sewer system), which results from a flow in excess of the carrying capacity of the system or from some other cause prior to reaching the headworks of the sewage treatment facility. SSOs are not authorized under this permit. The permittee shall immediately report any SSO to DEP in accordance with Part A III.C.4 of this permit.

II. PENALTIES AND LIABILITY

A. Violations of Permit Conditions

Any person violating Sections 301, 302, 306, 307, 308, 318 or 405 of the Clean Water Act or any permit condition or limitation implementing such sections in a permit issued under Section 402 of the Act is subject to civil, administrative and/or criminal penalties as set forth in 40 CFR 122.41(a)(2).

Any person or municipality, who violates any provision of this permit; any rule, regulation or order of DEP; or any condition or limitation of any permit issued pursuant to the Clean Streams Law, is subject to criminal and/or civil penalties as set forth in Sections 602, 603 and 605 of the Clean Streams Law.

B. Falsifying Information

Any person who does any of the following:

- Falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit, or

- Knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit (including monitoring reports or reports of compliance or noncompliance)

Shall, upon conviction, be punished by a fine and/or imprisonment as set forth in 18 Pa.C.S.A § 4904 and 40 CFR 122.41(j)(5) and (k)(2).

C. Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance pursuant to Section 309 of the Clean Water Act or Sections 602, 603 or 605 of the Clean Streams Law.

Nothing in this permit shall be construed to preclude the institution of any legal action or to relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject to under the Clean Water Act and the Clean Streams Law.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

III. OTHER RESPONSIBILITIES

A. Right of Entry

Pursuant to Sections 5(b) and 305 of Pennsylvania's Clean Streams Law, and Title 25 Pa. Code Chapter 92a and 40 CFR 122.41(i), the permittee shall allow authorized representatives of DEP and EPA, upon the presentation of credentials and other documents as may be required by law:

1. To enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit; (40 CFR 122.41(i)(1))

2. To have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit; (40 CFR 122.41(i)(2))

3. To inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and (40 CFR 122.41(i)(3))

4. To sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Clean Streams Law, any substances or parameters at any location. (40 CFR 122.41(i)(4))

B. Transfer of Permits

1. Transfers by modification. Except as provided in paragraph 2 of this section, a permit may be transferred by the permittee to a new owner or operator only if this permit has been modified or revoked and reissued, or a minor modification made to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (40 CFR 122.61(a))

2. Automatic transfers. As an alternative to transfers under paragraph 1 of this section, any NPDES permit may be automatically transferred to a new permittee if:

   a. The current permittee notifies DEP at least 30 days in advance of the proposed transfer date in paragraph 2.b. of this section; (40 CFR 122.61(b)(1))

   b. The notice includes the appropriate DEP transfer form signed by the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between them; and (40 CFR 122.61(b)(2))

   c. DEP does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue this permit, the transfer is effective on the date specified in the agreement mentioned in paragraph 2.b. of this section. (40 CFR 122.61(b)(3))

   d. The new permittee is in compliance with existing DEP issued permits, regulations, orders and schedules of compliance, or has demonstrated that any noncompliance with the existing permits

has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate Department regulations. (25 Pa. Code § 92a.71)

3. In the event DEP does not approve transfer of this permit, the new owner or operator must submit a new permit application.

C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

IV. ANNUAL FEE

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. Annual fee amounts are specified in the following schedule and are due on each anniversary of the effective date of the most recent new or reissued permit. All flows identified in the schedule are annual average design flows. (25 Pa. Code § 92a.62)

Small Flow Treatment Facility (SRSTP and SFTF)	$0
Minor Sewage Facility < 0.05 MGD (million gallons per day)	$250
Minor Sewage Facility ≥ 0.05 and < 1 MGD	$500
Minor Sewage Facility with CSO (Combined Sewer Overflow)	$750
Major Sewage Facility ≥ 1 and < 5 MGD	$1,250
Major Sewage Facility ≥ 5 MGD	$2,500
Major Sewage Facility with CSO	$5,000

As of the effective date of this permit, the facility covered by the permit is classified in the following fee category: **Minor Sewage Facility <0.05 MGD.**

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Throughout a five year permit term, permittees will pay four annual fees followed by a permit renewal application fee in the last year of permit coverage. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees. The fees identified above are subject to change in accordance with 25 Pa. Code § 92a.62(e).

Payment for annual fees shall be remitted to DEP at the address below by the anniversary date. Checks should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection
Bureau of Clean Water
Re: Chapter 92a Annual Fee
P.O. Box 8466
Harrisburg, PA 17105-8466

PART C

I. OTHER REQUIREMENTS

A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be directly admitted to the sanitary sewers associated with the herein approved discharge.

B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

C. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, Pennsylvania Clean Streams Law, Pennsylvania Solid Waste Management Act of 1980, and the Federal Clean Water Act and its amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.

D. The permittee shall optimize chlorine dosages used for disinfection or other purposes to minimize the concentration of Total Residual Chlorine (TRC) in the effluent, meet applicable effluent limitations, and reduce the possibility of adversely affecting the receiving waters. Optimization efforts may include an evaluation of wastewater characteristics, mixing characteristics, and contact times, adjustments to process controls, and maintenance of the disinfection facilities. If DEP determines that effluent TRC is causing adverse water quality impacts, DEP may reopen this permit to apply new or more stringent effluent limitations and/or require implementation of control measures or operational practices to eliminate such impacts.

Where the permittee does not use chlorine for primary or backup disinfection, but proposes the use of chlorine for cleaning or other purposes, the permittee shall notify DEP prior to initiating use of chlorine and monitor TRC concentrations in the effluent on each day in which chlorine is used. The results shall be submitted as an attachment to the DMR.

II. SOLIDS MANAGEMENT

A. The permittee shall manage and properly dispose of sewage sludge and/or biosolids by performing sludge wasting that maintains an appropriate mass balance of solids within the treatment system. The wasting rate must be developed and implemented considering the specific treatment process type, system loadings, and seasonal variation while maintaining compliance with effluent limitations. Holding excess sludge within clarifiers or in the disinfection process is not permissible.

B. The permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Sewage Sludge/Biosolids Production and Disposal" (Form No. 3800-FM-BCW0438) and "Supplemental Report – Influent & Process Control" (Form No. 3800-FM-BCW0436), as attachments to the DMR on a monthly basis. When applicable, the permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Hauled In Municipal Wastes" (Form No. 3800-FM-BCW0437) and "Supplemental Report – Hauled In Residual Wastes" (Form No. 3800-FM-BCW0450), as attachments to the DMR.

C. By March 31 of each year, the permittee shall submit a "Sewage Sludge Management Inventory" that summarizes the amount of sewage sludge and/or biosolids produced and wasted during the calendar year from the system. The "Sewage Sludge Management Inventory" may be submitted with the Municipal Wasteload Management Report required by Chapter 94. This summary shall include the expected sewage sludge production (estimated using the methodology described in the U.S. EPA handbook, "Improving POTW Performance Using the Composite Correction Approach" (EPA-625/6-84-008)), compared with the actual amount disposed during the year. Sludge quantities shall be expressed as dry weight in addition to gallons or other appropriate units.

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Interim

Reporting Frequency: Monthly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2019
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow	SAMPLE MEASUREMENT			MGD				XXX		Continuous	Measured
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max		XXX	XXX	XXX				
pH	SAMPLE MEASUREMENT			XXX				S.U.		1/day	Grab
	PERMIT REQUIREMENT	XXX	XXX		6.0 Daily Min	XXX	9.0 Daily Max				
Dissolved Oxygen	SAMPLE MEASUREMENT			XXX				mg/L		1/day	Grab
	PERMIT REQUIREMENT	XXX	XXX		5.0 Daily Min	XXX	XXX				
Total Residual Chlorine (TRC)	SAMPLE MEASUREMENT			XXX				mg/L		1/day	Grab
	PERMIT REQUIREMENT	XXX	XXX		XXX	0.5 Avg Mo	1.6 IMAX				
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT			lbs/day				mg/L		2/month	24-Hr Composite
	PERMIT REQUIREMENT	8.8 Avg Mo	14 Wkly Avg		XXX	25.0 Avg Mo	40.0 Wkly Avg				
Total Suspended Solids	SAMPLE MEASUREMENT			lbs/day				mg/L		2/month	24-Hr Composite
	PERMIT REQUIREMENT	10.5 Avg Mo	15.7 Wkly Avg		XXX	30.0 Avg Mo	45.0 Wkly Avg				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Interim

Reporting Frequency: Monthly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2019
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Fecal Coliform Oct 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	2000 Geo Mean	10000 IMAX	No./100 ml		2/month	Grab
Fecal Coliform May 1 - Sep 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	200 Geo Mean	1000 IMAX	No./100 ml		2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	8.4 Avg Mo	XXX	lbs/day	XXX	24.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	2.8 Avg Mo	XXX	lbs/day	XXX	8.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Total Phosphorus	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	XXX	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Final

Reporting Frequency: Monthly
DMR Effective From: June 1, 2019
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow	SAMPLE MEASUREMENT			MGD				XXX		Continuous	Measured
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max		XXX	XXX	XXX				
pH	SAMPLE MEASUREMENT			XXX				S.U.		1/day	Grab
	PERMIT REQUIREMENT	XXX	XXX		6.0 Daily Min	XXX	9.0 Daily Max				
Dissolved Oxygen	SAMPLE MEASUREMENT			XXX				mg/L		1/day	Grab
	PERMIT REQUIREMENT	XXX	XXX		5.0 Daily Min	XXX	XXX				
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT			lbs/day				mg/L		2/month	24-Hr Composite
	PERMIT REQUIREMENT	8.8 Avg Mo	14 Wkly Avg		XXX	25.0 Avg Mo	40.0 Wkly Avg				
Total Suspended Solids	SAMPLE MEASUREMENT			lbs/day				mg/L		2/month	24-Hr Composite
	PERMIT REQUIREMENT	10.5 Avg Mo	15.7 Wkly Avg		XXX	30.0 Avg Mo	45.0 Wkly Avg				
Fecal Coliform Oct 1 - Apr 30	SAMPLE MEASUREMENT			XXX				No./100 ml		2/month	Grab
	PERMIT REQUIREMENT	XXX	XXX		XXX	2000 Geo Mean	10000 IMAX				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Final

Reporting Frequency: Monthly
DMR Effective From: June 1, 2019
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Fecal Coliform May 1 - Sep 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	200 Geo Mean	1000 IMAX	No./100 ml		2/month	Grab
Ultraviolet light intensity	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	Report Daily Min	XXX	XXX	mW/cm²		1/day	Recorded
Ammonia-Nitrogen Nov 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	8.4 Avg Mo	XXX	lbs/day	XXX	24.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	2.8 Avg Mo	XXX	lbs/day	XXX	8.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Total Phosphorus	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	XXX	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Quarterly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022
___ Check Here if No Discharge
NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Nitrate-Nitrite as N	SAMPLE MEASUREMENT			lbs/day				mg/L			
	PERMIT REQUIREMENT	XXX	Report Daily Max		XXX	XXX	Report Daily Max			1/quarter	24-Hr Composite
Total Nitrogen	SAMPLE MEASUREMENT			lbs/day				mg/L			
	PERMIT REQUIREMENT	XXX	Report Daily Max		XXX	XXX	Report Daily Max			1/quarter	Calculation
Total Kjeldahl Nitrogen	SAMPLE MEASUREMENT			lbs/day				mg/L			
	PERMIT REQUIREMENT	XXX	Report Daily Max		XXX	XXX	Report Daily Max			1/quarter	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PERMIT NUMBER	OUTFALL NUMBER
PA0082201	001

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Monthly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

INSTRUCTIONS FOR COMPLETING DISCHARGE MONITORING REPORTS (DMRs)

General

One or more Discharge Monitoring Reports (DMRs) are attached to your permit for reporting the results of self-monitoring activities as required by your permit. You should make copies of the DMRs for your ongoing use, unless you elect to participate in the Department of Environmental Protection's (DEP's) electronic DMR (eDMR) program (see www.dep.pa.gov/edmr).

- Reporting frequencies will vary depending on the monitoring frequencies listed in your permit, and are generally monthly, quarterly semi-annually and annually.
- Your reports must be received by DEP on the 28th day of the month following the end of the reporting period, unless otherwise specified in Part C of your permit.
- Your permit may require submission of DMRs to other agencies, including the U.S. Environmental Protection Agency (EPA).
- If you receive DMRs in the mail from EPA, please discontinue use of DMR Form No. 3800-FM-BCW0462 and begin using EPA's DMRs.
- DMRs will generally include pre-populated information for permittee name and address, facility location, permit number, outfall number, permit expiration date, parameter names, and permit requirements. If you identify any errors on a DMR issued by DEP, please contact the DEP regional office that issued your permit. If you identify any errors on a DMR issued by EPA, please contact DEP's Central Office at 717-787-6744. **DO NOT make changes to DMRs issued to you**.
- You may use computer-generated replicas of Form No. 3800-FM-CW0462 or of EPA's DMR if you receive prior approval from DEP and EPA. **DEP reserves the right to instruct you to discontinue the submission of computer-generated DMRs if the permit requirements you entered on the form are inaccurate.**

Instructions

1. Enter statistical results into each blank field below the "VALUE" column headers. Results must be reported in the same units shown on the DMR.
2. Sum the total number of excursions or exceedances of permit limits across the row for each parameter and enter the value into the "NO. EX" field. For example, if the permit contains limits of 6.0 S.U. (Minimum) and 9.0 S.U. (Maximum) for pH, and the Minimum and Maximum results are 5.9 S.U. and 9.1 S.U., respectively, enter "2" into the "NO. EX" field.
3. Report the actual sampling frequency and sample type utilized during the reporting period in the fields corresponding to "Frequency of Analysis" and "Sample Type", respectively.
4. Type the name of the principal executive officer (or an authorized agent designated by a principal executive officer) who is taking responsibility for the report, sign the report (should be in ink), enter the telephone number of the responsible individual, and record the date that the report was signed. Mail only original, signed copies of DMRs.
5. In the Comments section at the bottom of the DMR, you may write a brief summary of violations in this section; however, DEP requests that all violations during the monitoring period be reported in more detail on DEP's **Non-Compliance Reporting Form** (3800-FM-BCW0440) and be submitted as an attachment to the DMR. Other uses of the Comments Section include explanations of attachments to the DMR, explanations for the unavailability of data, and brief summaries of issues that have affected operations or effluent quality during the monitoring period. Always consider attaching a letter or separate document to explain your situation in more detail.

No Discharge or No Data Available

If there was no discharge at all from an outfall during the monitoring period, check the "No Discharge" box on the top of the DMR. Complete the information above and below the table and mail the DMR to the appropriate agencies. Be sure to sign and date the DMR.

If there was no discharge of a specific parameter (e.g., if a chlorine limit is in the permit but chlorine was not used for disinfection during the entire reporting period), or if data are not available for a specific parameter for the entire reporting period, do not leave the DMR blank. Instead, report one of the following No Data Indicator (NODI) codes that apply to your situation in the appropriate value field, and **provide an explanation as an attachment to the DMR**:

A Use if you are exempted from monitoring the parameter because of a General Permit condition.

E Use if all samples or results are not available for the reporting period due to equipment failure or because sample collection was overlooked or samples could not be collected for the parameter.

GG Use if your permit requires sample collection and analysis only under certain conditions and those conditions were not met during the reporting period (e.g., report chlorine results only when chlorination system is used).

FF Other: use if there is any reason for the absence of data that is not covered by those above.

If you have at least one result for a parameter, the value should be reported and not a NODI code.

Calculations

The following explains how to calculate statistical values that are commonly required by permits:

Monthly Average – For Loading (lbs/day), sum the total of daily loadings and divide by the number of samples during the month. To calculate the daily loading, multiply the daily concentration (mg/l) by the flow (MGD) on the date of sampling and a conversion factor of 8.34. For Concentration, sum the total of daily concentrations and divide by the number of samples.

Weekly Average – For Loading (lbs/day), sum the total of average daily loadings during each week of the reporting period (beginning on a Sunday and ending on a Saturday) and divide by the number of samples during the week. For Concentration, sum the total of daily concentrations each week and divide by the number of samples. Report the maximum weekly average on the DMR.

Maximum Daily ("Daily Max") – Report the maximum concentration or load measured during a 24-hour period during the reporting period; if multiple measurements are taken daily, include all data in the analysis.

Instantaneous Maximum ("IMAX") – Report the maximum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

Instantaneous Minimum ("Minimum") – Report the minimum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

Total Monthly Load (lbs) – Sum the total of average daily loadings, divide by the number of samples during the month, and multiply by the number of days in the month.

Geometric Mean – Report the average of a set of *n* sample results given by the *n*th root of their product. If any result is zero (0), substitute 1 for the calculation. For example, five samples were analyzed with the following results: 20, 300, 400, 500, and 0. The calculation of geometric mean is as follows (note that you will need to use the power function on a calculator):

$$\sqrt[5]{20 \cdot 300 \cdot 400 \cdot 500 \cdot 1} = \sqrt[5]{1{,}200{,}000{,}000} = (1{,}200{,}000{,}000)^{1/5} = \mathbf{65}$$

Non-Detect Data

Conventional and Toxic Parameters

For calculating average values of data sets in which there are some "detections" (results at or above the laboratory reporting limit) and some "non-detect" data (results reported below the laboratory reporting limit), use the reporting limit for non-detect data. In other words, ignore the less than (<) symbol for statistical calculations and include the < symbol with the statistical result if there is at least one non-detect result in the data set. For example, four samples were analyzed with the following results: < 1.0, 2.0, < 1.0, and 1.0. The average statistical result is < 1.3.

Where the permit includes an effluent limitation for a parameter that is less than the most sensitive detection limit available, and the laboratory reports a value at or below the lowest level specified by the permit, you may use zero (0) in the calculation in lieu of the reporting limit, if the parameter is identified in 25 Pa. Code Chapter 16, Appendix A, Tables 2A and 2B. In general, parameters with limitations that are less than the most sensitive detection limit will be identified in Part C of the permit, if applicable.

Bacteria Parameters

Report all "non-detect" (e.g., < 2) and "too numerous to count" (TNTC) (e.g., > 2,000) results on DMR supplemental forms as reported by the laboratory. Do not report "TNTC" on supplemental forms, but instead report a value qualified with the">" symbol. Where a data set includes one or more "non-detect" and/or TNTC results, calculate the geometric mean by ignoring qualifying symbols, but report the value with the symbol. If a data set includes both ">" and "<" qualifiers, the ">" qualifier takes precedence for reporting. For all "non-detect" values, specify in the Comments section of the DMR the maximum volume filtered at the laboratory.

Example 1 – For results are determined, < 2, 10, 20, and 30. The geometric mean should be reported as $< (2 \bullet 10 \bullet 20 \bullet 30)^{0.25} = < 10$. Specify the maximum volume filtered for the < 2 result in the DMR Comments.

Example 2 – Three results are determined, < 2, 1,000, and > 2,000. The geometric mean should be reported as $> (2 \bullet 1{,}000 \bullet 2{,}000^{0.333} = > 158$.

Rounding and Precision

Statistical values reported on the DMR should be rounded to the same number of decimal places as the limit for the parameter as set forth in the permit. If the permit does not contain a limit but requests monitoring only, statistical values for concentration results should be rounded to the maximum number of decimal places in the data set as reported by the laboratory or the instrument used for analysis. If mass loads must be reported and there is no limit, round statistical values to the nearest whole number, unless the calculated number is less than one, in which case the value should be rounded to one significant figure (e.g., 0.1, 0.05, etc.). If the number you are rounding is followed by 5, 6, 7, 8, or 9, round the number up, otherwise round down.

The documents "Discharge Monitoring Reports Overview and Summary" (3800-BK-DEP3047) and "Management of Non-Detect Results for Discharge Monitoring Reports" (3800-FS-DEP4262) contain more information and are incorporated by reference. These documents are available on DEP's website.

3800-FM-BPNPSM0435 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
DAILY EFFLUENT MONITORING

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B
Laboratories:

Month: Year:
NPDES Permit No.: PA0082201 Outfall No.: 001
Renewal application due **180 days** prior to expiration
This permit will expire on MAY, 31 2023

	Effluent Parameters																	
	Flow		pH		DO		TRC		CBOD5		TSS		Fecal Coliform		UV Intensity		Nitrate-Nitrite	
Day	Q	MGD	Q	S.U.	Q	mg/L	Q	mg/L	Q	mg/L	Q	mg/L	Q	No./100 ml	Q	mW/cm²	Q	mg/L
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
Avg																		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Signature:
Title: Date:

3800-FM-BPNPSM0435 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
DAILY EFFLUENT MONITORING

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B
Laboratories:

Month: Year:
NPDES Permit No.: PA0082201 Outfall No.: 001
Renewal application due **180 days** prior to expiration
This permit will expire on MAY, 31 2023

	Effluent Parameters																	
Day	Total Nitrogen		Ammonia		TKN		Total Phosphorus											
	Q	mg/L	Q	mg/L	Q	mg/L	Q	mg/L	Q		Q		Q		Q		Q	
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
Avg																		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Signature:
Title: Date:

3800-FM-BPNPSM0436 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT – INFLUENT & PROCESS CONTROL

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due **180 days** prior to expiration
This permit will expire on MAY 31, 2023

Day	Influent					Process Control				
	Flow (MGD)	BOD5 (mg/l)	BOD5 (lbs)	TSS (mg/l)	TSS (lbs)	Aeration MLSS (mg/l)	Aeration DO (mg/l)	Sludge Wasted (gallons)		
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Avg										
Max										

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0437 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT – HAULED IN MUNICIPAL WASTES

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due **180 days** prior to expiration
This permit will expire on MAY 31, 2023

Day	SEPTAGE				SLUDGE				OTHER (specify):				DAILY TOTALS	
	Gallons	BOD_5 (mg/l)	BOD_5 (lbs)	Disposal Location	Gallons	BOD_5 (mg/l)	BOD_5 (lbs)	Disposal Location	Gallons	BOD_5 (mg/l)	BOD_5 (lbs)	Disposal Location	Gallons	BOD_5 (lbs)
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
Avg												Monthly Totals:		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0438 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due **180 days** prior to expiration
This permit will expire on MAY 31, 2023

SEWAGE SLUDGE/BIOSOLIDS PRODUCTION INFORMATION (Identify each off-site removal event and incineration event)

☐ Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge/Biosolids Hauled Off-site			Dewatered Sewage Sludge/Biosolids Hauled Off-site			Sewage Sludge/Biosolids Dewatered and Incinerated On-site		
	Gallons	% Solids	Dry Tons	Tons Dewatered	% Solids	Dry Tons	Tons Dewatered	% Solids	Dry Tons
	TOTAL:			TOTAL:			TOTAL:		

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

Site Name				
Municipality				
County				
DEP Permit No.				
Type of Material*				
Dry Tons Applied/Disposed				
Type of Disposal/Use*				
Hauler Name				

*See Instructions for explanation

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0450 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
HAULED IN RESIDUAL WASTES

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due **180 days** prior to expiration
This permit will expire on MAY 31, 2023

Date	Volume Received *(gallons)*	License Plate No.	Well Permit No.	Source of Residual Waste			Wastewater Type	Chemical Analysis *(Yes/No)*
				Generator	*Address*	*State*		
Total:								

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. §4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0440 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). **Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.** If you are reporting other non-compliance events, and the reporting deadline does not coincide with your submission of the DMR, it should be submitted separately to the Department by the reporting deadline set forth in the permit. See instructions for more information.

Facility Name: Letterkenny Township STP Month: _____ Year: _____

Municipality: Letterkenny Township County: Franklin Permit No.: PA0082201

☐ **Violations of Permit Effluent Limitations***

Date	Parameter	Permit Limit	Units	Statistical Code	Result	Units	Cause of Violation	Corrective Action Taken

☐ **Sanitary Sewer Overflows and Other Unauthorized Discharges***

Event Date	Substance Discharged	Location	Volume (gals)	Duration (hrs)	Receiving Waters	Impact on Waters	Cause of Discharge	Date DEP Notified

☐ **Other Permit Violations***

- ☐ Sample collection less frequent than required Explain _____
- ☐ Sample type not in compliance with permit Explain _____
- ☐ Violation of permit schedule Explain _____
- ☐ Other Explain _____
- ☐ Other Explain _____

*** If the space provided is not sufficient to record all information, please attach additional sheets.**

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0189 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL LABORATORY ACCREDITATION FORM[1]

Permittee Name: Letterkenny Township Municipal Authority

Address: 4924 Orrstown Rd
Orrstown,PA 17244-9536

PERMIT NUMBER	MONITORING PERIOD Year/Month/Day						
PA0082201				TO			

PARAMETER	ANALYSIS METHOD	LAB NAME	LAB ID NUMBER[2]

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibly of fine and imprisonment for knowing violations.

Name/Title Principal Executive Officer _____

Phone: _____

Signature of Principal Executive Officer or Authorized Agent _____

Date: _____

[1] Submit this form with the first Discharge Monitoring Report (DMR) or Annual Report, where sample results are submitted to the Department for compliance purposes. You do not need to send this form to the Department again UNLESS there has been a change to the lab(s), parameter(s) or method(s) of analysis.

[2] For parameter(s) covered under accreditation-by-rule, submit the lab's registration number in lieu of an accreditation number.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

DAILY EFFLUENT MONITORING REPORT

Use this form to report daily monitoring results for the parameters that must be monitored in effluent for compliance with the permit. Results for influent parameters are normally reported on Form 3800-FM-BPNPSM0436.

1. Enter Facility Name, Municipality, County, Watershed No., Laboratories, Month, Year, NPDES Permit No., Outfall No., and Permit Expiration Date (it is noted that this information may be pre-populated if you have received this form with your permit). For Laboratories, list the names of all laboratories where samples were analyzed during the month, including on-site analysis.

2. In the column headers, below "Effluent Parameters," enter the names of parameters in the permit. Since limited space is provided, abbreviation may be necessary. If there are more parameters for an outfall than columns provided on the form, attach an additional sheet.

3. Below parameter names, and to the right of "Q" (Qualifier) column headers, enter the units associated each parameter (it is noted that this information may be pre-populated if you have received this form with your permit).

4. Enter monitoring results for parameters in the rows corresponding to the day of the month in which samples were collected. Enter results exactly as reported by the laboratory, or if measured with on-site equipment, to the level of precision recommended by the equipment manufacturer. Enter data qualifiers such as "<," ">," "J," and others in the "Q" column.

5. Calculate and report average values at the bottom of the table in accordance with the DMR Instructions (3800-FM-BPNPSM0463) and DEP guidance (3800-BK-DEP3047). Note – for bacteria, calculate and report the geometric mean value.

6. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

INFLUENT AND PROCESS CONTROL REPORT

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

2. For **Influent**, enter daily average Influent Flow (MGD) (if an influent flow meter is in use), daily influent BOD_5 or $CBOD_5$ concentrations (mg/l) and loads (lbs), and daily influent TSS concentrations (mg/l) and loads (lbs). If an influent flow meter is not in use, you may use results from an effluent flow meter.

3. For **Process Control**, enter daily average Mixed Liquor Suspended Solids (MLSS) (mg/l) and daily average Aeration Dissolved Oxygen (DO) for aerobic biological treatment systems, and total daily Sludge Wasted (removed from biological treatment), in gallons, for all treatment system types. If a parameter does not apply to your facility, leave the column blank. Information for other parameters such as Return Activated Sludge (RAS) Rate, Recirculation Rate (for fixed media treatment systems), Sludge Blanket Thickness, Sludge Volume Index, and others may be requested by the DEP office that issued the permit.

4. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

HAULED IN MUNICIPAL WASTES REPORT

This form is intended for documenting the receipt of municipal wastes including sewage sludge, septage and other municipal wastewaters hauled in from other facilities for processing and/or disposal at your facility. This form should not be used for reporting receipt of residual wastes (e.g., food processing wastes, oil and gas wastewater, landfill leachate, etc.) - please use Form 3800-FM-BPNPSM0450 for reporting this information.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

2. For septage, biosolids and other wastewaters (specify type in the space provided), record the daily volume received in gallons, the daily BOD_5 concentration (average), the daily BOD_5 load in lbs (average), and the disposal location. For disposal location, specify the plant location or tank receiving hauled in wastes (e.g., headworks, primarily clarifier, digester, etc.).

3. Determine daily BOD_5 concentrations in mg/l by sampling loads in accordance with the permit or otherwise as determined by the facility. Periodic sampling of loads is encouraged to improve confidence in reported results.

4. Calculate the average, daily total and monthly total values and report the values in the spaces provided.

5. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

BIOSOLIDS PRODUCTION AND DISPOSAL FORM

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

Biosolids Production Information

2. For each off-site removal event for liquid sewage sludge or biosolids and for dewatered sewage sludge or biosolids, and for each event where dewatered sewage sludge or biosolids are incinerated on-site, list the date of the event, identify the gallons (liquid) or tons (dewatered) removed or incinerated and the percent solids (e.g., 10%, 20%, etc.) Report only sewage sludge or biosolids that have been removed from the plant digesters and other solids which have been **permanently** removed from the treatment process. Do **not** include sewage sludge or biosolids from other facilities that are processed at your facility. (If there were no off-site removal events during the month, check the box above the table).

   Calculate dry tons for liquid sewage sludge or biosolids by multiplying the volume (gallons) by the percent solids and by a conversion factor of 0.0000417. For example, if 2,500 gallons of liquid biosolids is removed, and the percent solids is 3.0%, dry tons is calculated as:

   2,500 gallons x 3.0% x 0.0000417 = 0.31 dry tons

   Calculate dry tons for dewatered sewage sludge or biosolids by multiplying the tons dewatered by the percent solids and by a conversion factor of 0.01. For example, if 5 tons of dewatered biosolids is removed, and the percent solids is 50%, dry tons is calculated as:

   5 tons x 50% x 0.01 = 2.5 dry tons

   The **% Solids** of liquid or dewatered sewage sludge or biosolids must be determined periodically through laboratory testing. Do not estimate or guess this value. An acceptable test method is method 2540B in *Standard Methods for the Examination of Water and Wastewater*, 18th edition, where samples are dried at 103-105°C. Other references such as ASTM may have equivalent tests which are also acceptable.

Biosolids and Incinerator Ash Disposal and Beneficial Use Information

3. Report sewage sludge, biosolids, and ash disposal and beneficial use information by disposal/application site. There are columns for four possible sites per month - if more sites are needed, attach additional pages. For each Site Name, listed at the top of the column, enter the Municipality and County of the site, the DEP Permit No. (i.e., Biosolids

permit number for land application, landfill waste management permit number, etc.), Type of Material (sewage sludge, biosolids, or incinerator ash), Dry Tons Applied/Disposed at the site for the month, Type of Disposal/Use (e.g., reed beds, agricultural utilization, composting, landfill, other treatment plant, etc.) and the name of the hauler (company or individual name).

4. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). If you are reporting other non-compliance events, and the deadline for a written report (e.g., 5 days) does not coincide with your submission of the DMR, this form should be submitted separately to the Department by the reporting deadline set forth in the permit.

If you are unsure of whether an incident constitutes non-compliance that may endanger health or the environment, it is recommended that you notify the Department verbally as soon as possible after you become aware of the incident. Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.

Instructions:

1. Enter the name of the facility, the municipality and county where it is located, the month and year when violations occurred, and the NPDES or WQM permit number for the facility.

2. If there were violations of permit effluent limitations during the month, check the box next to "Violations of Permit Effluent Limitations." (Note – if using the electronic version of this form, check the boxes first, and then select Tools – Unprotect Document to enter additional information). Enter the date of the violation (if a violation of a minimum or maximum limit, the date of sample collection, or if a violation of an average limit, the end of the monitoring period), the parameter name, the permit limit and units, the statistical code (e.g., "MIN", "MAX", "MO AVG", etc.), the measured result and units, the cause of the violation and the corrective action taken. **If there are more than two violations during the monitoring period and/or if the space provided is insufficient to explain the cause or corrective action, please attach additional pages.**

3. If there are Sanitary Sewer Overflow (SSO) discharges or other unauthorized discharges from the facility (e.g., spills, leaks, etc.) that enter or have the potential to enter waters of the Commonwealth, including groundwater, notify DEP by phone as soon as possible, and document the discharge on this form by checking the box next to "Sanitary Sewer Overflows and Other Unauthorized Discharges." Record the event (discharge) date, the substance discharged (e.g., sewage, on-site chemicals, etc.), the location where the discharge occurred (e.g., manhole number, pump station name, equipment description, etc.), the volume discharged (gallons), the approximate duration of the discharge (hours), the receiving waters (name of stream or groundwater), the impact on the receiving waters, if observed (e.g., solids deposition, foam, fish kill, etc.), the cause of the discharge, and the date on which the Department was verbally notified. **If there are more than two discharge events during the monitoring period and/or if the space provided is insufficient to explain the discharge, please attach additional pages.**

4. If there are other violations of the permit, check the box next to "Other Permit Violations," and check the appropriate box that describes the violation type. If not identified on the form, check the box next to "Other" and provide a written explanation. **If the space provided is insufficient to explain the violation, please attach additional pages.**

5. Type your name and title and sign and date the form after reading the certification statement.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

If you have questions about completing this form, contact the Clean Water Program Operations Section of the Department in your region:

Southeast Region – (484) 250-5970
Northeast Region – (570) 826-2553
Southcentral Region – (717) 705-4707
Northcentral Region – (570) 327-0532
Southwest Region – (412) 442-4060
Northwest Region – (814) 332-6942

HAULED IN RESIDUAL WASTES REPORT

Use this form to document receipt of residual wastes at your treatment facility (e.g., food processing waste, landfill leachate, oil and gas wastewaters). Municipal wastes such as sewage sludge and septage should be documented on the Hauled in Municipal Wastes Supplemental Report (3800-FM-BPNPSM0437).

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

2. Enter the date for each day in which the facility receives residual wastes. If wastewater is received from more than one generator on the same day, repeat the date in a separate row.

3. Report the total volume received each day from each generator (source), in whole gallons.

4. Report the license plate number of the vehicle hauling the wastewater to the treatment facility. If more than one vehicle is used by a generator, report the date and total volume hauled by each vehicle daily (use separate rows as necessary).

5. For oil and gas wastewaters, enter the permit number of the well from which the wastewater was generated. For other wastewaters, this column may remain blank.

6. Report the source of each load of residual waste, including the generator name, address, and state. For oil and gas wastewaters, report the location of the well(s) generating the wastewater.

7. Enter Wastewater Type, typically frac water, drilling fluids or production water for oil and gas wastewaters, or other types such as food processing waste or leachate.

8. If the wastewater has been analyzed and reported on a Residual Waste Form 26R, or a separate waste characterization using the parameters from Form 26R, enter "Yes" under the column "Chemical Analysis", otherwise enter "No".

9. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

Exhibit “Q-2”

Good afternoon,

In response to the Departments correspondence with Mr. DelGrande and Mr. Rahauser, we have revised the proposed Consent Order and Agreement (clean copy and markup copies attached).

The Department reduced the proposed civil penalty to $4,008.00, which represents an amount that is less than 20% of the total penalty calculated using the Department's SOP for Determining Civil Penalties under the Clean Streams Law (Doc No. BPNPSM-ENF-004) and Section 605 of the Clean Streams Law.

Additionally, we provided the requested revisions to the COA to add corrective actions for an engineering evaluation and upgrade/modification of the aeration system at the Letterkenny Twp. WWTP.

The timelines I included were taken from similar cases, but if the timelines for the upgrade/modification of the WWTP aeration system need to be adjusted, please let me know and I can provide a new revision.

If Letterkenny Township has additional requests or comments regarding the revised COA, please submit them to me within ten (10) calendar days.

I will mail a hard copy of the revised COA to Letterkenny Township and Mr. DelGrande by the end of the week.

If Letterkenny Township finds the revised COA acceptable, please sign three copies of the attached clean copy of the COA (last page only) and return them, along with payment of the civil penalty and copies of the Authority's Resolution, to me within forty-five (45) calendar days.

We will send you a fully executed copy for your records when finalized by the Department.

If you have any further comments or questions, please feel free to contact me.

Thanks,

Erick

Erick M. Ammon | Environmental Protection Compliance Specialist
Clean Water Program | Southcentral Regional Office
Department of Environmental Protection
909 Elmerton Avenue | Harrisburg, PA 17110
Phone: 717.705.4775 | Fax: 717.705.4760

24-Hour Emergency Response: 1.866.825.0208
www.dep.pa.gov

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

September 11, 2018

CERTIFIED MAIL NO. 9171 9690 0935 0150 2174 09

Mr. Charles H. Myers
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244

Re: Executed Consent Order and Agreement-3A
LTMA STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Dear Mr. Meyers,

Enclosed is a fully executed copy of the Consent Order and Agreement (COA). This will also acknowledge receipt of check number 3555 in the amount of $4,008.00, in accordance with the COA dated September 10, 2018.

Thank you for your cooperation in settling your violations of the Clean Streams Law. If you have any questions regarding this COA, please contact me at 717.705.4775 or eammon@pa.gov.

Sincerely,

Erick M Ammon
Environmental Protection Compliance Specialist
Clean Water Program

cc: (with enclosures): Mr. William D. DelGrande P.E.

Enclosure: September 10, 2018 COA with Exhibits

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In The Matter Of:

Letterkenny Township Municipal Authority	:	Clean Streams Law
4924 Orrstown Road	:	NPDES Permit No. PA0082201
Orrstown, PA 17244	:	Letterkenny Township
	:	Franklin County

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement ("COA") is entered into this 10th day of September 2018, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department") and the Letterkenny Township Municipal Authority ("Letterkenny").

The Department has found and determined the following:

A. The Department is the agency with the duty and authority to administer and enforce the Pennsylvania Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §§ 691.1 et seq. ("The Clean Streams Law"); Section 1917-A of the Administrative Code, the Act of April 9, 1929, P.L. 177, as amended, 71 P.S. § 510-17 ("Administrative Code") and the rules and regulations promulgated thereunder, and which has been delegated authority to administer the National Pollutant Discharge Elimination ("NPDES") permit program under Section 402 of the Federal Clean Water Act, 33 U.S.C § 1342.

B. Letterkenny is a municipal authority formed under the laws of the Commonwealth of Pennsylvania, with a business and mailing address of 4924 Orrstown Road. Orrstown, PA 17244.

C. Letterkenny owns a municipal wastewater treatment plant ("Plant"), which is located in Letterkenny Township, Franklin County, Pennsylvania. The Plant discharges treated sewage to the Conodoguinet Creek, a Water of the Commonwealth, as "waters of the Commonwealth" is defined in Section 1 of the Clean Streams Law, 35 P.S. § 691.1.

D. The Plant's discharge constitutes sewage pursuant to Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202.

E. The discharge from the Plant is authorized by NPDES Permit No. PA0082201 ("NPDES Permit") issued by the Department to Letterkenny on May 18, 2018, pursuant to Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202. NPDES Permit No. PA0082201 became effective on June 1, 2018, and expires on May 31, 2023.

F. All dischargers, including Letterkenny, are required by their NPDES Permits and Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, to fully comply with the effluent limits set forth in their NPDES permits.

G. At times between April 2013 and August 2017, Letterkenny discharged wastewater contrary to the terms and conditions set forth in its NPDES Permit. The monthly Discharge Monitoring Report ("DMR") violations are fully listed in Exhibit Number 1, which is attached hereto and incorporated herein by reference.

H. On January 2, 2018, the Department conducted an inspection of the Plant. During this inspection, the Department observed and documented a one to three-inch-thick blanket of accumulated sewage solids at Plant outfall 001 extending approximately 100 feet downstream in the Conodoguinet Creek.

I. On January 5, 2018, the Department mailed a Notice of Violation ("January 5, 2018 NOV") to Letterkenny for the violations noted in Paragraph H, above. In its January 5, 2018 NOV, the Department requested that Letterkenny provide a response within fifteen days that summarized the cause of the accumulation of sewage sludge in the Conodoguinet Creek and include any planned mitigation activities that Letterkenny would undertake to prevent recurrence of the violations along with a corrective action schedule.

J. On January 10, 2018, the Department conducted a follow-up inspection at the Plant to observe the removal of accumulated sewage solids at Plant outfall 001 and in downstream areas in the Conodoguinet Creek. During this inspection, the Department observed remaining accumulations of sewage solids from approximately seventy-five to one hundred feet downstream of Plant outfall 001. The Department's inspection report dated January 10, 2018, requested Letterkenny to remove the remaining accumulated sewage solids from the stream.

K. On January 18, 2018, the Plant certified operator notified the Department that the requested stream cleanup had not been completed due to weather conditions. The Plant certified operator stated that he planned to have a septage hauler remove accumulated solids from the Conodoguinet Creek using a vacuum truck.

L. On January 18, 2018, the Department conducted a second follow-up inspection at the Plant to observe conditions at Plant outfall 001 and in downstream areas of the Conodoguinet Creek. During the inspection the Department noted no sewage solids accumulations at Plant outfall 001 or in downstream areas of the Conodoguinet Creek. The Department's inspection report noted that the Plant daily operations log contained an entry for January 12, 2018, stating that the operator had "cleaned stream during high water flow."

M. On January 22, 2018, the Department requested that the Plant certified operator provide clarification as to what the daily operator meant by the statement "cleaned during high water flow."

N. On January 23, 2018, the Department received correspondence from the Plant certified operator stating that the daily operator's statement of "cleaned during high water flow" in the Plant daily log meant that they manually brushed the stream substrate during higher stream flows to disperse the accumulated solids. This method of disposal is contrary to the Plant certified operator's plan to have a septage hauler remove accumulated solids from the Conodoguinet Creek using a vacuum truck.

O. On January 25, 2018, Letterkenny submitted a response to the Department's January 5, 2018 NOV noted in Paragraph I, above. In its response, Letterkenny states that the sewage sludge accumulation at the Plant outfall and in the Conodoguinet Creek was most likely due to activated sludge inventory management issues in the Plant treatment units, increased final effluent solids discharge to Plant outfall 001, and low flows in the Conodoguinet Creek. Letterkenny's response proposed Plant process control optimization, and operation and maintenance changes to address the solids accumulation issues.

P. Section 201 of the Clean Streams Law provides: "No person or municipality shall place or permit to be placed, or discharge or permit to flow, or continue to discharge or permit to flow, into any of the waters of the Commonwealth any sewage, except as hereinafter provided in this act."

Q. Section 202 of the Clean Streams Law provides that no person or municipality shall discharge or permit the discharge of sewage without first obtaining a permit from the Department. A discharge of sewage without a permit or contrary to the terms and conditions of a permit is declared a nuisance.

R. The conditions at Letterkenny's Plant described in Paragraphs G, H, J, L, & N, above, constitute violations of Sections 201 and 202 of The Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, and NPDES Permit No. PA0082201.

S. The violations described in Paragraph R, above, constitutes unlawful conduct under Sections 402(b) and 611 of The Clean Streams Law, 35 P.S. §§ 691.402(b) and 691.611; a statutory nuisance under Sections 202, 402(b), and 601 of The Clean Streams Law, 35 P.S. §§ 691.202, 691.402(b), and 691.601; and subjects Letterkenny to civil penalty liability under Section 605 of The Clean Streams Law, 35 P.S. § 691.605.

ORDER

After full and complete negotiation of all matters set forth in this Consent Order and Agreement, and upon mutual exchange of covenants contained herein, the parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by Letterkenny as follows:

1. Authority. This Consent Order and Agreement is an Order of the Department authorized and issued pursuant to Section 5 of the Clean Streams Law, 35 P.S. § 691.5; and Section 1917-A of the Administrative Code, 71 P.S. §§ 510-17.

2. Findings.

a. Letterkenny agrees that the findings in Paragraph A through S are true and correct and, in any matter or proceeding involving Letterkenny and the Department, Letterkenny shall not challenge the accuracy or validity of these findings.

b. The parties do not authorize any other persons to use the findings in this Consent Order and Agreement in any matter or proceeding.

3. Corrective Action.

a. Immediately upon execution of this Consent Order and Agreement, Letterkenny shall begin inspecting Plant outfall DP001 and downstream areas of the Conodoguinet Creek at least daily for accumulations of sewage solids. Letterkenny shall log outfall conditions daily and keep such logs available at the Plant for inspection. If accumulations of sewage solids are detected, Letterkenny shall contract a licensed septage hauler to properly remove and dispose of the solids within two (2) calendar days.

b. Within thirty (30) calendar days of the execution of this Consent Order and Agreement, Letterkenny shall submit for Department review and approval a Process Control Plan ("PCP"), which complies with requirements 25 Pa. Code § 302.1203(c). The PCP shall contain a Standard Operating Procedure ("SOP") for the implementation of process control activities to properly balance the amount of solids within the treatment system. The SOP shall instruct all operators at the Plant to compute and set the wasting rates to maintain an appropriate balance of sludge in the system. Seasonal variations shall be considered in developing sludge wasting rates.

Relocation of Plant Outfall 001

c. Within thirty (30) calendar days of the execution of the Consent Order and Agreement, Letterkenny shall submit, for Department review and approval, a Preliminary Investigation Report regarding the relocation of the Plant outfall to a new section of the Conodoguinet Creek. The Preliminary Investigation shall determine whether a Water Quality Management Permit ("WQM Part II Permit"), Erosion and Sedimentation Permit, Wetlands Permit or any other authorization is required for the relocation of the Plant discharge.

d. Within thirty (30) calendar days of the Department's approval of the Preliminary Investigation, Letterkenny shall submit complete applications to the appropriate authorities for any authorizations which the Department or Letterkenny determine are required to relocate the Plant discharge, as listed in the Preliminary Investigation Report submitted pursuant to Paragraph 3.c, above.

e. Within sixty (60) calendar days of receiving all permits and authorizations for the relocation of the Plant discharge location, Letterkenny shall begin construction and relocation of the discharge.

f. Within forty-five (45) calendar days of beginning construction, Letterkenny shall complete relocation of the Plant discharge and issue WQM Post Construction Certification (Department Document No. 3800-PM-WSFR0179a 9/2005) as required by the WQM Part II Permit.

Upgrade/Modification of Plant Aeration System

g. Within sixty (60) calendar days of the execution of the Consent Order and Agreement, Letterkenny shall submit, for Department review and approval, a report summarizing a professional engineer's evaluation of the condition and operability of the Plant. The report shall include, but not be limited to, an evaluation of the efficacy of the Plant treatment units and aeration system to ensure and to maintain compliance with NPDES Permit requirements. Any upgrades or modifications of the aeration system for treatment optimization shall be included in the report, with a proposed timeline of activities. The report must be submitted under the seal of a Professional Engineer.

h. Within forty-five (45) calendar days of the Department's approval of the report, Letterkenny shall submit an administratively and technically complete application for WQM Part II Permit for the upgrade or modification of the Plant aeration system, pursuant to Paragraph 3.g, above.

i. Within sixty (60) calendar days of receiving the WQM Part II Permit for the upgrade or modification the Plant aeration system, Letterkenny shall begin construction.

j. Within forty-five (45) calendar days of beginning construction, Letterkenny shall complete the upgrade or modification the Plant aeration system, and issue the Post Construction Certification as required by the WQM Part II Permit.

k. Upon execution of this COA, Letterkenny shall submit quarterly progress reports on the status of the maintenance, repair, or replacement projects at the Plant until this COA is Terminated.

l. If the Department or any other entity requests additional information to review or approve any submittal necessary to comply with this Consent Order and Agreement, Letterkenny shall submit the requested information within ten (10) calendar days of the date of the Department's or the entity's notice that such information is required; however, upon written request, including a justification from Letterkenny, the Department may allow an extension for such a submittal.

4. Civil Penalty Settlement. Letterkenny consents to the assessment of a civil penalty in the amount of $4,008.00, which shall be paid in full immediately upon signing this Consent Order and Agreement. This payment is in settlement of the Department's claim for civil penalties for the violations set forth in Paragraph G, H, J, L, N, Q, and R, above. The payment shall be by corporate check or the like, made payable to "Commonwealth of Pennsylvania" with a notation of "Clean Water Fund" on the memo line and sent c/o Erick M. Ammon, Environmental Protection Compliance Specialist, DEP Clean Water Program, 909 Elmerton Avenue, Harrisburg, PA 17110-8200.

5. Stipulated Civil Penalties.

a. Until termination of this Consent Order and Agreement, Letterkenny shall pay a stipulated penalty of $1,000.00 for any Department inspection where sewage solids accumulations are discovered at and/or below the Plant outfall in the Conodoguinet Creek.

b. In the event Letterkenny fails to comply in a timely manner with the provisions of Paragraphs 3.a through 3.j of this Consent Order and Agreement, Letterkenny shall be in violation of this Consent Order and Agreement and, in addition to other applicable remedies, shall pay a civil penalty in the amount determined under the following schedule:

i. For any violation of paragraph 3, Letterkenny shall pay the Department a civil penalty of $100 per day for the first 30 days of each violation and $200 per day for each violation extending beyond the first 30 days;

ii. For any violation of its NPDES Permit effluent limits, Letterkenny shall pay the Department a civil penalty as outlined in Exhibit 2.

c. Stipulated civil penalty payments shall be due automatically and without notice, and are payable monthly on or before the fifteenth day of each succeeding month, and shall be forwarded as described in Paragraph 4 (Civil Penalties) above.

d. Any payment under this paragraph shall neither waive the Letterkenny's duty to meet its obligations under this Consent Order and Agreement nor preclude the Department from commencing an action to compel Letterkenny's compliance with the terms and conditions of this Consent Order and Agreement. The payment resolves only Letterkenny's liability for civil penalties arising from the violation of this Consent Order and Agreement, for which the payment is made.

6. Additional Remedies.

a. In the event Letterkenny fails to comply with any provision of this Consent Order and Agreement, the Department may, in addition to the remedies prescribed

herein, pursue any remedy available for a violation of an order of the Department, including an action to enforce this Consent Order and Agreement.

b. The remedies provided by this paragraph and Paragraph 5 (Stipulated Civil Penalties) are cumulative and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated penalty is paid.

7. Reservation of Rights. The Department reserves the right to require additional measures to achieve compliance with applicable law. Letterkenny reserves the right to challenge any action which the Department may take to require those measures.

8. Liability of Operator. Letterkenny shall be liable for any violations of the Consent Order and Agreement, including those caused by, contributed to, or allowed by its officers, agents, employees, or contractors. Letterkenny also shall be liable for any violation of this Consent Order and Agreement caused by, contributed to, or allowed by its successors and assigns.

9. Transfer of Site.

a. The duties and obligations under this Consent Order and Agreement shall not be modified, diminished, terminated or otherwise altered by the transfer of any legal or equitable interest in the Plant or any part thereof.

b. If Letterkenny intends to transfer any legal or equitable interest in the Plant which is affected by this Consent Order and Agreement, Letterkenny shall serve a copy of this Consent Order and Agreement upon the prospective transferee of the legal and

equitable interest at least thirty (30) days prior to the contemplated transfer and shall simultaneously inform the Regional Office of the Department of such intent.

c. The Department in its sole discretion may agree to modify or terminate Letterkenny's duties and obligations under this Consent Order and Agreement upon transfer of the Plant. Letterkenny waives any right that it may have to challenge the Department's decision in this regard.

10. Correspondence with Department. All correspondence with the Department concerning this Consent Order and Agreement shall be addressed to:

Erick M. Ammon
Environmental Protection Compliance Specialist
Clean Water Program
PADEP Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: 717.705.4775
Facsimile: 717.705.4760
Email: eammon@pa.gov

11. Correspondence with Letterkenny. All correspondence with Letterkenny concerning this Consent Order and Agreement shall be addressed to:

Chairman
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244-9503
Phone: 717.532.8716
Email: letterkenny@embarqmail.com

Letterkenny shall notify the Department whenever there is a change in the contact person's name, title, or address. Service of any notice or any legal process for any purpose under this Consent

Order and Agreement, including its enforcement, may be made by mailing a copy by first class mail to the above address.

12. Force Majeure.

a. In the event that Letterkenny is prevented from complying in a timely manner with any time limit imposed in this Consent Order and Agreement solely because of a strike, fire, flood, act of God, or other circumstance beyond Letterkenny's control and which Letterkenny, by the exercise of all reasonable diligence, is unable to prevent, then Letterkenny may petition the Department for an extension of time. An increase in the cost of performing the obligations set forth in this Consent Order and Agreement shall not constitute circumstances beyond Letterkenny's control. Letterkenny's economic inability to comply with any of the obligations of this Consent Order and Agreement shall not be grounds for any extension of time.

b. Letterkenny shall only be entitled to the benefits of this paragraph if it notifies the Department within five (5) working days by telephone and within ten (10) working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by Letterkenny to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten working days of its submission. Letterkenny's failure to

comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. the Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by Letterkenny and other information available to the Department. In any subsequent litigation, the Letterkenny shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

13. Severability. The paragraphs of this Consent Order and Agreement shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

14. Entire Agreement. This Consent Order and Agreement shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

15. Attorney Fees. The parties shall bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Consent Order and Agreement.

16. Modifications. No changes, additions, modifications, or amendments of this Consent Order and Agreement shall be effective unless they are set out in writing and signed by the parties hereto.

17. Titles. A title used at the beginning of any paragraph of this Consent Order and Agreement may be used to aid in the construction of that paragraph, but shall not be treated as controlling

18. Decisions Under Consent Order. Any decision which the Department makes under the provisions of this Consent Order and Agreement, including a notice that stipulated civil penalties are due, is intended to be neither a final action under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa. C.S.A. § 101. Any objection which Letterkenny may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.

19. Termination. The obligations of this Consent Order and Agreement shall terminate after Letterkenny has completed to the Department's satisfaction the actions required in Paragraphs 3.a through 3.j, above, demonstrated six (6) consecutive months of compliance with its NPDES Permit final effluent limits after completing the corrective action required by Paragraph 3.j above, and paid any stipulated penalties due under Paragraph 5.

20. Execution of Agreement. This Consent Order and Agreement may be signed in counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

21. Resolution. Attached hereto as Exhibit 3 is a resolution of the Board of Supervisors of Letterkenny Township Municipal Authority authorizing its signatories below to enter into this Consent Order and Agreement on its behalf.

IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of Letterkenny certify under penalty of law, as provided by 18 Pa. C.S.A. 4904, that they are authorized to execute this Consent Order and Agreement on behalf of Letterkenny; that Letterkenny consents to the entry of this Consent Order and Agreement as a final ORDER of the Department; and that Letterkenny hereby knowingly waives its rights to appeal this Consent Order and Agreement and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, Act of July 13, 1988, P.L. 530, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa. C.S.A. § 103(a) and Chapters 5A and 7A; or any other provisions of law. Signature by Letterkenny's attorney certifies only that the agreement has been signed after consulting with counsel.

FOR LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY:

Name Charles H. Myers Date: 8-28-18
Title Chairman of the Board

Name Lance G. Norton Date: 8-28-18
Title Vice Chairman

Name David W Rahauser Date: 8/28/18
Attorney for Letterkenny Twp. M.A. 8-28-18

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:

Maria D. Bebenek P.E. Date: 9/10/18
Program Manager, Clean Water Program

Janna Williams Date: 9/11/18
Assistant Counsel

Exhibit 1
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County
DMR final effluent violations reported between April 2013 and August 2017

DMR Month	Parameter		DMR Value	Permit Limit
April-13	Total Residual Chlorine	IMAX	2.07 mg/L	2.0 mg/L
August-15	Total Residual Chlorine	Ave. Mo.	0.57 mg/L	0.5 mg/L
August-15	Total Residual Chlorine	IMAX	2.2 mg/L	1.6 mg/L
March-16	Fecal Coliform	Mo. GeoMean	2,839 CFU/100 ml	2,000 CFU/100 ml
July-16	Fecal Coliform	Mo. GeoMean	210 CFU/100 ml	200 CFU/100 ml
July-16	pH	Minimum	5.9 S.U.	6.0 S.U.
July-16	Dissolved Oxygen	Minimum	4.5 mg/L	5.0 mg/L
June-17	Dissolved Oxygen	Minimum	4.9 mg/L	5.0 mg/L
August-17	Fecal Coliform	IMAX	1,330 CFU/100 ml	1,000 CFU/100 ml
June-18	Fecal Coliform	Mo. GeoMean	300 CFU/100 ml	200 CFU/100 ml

Exhibit 2
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Stipulated penalties for violations of NPDES effluent limits (all limits except pH and DO)

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Monthly/Geometric Average Violations	**Assessed**	**Monthly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100%	$125.00	$250.00
Weekly Average Violations	**Assessed**	**Weekly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00
Instantaneous/Daily Maximum Violations	**Assessed**	**Monthly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00

Stipulated penalties for violations of pH

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Instantaneous/Daily Maximum Violations	**Assessed**	**Daily**
9.1 – 9.6 S.U.	$50.00	$100.00
9.7 – 10.2 S.U.	$75.00	$150.00
10.3 – 10.8 S.U.	$100.00	$200.00
≥ 10.9 S.U.	$125.00	$250.00
Instantaneous/Daily Maximum Violations	**Assessed**	**Daily**
5.4 – 5.9 S.U.	$50.00	$100.00
4.8 – 5.3 S.U.	$75.00	$150.00
4.2 – 4.7 S.U.	$100.00	$200.00
≤ 4.2 S.U.	$125.00	$250.00

Stipulated penalties for violations of Dissolved Oxygen

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Instantaneous/Daily Minimum Violations	**Assessed**	**Daily**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00

Exhibit 3
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County
Resolution of the Board of Supervisors of Letterkenny Township Municipal Authority

RESOLUTION 2018-1

A RESOLUTION OF THE BOARD FOR THE LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY (LTMA) AUTHORIZING CHARLES H. MYERS AND LANCE G. NORTON TO ACT AS AGENTS AND SIGNATORIES ON BEHALF OF LTMA FOR THE PURPOSE OF SIGNING AND SUBMITTING AGREEMENTS.

WHEREAS, Charles H. Myers is the Chairman of the Board and Lance G. Norton is the Vice Chairman of the Board for the Letterkenny Township Municipal Authority (LTMA); and,

WHEREAS, the DEP Consent Order and Agreement requires two authorized signatures;

NOW, THEREFORE, BE IT RESOLVED by the Board representing the Letterkenny Township Municipal Authority (LTMA), Franklin County, Pennsylvania, that Charles H. Myers and Lance G. Norton are authorized to act on behalf of LTMA for the purpose of signing and submitting agreements.

RESOLVED AND ENACTED this 28th day of August 2018, by the Board representing the Letterkenny Township Municipal Authority.

Attest:

Melissa W Kibbe
Melissa W Kibbe, Secretary

LTMA BOARD

Charles H. Myers
Charles Myers, Chairman

Lance G. Norton
Lance Norton, Vice Chairman

Barry Atherton
Barry Atherton

Donald E. Potteiger
Donald Potteiger

Wanda J. Stouffer
Wanda Stouffer

Exhibit “Q-2a”

KINSLEY

September 11, 2019

Mr. John M. Longstreet (Jack), Assistant Superintendent
Wastewater Services
The York Water Company
130 East Market Street
York, PA 17401

Re: LTMA Wastewater Treatment Plant - Effluent Discharge Line Relocation

Mr. Longstreet,

Kinsley Construction, Inc. is pleased to submit a quotation to provide all labor, equipment and materials required to complete the referenced project as outlined herein.

Scope of Services:

1. Provide the following:
   - ✓ Mobilization
   - ✓ Clearing and grubbing
2. Furnish and install the following:
   - ✓ One (1) construction entrance
   - ✓ 12" silt sock
   - ✓ 8" SDR-35 PVC pipe (303 linear feet)
   - ✓ Two (2) precast manholes
   - ✓ One (1) rip rap discharge
   - ✓ Lawn restoration

The Total Lump Sum for this Project as Described Herein is…….....$51,000.00
Fifty One Thousand and 00/100……..…….……..……...Dollars

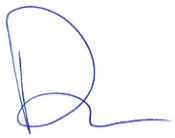
NOTES AND CLARIFICATIONS

1. This proposal will be attached to the contract as a means of clarification describing the items of work to be completed by Kinsley Construction, Inc. Our scope of services will be strictly limited to the items as they are listed herein.
2. This proposal is based off KCI performing all the work described herein. If our scope of work changes, is modified, or is reduced KCI reserves the right to adjust our pricing accordingly.
3. The following items of work are **excluded** from this proposal:
   - Bonds
   - Permits
   - Inspection fees
4. This proposal will remain valid for the period of thirty (30) days following the date of issuance.

Thank you for the opportunity to provide a quotation for this project. If you have any questions related to this proposal please do not hesitate to contact me.

Sincerely,

Kinsley Construction, Inc.



Darren W. Weaver
Project Estimator

Phone: 717-815-6984
Email: dweaver@rkinsley.com

TERMS AND CONDITIONS

The prices, conditions, and specifications contained herein are satisfactory and are hereby accepted. Kinsley Construction, Inc. is authorized to do the work as specified herein. Work shall not commence until Owner has accepted this proposal. Kinsley Construction, Inc. may withdraw this proposal if not accepted within thirty (30) days.

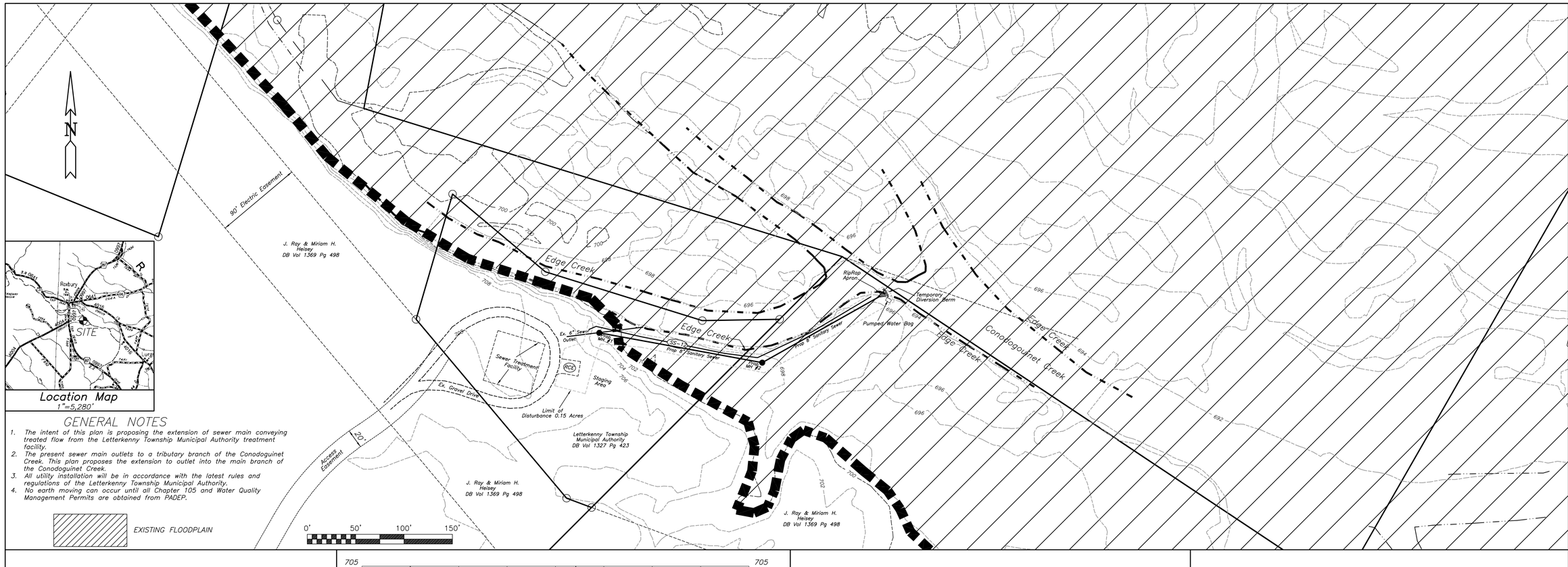
If accepted, Owner and Kinsley Construction, Inc. shall enter into a contract incorporating the prices, conditions, and specifications contained herein with additional terms and conditions acceptable to Owner and Contractor or this Proposal shall be a Contract between the parties hereto and shall represent the entire and integrated agreement between the parties hereto, superseding prior negotiations, representations or agreements, either written or oral. This contract may be amended or modified only by a modification or change order signed by both parties. Kinsley and the Owner respectively bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to partners, successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Contract.

Accepted By: _____

Signature: _____

Date: _____

Exhibit “Q-2b”

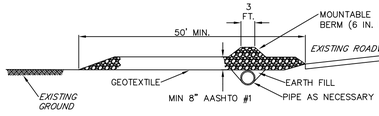


Location Map
1"=5,280'

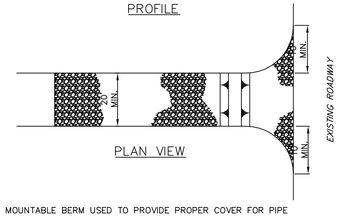
GENERAL NOTES

1. The intent of this plan is proposing the extension of sewer main conveying treated flow from the Letterkenny Township Municipal Authority treatment facility.
2. The present sewer main outlets to a tributary branch of the Conodoguinet Creek. This plan proposes the extension to outlet into the main branch of the Conodoguinet Creek.
3. All utility installation will be in accordance with the latest rules and regulations of the Letterkenny Township Municipal Authority.
4. No earth moving can occur until all Chapter 105 and Water Quality Management Permits are obtained from PADEP.

EXISTING FLOODPLAIN



PROFILE



PLAN VIEW

* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

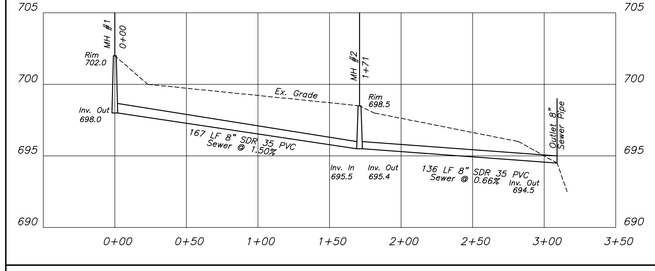
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

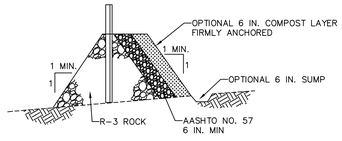
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

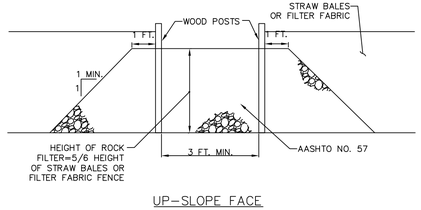
STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE





OUTLET CROSS-SECTION



UP-SLOPE FACE

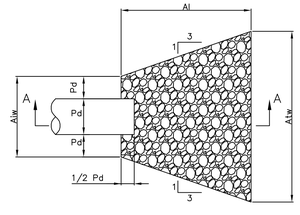
NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

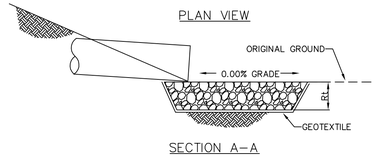
SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET

NOT TO SCALE



PLAN VIEW



SECTION A-A

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
1	8"	4	12"	6'	2'	6'

NOTES:

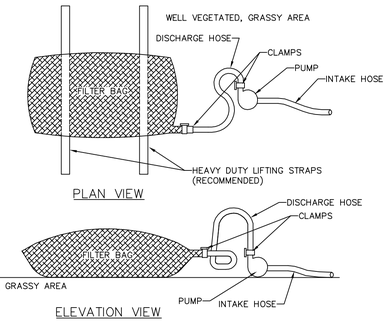
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

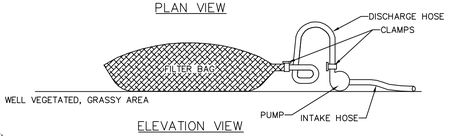
EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

STANDARD CONSTRUCTION DETAIL #9-2
RIPRAP APRON AT PIPE OUTLET
NO FLARED ENDWALL

NOT TO SCALE



PLAN VIEW



ELEVATION VIEW

NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG

NOT TO SCALE

Curfman & Zullinger
Surveying Inc.
Surveying & Subdivision & Stake out
556 Lincoln Way East
Chambersburg, PA 17201
Phone (717-261-0749)
Fax (717-261-1705)

Scale	1"=50'
Date	12/14/18
Drawn	MJC
Computed	MJC
Checked	MJC
File No.	2757-1
By	

No.	Date	Revision
2.	1/31/19	Revise according to SCS comments
1.	1/23/19	Revise according to SCS comments

Sheet 1 of 2 Sheets

SEWER TREATMENT FACILITY
OUTLET EXTENSION
SITUATE IN
LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

LETTERKENNY TOWNSHIP
MUNICIPAL AUTHORITY
(OWNER)

XXXXXXXXXXXXXXX
XXXXXXXXXXXXXXX
(XXX)-XXX-XXXX

Erosion and Sedimentation Control Narrative:

The sequence of construction is important in the Erosion and Sedimentation Control Plan of this project. The construction of the erosion and sedimentation control measures shall be performed prior to any other construction activities on-site.

The developer shall assume the responsibility for both implementing and maintaining the following erosion and sediment control measures during the development shown on the plan set.

Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E&S BMPs specified by the Construction Sequence for that stage or phase have been installed and are functioning as described in this document.

A. Construction Sequence

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Any deviation from the following sequence must be approved in writing from the Franklin County Conservation District.

General Construction Sequence

1. *Field mark all limits of disturbance, waters of the Commonwealth, and Special Protection areas.*
2. *At least 7 days before starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the landowner, all appropriate municipal officials, the E&S plan preparer, and a representative of the Franklin County Conservation District to an on-site pre-construction meeting.*
3. *At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1-800-242-1776 for the location of existing underground utilities.*
4. *Place the RCE at the location and according to the details shown hereon. Any sediment tracked onto any public roadway or sidewalk shall be returned to the construction site by the end of each workday and disposed in the manner described in this plan. In no case shall sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.*
5. *Place compost filter socks at the locations and according to the details shown hereon.*
6. *Strip and stockpile topsoil for sewer line extension at the locations and according to the details shown hereon. Topsoil stockpile shall not exceed 35 feet in height and shall have side slopes flatter than 2:1. Stockpile shall be seeded and mulched according to stabilization specifications shown hereon.*
7. *Place the temporary diversion dam at the locations and according to the details shown hereon. Pump water out of the work area created by the dam. A pumped water filter bag shall be used for pumping the work area dry. The filter bags shall be placed on a well vegetated stabilized surface. Extra filter bags shall be onsite, in the case the filter bag needs replaced.*
8. *Place and wall for pipe at fall at the location and according to the details shown hereon. Place riprap apron at pipe outfall according to the details shown hereon. Stabilize the disturbed area by following the stabilization specifications shown hereon. The disturbed area shall be restored as near as possible to original conditions.*
9. *Excavate trench for sanitary sewer line. Only excavate what can be installed, backfilled and stabilized in one working day. Utilize clay dikes during pipe installation. Spoil material that will not be used for trench backfill shall be removed from the site and taken to a facility capable of handling excess material. In excavated trench place sanitary sewer line in accordance with the latest rules and regulation for construction standards for the Letterkenny Township Municipal Authority.*
10. *Make connection to the existing sewer line by placing the proposed manhole. The connection shall be made water tight.*
11. *The staging area shall be removed and stabilized according to the stabilization specifications shown hereon. Once the pipe outfall is stabilized the temorary diversion dam shall be removed. Any disturbed area from the removal shall be stabilized following the stabilization specifications shown hereon. All disturbed areas shall be restored back to as near original condition.*
12. *Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the Franklin County Conservation District for an inspection prior to the removal/conversion of the E&S BMP's.*
13. *Once Franklin County Conservation District directs, all temporary E&S BMPS shall be removed and any disturbed areas shall be seeded and mulched according to the stabilization specifications shown hereon.*
14. *Upon completion of all earth disturbance activities, removal of all temporary BMPs, installation of all permanent PCSM BMPs, and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the Franklin County Conservation District for a final inspection.*

B. Stabilization Specifications

1. *Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.*
2. *Permanent stabilization is defined as a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.*
3. *Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan drawings in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter.*
4. *Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches - 6 to 12 inches on compacted soils - prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outslopes shall have a minimum of 2 inches of topsoil.*
5. *Topsoil should not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation. Compacted soils should be scarified 6 to 12 inches along contour whenever possible prior to seeding.*
6. *Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed areas. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within 1 year must be stabilized in accordance with the temporary vegetative stabilization specifications. Disturbed areas which are at final grade or which will not be re-disturbed within 1 year must be stabilized in accordance with the permanent vegetative stabilization specifications.*
7. *An erosion control blanket will be installed on all disturbed slopes 3:1 or steeper, all areas of concentrated flows, and disturbed areas within 50' of a surface water*
8. *Seeding and Mulching Schedules:*
   a. *Temporary Seeding Schedule - These notes apply to graded or cleared areas that are likely to be re-disturbed or where a short-term vegetative cover is needed or where there will be a cessation of work greater than four (4) days.*
      Seedbed Preparation: Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding. Perform all cultivations at right angles to the slope.
      Soil Amendments: Apply 1 ton of agricultural grade limestone per acre, plus fertilizer at the rate of 50-50-50 per acre. Work well into the soil.
      Seeding:
      Spring (Until June 15)-
      Annual Ryegrass 40lb/acre
      or Spring Oats 96 lb/acre
      or Spring Oats plus Ryegrass 64 lb/acre Oats plus 20 lb/acre annual or perennial Ryegrass
      or Winter Wheat 180 lb/acre
      or Winter Rye 168 lb/acre
      Late Spring/Summer (June 16 thru August 15)
      Annual Ryegrass 40 lb/acre
      or Japanese or Foxtail Millet 35 lb/acre
      or Sudangrass 40 lb/acre
      or Spring Oats 96 lb/acre
      or Winter Wheat 180 lb/acre
      or Winter Rye 168 lb/acre
      Late Summer/Fall (August 16 and later)
      Annual Ryegrass 40 lb/acre
      or Winter Rye 168 lb/acre
      or Winter Wheat 180 lb/acre
   b. *Permanent Seeding Schedule - Seeding of the disturbed areas shall take place immediately upon the completion of final grading activities. These notes apply to graded or cleared areas, not subject to immediate or further disturbance, where a permanent long-lived vegetative cover is needed.*
      Seedbed Preparation: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding. Perform all operations at right angles to the slope.
      Soil Amendments: It is recommended that site specific soil testing be performed. In lieu of soil test recommendations, use one of the following schedules:
      1. *Preferred - Apply 4-6 tons per acre of lime (275 lbs/1000 sf) and 600 lbs per acre 10-20-20 fertilizer (15 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 Ureaform fertilizer (91 lbs/1000 sf).*
      2. *Acceptable ? Apply 4-6 tons per acre of lime (275 lbs/1000 sf) and 100 lbs per acre 10-20-20 fertilizer (23 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil.*

      Seeding:
      Tall Fescue 60lb/Acre
      or Fine Fescue 35lb/Acre
      or Kentucky bluegrass plus redtop 25lb/Acre Kentucky blue grass plus 3lb/Acre redtop
      or Perenial rye grass 15lb/Acre
      or Birdsfoot trefoil plus tall fescue 6lb/Acre plus 30lb/Acre
   c. *Mulching Schedule - Mulch shall be spread on all areas that need stabilization through the winter months (Oct. 15-March 15) including soil stockpiles, elevated sand mounds and other disturbed areas. Mulch shall be applied immediately after seeding a continuous uniform blanket at a minimum rate of 6,000 pounds per acre (3 tons per acre). Mulch shall be applied by an acceptable mechanical blower; machines that cut mulch into short pieces shall not be used to apply mulch. A tractor drawn implement may be used to "crimp" the straw or hay into the soil. The machinery should be operated on the contour. Do not crimp hay or straw by running tracked machinery. Anchor mulch with specified mulch binders, containing no solvents or other diluting agents toxic to plant or animal life, at the following rates: Asphalt at a rate of 150 gallons per acre or Cellulose Fiber at a rate of 1000 pounds per acre.*

C. Maintenance Program

1.1. *Until the site is stabilized, all erosion and sediment control BMPs must be maintenance work, including cleanout, repair, replacement, re-grading, reseeding, re-mulching and re-netting must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs or modifications of those installed will be required.*

1.2. *Any sediment removed from BMPs during construction will be returned to upland areas on site and incorporated into the site grading.*

1.3. *All wastes from the E&S phase of construction such as but not limited to filter fabric fencing, compost filter sock, stone, concrete wash, matting, sediment etc. shall be removed from the site and disposed of at a recycling, compost, or waste facility. Concrete from the washout shall be removed from the site and taken to an appropriate waste facility. Mulch from the compost filter sock can be re-distributed over the site or can be taken to a recycling facility.*

1.4. *A log showing the dates that E&S BMPs were inspected as well as any deficiencies found and the date that they were corrected shall be maintained on the site and be made available to the Franklin County Conservation District or other regulatory agency officials at the time of inspection.*

1.5. *Maintenance Schedule:*

1.5.1. *Rock Construction Entrance (RCE) - Add/replace rock as needed.*

1.5.2. *Compost Filter Sock/Filter Fabric Fence.*

1.5.2.a. *The installation shall be inspected after every precipitation event and on a weekly basis. Any necessary repairs shall be made immediately.*

1.5.2.b. *Accumulated sediment will be removed as required to keep the barrier functional. In all cases remove deposits where accumulations reach ½ the above ground height of the barrier.*

1.5.2.c. *All undercutting or erosion of the tie anchor shall be repaired immediately with a standard rock filter.*

1.5.2.d. *Adhere to any manufactures recommendations for replacing barriers due to weathering.*

1.5.2.e. *Damaged fencing or filter socks shall be replaced. The damaged material shall be disposed of at a recycling facility or at a dump. Excess mulch material from filter socks shall be spread out over disturbed areas of the site or taken to a recycling facility that can handle yard wastes.*

1.5.2.f. *Once fencing or sock material is no longer needed it shall be removed from the site and disposed at a recycling facility. The mulch may be used on disturbed areas of the site or it shall be taken to a recycling facility designed to handle yard wastes.*

1.5.3. *Inlet Protection/Rip Rap Apron*

a. *Shall be inspected after every major precipitation event and on a weekly basis. Any necessary repairs shall be made immediately.*
b. *Shall be kept free of debris that would inhibit the proper function.*
c. *Remove any accumulated sediment. Removed sediment shall be graded in upslope of E&S Controls.*
d. *Stone that is replaced shall be removed from the site and taken to an appropriate waste facility. Sediment shall be graded in up slope.*

1.5.4 *Temporary Diversion Dam*

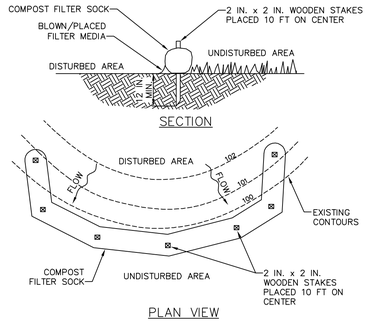
a. *Damage will be repaired immediately*
b. *Inspect twice daily*

1.5.5 *Pumped Water Bag*

a. *Replace when half full of sediment*
b. *Inspect continually while in use*

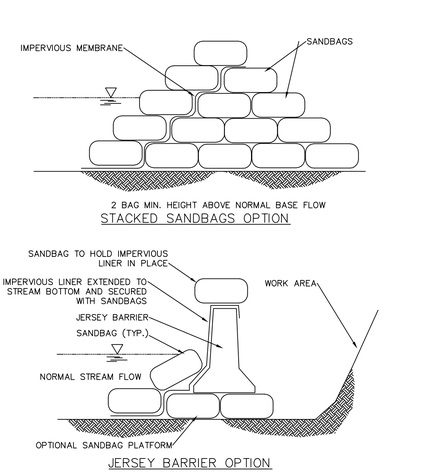
D. General E&S Notes

1. *A copy of the approved erosion and sediment control plan must be available at the project site at all times. The Franklin County Conservation District shall be notified of any changes to the approved plan prior to implementation of those changes. The District may require a written submittal of those changes for review and approval at its discretion.*
2. *Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for accelerated erosion and/or sediment pollution and notify the Franklin County Conservation District.*
3. *All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.*
4. *Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the earth disturbance activity, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and/or criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law. The Clean Streams Law provides for up to $10,000 per day in civil penalties, up to $10,000 in summary criminal penalties, and up to $25,000 in misdemeanor criminal penalties for each violation.*
5. *All building materials and wastes including but not limited to scrape wood, steel, concrete, stone, dirt shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1., and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.*
6. *The contractor will be responsible for the removal of any excess material and make sure the site(s) receiving the excess has an approved and fully implemented erosion and sediment control plan that meets the conditions of Chapter 102 and/or other State or Federal regulations.*
7. *Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.).*
8. *Any placement of clean fill that has been affected by a spill or release of a regulated substance must use form FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the owner of the property receiving the fill.*
9. *Environmental due diligence must be performed to determine if the fill materials associated with the project qualify as clean fill. Environmental due diligence is defined as: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Clean Fill".*

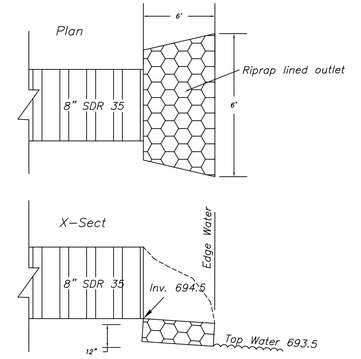


NOTES:
SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.
TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

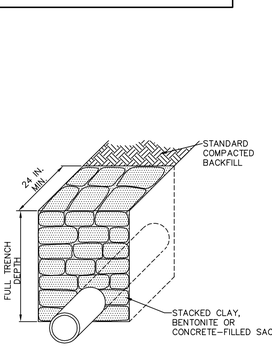
STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK
NOT TO SCALE



STANDARD CONSTRUCTION DETAIL #3-15
SANDBAG DIVERSION DAM OR COFFERDAM
NOT TO SCALE



Sewer Pipe Outlet Detail



PA DEP EROSION CONTROL MANUAL TABLE 13.1
MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 5	1000	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
5 - 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15 - 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
25 - 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
35 - 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
> 100	50	CEMENT BAGS (WETTED) OR MORTARED STONE

* TOPSOIL MAY NOT BE USED TO FILL SACKS

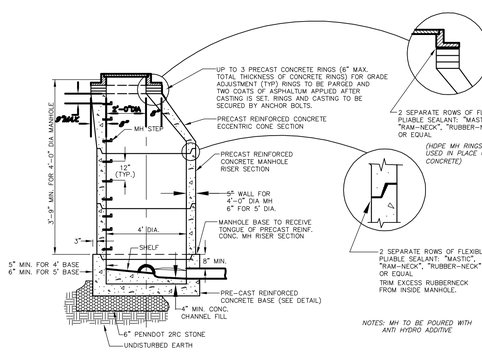
NOTES:

IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS.

STANDARD CONSTRUCTION DETAIL #13-4
TRENCH PLUG INSTALLATION
NOT TO SCALE

NOTES:

1. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO 3/4 OF THE DIAMETER OF THE SEWER.
2. THE SHELF SHALL SLOPE TOWARD THE INVERT CHANNEL AT A RATE OF 1" PER FOOT.
3. TYPE "B" MANHOLES (SHALLOW TYPE) TO BE PROVIDED WHERE REQUIRED BY DEPTH CONDITIONS. ALL OTHER MANHOLES TO BE TYPE "A".
4. THE WALL THICKNESS IN A 4'-0" DIA. PRECAST BASE SHALL BE AS FOLLOWS FOR PIPES 16" AND SMALLER, 5" WALL: FOR PIPES 18" AND LARGER, 8" WALL.
5. ALL MANHOLE FRAMES FOR "OFF THE ROAD" MANHOLES SHALL BE BOLTED TO THE CONE SECTION OR CONCRETE SLAB WITH 2"-3/4" DIA. BOLTS WITH WASHERS AND NUTS;. BOLTS TO BE AT 180 ON A 36" DIA. BOLT CIRCLE.
6. FOR MANHOLES HAVING 5'-0" DIA AND 6'-0" BASES REDUCTION IN DIAMETER TO 4'-0" SHALL START AT THE FIRST JOINT ABOVE THE UPPERMOST PIPE CONNECTION TO WALL, WHERE DEPTH IS SUFFICIENT.
7. ENTIRE PERIMETER OF MANHOLE SHALL BE BACKFILLED WITH 2A MODIFIED STONE.



SECTION A-A

TYPE "A"
STANDARD MANHOLE DETAIL
NOT TO SCALE

Curfman & Zullinger Surveying Inc.
Surveying & Subdivision & Stake out
556 Lincoln Way East.
Chambersburg, PA 17201
Phone (717-261-0749)
Fax (717-261-1705)

No.	Revision	By
1.	Revise according to SCS comments	MJC

Scale
Date 01/15/19
Drawn MJC
Computed MJC
Checked MJC
File No. 2757-2

Sheet 2 of 2 Sheets

DETAIL SHEET
SUBDIVISION OF LAND
SITUATE IN
LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

LETTERKENNY TOWNSHIP
MUNICIPAL AUTHORITY
(OWNER)

Exhibit “Q-3”

The York Water Company

"That good York water"
SINCE 1816

March 5, 2020 *via certified mail*

Erick M. Ammon
Environmental Protection Compliance Specialist
Department of Environmental Protection (DEP)
Clean Water Program
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Reference: Letterkenny Township Municipal Authority (LTMA) Sewage Treatment Plant (STP), NPDES Permit No. PA0082201, Consent Order and Agreement (COA-3A)

Dear Mr. Ammon:

This letter is a follow up to my email inquiry to you and Ms. Maria Bebenek on February 28, 2020. The York Water Company (YWC) executed an agreement of sale, dated June 25, 2019, to acquire the Letterkenny Township sanitary sewer collection system and wastewater treatment plant. The Settlement is conditioned upon approval by the PA Public Utility Commission (PUC) granting the YWC a Certificate of Public Convenience and required DEP transfers of the WQM and NPDES permits.

Upon completion of the acquisition, the YWC is committed to completion of any outstanding items on LTMA's current COA-3, dated September 10, 2018. For clarity, YWC understands the items requiring completion include:

- Submit required WQM Part II permit to relocate Outfall 001 as per the drawings completed by Curfman & Zullinger dated 1/31/2019 and complete the construction of the same.
- Review and verify the need to improve and modify the final effluent aeration tank and install a open channel flow meter downstream of the STP as per recommendations made in Delgrande & Associates LLC's Wastewater Treatment Facilities Aeration System & Plant Performance Report, dated December 2018.
- Provide quarterly progress reports until the COA is terminated.

If there are any other open items, please identify them to us for inclusion. While the YWC is willing to complete the remaining COA items, we understand past issues and consequences are between Letterkenny Township Municipal Authority and DEP. YWC also asks the DEP to grant the YWC 12-months from acquisition to complete all open COA items so that we can properly plan, budget and execute the needed construction task.

If you have any questions, please feel free to contact me at 717-718-2961 or stevem@yorkwater.com.

Sincerely,

Steven M. Metzler

Steven Metzler, P.E.
Sr. Engineering Project Manager

cc: Mark Wheeler, YWC COO

Exhibit “Q-4”

The York Water Company

"That good York water"
SINCE 1816

January 7, 2020 *via certified mail*

Pennsylvania Department of Environmental Protection
South-central Regional Office
Bureau of Clean Water / Wastewater Management
909 Elmerton Avenue
Harrisburg, PA 17110

Reference: Application for NPDES or WQM Permit Transfer (Application)
Letterkenny Township S.T.P.

The York Water Company (YWC) is hereby submitting this Application to transfer responsibility of the Letterkenny Township Sewage Treatment Plant (STP) with Facility Identification Number PA0082201 from Letterkenny Township to the York Water Company. The transfer date is contingent upon approval from the Pennsylvania Public Utility Commission (PUC). Upon approval from the PUC, YWC will notify the DEP of said action and provide the transfer date. Please do not process this transfer request until notified of the approval by the PUC.

Enclosed you will find the required fee, completed original and copy of the Application and associated attachments as per the application's general instructions.

Once the transferred permits are received, YWC will register them with the Franklin County Recorder of Deeds as required.

If you have any questions, please feel free to contact me at (717) 718-2961 or stevem@yorkwater.com.

Sincerely,

Steven Metzler, P.E.
Sr. Engineering Project Manager

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

APPLICATION FOR NPDES OR WQM PERMIT TRANSFER

Before completing this form, please read the instructions (3800-PM-BCW0041a). FAILURE TO FOLLOW THE INSTRUCTIONS MAY RESULT IN DENIAL OF THE APPLICATION.

Related ID#s (If Known)				DEP USE ONLY
Client ID#	68020	APS ID#	324074	Date Received
Site ID#	623	Facility ID#	PA0082201	PA: PDG:

Permit No(s) to be transferred: **WQM No. 2895401, NPDES No. PA0082201**	Date of Proposed Sale / Transfer of Ownership or Operation: **TBD (Contingent upon PA PUC Approval)**
Purpose of Application (select one): ☒ Transfer Permit(s) ☐ Add a Co-Permittee	**eDMR System:** ☒ eDMR Registration Materials Attached and Sent to BCW ☐ eDMR Registration Materials Not Required

PERMIT / FACILITY CATEGORY

NPDES Individual Permits	Other Permits / Authorizations
☐ Small Flow Treatment Facility (SFTF)	☐ NPDES General Permit (PAG-_____)
☒ Other Domestic Wastewater	☒ Water Quality Management (WQM) Permit
☐ Industrial Waste / Industrial Stormwater	☐ Joint PFBC/DEP Permit ("Chapter 91.38 Permit")
☐ Municipal Separate Storm Sewer System (MS4)	☐ No Exposure Certification
☐ Concentrated Animal Feeding Operation (CAFO)	☐ Other: _____

EXISTING PERMITTEE INFORMATION

DEP Client ID# 68020	**Client Type/Code** AUTH, 1210625			
Organization Name or Registered Fictitious Name Letterkenny Township Municipal Authority		**Employer ID# (EIN)**		**Dun & Bradstreet ID#**
Individual Last Name	**First Name**	**MI**	**Suffix**	**SSN**
Additional Individual Last Name	**First Name**	**MI**	**Suffix**	**SSN**
Mailing Address Line 1 4924 Orrstown Road	**Mailing Address Line 2**			
Address Last Line – City Orrstown	**State** PA	**ZIP+4** 17244-9536	**Country** USA	
Client Contact Last Name Myers	**First Name** Charles	**MI** H	**Suffix**	
Client Contact Title Authority Chairman, Letterkenny Township Municipal Authority		**Phone** (717) 532-8716	**Ext**	
E-mail Address letterkenny@embarqmail.com			**FAX** (717) 532-7134	

SITE INFORMATION

DEP Site ID#	Site Name
623	Letterkenny Township STP (aka Hillview Wastewater Treatment Plant)
EPA ID#	**Estimated Number of Employees to be Present at Site**

Description of Site
42,000 GPD Sewage Treatment Plant on 1.22 acres and collection system

County Name	Municipality	City	Boro	Twp
Franklin	Letterkenny	☐	☐	☒
County Name	**Municipality**	**City**	**Boro**	**Twp**
		☐	☐	☐

Site Location Line 1	Site Location Line 2
10114 Cardinal Drive	

Site Location Last Line – City	State	ZIP+4
Orrstown	PA	17244

Detailed Written Directions to Site
I-81 Exit 29, PA-174 west for 1.5 miles. US-11 south for 1.3 miles. PA-533 west for 9.6 miles to Orrstown. Right on PA-443 for 9.9 miles. Right on Cardinal Drive to 10114 (driveway entrance between 10110 and 10116 Cardinal Drive).

Site Contact Last Name	First Name	MI	Suffix
DelGrande	Dwayne	D.	

Site Contact Title	Site Contact Firm
Engineer	Delgrande & Associates, LLC

Mailing Address Line 1	Mailing Address Line 2
29 Mill Race Lane	

Address Last Line – City	State	ZIP+4
Fayetteville	PA	17222-1436

Phone	Ext	FAX	E-mail Address
(717) 263-5324		(717) 263-7270	ddelgrande@greenetownshipma.com

NAICS Codes (Two- & Three-Digit Codes – List All That Apply)	6-Digit Code (Optional)
22,	221320

Site-to-Client Relationship
OWN

FACILITY INFORMATION

Facility Name Letterkenny Township Authority's Hillview Sewage Treatment Plant

Attach a topographic map that identifies the location of the facility and all discharge points (outfalls).

Provide the latitude and longitude coordinates at the center of the facility.

Latitude			Longitude		
Degrees	**Minutes**	**Degrees**	**Minutes**	**Degrees**	**Minutes**
40	2	48.16	77	38	4.70

Existing Permits. Identify all NPDES and WQM permits for this facility.

Permit Type	Permit#	Date Issued	Issued By
NPDES	PA 0082201	5/18/2018 (effective 6/1/18)	PA DEP
WQM	2895401	8/4/1995	PA DEP
WQM	2895401 A1	5/18/2018	PA DEP (Maria Bebenek)

Facility Description. Provide a brief description of the facility.
The Letterkenny TWP STP is rated for 42,000 GPD and consists of a pretreatment comminutor, aerated equalization tank, two extended activated sludge trains, clarifiers, and UV disinfection.

COMPLIANCE HISTORY (EXISTING PERMITTEE)

Is the facility owner or operator in violation of any DEP regulation, permit, order or schedule of compliance at this or any other facility? ☒ Yes ☐ No

If "Yes," list each permit, order and schedule and provide compliance status. Use additional sheets to provide information on all permits.

Permit Program — Permit No. PA0082201

Brief Description of Non-Compliance

Deposits of biosolids were noted in the receiving stream at and below outfall 001

Steps Taken to Achieve Compliance	Date(s) Compliance Achieved
Daily inspection and logging of any accumulated sewage solids and removal of said accumulations by a licensed septage hauler.	Immediately
Surveying land and obtaining an easement for the extension (relocation) of Plant Outfall 001	October 2019

Current Compliance Status ☐ In Compliance ☒ In Non-Compliance

If the owner or operator is not in compliance with any permit requirement or DEP regulations, attach a narrative description of how the owner or operator will achieve compliance with the permit requirement, including the schedule for achieving compliance with appropriate milestones.

Are there any fees, past or present, due for the permit being transferred? ☐ Yes ☒ No

If "Yes," payment must be remitted with this application for any fees, past or present, due for the permit being transferred.

CERTIFICATION (EXISTING PERMITTEE)

I certify that I have the authority to make this application as the existing permittee, and that the information included in this application is true to the best of my knowledge and belief. I, on behalf of the existing permittee, hereby:

☒ relinquish the permit(s) that are the subject of this application to the proposed permittee; or

☐ agree to include the proposed permittee identified in this application as a co-permittee on the permit.

I also certify under penalty of law and subject to the penalties of 18 Pa. C.S. Section 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Charles H. Myers	Chairman, Letterkenny Twp Municipal Authority
Name (type or print legibly)	**Official Title**
Charles H. Myers	October 24, 2019
Signature	**Date**

PROPOSED PERMITTEE / CO-PERMITTEE INFORMATION

DEP Client ID#	Client Type/Code			
69800	PACOR			
Organization Name or Registered Fictitious Name		**Employer ID# (EIN)**		**Dun & Bradstreet ID#**
The York Water Company		23-1242500		00-791-8154
Individual Last Name	**First Name**	**MI**	**Suffix**	**SSN**
Additional Individual Last Name	**First Name**	**MI**	**Suffix**	**SSN**
Mailing Address Line 1	**Mailing Address Line 2**			
130 East Market Street				
Address Last Line – City	**State**	**ZIP+4**	**Country**	
York	PA	17401-1219	USA	
Client Contact Last Name	**First Name**	**MI**	**Suffix**	
Hand	Joseph	T		
Client Contact Title		**Phone**	**Ext**	
Chief Operating Officer		(717) 845-3601		
E-mail Address			**FAX**	
jth@yorkwater.com			(717) 843-2715	
Site Name (if different from Site Information section above)				
Facility Name (if different from Facility Information section above)				

DISCHARGE INFORMATION

Check the appropriate boxes below to indicate whether the quantity (flow or pollutant mass loads) or quality (pollutant concentrations) of any discharge to surface waters will change following transfer of the permit(s) or addition of co-permittee(s).

	Expected Change		
	Greater Than Existing Discharge(s)	**Less Than Existing Discharge(s)**	**No Change**
Flow or Pollutant Mass Loads	☐	☐	☒
Pollutant Concentrations	☐	☐	☒

If changes are expected, explain the reason(s):

COMPLIANCE HISTORY (PROPOSED PERMITTEE)

Is the proposed permittee in violation of any DEP regulation, permit, order or schedule of compliance at any other facility? ☐ Yes ☒ No

If "Yes," list each permit, order and schedule and provide compliance status. Use additional sheets to provide information on all permits.

Permit Program	Permit No.
Brief Description of Non-Compliance	

Steps Taken to Achieve Compliance	Date(s) Compliance Achieved

Current Compliance Status ☒ In Compliance ☐ In Non-Compliance

If the owner or operator is not in compliance with any permit requirement of DEP regulations, provide narrative description of how the owner or operator will achieve compliance with the permit requirement, including the schedule for achieving compliance with appropriate milestones.

STATEMENT OF LIABILITY

Unless otherwise indicated by attached written agreement, the proposed permittee will be held liable for all continuing and future violations of the transferred permit(s). If applicable, the written agreement must state the steps that will be taken to resolve any non-compliance at the facility and the responsible party for all actions.

CERTIFICATION (PROPOSED PERMITTEE)

I certify that I have the authority to make this application as the proposed permittee or co-permittee, and that the information included in this application is true to the best of my knowledge and belief. I, on behalf of the proposed permittee, hereby accept the permit(s) and the statement of liability above (unless otherwise specified in an attached written agreement), and agree to be bound by all terms of said permit(s).

I also certify under penalty of law and subject to the penalties of 18 Pa. C.S. Section 4904 (relating to unsworn falsification to authorities) that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

For Transfers of No Exposure Certifications: I certify that: 1) I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from NPDES stormwater permitting under federal regulations; 2) there are no discharges of stormwater contaminated by exposure to industrial activities or materials from the industrial facility (except as allowed under federal regulations); and 3) there are no unauthorized non-stormwater discharges from the facility. I understand that I am obligated to submit a No Exposure Certification form once every five years to the NPDES permitting authority and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of stormwater from the facility.

Joseph T. Hand	Chief Operating Officer
Name (type or print legibly)	**Official Title**
Joseph T. Hand	January 8, 2020
Signature	**Date**

DOCUMENT REVISION HISTORY

Date	Revision Reason
August 2019	Clarification of requirements for outstanding fees under Compliance History.
October 2018	Updated application to include purpose of application and eDMR checkboxes on page 1, revisions to Discharge Information section, and revisions to Certification sections. Added option for transfer application to be used to add co-permittees to a permit.
February 2017	Added requirement to submit eDMR registration if using eDMR.
November 2016	Updated topographic map requirements; Updated document number and document number references.

Permits to be Transferred

THE YORK WATER COMPANY
TEL. (717) 845-3601

130 EAST MARKET STREET
FAX (717) 852-0058

YORK, PENNSYLVANIA 17401-1219
www.yorkwater.com

pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

FILE

MAY 18 2018

CERTIFIED MAIL NO. 9171 9690 0935 0108 1325 94

Charles Myers
Authority Chairman
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244-9536

Re: Final NPDES and WQM Permits- Sewage
Letterkenny Township STP
NPDES Permit No. PA0082201
WQM Permit No. 2895401 ✓
Letterkenny Township, Franklin County

Dear Mr. Myers:

Your NPDES permit and Water Quality Management (WQM) permit are enclosed. Please read the permits carefully before starting construction. You must comply with all conditions in these permits. Construction must be done in accordance with the WQM permit application and all supporting documentation.

Please note that you are responsible for securing all other required permits, approvals and/or registrations associated with the project, if applicable, under Chapters 102 (erosion and sedimentation control), 105 (stream obstructions and encroachments) and 106 (floodplains) of DEP's regulations. Construction may not proceed until all other required permits have been obtained.

The NPDES permit expires on the date identified on page 1 of the NPDES permit. If you intend to continue discharging beyond the permit expiration date, you must submit a complete application to renew your permit at least 180 days prior to the expiration date.

Enclosed are Discharge Monitoring Report (DMR) templates and DMR instructions. It is recommended that you retain the DMR templates in the event you are unable to submit DMRs electronically through DEP's eDMR system. Routine use of the eDMR system is a requirement of the permit unless the conditions in Part A III.B of the permit are met to withdraw from the eDMR system.

Also enclosed is a Supplemental Form Inventory, which identifies the forms that are attached to the permit and must be submitted as attachments to eDMR reports, as applicable (see individual form instructions). The submission of other supplemental forms may be required in accordance with the permit. We encourage you to use the spreadsheet versions of supplemental forms that contain appropriate validation and DEP-approved calculations.

Enclosed is the "Water Quality Management Post Construction Certification" form. A Pennsylvania-registered Professional Engineer must sign and complete this form prior to startup of the facilities. You or your authorized representative must also sign the form. This certification and other post-construction documentation must be submitted to DEP within 30 days of completion of the project and must be received by DEP prior to commencing operation of the facilities.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, P.O. Box 8457, Harrisburg, PA 17105-8457, 717.787.3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800.654.5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717.787.3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717.787.3483) FOR MORE INFORMATION.

During construction or upon completing construction, please contact Jinsu Kim at 717.705.4825 or jikim@pa.gov so that an inspection of the facilities may be conducted, at DEP's discretion.

Sincerely,

Maria D. Bebenek, P.E.
Environmental Program Manager
Clean Water Program

Enclosures

cc: William DelGrande, P.E., DelGrande & Associates, LLC
Operations Section, PA DEP
Central Office, Division of Operations, Monitoring and Data Systems, PA DEP
File

Supplemental Form Inventory

The following supplemental forms (indicated in the check box column) are attached to this permit and must be completed and submitted to DEP in accordance with the permit and the supplemental form instructions. If the eDMR system is used to submit DMR reports, the spreadsheet versions of these supplemental forms, where applicable, should be used and attached to the eDMR submissions. A link to DEP's supplemental form website is available when logging into the eDMR system.

Check Box	Supplemental Form Name and No.
☒	Daily Effluent Monitoring (3800-FM-BPNPSM0435)
☒	Influent & Process Control (3800-FM-BPNPSM0436)
☒	Hauled in Municipal Wastes (3800-FM-BPNPSM0437)
☒	Sewage Sludge/Biosolids Production and Disposal (3800-FM-BPNPSM0438)
☐	Chemical Additives Usage (3800-FM-BPNPSM0439)
☒	Non-Compliance Reporting Form (3800-FM-BPNPSM0440)
☐	CSO Monthly Summary Report (3800-FM-BPNPSM0441)
☐	CSO Detailed Report (3800-FM-BPNPSM0442)
☐	Groundwater Monitoring Data Report (3800-FM-BPNPSM0443)
☐	TMDL Annual Load Summary (3800-FM-BPNPSM0448)
☐	Land Application Systems (3800-FM-BPNPSM0449)
☒	Hauled in Residual Wastes (3800-FM-BPNPSM0450)
☐	Surface Water Monitoring Data Report (3800-FM-BPNPSM0461)
☒	Lab Accreditation Form (3800-FM-BPNPSM0189)
☐	Whole Effluent Toxicity Test Summary Report (3800-FM-BPNPSM0485)
☐	Storm Water Annual Inspection Form (3800-PM-WSFR0083v)
☐	Storm Water Additional Information (3800-PM-WSFR0083t)
☐	Other:

3800-PM-WSFR0015 1/2011
Permit

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

WATER QUALITY MANAGEMENT PERMIT

PERMIT NO. 2895401 A-1

AMENDMENT NO. 1

APS ID. 324074

AUTH. ID. 1210625

A. PERMITTEE (Name and Address): CLIENT ID#: 68020 **Letterkenny Township Municipal Authority** **4924 Orrstown Road** **Orrstown, PA 17244-9536**	B. PROJECT/FACILITY (Name): **Letterkenny Township STP**
C. LOCATION (Municipality, County): **Letterkenny Township, Franklin County**	SITE ID#: **623**

D. This (permit/amendment) approves the (construction/modification/operation) of sewage facilities consisting of:
-Installation of a new ultraviolet disinfection system to replace the existing chlorine contact tank.
-Installation of all other appurtenances for the proposed modification.

Pump Stations: _____ Design Capacity: _____ GPM	Manure Storage: Volume: _____ MG Freeboard: _____ inches	Sewage Treatment Facility: Annual Average Flow: 0.042 MGD Design Hydraulic Capacity: 0.042 MGD Design Organic Capacity: 82 lb/day

E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:

1. Amendments: All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated November 29, 2017 and its supporting documentation and addendums dated December 22, 2017, which are hereby made a part of this amendment.

   Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. 2895401 dated August 04, 1995 shall remain in effect.
2. Permit Conditions Relating to Sewerage are attached and made part of this permit.
3. Special Conditions N/A are attached and made part of this permit.

F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:

1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.
2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.
3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 *et seq.* Issuance of this permit shall not relieve the permittee of any responsibility under any other law.

PERMIT ISSUED:
MAY 18 2018

BY: Maria D Bebenek

TITLE: Maria D. Bebenek, P.E.
Clean Water Program Manager
Southcentral Regional Office

Permit No. 2895401 A-1

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

PERMIT CONDITIONS RELATING TO SEWERAGE

For use in Water Quality Management Permits

(Check boxes that apply)

General

☒ 1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.

☒ 2. The permittee shall adopt and enforce an ordinance requiring the abandonment of privies, cesspools or similar receptacles for human waste and onlot sewage disposal systems on the premises of occupied structures accessible to public sewers. All such structures must be connected to the public sewers.

☒ 3. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.

☒ 4. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along or across private property with full rights of ingress, egress and regress.

☒ 5. When construction of the approved sewerage facilities is completed and before they are placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities.

☐ 6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 2 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the second anniversary of the permit date.

☒ 7. If, at any time, the sewerage facilities covered by this permit create a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.

☒ 8. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.

☒ 9. This permit does not relieve the permittee of its obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.

☒ 10. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confirm any right, easement or interest in, on, to or over any lands which belong to the Commonwealth.

☒ 11. The authority granted by this permit is subject to all effluent requirements, monitoring requirements and other conditions as set forth in NPDES Permit No. **PA0082201** and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

Construction

☒ 12. This permit is issued under the authorization of The Clean Streams Law and 25 Pa. Code Chapter 91. The permittee shall obtain all necessary permits, approvals and/or registrations under 25 Pa. Code Chapters 102, 105 and 106 prior to commencing construction of the facilities authorized by this permit, as applicable. The permittee should contact the DEP office that issued this permit if there are any questions concerning the applicability of additional permits.

☒ 13. The facilities shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications.

☒ 14. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the application and design plans submitted to DEP, using "Post Construction Certification" form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the facilities. The certification must be submitted to DEP before the facility is placed in operation. As-built drawings, photographs (if available) and a description of all deviations from the application and design plans must be submitted to DEP within 30 days of certification.

☒ 15. Manhole inverts shall be formed to facilitate the flow of the sewage and to prevent the stranding of sewage solids. The manhole structure shall be built to prevent undue infiltration, entrance of street wash or grit and provide safe access to facilitate manhole maintenance activities.

☒ 16. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

Operation and Maintenance

☒ 17. The permittee shall maintain records of "as-built" plans showing all the treatment facilities as actually constructed together with facility operation and maintenance (O&M) manuals and any other relevant information that may be required. Upon request, the "as-built" plans and O&M manuals shall be filed with DEP.

☒ 18. The sewers shall have adequate foundation support as soil conditions require. Trenches shall be back-filled to ensure that sewers will have proper structural stability, with minimum settling and adequate protection against breakage. Concrete used in connection with these sewers shall be protected from damage by water, freezing, drying or other harmful conditions until cured.

☒ 19. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the sanitary sewers.

☒ 20. The approved sewers shall be maintained in good condition, kept free of deposits by flushing or other cleaning methods and repaired when necessary.

☒ 21. The sewerage facilities shall be properly operated and maintained to perform as designed.

☒ 22. The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air and to the highly toxic character of certain gases arising from such digestion or from sewage in poorly ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion or danger from toxic gases may occur, the permittee shall post conspicuous permanent and legible warnings. The permittee shall instruct all employees concerning the aforesaid hazards, first aid and emergency methods of meeting such hazards and shall make all necessary equipment and material accessible.

☒ 23. An operator certified in accordance with the Water and Wastewater Systems Operator Certification Act of February 21, 2002, 63 P.S. §§1001, *et seq.* shall operate the sewage treatment plant.

☒ 24. The permittee shall properly control any industrial waste discharged into its sewerage system by regulating the rate and quality of such discharge, requiring necessary pretreatment and excluding industrial waste, if necessary, to protect the integrity or operation of the permittee's sewerage system.

☒ 25. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.

☒ 26. All connections to the approved sanitary sewers must be in accordance with the official Act 537 Plan and, if applicable, a corrective action plan as contained in the approved Title 25 Pa. Code Chapter 94 Municipal Wasteload Management Annual Report.

☒ 27. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations 40 CFR 257 and the Federal Clean Water Act and its amendments.

3800-PM-WSFR0179a 9/2005
Post Construction Certification

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

WATER QUALITY MANAGEMENT
POST CONSTRUCTION CERTIFICATION

PERMITTEE IDENTIFIER	
Permittee	Letterkenny Township Municipal Authority
Municipality	Letterkenny Township
County	Franklin
WQM Permit No.	2895401 A-1
Facility Type	Sewage

All of the above information should be taken directly from the Water Quality Management Permit.

CERTIFICATION

This certification must be completed and returned to the permits section of the DEP's regional office issuing the WQM permit within 30 days of completion of the project and received by DEP prior to operation, and if requested, as-built drawings, photographs (if available) and a discussion of any DEP-approved deviations from the design plans during construction.

I, being a Registered Professional Engineer in Pennsylvania, do hereby certify to the best of my knowledge and belief, based upon personal observation and interviews, that the above facility approved under the Water Quality Management Permit has been constructed in accordance with the plans, specifications and modifications approved by DEP.

Construction Completion Date (MM/DD/YYYY): _____

	Professional Engineer
	Name _____ (Please Print or Type)
	Signature
	Date
	License Expiration Date
	Firm or Agency
	Telephone
	Permittee or Authorized Representative
	Name _____ (Please Print or Type)
	Signature
Engineer's Seal	Title
	Telephone

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM DISCHARGE REQUIREMENTS FOR PUBLICLY OWNED TREATMENT WORKS (POTWs)

NPDES PERMIT NO: PA0082201

In compliance with the provisions of the Clean Water Act, 33 U.S.C.. Section 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244-9536

is authorized to discharge from a facility known as **Letterkenny Township STP**, located in **Letterkenny Township, Franklin County**, to **Conodoguinet Creek** in Watershed(s) **7-B** in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts A, B and C hereof.

THIS PERMIT SHALL BECOME EFFECTIVE ON June 1, 2018

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON May 31, 2023

The authority granted by this permit is subject to the following further qualifications:

1. If there is a conflict between the application, its supporting documents and/or amendments and the terms and conditions of this permit, the terms and conditions shall apply.

2. Failure to comply with the terms, conditions or effluent limitations of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. (40 CFR 122.41(a))

3. A complete application for renewal of this permit, or notice of intent to cease discharging by the expiration date, must be submitted to DEP at least 180 days prior to the above expiration date (unless permission has been granted by DEP for submission at a later date), using the appropriate NPDES permit application form. (40 CFR 122.41(b), 122.21(d))

   In the event that a timely and complete application for renewal has been submitted and DEP is unable, through no fault of the permittee, to reissue the permit before the above expiration date, the terms and conditions of this permit, including submission of the Discharge Monitoring Reports (DMRs), will be automatically continued and will remain fully effective and enforceable against the discharger until DEP takes final action on the pending permit application. (25 Pa. Code §§ 92a.7(b), (c))

4. This NPDES permit does not constitute authorization to construct or make modifications to wastewater treatment facilities necessary to meet the terms and conditions of this permit.

DATE PERMIT ISSUED MAY 18 2018

ISSUED BY Maria D. Bebenek

Maria D. Bebenek, P.E.
Clean Water Program Manager
Southcentral Regional Office

PART A. EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. **For Outfall** 001, **Latitude** 40° 6' 16.00", **Longitude** 77° 39' 15.00", **River Mile Index** 82.15, **Stream Code** 10194

Receiving Waters: Conodoguinet Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **June 1, 2018** through **May 31, 2019**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	8.8	14	XXX	25.0	40.0	50	2/month	24-Hr Composite
Total Suspended Solids	10.5	15.7	XXX	30.0	45.0	60	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	8.4	XXX	XXX	24.0	XXX	XXX	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	2.8	XXX	XXX	8.0	XXX	16	2/month	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
at discharge from facility

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 001, Latitude 40° 6' 16.00", Longitude 77° 39' 15.00", River Mile Index 82.15, Stream Code 10194

Receiving Waters: Conodoguinet Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from June 1, 2019 through May 31, 2023.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0 Daily Max	XXX	1/day	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
Ultraviolet light intensity (mW/cm²)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Carbonaceous Biochemical Oxygen Demand (CBOD5)	8.8	14	XXX	25.0	40.0	50	2/month	24-Hr Composite
Total Suspended Solids	10.5	15.7	XXX	30.0	45.0	60	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	8.4	XXX	XXX	24.0	XXX	XXX	2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	2.8	XXX	XXX	8.0	XXX	16	2/month	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
at discharge from facility

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. C. For Outfall 001, Latitude 40° 6' 16.00", Longitude 77° 39' 15.00", River Mile Index 82.15, Stream Code 10194

Receiving Waters: Conodoguinet Creek

Type of Effluent: Sewage Effluent

1. The permittee is authorized to discharge during the period from **June 1, 2018** through **May 31, 2023**.

2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	Report	Report	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Nitrate-Nitrite as N	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/quarter	24-Hr Composite
Total Nitrogen	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/quarter	Calculation
Total Kjeldahl Nitrogen	XXX	Report	XXX	XXX	Report Daily Max	XXX	1/quarter	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at discharge from facility (Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.)

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS (Continued)

Additional Requirements

1. The permittee may not discharge:

   a. Floating solids, scum, sheen or substances that result in observed deposits in the receiving water. (25 Pa Code § 92a.41(c))

   b. Oil and grease in amounts that cause a film or sheen upon or discoloration of the waters of this Commonwealth or adjoining shoreline, or that exceed 15 mg/l as a daily average or 30 mg/l at any time (or lesser amounts if specified in this permit). (25 Pa. Code § 92a.47(a)(7), § 95.2(2))

   c. Substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life. (25 Pa Code § 93.6(a))

   d. Foam or substances that produce an observed change in the color, taste, odor or turbidity of the receiving water, unless those conditions are otherwise controlled through effluent limitations or other requirements in this permit. For the purpose of determining compliance with this condition, DEP will compare conditions in the receiving water upstream of the discharge to conditions in the receiving water approximately 100 feet downstream of the discharge to determine if there is an observable change in the receiving water. (25 Pa Code § 92a.41(c))

2. The monthly average percent removal of BOD_5 or $CBOD_5$ and TSS must be at least 85% for POTW facilities on a concentration basis except where 25 Pa. Code 92a.47(g) and (h) are applicable to facilities with combined sewer overflows (CSOs) or as otherwise specified in this permit. (25 Pa. Code § 92a.47(a)(3))

3. If the permit requires the reporting of average weekly statistical results, the maximum weekly average concentration and maximum weekly average mass loading shall be reported, regardless of whether the results are obtained for the same or different weeks.

4. The permittee shall monitor the sewage effluent discharge(s) for the effluent parameters identified in the Part A limitations table(s) during all bypass events at the facility, using the sample types that are specified in the limitations table(s). Where the required sample type is "composite", the permittee must commence sample collection within one hour of the start of the bypass, wherever possible. The results shall be reported on the Daily Effluent Monitoring supplemental form (3800-FM-BCW0435) and be incorporated into the calculations used to report self-monitoring data on Discharge Monitoring Reports (DMRs).

Footnotes

(1) When sampling to determine compliance with mass effluent limitations, the discharge flow at the time of sampling must be measured and recorded.

(2) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

Supplemental Information

(1) The hydraulic design capacity of 0.042 million gallons per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to help determine whether a "hydraulic overload" situation exists, as defined in Title 25 Pa. Code Chapter 94.

(2) The effluent limitations for Outfall 001 were determined using an effluent discharge rate of 0.042 MGD.

(3) The organic design capacity of 82 lbs BOD_5 per day for the treatment facility is used to prepare the annual Municipal Wasteload Management Report to determine whether an "organic overload" condition exists, as defined in 25 Pa. Code Chapter 94.

II. DEFINITIONS

At Outfall (XXX) means a sampling location in outfall line XXX below the last point at which wastes are added to outfall line (XXX), or where otherwise specified.

Average refers to the use of an arithmetic mean, unless otherwise specified in this permit. (40 CFR 122.41(l)(4)(iii))

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollutant loading to surface waters of the Commonwealth. The term also includes treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The term includes activities, facilities, measures, planning or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim, and restore the quality of waters and the existing and designated uses of waters within this Commonwealth before, during and after earth disturbance activities. (25 Pa. Code § 92a.2)

Bypass means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i))

Calendar Week is defined as the seven consecutive days from Sunday through Saturday, unless the permittee has been given permission by DEP to provide weekly data as Monday through Friday based on showing excellent performance of the facility and a history of compliance. In cases when the week falls in two separate months, the month with the most days in that week shall be the month for reporting.

Clean Water Act means the Federal Water Pollution Control Act, as amended (33 U.S.C.A. §§ 1251 to 1387).

Composite Sample (for all except GC/MS volatile organic analysis) means a combination of individual samples (at least eight for a 24-hour period or four for an 8-hour period) of at least 100 milliliters (mL) each obtained at spaced time intervals during the compositing period. The composite must be flow-proportional; either the volume of each individual sample is proportional to discharge flow rates, or the sampling interval is proportional to the flow rates over the time period used to produce the composite. (EPA Form 2C)

Composite Sample (for GC/MS volatile organic analysis) consists of at least four aliquots or grab samples collected during the sampling event (not necessarily flow proportioned). The samples must be combined in the laboratory immediately before analysis and then one analysis is performed. (EPA Form 2C)

Daily Average Temperature means the average of all temperature measurements made, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar day or during the operating day if flows are of a shorter duration.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Daily Maximum Discharge Limitation means the highest allowable "daily discharge."

Discharge Monitoring Report (DMR) means the DEP or EPA supplied form(s) for the reporting of self-monitoring results by the permittee. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Estimated Flow means any method of liquid volume measurement based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters and batch discharge volumes.

Geometric Mean means the average of a set of n sample results given by the n^{th} root of their product.

Grab Sample means an individual sample of at least 100 mL collected at a randomly selected time over a period not to exceed 15 minutes. (EPA Form 2C)

Hauled-In Wastes means any waste that is introduced into a treatment facility through any method other than a direct connection to the sewage collection system. The term includes wastes transported to and disposed of within the treatment facility or other entry points within the collection system.

Hazardous Substance means any substance designated under 40 CFR Part 116 pursuant to Section 311 of the Clean Water Act. (40 CFR 122.2)

Immersion Stabilization (i-s) means a calibrated device is immersed in the wastewater until the reading is stabilized.

Indirect Discharger means a non-domestic discharger introducing pollutants to a Publicly Owned Treatment Works (POTW) or other treatment works. (25 Pa. Code § 92a.2, 40 CFR 122.2)

Industrial User means a source of Indirect Discharge. (40 CFR 403.3)

Instantaneous Maximum Effluent Limitation means the highest allowable discharge of a concentration or mass of a substance at any one time as measured by a grab sample. (25 Pa. Code § 92a.2)

Measured Flow means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

Monthly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. (25 Pa. Code § 92a.2)

Municipality means a city, town, borough, county, township, school district, institution, authority or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. (25 Pa. Code § 92a.2)

Municipal Waste means garbage, refuse, industrial lunchroom or office waste and other material, including solid, liquid, semisolid or contained gaseous material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities; and sludge not meeting the definition of residual or hazardous waste under this section from a municipal, commercial or institutional water supply treatment plant, waste water treatment plant or air pollution control facility. (25 Pa. Code § 271.1)

Publicly Owned Treatment Works (POTW) means a treatment works as defined by §212 of the Clean Water Act, owned by a state or municipality. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. The term also includes sewers, pipes or other conveyances if they convey wastewater to a POTW providing treatment. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works. (25 Pa Code § 92a.2, 40 CFR 122.2)

Residual Waste means garbage, refuse, other discarded material or other waste, including solid, liquid, semisolid or contained gaseous materials resulting from industrial, mining and agricultural operations and sludge from an industrial, mining or agricultural water supply treatment facility, wastewater treatment facility or air pollution control facility, if it is not hazardous. The term does not include coal refuse as defined in the Coal Refuse Disposal Control Act. The term does not include treatment sludges from coal mine drainage treatment plants, disposal of which is being carried on under and in compliance with a valid permit issued under the Clean Streams Law. (25 Pa Code § 287.1)

Severe Property Damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii))

Stormwater means the runoff from precipitation, snow melt runoff, and surface runoff and drainage. (25 Pa. Code § 92a.2)

Stormwater Associated With Industrial Activity means the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, and as defined at 40 CFR §122.26(b)(14)(i) – (ix) and (xi) and 25 Pa. Code § 92a.2.

Toxic Pollutant means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains may, on the basis of information available to DEP cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in these organisms or their offspring. (25 Pa. Code § 92a.2)

Weekly Average Discharge Limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

III. SELF-MONITORING, REPORTING AND RECORDKEEPING

A. Representative Sampling

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR 122.41(j)(1)). Representative sampling includes the collection of samples, where possible, during periods of adverse weather, changes in treatment plant performance and changes in treatment plant loading. If possible, effluent samples must be collected where the effluent is well mixed near the center of the discharge conveyance and at the approximate mid-depth point, where the turbulence is at a maximum and the settlement of solids is minimized. (40 CFR 122.48, 25 Pa. Code § 92a.61)

2. Records Retention (40 CFR 122.41(j)(2))

   Except for records of monitoring information required by this permit related to the permittee's sludge use and disposal activities which shall be retained for a period of at least 5 years, all records of monitoring activities and results (including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records), copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained by the permittee for 3 years from the date of the sample measurement, report or application, unless a longer retention period is required by the permit. The 3-year period shall be extended as requested by DEP or the EPA Regional Administrator.

3. Recording of Results (40 CFR 122.41(j)(3))

   For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

   a. The exact place, date and time of sampling or measurements.
   b. The person(s) who performed the sampling or measurements.
   c. The date(s) the analyses were performed.
   d. The person(s) who performed the analyses.
   e. The analytical techniques or methods used; and the associated detection level.
   f. The results of such analyses.

4. Test Procedures

   a. Facilities that test or analyze environmental samples used to demonstrate compliance with this permit shall be in compliance with laboratory accreditation requirements of Act 90 of 2002 (27 Pa. C.S. §§ 4101-4113) and 25 Pa. Code Chapter 252, relating to environmental laboratory accreditation.

   b. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be those approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, unless the method is specified in this permit or has been otherwise approved in writing by DEP. (40 CFR 122.41(j)(4), 122.44(i)(1)(iv))

   c. Test procedures (methods) for the analysis of pollutants or pollutant parameters shall be sufficiently sensitive. A method is sufficiently sensitive when 1) the method minimum level is at or below the level of the effluent limit established in the permit for the measured pollutant or pollutant parameter; or 2) the method has the lowest minimum level of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or O, for the measured pollutant or pollutant parameter; or 3) the method is specified in this permit or has been otherwise approved in writing by DEP for the measured pollutant or pollutant parameter. Permittees have the option of providing matrix or sample-specific minimum levels rather than the published levels. (40 CFR 122.44(i)(1)(iv))

5. Quality/Assurance/Control

In an effort to assure accurate self-monitoring analyses results:

a. The permittee, or its designated laboratory, shall participate in the periodic scheduled quality assurance inspections conducted by DEP and EPA. (40 CFR 122.41(e), 122.41(i)(3))

b. The permittee, or its designated laboratory, shall develop and implement a program to assure the quality and accurateness of the analyses performed to satisfy the requirements of this permit, in accordance with 40 CFR Part 136. (40 CFR 122.41(i)(4))

B. Reporting of Monitoring Results

1. The permittee shall effectively monitor the operation and efficiency of all wastewater treatment and control facilities, and the quantity and quality of the discharge(s) as specified in this permit. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.44, 92a.61(i) and 40 CFR §§ 122.41(e), 122.44(i)(1))

2. The permittee shall use DEP's electronic Discharge Monitoring Report (eDMR) system to report the results of compliance monitoring under this permit (see www.dep.pa.gov/edmr). Permittees that are not using the eDMR system as of the effective date of this permit shall submit the necessary registration and trading partner agreement forms to DEP's Bureau of Clean Water (BCW) within 30 days of the effective date of this permit and begin using the eDMR system when notified by DEP BCW to do so. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

3. Submission of a physical (paper) copy of a Discharge Monitoring Report (DMR) is acceptable under the following circumstances:

   a. For a permittee that is not yet using the eDMR system, the permittee shall submit a physical copy of a DMR to the DEP regional office that issued the permit during the interim period between the submission of registration and trading partner agreement forms to DEP and DEP's notification to begin using the eDMR system.

   b. For any permittee, as a contingency a physical DMR may be mailed to the DEP regional office that issued the permit if there are technological malfunction(s) that prevent the successful submission of a DMR through the eDMR system. In such situations, the permittee shall submit the DMR through the eDMR system within 5 days following remedy of the malfunction(s).

4. DMRs must be completed in accordance with DEP's published DMR instructions (3800-FM-BCW0463). DMRs must be received by DEP no later than 28 days following the end of the monitoring period. DMRs are based on calendar reporting periods and must be received by DEP in accordance with the following schedule:

   - Monthly DMRs must be received within 28 days following the end of each calendar month.
   - Quarterly DMRs must be received within 28 days following the end of each calendar quarter, i.e., January 28, April 28, July 28, and October 28.
   - Semiannual DMRs must be received within 28 days following the end of each calendar semiannual period, i.e., January 28 and July 28.
   - Annual DMRs must be received by January 28, unless Part C of this permit requires otherwise.

5. The permittee shall complete all Supplemental Reporting forms (Supplemental DMRs) attached to this permit, or an approved equivalent, and submit the signed, completed forms as attachments to the DMR, through DEP's eDMR system. DEP's Supplemental Laboratory Accreditation Form (3800-FM-BCW0189) must be completed and submitted to DEP with the first DMR following issuance of this permit, and anytime thereafter when changes to laboratories or methods occur. (25 Pa. Code §§ 92a.3(c), 92a.41(a), 92a.61(g) and 40 CFR § 122.41(l)(4))

6. The completed DMR Form shall be signed and certified by either of the following applicable persons, as defined in 25 Pa. Code § 92a.22:

- For a corporation - by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the NPDES form originates.
- For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
- For a municipality, state, federal or other public agency - by a principal executive officer or ranking elected official.

If signed by a person other than the above and for co-permittees, written notification of delegation of DMR signatory authority must be submitted to DEP in advance of or along with the relevant DMR form. (40 CFR § 122.22(b))

7. If the permittee monitors any pollutant at monitoring points as designated by this permit, using analytical methods described in Part A III.A.4. herein, more frequently than the permit requires, the results of this monitoring shall be incorporated, as appropriate, into the calculations used to report self-monitoring data on the DMR. (40 CFR 122.41(l)(4)(ii))

C. Reporting and Notification Requirements

1. Planned Changes to Physical Facilities – The permittee shall give notice to DEP as soon as possible but no later than 30 days prior to planned physical alterations or additions to the permitted facility. A permit under 25 Pa. Code Chapter 91 may be required for these situations prior to implementing the planned changes. A permit application, or other written submission to DEP, can be used to satisfy the notification requirements of this section.

   Notice is required when:

   a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b). (40 CFR 122.41(l)(1)(i))

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to effluent limitations in this permit. (40 CFR 122.41(l)(1)(ii))

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii))

   d. The planned change may result in noncompliance with permit requirements. (40 CFR 122.41(l)(2))

2. Planned Changes to Waste Stream – Under the authority of 25 Pa. Code § 92a.24(a) and 40 CFR 122.42(b), the permittee shall provide notice to DEP and EPA as soon as possible but no later than 45 days prior to any planned changes in the volume or pollutant concentration of its influent waste stream as a result of indirect discharges or hauled-in wastes, as specified in paragraphs 2.a. and 2.b., below. Notice shall be provided on the "Planned Changes to Waste Stream" Supplemental Report (3800-FM-BCW0482), available on DEP's website. The permittee shall provide information on the quality and quantity of waste introduced into the POTW, and any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW (40 CFR 122.42(b)(3)). The Report shall be sent via Certified Mail or other means to confirm DEP's receipt of the notification. DEP will determine if the submission of a new application and receipt of a new or amended permit is required.

   a. Introduction of New Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(1))

      New pollutants are defined as parameters that meet one or more of the following criteria:

(i) Any pollutants that were not detected in the facilities' influent waste stream as reported in the permit application; and have not been approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants (40 CFR 122.42(b)(1)).

The permittee shall provide notification of the introduction of new pollutants in accordance with paragraph 2 above. The permittee may not authorize the introduction of new pollutants until the permittee receives DEP's written approval.

b. Increased Loading of Approved Pollutants (25 Pa. Code § 92a.24(a), 40 CFR 122.42(b)(2))

Approved pollutants are defined as parameters that meet one or more of the following criteria:

(i) Were detected in the facilities' influent waste stream as reported in the permittee's permit application; or have been previously approved to be included in the permittee's influent waste stream by DEP in writing.

(ii) Have an effluent limitation or monitoring requirement in this permit.

The permittee shall provide notification of the introduction of increased influent loading (lbs/day) of approved pollutants in accordance with paragraph 2 above when (1) the cumulative increase in influent loading (lbs/day) exceeds 20% of the maximum loading reported in the permit application, or a loading previously approved by DEP and/or EPA, or (2) may cause an exceedance in the effluent of Effluent Limitation Guidelines (ELGs) or limitations in Part A of this permit, or (3) may cause interference or pass through at the POTW, or (4) may cause exceedances of the applicable water quality standards in the receiving stream. Unless specified otherwise in this permit, if DEP does not respond to the notification within 30 days of its receipt, the permittee may proceed with the increase in loading. The acceptance of increased loading of approved pollutants may not result in an exceedance of ELGs or effluent limitations, may not result in a hydraulic or organic overload condition as defined in 25 Pa. Code § 94.1, and may not cause exceedances of the applicable water quality standards in the receiving stream.

3. Reporting Requirements for Hauled-In Wastes

a. Receipt of Residual Waste

(i) The permittee shall document the receipt of all hauled-in residual wastes (including but not limited to wastewater from oil and gas wells, food processing waste, and landfill leachate), as defined at 25 Pa. Code § 287.1, that are received for processing at the treatment facility. The permittee shall report hauled-in residual wastes on a monthly basis to DEP on the "Hauled In Residual Wastes" Supplemental Report (3800-FM-BCW0450) as an attachment to the DMR. If no residual wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report. The information used to develop the Report shall be retained by the permittee for five years from the date of receipt and must be made available to DEP or EPA upon request.

(1) The dates that residual wastes were received.

(2) The volume (gallons) of wastes received.

(3) The license plate number of the vehicle transporting the waste to the treatment facility.

(4) The permit number(s) of the well(s) where residual wastes were generated, if applicable.

(5) The name and address of the generator of the residual wastes.

(6) The type of wastewater.

The transporter of residual waste must maintain these and other records as part of the daily operational record (25 Pa. Code § 299.219). If the transporter is unable to provide this information or the permittee has not otherwise received the information from the generator, the residual wastes shall not be accepted by the permittee until such time as the permittee receives such information from the transporter or generator.

(ii) The following conditions apply to the characterization of residual wastes received by the permittee:

(1) If the generator is required to complete a chemical analysis of residual wastes in accordance with 25 Pa. Code § 287.51, the permittee must receive and maintain on file a chemical analysis of the residual wastes it receives. The chemical analysis must conform to the Bureau of Waste Management's Form 26R except as noted in paragraph (2), below. Each load of residual waste received must be covered by a chemical analysis if the generator is required to complete it.

(2) For wastewater generated from hydraulic fracturing operations ("frac wastewater") within the first 30 production days of a well site, the chemical analysis may be a general frac wastewater characterization approved by DEP. Thereafter, the chemical analysis must be waste-specific and be reported on the Form 26R.

b. Receipt of Municipal Waste

(i) The permittee shall document the receipt of all hauled-in municipal wastes (including but not limited to septage and liquid sewage sludge), as defined at 25 Pa. Code § 271.1, that are received for processing at the treatment facility. The permittee shall report hauled-in municipal wastes on a monthly basis to DEP on the "Hauled In Municipal Wastes" Supplemental Report (3800-FM-BCW0437) as an attachment to the DMR. If no municipal wastes were received during a month, submission of the Supplemental Report is not required.

The following information is required by the Supplemental Report:

(1) The dates that municipal wastes were received.

(2) The volume (gallons) of wastes received.

(3) The BOD_5 concentration (mg/l) and load (lbs) for the wastes received.

(4) The location(s) where wastes were disposed of within the treatment facility.

(ii) Sampling and analysis of hauled-in municipal wastes must be completed to characterize the organic strength of the wastes, unless composite sampling of influent wastewater is performed at a location downstream of the point of entry for the wastes. The influent BOD_5 characterization for the treatment facility, as reported in the annual Municipal Wasteload Management Report per 25 Pa. Code Chapter 94, must be representative of the hauled-in municipal wastes received.

4. Unanticipated Noncompliance or Potential Pollution Reporting

   a. Immediate Reporting - The permittee shall immediately report any incident causing or threatening pollution in accordance with the requirements of 25 Pa. Code §§ 91.33 and 92a.41(b).

      (i) If, because of an accident, other activity or incident a toxic substance or another substance which would endanger users downstream from the discharge, or would otherwise result in pollution or create a danger of pollution or would damage property, the permittee shall immediately notify DEP by telephone of the location and nature of the danger. Oral notification to the Department is required as soon as possible, but no later than 4 hours after the permittee becomes aware of the incident causing or threatening pollution.

      (ii) If reasonably possible to do so, the permittee shall immediately notify downstream users of the waters of the Commonwealth to which the substance was discharged. Such notice shall include the location and nature of the danger.

      (iii) The permittee shall immediately take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition, within 15 days from the incident, shall remove the residual substances contained thereon or therein from the ground and from the affected waters of this Commonwealth to the extent required by applicable law.

   b. The permittee shall report any noncompliance which may endanger health or the environment in accordance with the requirements of 40 CFR 122.41(l)(6). These requirements include the following obligations:

      (i) 24 Hour Reporting - The permittee shall orally report any noncompliance with this permit which may endanger health or the environment within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

         (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

         (2) Any upset which exceeds any effluent limitation in the permit; and

         (3) Violation of the maximum daily discharge limitation for any of the pollutants listed in the permit as being subject to the 24-hour reporting requirement.

      (ii) Written Report - A written submission shall also be provided within 5 days of the time the permittee becomes aware of any noncompliance which may endanger health or the environment. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

      (iii) Waiver of Written Report - DEP may waive the written report on a case-by-case basis if the associated oral report has been received within 24 hours from the time the permittee becomes aware of the circumstances which may endanger health or the environment. Unless such a waiver is expressly granted by DEP, the permittee shall submit a written report in accordance with this paragraph. (40 CFR 122.41(l)(6)(iii))

5. Other Noncompliance

   The permittee shall report all instances of noncompliance not reported under paragraph C.4 of this section or specific requirements of compliance schedules, at the time DMRs are submitted, on the Non-Compliance Reporting Form (3800-FM-BCW0440). The reports shall contain the information listed in paragraph C.4.b.(ii) of this section. (40 CFR 122.41(l)(7))

PART B

I. MANAGEMENT REQUIREMENTS

A. Compliance

1. The permittee shall comply with all conditions of this permit. If a compliance schedule has been established in this permit, the permittee shall achieve compliance with the terms and conditions of this permit within the time frames specified in this permit. (40 CFR 122.41(a)(1))

2. The permittee shall submit reports of compliance or noncompliance, or progress reports as applicable, for any interim and final requirements contained in this permit. Such reports shall be submitted no later than 14 days following the applicable schedule date or compliance deadline. (25 Pa. Code § 92a.51(c), 40 CFR 122.47(a)(4))

B. Permit Modification, Termination, or Revocation and Reissuance

1. This permit may be modified, terminated, or revoked and reissued during its term in accordance with 25 Pa. Code § 92a.72 and 40 CFR 122.41(f).

2. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. (40 CFR 122.41(f))

3. In the absence of DEP action to modify or revoke and reissue this permit, the permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time specified in the regulations that establish those standards or prohibitions. (40 CFR 122.41(a)(1))

C. Duty to Provide Information

1. The permittee shall furnish to DEP, within a reasonable time, any information which DEP may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. (40 CFR 122.41(h))

2. The permittee shall furnish to DEP, upon request, copies of records required to be kept by this permit. (40 CFR 122.41(h))

3. Other Information - Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to DEP, it shall promptly submit the correct and complete facts or information. (40 CFR 122.41(l)(8))

4. The permittee shall provide the following information in the annual Municipal Wasteload Management Report, required under the provisions of Title 25 Pa. Code Chapter 94:

   a. The requirements identified in 25 Pa. Code § 94.12.

   b. The identity of any indirect discharger(s) served by the POTW which are subject to pretreatment standards adopted under Section 307(b) of the Clean Water Act; the POTW shall also specify the total volume of discharge and estimated concentration of each pollutant discharged into the POTW by the indirect discharger.

   c. A "Solids Management Inventory" if specified in Part C of this permit.

   d. The total volume of hauled-in residual and municipal wastes received during the year, by source.

   e. The Annual Report requirements for permittees required to implement an industrial pretreatment program listed in Part C, as applicable.

D. General Pretreatment Requirements

1. Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (MGD) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program unless specifically exempted by the Approval Authority. A POTW with a design flow of 5 MGD or less may be required to develop a POTW Pretreatment Program if the Approval Authority finds that the nature or volume of the industrial influent, treatment process upsets, violations of effluent limitations, contamination of sludge, or other circumstances warrant in order to prevent interference or pass through. (40 CFR 403.8)

2. Each POTW with an approved Pretreatment Program pursuant to 40 CFR 403.8 shall develop and enforce specific limits to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b), and shall continue to develop these limits as necessary and effectively enforce such limits. This condition applies, for example, when there are planned changes to the waste stream as identified in Part A III.C.2. If the permittee is required to develop or continue implementation of a Pretreatment Program, detailed requirements will be contained in Part C of this permit.

3. For all POTWs, where pollutants contributed by indirect dischargers result in interference or pass through, and a violation is likely to recur, the permittee shall develop and enforce specific limits for indirect dischargers and other users, as appropriate, that together with appropriate facility or operational changes, are necessary to ensure renewed or continued compliance with this permit or sludge use or disposal practices. Where POTWs do not have an approved Pretreatment Program, the permittee shall submit a copy of such limits to DEP when developed. (25 Pa. Code § 92a.47(d))

E. Proper Operation and Maintenance

1. The permittee shall employ operators certified in compliance with the Water and Wastewater Systems Operators Certification Act (63 P.S. §§ 1001-1015.1).

2. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls including appropriate quality assurance procedures. This provision also includes the operation of backup or auxiliary facilities or similar systems that are installed by the permittee, only when necessary to achieve compliance with the terms and conditions of this permit. (40 CFR 122.41(e))

F. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge, sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d))

G. Bypassing

1. Bypassing Not Exceeding Permit Limitations - The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions in paragraphs two, three and four of this section. (40 CFR 122.41(m)(2))

2. Other Bypassing - In all other situations, bypassing is prohibited and DEP may take enforcement action against the permittee for bypass unless:

   a. A bypass is unavoidable to prevent loss of life, personal injury or "severe property damage." (40 CFR 122.41(m)(4)(i)(A))

has been resolved by an appropriate compliance action or by the terms and conditions of the permit (including compliance schedules set forth in the permit), consistent with 25 Pa. Code § 92a.51 (relating to schedules of compliance) and other appropriate Department regulations. (25 Pa. Code § 92a.71)

3. In the event DEP does not approve transfer of this permit, the new owner or operator must submit a new permit application.

C. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege. (40 CFR 122.41(g))

D. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit. (40 CFR 122.41(b))

E. Other Laws

The issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations.

IV. ANNUAL FEE

Permittees shall pay an annual fee in accordance with 25 Pa. Code § 92a.62. Annual fee amounts are specified in the following schedule and are due on each anniversary of the effective date of the most recent new or reissued permit. All flows identified in the schedule are annual average design flows. (25 Pa. Code § 92a.62)

Small Flow Treatment Facility (SRSTP and SFTF)	$0
Minor Sewage Facility < 0.05 MGD (million gallons per day)	$250
Minor Sewage Facility ≥ 0.05 and < 1 MGD	$500
Minor Sewage Facility with CSO (Combined Sewer Overflow)	$750
Major Sewage Facility ≥ 1 and < 5 MGD	$1,250
Major Sewage Facility ≥ 5 MGD	$2,500
Major Sewage Facility with CSO	$5,000

As of the effective date of this permit, the facility covered by the permit is classified in the following fee category: **Minor Sewage Facility <0.05 MGD.**

Invoices for annual fees will be mailed to permittees approximately three months prior to the due date. In the event that an invoice is not received, the permittee is nonetheless responsible for payment. Throughout a five year permit term, permittees will pay four annual fees followed by a permit renewal application fee in the last year of permit coverage. Permittees may contact the DEP at 717-787-6744 with questions related to annual fees. The fees identified above are subject to change in accordance with 25 Pa. Code § 92a.62(e).

Payment for annual fees shall be remitted to DEP at the address below by the anniversary date. Checks should be made payable to the Commonwealth of Pennsylvania.

PA Department of Environmental Protection
Bureau of Clean Water
Re: Chapter 92a Annual Fee
P.O. Box 8466
Harrisburg, PA 17105-8466

PART C

I. OTHER REQUIREMENTS

A. No storm water from pavements, area ways, roofs, foundation drains or other sources shall be directly admitted to the sanitary sewers associated with the herein approved discharge.

B. The approval herein given is specifically made contingent upon the permittee acquiring all necessary property rights by easement or otherwise, providing for the satisfactory construction, operation, maintenance or replacement of all sewers or sewerage structures associated with the herein approved discharge in, along, or across private property, with full rights of ingress, egress and regress.

C. Collected screenings, slurries, sludges, and other solids shall be handled and disposed of in compliance with 25 Pa. Code, Chapters 271, 273, 275, 283, and 285 (related to permits and requirements for landfilling, land application, incineration, and storage of sewage sludge), Federal Regulation 40 CFR 257, Pennsylvania Clean Streams Law, Pennsylvania Solid Waste Management Act of 1980, and the Federal Clean Water Act and its amendments. The permittee is responsible to obtain or assure that contracted agents have all necessary permits and approvals for the handling, storage, transport, and disposal of solid waste materials generated as a result of wastewater treatment.

D. The permittee shall optimize chlorine dosages used for disinfection or other purposes to minimize the concentration of Total Residual Chlorine (TRC) in the effluent, meet applicable effluent limitations, and reduce the possibility of adversely affecting the receiving waters. Optimization efforts may include an evaluation of wastewater characteristics, mixing characteristics, and contact times, adjustments to process controls, and maintenance of the disinfection facilities. If DEP determines that effluent TRC is causing adverse water quality impacts, DEP may reopen this permit to apply new or more stringent effluent limitations and/or require implementation of control measures or operational practices to eliminate such impacts.

Where the permittee does not use chlorine for primary or backup disinfection, but proposes the use of chlorine for cleaning or other purposes, the permittee shall notify DEP prior to initiating use of chlorine and monitor TRC concentrations in the effluent on each day in which chlorine is used. The results shall be submitted as an attachment to the DMR.

II. SOLIDS MANAGEMENT

A. The permittee shall manage and properly dispose of sewage sludge and/or biosolids by performing sludge wasting that maintains an appropriate mass balance of solids within the treatment system. The wasting rate must be developed and implemented considering the specific treatment process type, system loadings, and seasonal variation while maintaining compliance with effluent limitations. Holding excess sludge within clarifiers or in the disinfection process is not permissible.

B. The permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Sewage Sludge/Biosolids Production and Disposal" (Form No. 3800-FM-BCW0438) and "Supplemental Report – Influent & Process Control" (Form No. 3800-FM-BCW0436), as attachments to the DMR on a monthly basis. When applicable, the permittee shall submit the Supplemental Reports entitled, "Supplemental Report – Hauled In Municipal Wastes" (Form No. 3800-FM-BCW0437) and "Supplemental Report – Hauled In Residual Wastes" (Form No. 3800-FM-BCW0450), as attachments to the DMR.

C. By March 31 of each year, the permittee shall submit a "Sewage Sludge Management Inventory" that summarizes the amount of sewage sludge and/or biosolids produced and wasted during the calendar year from the system. The "Sewage Sludge Management Inventory" may be submitted with the Municipal Wasteload Management Report required by Chapter 94. This summary shall include the expected sewage sludge production (estimated using the methodology described in the U.S. EPA handbook, "Improving POTW Performance Using the Composite Correction Approach" (EPA-625/6-84-008)), compared with the actual amount disposed during the year. Sludge quantities shall be expressed as dry weight in addition to gallons or other appropriate units.

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Interim

Reporting Frequency: Monthly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2019
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	MGD	XXX	XXX	XXX	XXX		Continuous	Measured
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	S.U.		1/day	Grab
Dissolved Oxygen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	5.0 Daily Min	XXX	XXX	mg/L		1/day	Grab
Total Residual Chlorine (TRC)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	0.5 Avg Mo	1.6 IMAX	mg/L		1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	8.8 Avg Mo	14 Wkly Avg	lbs/day	XXX	25.0 Avg Mo	40.0 Wkly Avg	mg/L		2/month	24-Hr Composite
Total Suspended Solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	10.5 Avg Mo	15.7 Wkly Avg	lbs/day	XXX	30.0 Avg Mo	45.0 Wkly Avg	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Interim

Reporting Frequency: Monthly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2019
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Fecal Coliform Oct 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	2000 Geo Mean	10000 IMAX	No./100 ml		2/month	Grab
Fecal Coliform May 1 - Sep 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	200 Geo Mean	1000 IMAX	No./100 ml		2/month	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	8.4 Avg Mo	XXX	lbs/day	XXX	24.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	2.8 Avg Mo	XXX	lbs/day	XXX	8.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Total Phosphorus	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	XXX	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PERMITTEE NAME/ADDRESS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Final

Reporting Frequency: Monthly
DMR Effective From: June 1, 2019
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Flow	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	MGD	XXX	XXX	XXX	XXX		Continuous	Measured
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	S.U.		1/day	Grab
Dissolved Oxygen	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	5.0 Daily Min	XXX	XXX	mg/L		1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	8.8 Avg Mo	14 Wkly Avg	lbs/day	XXX	25.0 Avg Mo	40.0 Wkly Avg	mg/L		2/month	24-Hr Composite
Total Suspended Solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	10.5 Avg Mo	15.7 Wkly Avg	lbs/day	XXX	30.0 Avg Mo	45.0 Wkly Avg	mg/L		2/month	24-Hr Composite
Fecal Coliform Oct 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	2000 Geo Mean	10000 IMAX	No./100 ml		2/month	Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0482 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Final

Reporting Frequency: Monthly
DMR Effective From: June 1, 2019
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022

___ Check Here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Fecal Coliform May 1 - Sep 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	XXX	200 Geo Mean	1000 IMAX	No./100 ml		2/month	Grab
Ultraviolet light intensity	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	XXX	XXX	XXX	Report Daily Min	XXX	XXX	mW/cm²		1/day	Recorded
Ammonia-Nitrogen Nov 1 - Apr 30	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	8.4 Avg Mo	XXX	lbs/day	XXX	24.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	2.8 Avg Mo	XXX	lbs/day	XXX	8.0 Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Total Phosphorus	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	XXX	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY
COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*							

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Quarterly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022
___ Check Here if No Discharge
NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Nitrate-Nitrite as N	SAMPLE MEASUREMENT			lbs/day				mg/L		1/quarter	24-Hr Composite
	PERMIT REQUIREMENT	XXX	Report Daily Max		XXX	XXX	Report Daily Max				
Total Nitrogen	SAMPLE MEASUREMENT			lbs/day				mg/L		1/quarter	Calculation
	PERMIT REQUIREMENT	XXX	Report Daily Max		XXX	XXX	Report Daily Max				
Total Kjeldahl Nitrogen	SAMPLE MEASUREMENT			lbs/day				mg/L		1/quarter	24-Hr Composite
	PERMIT REQUIREMENT	XXX	Report Daily Max		XXX	XXX	Report Daily Max				

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

3800-FM-BCW0462 12/2016

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS

NAME: Letterkenny Township Municipal Authority
ADDRESS: 4924 Orrstown Road
Orrstown, PA 17244-9536
FACILITY: Letterkenny Township STP
LOCATION: Letterkenny Township
Franklin County
WATERSHED: 7-B

PA0082201	001
PERMIT NUMBER	OUTFALL NUMBER

MONITORING PERIOD						
YEAR	MO	DAY	TO	YEAR	MO	DAY

Reporting Frequency: Monthly
DMR Effective From: June 1, 2018
DMR Effective To: May 31, 2023
Permit Expires: May 31, 2023
Permit Application Due: December 2, 2022
___ Check Here if No Discharge
NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite
Total Suspended Solids Raw Sewage Influent	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT	Report Avg Mo	Report Daily Max	lbs/day	XXX	Report Avg Mo	XXX	mg/L		2/month	24-Hr Composite

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS *(Report all violations on the "Non-Compliance Reporting Form")*

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

INSTRUCTIONS FOR COMPLETING DISCHARGE MONITORING REPORTS (DMRs)

General

One or more Discharge Monitoring Reports (DMRs) are attached to your permit for reporting the results of self-monitoring activities as required by your permit. You should make copies of the DMRs for your ongoing use, unless you elect to participate in the Department of Environmental Protection's (DEP's) electronic DMR (eDMR) program (see www.dep.pa.gov/edmr).

- Reporting frequencies will vary depending on the monitoring frequencies listed in your permit, and are generally monthly, quarterly semi-annually and annually.
- Your reports must be received by DEP on the 28th day of the month following the end of the reporting period, unless otherwise specified in Part C of your permit.
- Your permit may require submission of DMRs to other agencies, including the U.S. Environmental Protection Agency (EPA).
- If you receive DMRs in the mail from EPA, please discontinue use of DMR Form No. 3800-FM-BCW0462 and begin using EPA's DMRs.
- DMRs will generally include pre-populated information for permittee name and address, facility location, permit number, outfall number, permit expiration date, parameter names, and permit requirements. If you identify any errors on a DMR issued by DEP, please contact the DEP regional office that issued your permit. If you identify any errors on a DMR issued by EPA, please contact DEP's Central Office at 717-787-6744. **DO NOT make changes to DMRs issued to you.**
- You may use computer-generated replicas of Form No. 3800-FM-CW0462 or of EPA's DMR if you receive prior approval from DEP and EPA. **DEP reserves the right to instruct you to discontinue the submission of computer-generated DMRs if the permit requirements you entered on the form are inaccurate.**

Instructions

1. Enter statistical results into each blank field below the "VALUE" column headers. Results must be reported in the same units shown on the DMR.
2. Sum the total number of excursions or exceedances of permit limits across the row for each parameter and enter the value into the "NO. EX" field. For example, if the permit contains limits of 6.0 S.U. (Minimum) and 9.0 S.U. (Maximum) for pH, and the Minimum and Maximum results are 5.9 S.U. and 9.1 S.U., respectively, enter "2" into the "NO. EX" field.
3. Report the actual sampling frequency and sample type utilized during the reporting period in the fields corresponding to "Frequency of Analysis" and "Sample Type", respectively.
4. Type the name of the principal executive officer (or an authorized agent designated by a principal executive officer) who is taking responsibility for the report, sign the report (should be in ink), enter the telephone number of the responsible individual, and record the date that the report was signed. Mail only original, signed copies of DMRs.
5. In the Comments section at the bottom of the DMR, you may write a brief summary of violations in this section; however, DEP requests that all violations during the monitoring period be reported in more detail on DEP's **Non-Compliance Reporting Form** (3800-FM-BCW0440) and be submitted as an attachment to the DMR. Other uses of the Comments Section include explanations of attachments to the DMR, explanations for the unavailability of data, and brief summaries of issues that have affected operations or effluent quality during the monitoring period. Always consider attaching a letter or separate document to explain your situation in more detail.

No Discharge or No Data Available

If there was no discharge at all from an outfall during the monitoring period, check the "No Discharge" box on the top of the DMR. Complete the information above and below the table and mail the DMR to the appropriate agencies. Be sure to sign and date the DMR.

If there was no discharge of a specific parameter (e.g., if a chlorine limit is in the permit but chlorine was not used for disinfection during the entire reporting period), or if data are not available for a specific parameter for the entire reporting period, do not leave the DMR blank. Instead, report one of the following No Data Indicator (NODI) codes that apply to your situation in the appropriate value field, and **provide an explanation as an attachment to the DMR**:

A Use if you are exempted from monitoring the parameter because of a General Permit condition.

E Use if all samples or results are not available for the reporting period due to equipment failure or because sample collection was overlooked or samples could not be collected for the parameter.

GG Use if your permit requires sample collection and analysis only under certain conditions and those conditions were not met during the reporting period (e.g., report chlorine results only when chlorination system is used).

FF Other: use if there is any reason for the absence of data that is not covered by those above.

If you have at least one result for a parameter, the value should be reported and not a NODI code.

Calculations

The following explains how to calculate statistical values that are commonly required by permits:

Monthly Average – For Loading (lbs/day), sum the total of daily loadings and divide by the number of samples during the month. To calculate the daily loading, multiply the daily concentration (mg/l) by the flow (MGD) on the date of sampling and a conversion factor of 8.34. For Concentration, sum the total of daily concentrations and divide by the number of samples.

Weekly Average – For Loading (lbs/day), sum the total of average daily loadings during each week of the reporting period (beginning on a Sunday and ending on a Saturday) and divide by the number of samples during the week. For Concentration, sum the total of daily concentrations each week and divide by the number of samples. Report the maximum weekly average on the DMR.

Maximum Daily ("Daily Max") – Report the maximum concentration or load measured during a 24-hour period during the reporting period; if multiple measurements are taken daily, include all data in the analysis.

Instantaneous Maximum ("IMAX") – Report the maximum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

Instantaneous Minimum ("Minimum") – Report the minimum result obtained by a grab sample for a specific pollutant over the entire reporting period covered by a DMR.

Total Monthly Load (lbs) – Sum the total of average daily loadings, divide by the number of samples during the month, and multiply by the number of days in the month.

Geometric Mean – Report the average of a set of *n* sample results given by the *n*th root of their product. If any result is zero (0), substitute 1 for the calculation. For example, five samples were analyzed with the following results: 20, 300, 400, 500, and 0. The calculation of geometric mean is as follows (note that you will need to use the power function on a calculator):

$$\sqrt[5]{20 \cdot 300 \cdot 400 \cdot 500 \cdot 1} = \sqrt[5]{1{,}200{,}000{,}000} = (1{,}200{,}000{,}000)^{1/5} = \mathbf{65}$$

Non-Detect Data

Conventional and Toxic Parameters

For calculating average values of data sets in which there are some "detections" (results at or above the laboratory reporting limit) and some "non-detect" data (results reported below the laboratory reporting limit), use the reporting limit for non-detect data. In other words, ignore the less than (<) symbol for statistical calculations and include the < symbol with the statistical result if there is at least one non-detect result in the data set. For example, four samples were analyzed with the following results: < 1.0, 2.0, < 1.0, and 1.0. The average statistical result is < 1.3.

Where the permit includes an effluent limitation for a parameter that is less than the most sensitive detection limit available, and the laboratory reports a value at or below the lowest level specified by the permit, you may use zero (0) in the calculation in lieu of the reporting limit, if the parameter is identified in 25 Pa. Code Chapter 16, Appendix A, Tables 2A and 2B. In general, parameters with limitations that are less than the most sensitive detection limit will be identified in Part C of the permit, if applicable.

Bacteria Parameters

Report all "non-detect" (e.g., < 2) and "too numerous to count" (TNTC) (e.g., > 2,000) results on DMR supplemental forms as reported by the laboratory. Do not report "TNTC" on supplemental forms, but instead report a value qualified with the ">" symbol. Where a data set includes one or more "non-detect" and/or TNTC results, calculate the geometric mean by ignoring qualifying symbols, but report the value with the symbol. If a data set includes both ">" and "<" qualifiers, the ">" qualifier takes precedence for reporting. For all "non-detect" values, specify in the Comments section of the DMR the maximum volume filtered at the laboratory.

Example 1 – For results are determined, < 2, 10, 20, and 30. The geometric mean should be reported as $< (2 \bullet 10 \bullet 20 \bullet 30)^{0.25} = < 10$. Specify the maximum volume filtered for the < 2 result in the DMR Comments.

Example 2 – Three results are determined, < 2, 1,000, and > 2,000. The geometric mean should be reported as $> (2 \bullet 1{,}000 \bullet 2{,}000^{0.333} = > 158$.

Rounding and Precision

Statistical values reported on the DMR should be rounded to the same number of decimal places as the limit for the parameter as set forth in the permit. If the permit does not contain a limit but requests monitoring only, statistical values for concentration results should be rounded to the maximum number of decimal places in the data set as reported by the laboratory or the instrument used for analysis. If mass loads must be reported and there is no limit, round statistical values to the nearest whole number, unless the calculated number is less than one, in which case the value should be rounded to one significant figure (e.g., 0.1, 0.05, etc.). If the number you are rounding is followed by 5, 6, 7, 8, or 9, round the number up, otherwise round down.

The documents "Discharge Monitoring Reports Overview and Summary" (3800-BK-DEP3047) and "Management of Non-Detect Results for Discharge Monitoring Reports" (3800-FS-DEP4262) contain more information and are incorporated by reference. These documents are available on DEP's website.

3800-FM-BPNPSM0435 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
DAILY EFFLUENT MONITORING

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B
Laboratories:

Month: Year:
NPDES Permit No.: PA0082201 Outfall No.: 001
Renewal application due 180 days prior to expiration
This permit will expire on MAY, 31 2023

	Effluent Parameters																	
	Flow		pH		DO		TRC		CBOD5		TSS		Fecal Coliform		UV Intensity		Nitrate-Nitrite	
Day	Q	MGD	Q	S.U.	Q	mg/L	Q	mg/L	Q	mg/L	Q	mg/L	Q	No./100 ml	Q	mW/cm²	Q	mg/L
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
Avg																		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Signature:
Title: Date:

3800-FM-BPNPSM0435 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
DAILY EFFLUENT MONITORING

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B
Laboratories:

Month: Year:
NPDES Permit No.: PA0082201 Outfall No.: 001
Renewal application due 180 days prior to expiration
This permit will expire on MAY, 31 2023

	Effluent Parameters																	
Day	Total Nitrogen		Ammonia		TKN		Total Phosphorus											
	Q	mg/L	Q	mg/L	Q	mg/L	Q	mg/L	Q		Q		Q		Q		Q	
1																		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
26																		
27																		
28																		
29																		
30																		
31																		
Avg																		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Signature:
Title: Date:

3800-FM-BPNPSM0436 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT – INFLUENT & PROCESS CONTROL

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due 180 days prior to expiration
This permit will expire on MAY 31, 2023

Day	Influent					Process Control				
	Flow (MGD)	BOD5 (mg/l)	BOD5 (lbs)	TSS (mg/l)	TSS (lbs)	Aeration MLSS (mg/l)	Aeration DO (mg/l)	Sludge Wasted (gallons)		
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Avg										
Max										

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0437 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT – HAULED IN MUNICIPAL WASTES

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due **180 days** prior to expiration
This permit will expire on MAY 31, 2023

Day	SEPTAGE				SLUDGE				OTHER (specify):				DAILY TOTALS	
	Gallons	BOD_5 (mg/l)	BOD_5 (lbs)	Disposal Location	Gallons	BOD_5 (mg/l)	BOD_5 (lbs)	Disposal Location	Gallons	BOD_5 (mg/l)	BOD_5 (lbs)	Disposal Location	Gallons	BOD_5 (lbs)
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
Avg												Monthly Totals:		

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0438 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due 180 days prior to expiration
This permit will expire on MAY 31, 2023

SEWAGE SLUDGE/BIOSOLIDS PRODUCTION INFORMATION (Identify each off-site removal event and incineration event)

☐ Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge/Biosolids Hauled Off-site			Dewatered Sewage Sludge/Biosolids Hauled Off-site			Sewage Sludge/Biosolids Dewatered and Incinerated On-site		
	Gallons	% Solids	Dry Tons	Tons Dewatered	% Solids	Dry Tons	Tons Dewatered	% Solids	Dry Tons
		TOTAL:			TOTAL:			TOTAL:	

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

Site Name				
Municipality				
County				
DEP Permit No.				
Type of Material*				
Dry Tons Applied/Disposed				
Type of Disposal/Use*				
Hauler Name				

*See instructions for explanation

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0450 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL REPORT
HAULED IN RESIDUAL WASTES

Facility Name: Letterkenny Township STP
Municipality: Letterkenny Township County: Franklin
Watershed: 7-B

Month: _____ Year: _____
NPDES Permit No.: PA0082201
Renewal application due **180 days** prior to expiration
This permit will expire on MAY 31, 2023

Date	Volume Received *(gallons)*	License Plate No.	Well Permit No.	Source of Residual Waste			Wastewater Type	Chemical Analysis *(Yes/No)*
				Generator	*Address*	*State*		
Total:								

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. §4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0440 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). **Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.** If you are reporting other non-compliance events, and the reporting deadline does not coincide with your submission of the DMR, it should be submitted separately to the Department by the reporting deadline set forth in the permit. See instructions for more information.

Facility Name: Letterkenny Township STP Month: _____ Year: _____

Municipality: Letterkenny Township County: Franklin Permit No.: PA0082201

☐ **Violations of Permit Effluent Limitations***

Date	Parameter	Permit Limit	Units	Statistical Code	Result	Units	Cause of Violation	Corrective Action Taken

☐ **Sanitary Sewer Overflows and Other Unauthorized Discharges***

Event Date	Substance Discharged	Location	Volume (gals)	Duration (hrs)	Receiving Waters	Impact on Waters	Cause of Discharge	Date DEP Notified

☐ **Other Permit Violations***

- ☐ Sample collection less frequent than required — Explain _____
- ☐ Sample type not in compliance with permit — Explain _____
- ☐ Violation of permit schedule — Explain _____
- ☐ Other — Explain _____
- ☐ Other — Explain _____

*** If the space provided is not sufficient to record all information, please attach additional sheets.**

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: _____ Signature: _____

Title: _____ Date: _____

3800-FM-BPNPSM0189 3/2012

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT

SUPPLEMENTAL LABORATORY ACCREDITATION FORM[1]

Permittee Name: Letterkenny Township Municipal Authority

Address: 4924 Orrstown Rd

Orrstown,PA 17244-9536

PERMIT NUMBER	MONITORING PERIOD Year/Month/Day						
PA0082201				TO			

PARAMETER	ANALYSIS METHOD	LAB NAME	LAB ID NUMBER[2]

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibly of fine and imprisonment for knowing violations.

Name/Title Principal Executive Officer

Phone: _____

Signature of Principal Executive Officer or Authorized Agent

_____

Date: _____

_____

[1] Submit this form with the first Discharge Monitoring Report (DMR) or Annual Report, where sample results are submitted to the Department for compliance purposes. You do not need to send this form to the Department again UNLESS there has been a change to the lab(s), parameter(s) or method(s) of analysis.

[2] For parameter(s) covered under accreditation-by-rule, submit the lab's registration number in lieu of an accreditation number.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

DAILY EFFLUENT MONITORING REPORT

Use this form to report daily monitoring results for the parameters that must be monitored in effluent for compliance with the permit. Results for influent parameters are normally reported on Form 3800-FM-BPNPSM0436.

1. Enter Facility Name, Municipality, County, Watershed No., Laboratories, Month, Year, NPDES Permit No., Outfall No., and Permit Expiration Date (it is noted that this information may be pre-populated if you have received this form with your permit). For Laboratories, list the names of all laboratories where samples were analyzed during the month, including on-site analysis.

2. In the column headers, below "Effluent Parameters," enter the names of parameters in the permit. Since limited space is provided, abbreviation may be necessary. If there are more parameters for an outfall than columns provided on the form, attach an additional sheet.

3. Below parameter names, and to the right of "Q" (Qualifier) column headers, enter the units associated each parameter (it is noted that this information may be pre-populated if you have received this form with your permit).

4. Enter monitoring results for parameters in the rows corresponding to the day of the month in which samples were collected. Enter results exactly as reported by the laboratory, or if measured with on-site equipment, to the level of precision recommended by the equipment manufacturer. Enter data qualifiers such as "<," ">," "J," and others in the "Q" column.

5. Calculate and report average values at the bottom of the table in accordance with the DMR Instructions (3800-FM-BPNPSM0463) and DEP guidance (3800-BK-DEP3047). Note – for bacteria, calculate and report the geometric mean value.

6. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

INFLUENT AND PROCESS CONTROL REPORT

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

2. For **Influent**, enter daily average Influent Flow (MGD) (if an influent flow meter is in use), daily influent BOD_5 or $CBOD_5$ concentrations (mg/l) and loads (lbs), and daily influent TSS concentrations (mg/l) and loads (lbs). If an influent flow meter is not in use, you may use results from an effluent flow meter.

3. For **Process Control**, enter daily average Mixed Liquor Suspended Solids (MLSS) (mg/l) and daily average Aeration Dissolved Oxygen (DO) for aerobic biological treatment systems, and total daily Sludge Wasted (removed from biological treatment), in gallons, for all treatment system types. If a parameter does not apply to your facility, leave the column blank. Information for other parameters such as Return Activated Sludge (RAS) Rate, Recirculation Rate (for fixed media treatment systems), Sludge Blanket Thickness, Sludge Volume Index, and others may be requested by the DEP office that issued the permit.

4. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

HAULED IN MUNICIPAL WASTES REPORT

This form is intended for documenting the receipt of municipal wastes including sewage sludge, septage and other municipal wastewaters hauled in from other facilities for processing and/or disposal at your facility. This form should not be used for reporting receipt of residual wastes (e.g., food processing wastes, oil and gas wastewater, landfill leachate, etc.) - please use Form 3800-FM-BPNPSM0450 for reporting this information.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

2. For septage, biosolids and other wastewaters (specify type in the space provided), record the daily volume received in gallons, the daily BOD_5 concentration (average), the daily BOD_5 load in lbs (average), and the disposal location. For disposal location, specify the plant location or tank receiving hauled in wastes (e.g., headworks, primarily clarifier, digester, etc.).

3. Determine daily BOD_5 concentrations in mg/l by sampling loads in accordance with the permit or otherwise as determined by the facility. Periodic sampling of loads is encouraged to improve confidence in reported results.

4. Calculate the average, daily total and monthly total values and report the values in the spaces provided.

5. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

BIOSOLIDS PRODUCTION AND DISPOSAL FORM

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

Biosolids Production Information

2. For each off-site removal event for liquid sewage sludge or biosolids and for dewatered sewage sludge or biosolids, and for each event where dewatered sewage sludge or biosolids are incinerated on-site, list the date of the event, identify the gallons (liquid) or tons (dewatered) removed or incinerated and the percent solids (e.g., 10%, 20%, etc.) Report only sewage sludge or biosolids that have been removed from the plant digesters and other solids which have been **permanently** removed from the treatment process. Do **not** include sewage sludge or biosolids from other facilities that are processed at your facility. (If there were no off-site removal events during the month, check the box above the table).

   Calculate dry tons for liquid sewage sludge or biosolids by multiplying the volume (gallons) by the percent solids and by a conversion factor of 0.0000417. For example, if 2,500 gallons of liquid biosolids is removed, and the percent solids is 3.0%, dry tons is calculated as:

   2,500 gallons x 3.0% x 0.0000417 = 0.31 dry tons

   Calculate dry tons for dewatered sewage sludge or biosolids by multiplying the tons dewatered by the percent solids and by a conversion factor of 0.01. For example, if 5 tons of dewatered biosolids is removed, and the percent solids is 50%, dry tons is calculated as:

   5 tons x 50% x 0.01 = 2.5 dry tons

   The **% Solids** of liquid or dewatered sewage sludge or biosolids must be determined periodically through laboratory testing. Do not estimate or guess this value. An acceptable test method is method 2540B in *Standard Methods for the Examination of Water and Wastewater*, 18th edition, where samples are dried at 103-105°C. Other references such as ASTM may have equivalent tests which are also acceptable.

Biosolids and Incinerator Ash Disposal and Beneficial Use Information

3. Report sewage sludge, biosolids, and ash disposal and beneficial use information by disposal/application site. There are columns for four possible sites per month - if more sites are needed, attach additional pages. For each Site Name, listed at the top of the column, enter the Municipality and County of the site, the DEP Permit No. (i.e., Biosolids

permit number for land application, landfill waste management permit number, etc.), Type of Material (sewage sludge, biosolids, or incinerator ash), Dry Tons Applied/Disposed at the site for the month, Type of Disposal/Use (e.g., reed beds, agricultural utilization, composting, landfill, other treatment plant, etc.) and the name of the hauler (company or individual name).

4. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

NON-COMPLIANCE REPORTING FORM

Use this supplemental form to report all permit violations and any other non-compliance that may endanger health or the environment, in accordance with your permit. Complete all sections that apply. If you are reporting violations of permit limits, monitoring requirements or schedules that do not pose an immediate threat to health or the environment, you may attach this form to the Discharge Monitoring Report (DMR). If you are reporting other non-compliance events, and the deadline for a written report (e.g., 5 days) does not coincide with your submission of the DMR, this form should be submitted separately to the Department by the reporting deadline set forth in the permit.

If you are unsure of whether an incident constitutes non-compliance that may endanger health or the environment, it is recommended that you notify the Department verbally as soon as possible after you become aware of the incident. Title 25, Pa. Code §§ 91.33 and 91.34 (regarding incidents causing or threatening pollution and activities utilizing pollutants, respectively), in part requires immediate notification by telephone to the Department of pollution incidents, remediation, and may require an additional report on the incident or plan of pollution prevention measures.

Instructions:

1. Enter the name of the facility, the municipality and county where it is located, the month and year when violations occurred, and the NPDES or WQM permit number for the facility.

2. If there were violations of permit effluent limitations during the month, check the box next to "Violations of Permit Effluent Limitations." (Note – if using the electronic version of this form, check the boxes first, and then select Tools – Unprotect Document to enter additional information). Enter the date of the violation (if a violation of a minimum or maximum limit, the date of sample collection, or if a violation of an average limit, the end of the monitoring period), the parameter name, the permit limit and units, the statistical code (e.g., "MIN", "MAX", "MO AVG", etc.), the measured result and units, the cause of the violation and the corrective action taken. **If there are more than two violations during the monitoring period and/or if the space provided is insufficient to explain the cause or corrective action, please attach additional pages.**

3. If there are Sanitary Sewer Overflow (SSO) discharges or other unauthorized discharges from the facility (e.g., spills, leaks, etc.) that enter or have the potential to enter waters of the Commonwealth, including groundwater, notify DEP by phone as soon as possible, and document the discharge on this form by checking the box next to "Sanitary Sewer Overflows and Other Unauthorized Discharges." Record the event (discharge) date, the substance discharged (e.g., sewage, on-site chemicals, etc.), the location where the discharge occurred (e.g., manhole number, pump station name, equipment description, etc.), the volume discharged (gallons), the approximate duration of the discharge (hours), the receiving waters (name of stream or groundwater), the impact on the receiving waters, if observed (e.g., solids deposition, foam, fish kill, etc.), the cause of the discharge, and the date on which the Department was verbally notified. **If there are more than two discharge events during the monitoring period and/or if the space provided is insufficient to explain the discharge, please attach additional pages.**

4. If there are other violations of the permit, check the box next to "Other Permit Violations," and check the appropriate box that describes the violation type. If not identified on the form, check the box next to "Other" and provide a written explanation. **If the space provided is insufficient to explain the violation, please attach additional pages.**

5. Type your name and title and sign and date the form after reading the certification statement.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

INSTRUCTIONS FOR COMPLETING DMR SUPPLEMENTAL REPORTS

If you have questions about completing this form, contact the Clean Water Program Operations Section of the Department in your region:

Southeast Region – (484) 250-5970
Northeast Region – (570) 826-2553
Southcentral Region – (717) 705-4707
Northcentral Region – (570) 327-0532
Southwest Region – (412) 442-4060
Northwest Region – (814) 332-6942

HAULED IN RESIDUAL WASTES REPORT

Use this form to document receipt of residual wastes at your treatment facility (e.g., food processing waste, landfill leachate, oil and gas wastewaters). Municipal wastes such as sewage sludge and septage should be documented on the Hauled in Municipal Wastes Supplemental Report (3800-FM-BPNPSM0437).

1. Enter Facility Name, Municipality, County, Watershed No., Month, Year, NPDES Permit No., and Permit Expiration Date.

2. Enter the date for each day in which the facility receives residual wastes. If wastewater is received from more than one generator on the same day, repeat the date in a separate row.

3. Report the total volume received each day from each generator (source), in whole gallons.

4. Report the license plate number of the vehicle hauling the wastewater to the treatment facility. If more than one vehicle is used by a generator, report the date and total volume hauled by each vehicle daily (use separate rows as necessary).

5. For oil and gas wastewaters, enter the permit number of the well from which the wastewater was generated. For other wastewaters, this column may remain blank.

6. Report the source of each load of residual waste, including the generator name, address, and state. For oil and gas wastewaters, report the location of the well(s) generating the wastewater.

7. Enter Wastewater Type, typically frac water, drilling fluids or production water for oil and gas wastewaters, or other types such as food processing waste or leachate.

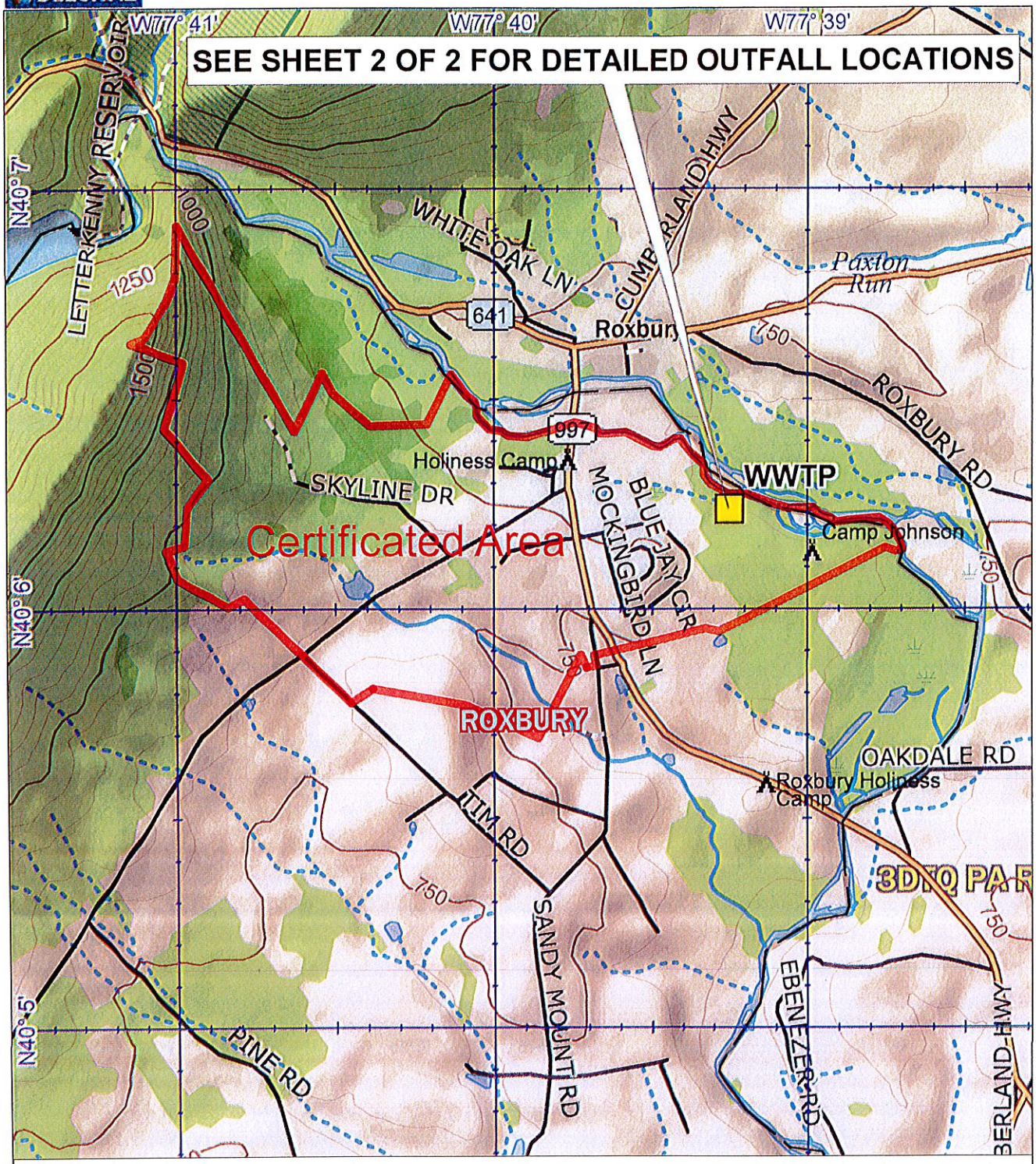
8. If the wastewater has been analyzed and reported on a Residual Waste Form 26R, or a separate waste characterization using the parameters from Form 26R, enter "Yes" under the column "Chemical Analysis", otherwise enter "No".

9. Type the name of the person who prepared the form, the person's job title, and sign and date the form after reading the certification statement.

Topographic Map with Facility and Outfall Locations

THE YORK WATER COMPANY
TEL. (717) 845-3601
130 EAST MARKET STREET
FAX (717) 852-0058
YORK, PENNSYLVANIA 17401-1219
www.yorkwater.com

DeLORME XMap® 8



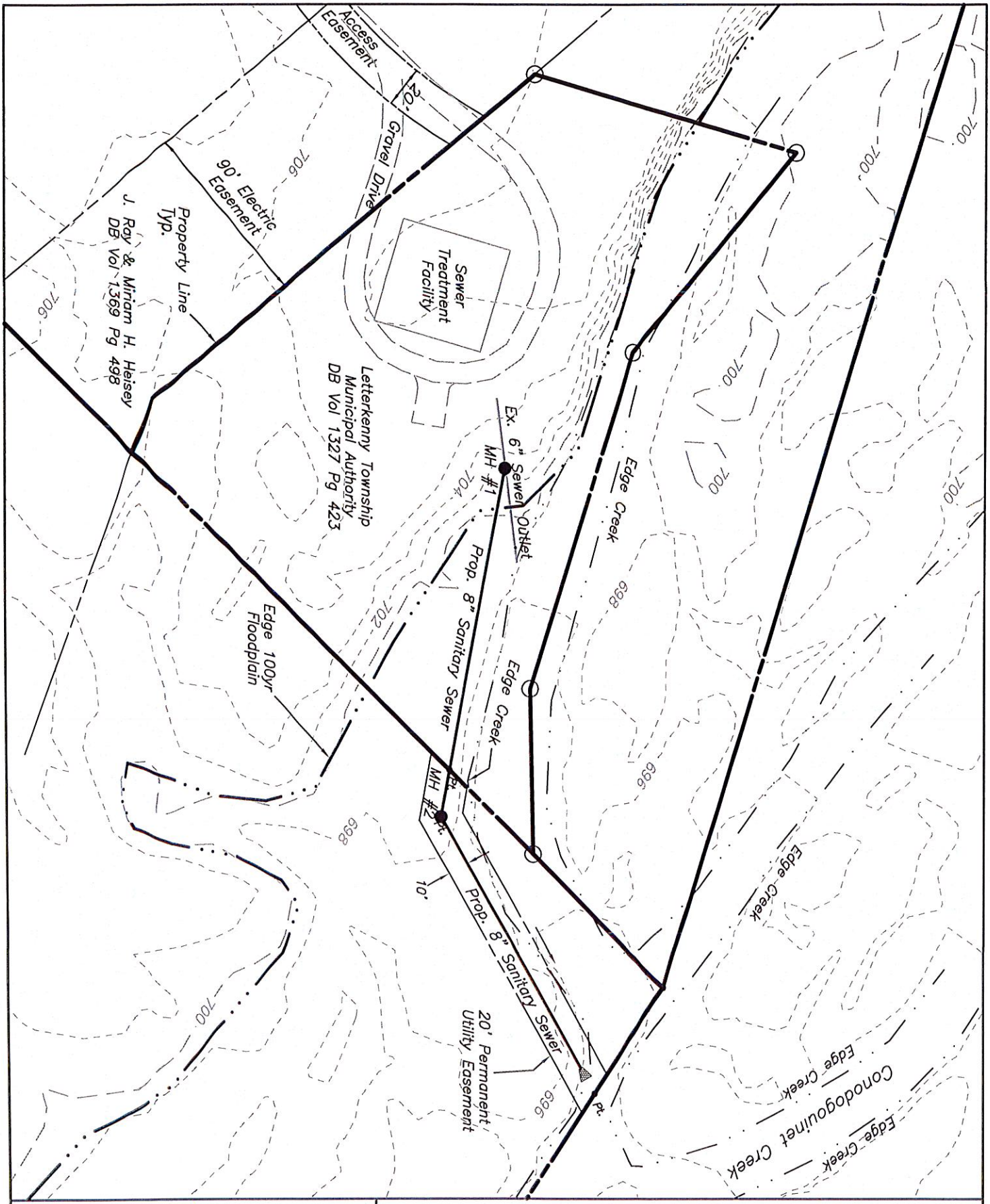
The York Water Company
Letterkenny Township Municipal Authority
Wastewater Facilities
Roxbury (PA) USGS Topo Quad

SHEET 1 OF 2

Data use subject to license.
© DeLorme. XMap® 8.
www.delorme.com

TN
MN (10.8°W)

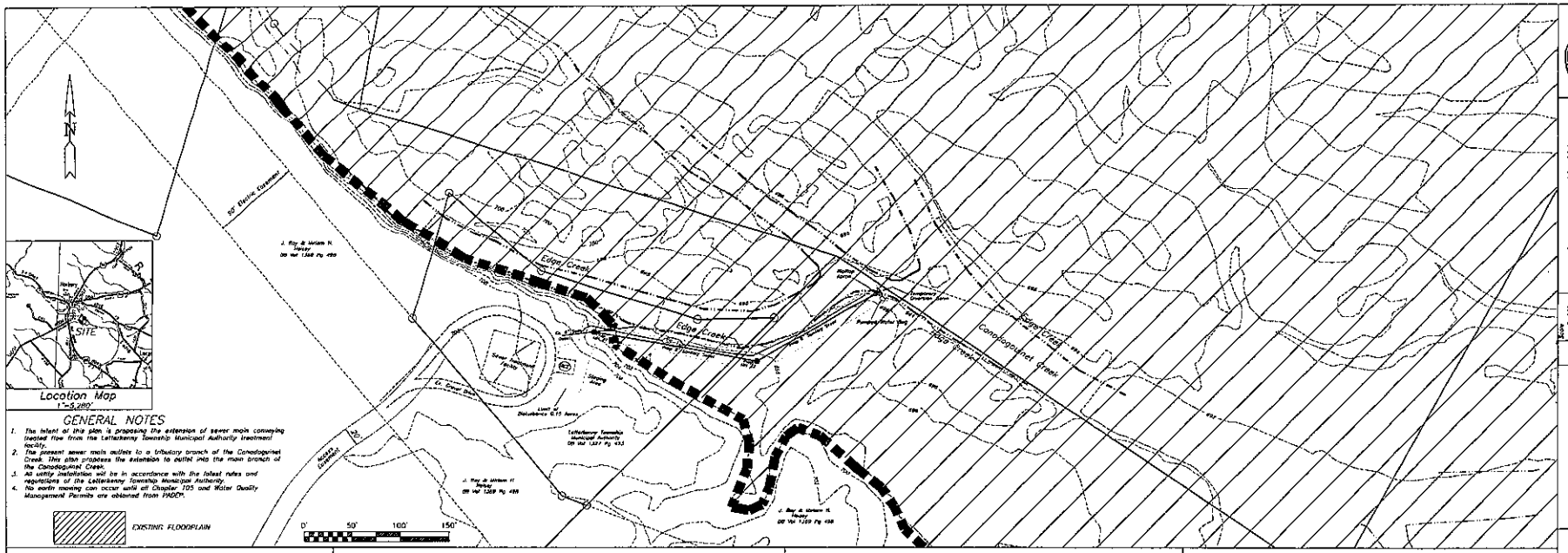
Scale 1 : 25,000
1" = 473.0 ft
Data Zoom 12-0



The York Water Company
130 EAST MARKET STREET, YORK, PA 17401 (717) 845-3601

Title:
LTMA WASTEWATER TREATMENT PLANT OUTFALL
LETTERKENNY TOWNSHIP FRANKLIN COUNTY, PENNSYLVANIA

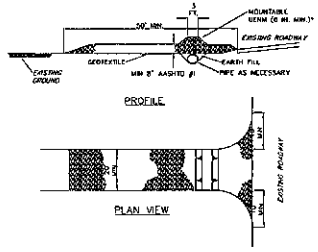
Scale:	1"=60'	Drawn By:	J. RIVERA	Drawing No.	
Date:	12/16/2019	Checked By:	S. METZLER	Sheet No.	2 OF 2



GENERAL NOTES

1. The intent of this plan is proposing the extension of sewer main conveying treated flow from the Letterkenny Township Municipal Authority treatment facility.
2. The present sewer main outlets to a tributary branch of the Conodoguinet Creek. This plan proposes the extension to outlet into the main branch of the Conodoguinet Creek.
3. All earth disturbance will be in accordance with the latest rules and regulations of the Letterkenny Township Municipal Authority.
4. No earth moving can occur until all Chapter 105 and Water Quality Management Permits are obtained from PADEP.

EXISTING FLOODPLAIN



* MOUNTAINABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

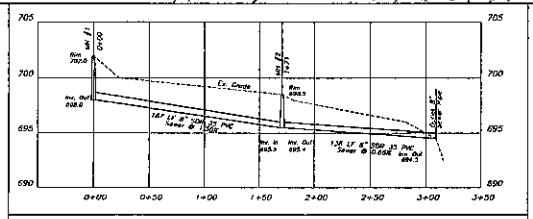
REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

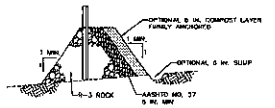
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

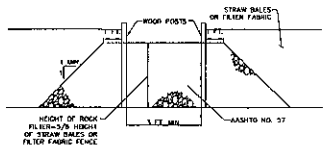
MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE





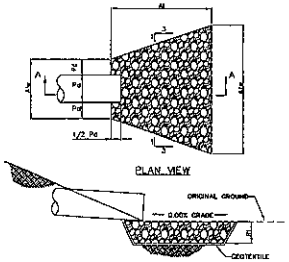


NOTES:

A ROCK FILTER OUTLET SHALL BE INSTALLED WHERE FAILURE OF A SILT FENCE OR STRAW BALE BARRIER HAS OCCURRED DUE TO CONCENTRATED FLOW. ANCHORED COMPOST LAYER SHALL BE USED ON UPSLOPE FACE IN HQ AND EV WATERSHEDS.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/3 THE HEIGHT OF THE OUTLET.

STANDARD CONSTRUCTION DETAIL #4-6
ROCK FILTER OUTLET
NOT TO SCALE



OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R-__	RIPRAP THICK T (IN)	APRON LENGTH L (FT)	APRON INITIAL WIDTH W (FT)	APRON TERMINAL WIDTH W (FT)
1	8"	4	12"	8'	8'	8'

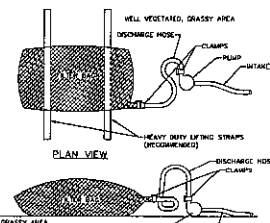
NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

EXTEND RIPRAP ON BACK SIDE OF APRON TO AT LEAST 1/2 DEPTH OF PIPE ON BOTH SIDES TO PREVENT SCOUR AROUND THE PIPE.

STANDARD CONSTRUCTION DETAIL #9-2
RIPRAP APRON AT PIPE OUTLET
NO FLARED ENDWALL
NOT TO SCALE



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED 2" PIPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	390 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER PVC BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG
NOT TO SCALE

Sheet 1 of 2 Sheets

SEWER TREATMENT FACILITY
OUTLET EXTENSION
STATE OF
LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

LETTERKENNY TOWNSHIP
MUNICIPAL AUTHORITY
(OWNER)

No.	Date	Revision	By	File No. 2751-1
1.	1/31/19	Revised according to DEP comments	MJC	Checked MJC
2.	1/31/19	Revised according to DEP comments	MJC	Checked MJC
				Drawn MJC
				Date 2/14/19
				Scale 1"=50'

Curfman & Zullinger
Surveying Inc.
Surveying & Subdivision & Stake out
856 Lincoln Way East
Chambersburg, PA 17201
Phone (717-261-0149)
Fax (717-261-1766)

MATTHEW J. CURFMAN
PENNSYLVANIA
PROFESSIONAL SURVEYOR

Erosion and Sedimentation Control Narrative:

The sequence of construction is important in the Erosion and Sedimentation Control Plan of this project. The construction of the erosion and sedimentation control measures shall be performed prior to any other construction activities on-site.

The developer shall assume the responsibility for both implementing and maintaining the following erosion and sediment control measures during the development shown on the plan set.

Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not proceed more than 1000 feet in advance of the actual earth disturbance specified by the Construction Sequence. Final stage or phase items have been installed and are functioning as described in this document.

A. Construction Sequence

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Any deviation from the following sequence must be approved in writing from the Franklin County Conservation District.

General Construction Sequence

1. *Field mark all limits of disturbance, waters of the Commonwealth, and Special Protection areas.*
2. *At least 7 days before starting any earth disturbance activities, including clearing and grubbing, the owner and/or operator shall invite all contractors, the municipality, municipal officials, the E&S plan preparer, and a representative of the Franklin County Conservation District to an on-site pre-construction meeting.*
3. *At least 3 days before starting any earth disturbance activities, all contractors involved in these activities shall notify the Pennsylvania One Call System, Incorporated at 1-800-242-1776 for the location of existing underground utilities.*
4. *Place the BOC at the bottom and according to the details shown hereon. Any sediment trapped into any public roadway or sidewalk shall be returned to the construction site by the end of each workday and disposed in the manner described in this plan. In no case shall sediment be washed, shoveled, or swept into any roadside ditch, storm sewer, or surface water.*
5. *Place compost filter socks at the locations and according to the details shown hereon.*
6. *Stake and maintain topsoil for areas the excavation at the locations and according to the details shown hereon. Topsoil stockpile shall not exceed 35 feet in height and shall have side slopes flatter than 2:1. Stockpile shall be seeded and mulched according to stabilization specifications shown hereon.*
7. *Place the temporary diversion dam at the locations and according to the details shown hereon. Pump water out of the basin area prior to removal. Pump water filter bag shall be used for pumping the wash area dry. The filter bags shall be placed on a well vegetated stabilized surface. Care shall be taken to avoid damage to the filter bag. Filter bag needs replaced.*
8. *Place and sod tar pipe at toe at the location and according to the details shown hereon. Place flume across at pipe outfall according to the details shown hereon. Stabilize the disturbed area by following the stabilization specifications shown hereon. The disturbed area shall be restored as near as possible to original conditions.*
9. *Essential breaks for sanitary sewer line, shall be installed, backfilled and stabilized in one working day. Utilize clay dikes during pipe installation. Spoil material that will not be used for backfill shall be removed from the site and taken to a facility capable of handling excess material. In excavated trenches, place sanitary liner five (5) accordance with the requirements and regulation for construction standards for the Letterkenny Township Municipal Authority.*
10. *Make connection to the existing sewer line by placing the proposed manhole. The connection shall be made water tight.*
11. *The shipping area shall be removed and stabilized according to the stabilization specifications shown hereon. Once the pipe outfall is completed the temporary drain shall be removed. Any disturbed area from the removal shall be stabilized following the stabilization specifications shown hereon. All disturbed areas shall be restored back to as near original condition.*
12. *Upon completion of all earth disturbance activities and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the Franklin County Conservation District for an inspection prior to the removal/conversion of the E&S BMP's.*
13. *Once Franklin County Conservation District directs, all temporary E&S BMPs shall be removed and any disturbed areas shall be seeded and mulched accordance to the stabilization specifications shown hereon.*
14. *Upon completion of all earth disturbance activities, removal of all temporary BMPs, installation of all permanent PCSM BMPs, and permanent stabilization of all disturbed areas, the owner and/or operators shall contact the Franklin County Conservation District for a final inspection.*

B. Stabilization Specifications

1. *Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site must be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.*
2. *Permanent stabilization is defined as a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.*
3. *Topsoil required for the establishment of vegetative shall be stockpiled at the location(s) shown on the plan drawings in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by seeding and mulching. Topsoil stockpile shall be protected in the manner shown on the plan drawings. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes shall be 2H:1V or flatter.*
4. *Areas which are to be topsoiled shall be scarified to a minimum depth of 3 to 5 inches – 0 to 11 inches on compacted soils – prior to placement of topsoil. Areas to be topsoiled shall have a minimum 4 inches of topsoil in place after settlement or after mulching. Fill outslopes shall have a minimum of 2 inches of topsoil.*
5. *Topsoil should not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seedbed preparation; and topsoil shall not be placed while in a frozen or muddy condition. Excessively wet subsoil should be scarified 4 to 12 inches along contour whenever possible prior to seeding.*
6. *Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed areas. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are cut or finished grade and will be re-disturbed within 1 year must be stabilized in accordance with the temporary vegetative stabilization specifications. Disturbed areas which are at final grade or which will not be re-disturbed within 1 year must be stabilized in accordance with the permanent vegetative stabilization specifications.*
7. *An erosion control blanket will be installed on all disturbed slopes 3:1 or steeper, all areas of concentrated flows, and disturbed areas within 50' of a surface water.*
8. *Seeding and Mulching Schedules:*

   A. *Temporary Seeding Schedule – Those areas apply to graded or cleared areas that are likely to be re-disturbed or where a short-term vegetative cover is needed or where there will be a cessation of work greater than four (4) days.*
   Seedbed Preparation: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding. Perform all operations at right angles to the slope.
   Soil Amendments: It is recommended that site specific soil testing be performed. In lieu of soil test recommendations, use one of the following schedules:
   1. Preferred – Apply 4–6 tons per acre of lime (275 lbs/1000 sf) and 600 lbs per acre 10–20–20 fertilizer (15 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30–0–0 ureaform fertilizer (9 lbs/1000 sf).
   2. Acceptable 1 Apply 4–6 tons per acre of lime (275 lbs/1000 sf) and 100 lbs per acre 10–20–20 fertilizer (13 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil.
   Seeding:
   Tall Fescue 60lb/Acre
   or Fine Fescue 30lb/Acre
   or Kentucky bluegrass plus ryegrass 25lb/Acre Kentucky blue grass plus 3lb/Acre redtop
   or Perennial rye grass 15lb/Acre
   or Birdsfoot trefoil plus soil fescue 5lb/Acre plus 30lb/Acre

   B. *Permanent Seeding Schedule – Seeding of the disturbed areas shall take place immediately upon the completion of final grading activities. These notes apply to planted or sheared areas, and subject to immediate or further disturbance, where a permanent long-lived vegetative cover is created.*
   Seedbed Preparation: Loosen upper three inches of soil by raking, discing, or other acceptable means before seeding. Perform all operations at right angles to the slope.
   Soil Amendments: It is recommended that site specific soil testing be performed. In lieu of soil test recommendations, use one of the following schedules:
   1. Preferred – Apply 4–6 tons per acre of lime (275 lbs/1000 sf) and 600 lbs per acre 10–20–20 fertilizer (15 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30–0–0 ureaform fertilizer (9 lbs/1000 sf).
   2. Acceptable 1 Apply 4–6 tons per acre of lime (275 lbs/1000 sf) and 100 lbs per acre 10–20–20 fertilizer (13 lbs/1000 sf) before seeding. Harrow or disc into upper three inches of soil.
   Seeding:
   Tall Fescue 60lb/Acre
   or Fine Fescue 30lb/Acre
   or Kentucky bluegrass plus redtop 25lb/Acre Kentucky blue grass plus 3lb/Acre redtop
   or Perennial rye grass 15lb/Acre
   or Birdsfoot trefoil plus soil fescue 5lb/Acre plus 30lb/Acre

   C. *Mulching Schedule – Mulch shall be screed on all areas that need stabilization through the winter months (Oct. 15–March 15) including salt stockpiles, stockpiled sand mounds, and other disturbed areas. Mulch shall be applied immediately after seeding in continuous uniform manner using a minimum rate of 3,000 pounds per acre (3 tons per acre). Mulch shall be secured to the site immediately following application so that mulch into short pieces shall not be used to apply mulch. A tracked crane equipment may be used to "crimp" the straw or hay into the soil. The machinery should be operated on the contour. Do not crimp hay or straw by running tracked equipment. Anchor mulch with specified mulch binders, containing the materials or other equivalent binding agents to prevent movement. Mix, at the following rates: Asphalt at a rate of 130 gallons per acre or Cellulose Fiber at a rate of 1000 pounds per acre.*

C. Maintenance Program

1.1. *Until the site is stabilized, all erosion and sediment control BMPs must be maintained in work, including cleanout, repair, replacement, regrading, reseeding, remulching and re-netting must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs or modifications of those installed will be required.*

1.2. *Any sediment removed from BMPs during construction will be returned to upland areas on site and incorporated into the site grading.*

1.3. *All wastes from the E&S plans of construction such as but not limited to liner/fabric fencing, compost filter sock, hoses, concrete wash, roofing, sediment etc. shall be removed from the site and disposed of at a recycling, composal, or waste facility. Concrete from the washout shall be removed from the site and taken to an appropriate waste facility. Mulch from the compost filter sock can be re-distributed over the site or can be taken to a recycling facility.*

1.4. *A log showing the dates that E&S plans were inspected as well as any deficiencies found and the date that they were corrected shall be maintained on the site and be made available to the Franklin County Conservation District or other regulatory agency officials at the time of inspection.*

1.5. *Maintenance Schedule*

   1.5.1. *Rock Construction Entrances (RCE) – Sod/replace rock as needed.*

   1.5.2. *Compost Filter Sock/Filter Fence/Fence*

      1.5.2.a. *The maintenance shall be inspected after every precipitation event and on a weekly basis. Any necessary repairs shall be made immediately.*

      1.5.2.b. *Accumulated sediment will be removed as required to keep the barrier functional. In all cases remove deposits where accumulation reach ½ the above ground height of the barrier.*

      1.5.2.c. *At undisturbing or erosion of the toe anchor shall be repaired immediately with a supplemental mesh filter.*

      1.5.2.d. *Adhere to any manufacturers recommendations for replacing barriers due to weathering.*

      1.5.2.e. *Damaged fencing or filter socks shall be replaced. The damaged material shall be disposed of at a recycling facility. Sediment shall be removed from the filter socks shall be spread out over disturbed areas of the site or taken to a recycling facility that can handle yard waste.*

      1.5.2.f. *Once fencing or sock material is no longer needed it shall be removed from the site and disposed of a recycling facility. The mulch may be used on disturbing areas of the site or it shall be taken to a recycling facility designed to handle yard waste.*

   1.5.3. *Inlet Protection/Inlet Mesh*

      a. *Shall be inspected after every major precipitation event and on a weekly basis. Any necessary repairs shall be made immediately.*
      b. *Shall be kept free of debris that would inhibit the proper function.*
      c. *Release any accumulated sediment. Removed sediment shall be graded in upslope of E&S Controls.*
      d. *Stone that is replaced shall be removed from the site and taken to an appropriate waste facility. Sediment shall be graded in up slope.*

   1.5.4 *Temporary Diversion Dam*

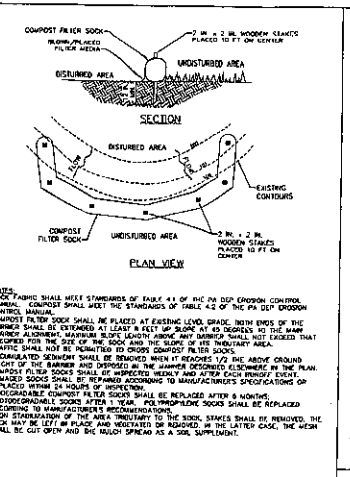
      a. *Damage will be repaired immediately*
      b. *Inspect twice daily*

   1.5.5 *Pumped Water Bag*

      a. *Replace when half full of sediment*
      b. *Inspect continuously while in use*

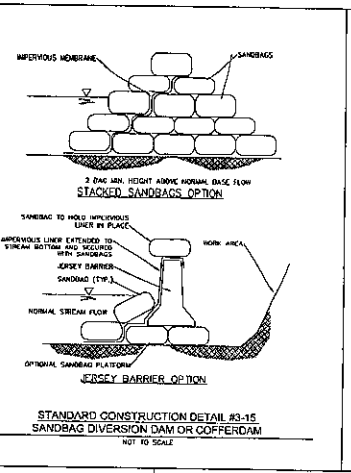
D. General E&S Notes

1. *A copy of the approved erosion and sediment control plan must be available at the project site at all times. The Franklin County Conservation District shall be notified of any changes to the approved plan prior to implementation of those changes. The District may require a written submittal of those changes for review and approval at its discretion.*
2. *Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to minimize the potential for accelerated erosion and/or sediment pollution and notify the Franklin County Conservation District.*
3. *All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.*
4. *Failure to correctly install E&S BMPs, failure to prevent sediment-laden runoff from leaving the earth disturbance activity, or failure to take immediate corrective action to resolve failure of E&S BMPs may result in administrative, civil, and criminal penalties being instituted by the Department as defined in Section 602 of the Pennsylvania Clean Streams Law, the Clean Streams Law provides for up to $10,000 per day in civil penalties, up to $10,000 in summary criminal penalties, and up to $20,000 in criminal penalties for each violation.*
5. *All building materials and waste including but not limited to wrapper, wood, steel, concrete, stone, dirt shall be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.*
6. *The contractor will be responsible for the removal of any excess material and waste from the site and recycling the excess that an approved and fully implemented erosion and sediment control plan that meets the conditions of Chapter 102 and/or other State or Federal regulations.*
7. *Clean fill is defined as uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged materials used asphalt, and brick, block or concrete from construction and demolition activities that is separated from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "clean concrete" does not include treated asphalt or asphalt that has been processes for reuse).*
8. *Any placement of clean fill that has been attested by a seal or release of a registered professional engineer, professional geologist or certified scientist and the results of the analytical testing to qualify the material as clean fill, see DP-001 must be retained by the owner of the property receiving the fill.*
9. *Environmental due diligence must be performed to determine if the fill materials associated with the project qualify as clean fill. Environmental due diligence is defined as investigative techniques, including, but not limited to, visual property inspections, historical data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, environmental screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of a regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Clean Fill".*

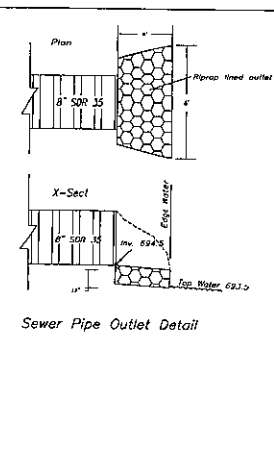


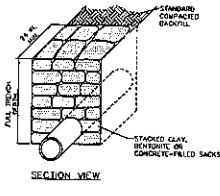
NOTES:
SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.
COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 90 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF THE TRIBUTARY AREA.
TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES ½ THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.
DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURERS SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

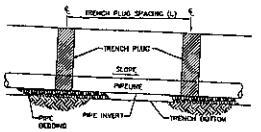
STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK
NOT TO SCALE



STANDARD CONSTRUCTION DETAIL #3-15
SANDBAG DIVERSION DAM OR COFFERDAM
NOT TO SCALE







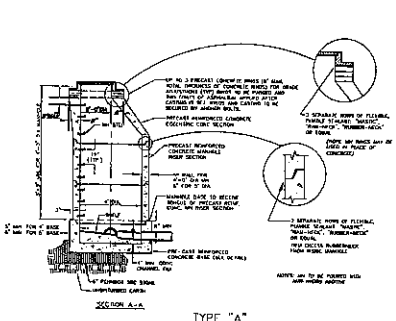
PA DEP EROSION CONTROL MANUAL TABLE 13.1
MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 3	1000	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
3 – 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15 – 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
25 – 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
35 – 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
> 100	50	CEMENT BAGS (METTED) OR MORTARED STONE

* (OPTION, MAY NOT BE USED TO FILL SACKS

NOTES:
IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS

STANDARD CONSTRUCTION DETAIL #13-4
TRENCH PLUG INSTALLATION
NOT TO SCALE



Sheet 2 of 2 Sheets

No.	Date	Revision	By
1	1/25/19	Revised according to DEP comments	MJC

Scale: As Shown
Date: 01/16/19
Drawn: MJC
Checked: MJC
Job No: 2757-2

Curtman & Zullinger
Surveying Inc.
Surveying & Subdivision & Design out
868 Lincoln Way East
Chambersburg, PA 17201
Phone (717-261-1295)
Fax (717-261-1295)

DETAIL SHEET
SUBDIVISION OF LAND
plan #
LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
(OWNER)

eDMR Registration Form (3800-FM-BCW0424)

THE YORK WATER COMPANY
TEL. (717) 845-3601

130 EAST MARKET STREET
FAX (717) 852-0058

YORK, PENNSYLVANIA 17401-1219
www.yorkwater.com

eDMR PERMITTEE REGISTRATION FORM FOR PERMIT TRANSFERS

Please read and follow all instructions before submitting this form. Failure to submit complete and accurate information will result in the delay of processing or return of your registration application and/or permit transfer application.

Part A. Permit and Facility Information			
New Permittee Name:	The York Water Company	Permit No.:	WQM 2895401
Facility Name:	Letterkenny Township STP	Mailing Address:	Letterkenny Township 4924 Orrstown Road Orrstown, PA 17244-9536
*Previous Users: Remove Previous Users ☒		Retain Previous Users ☐	
Part B. User Account Information (* indicates required information)			
*Account Security Requested: ☐ Viewer ☐ Preparer ☒ Certifier (Authorized? Yes ☒ No ☐)			
*Last Name:	Wenger	Suffix:	Title: ☒ Mr. ☐ Ms. ☐ Dr.
*First Name:	Vaughn	Middle Name/Initial:	A.
*Job Title:	Wastewater Operations Superintendent	*Employer's Name:	The York Water Company
*Email Address:	Vaughnw@yorkwater.com	*Phone Number(s):	(717) 718-7544
*GreenPort Username:	WENGERV		
User Account Information (*indicates required information)			
*Account Security Requested: ☐ Viewer ☐ Preparer ☒ Certifier (Authorized? Yes ☒ No ☐)			
*Last Name:	Longstreet	Suffix:	Title: ☒ Mr. ☐ Ms. ☐ Dr.
*First Name:	John	Middle Name/Initial:	
*Job Title:	Wastewater Service Assistant Superintendent	*Employer's Name:	The York Water Company
*Email Address:	jackl@yorkwater.com	*Phone Number(s):	(717) 718-2978
*GreenPort Username:	LONGSTREETJ		
User Account Information (*indicates required information)			
*Account Security Requested: ☐ Viewer ☐ Preparer ☒ Certifier (Authorized? Yes ☒ No ☐)			
*Last Name:	Buracker	Suffix:	Title: ☒ Mr. ☐ Ms. ☐ Dr.
*First Name:	Grover	Middle Name/Initial:	E
*Job Title:	Wastewater Technician	*Employer's Name:	The York Water Company
*Email Address:	Ericb@yorkwater.com	*Phone Number(s):	(717) 718-2952
*GreenPort Username:	BURACKERE		

Part C. Certification

I request that the above identified facility be registered for the Department of Environmental Protection's (DEP's) eDMR system. As the permittee, I agree that all eDMR users for this facility will follow permit requirements and the procedures for the electronic submission of DMR reports.

Please establish or modify the above user accounts in accordance with the information provided herein. Those persons who are to receive Certifier security are hereby designated as Authorized Representatives for this facility for all wastewater data reporting purposes. I understand that each person to receive Certifier security in the eDMR system must submit a completed Trading Partner Agreement.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Joseph T. Hand Name (type or print)	Chief Operations Officer Official Title (type or print)
Joseph T. Hand Signature	January 7, 2020 Date

Mail or email this form and all attachments to:

PA Department of Environmental Protection
Bureau of Clean Water
Rachel Carson State Office Building
PO Box 8774
Harrisburg, PA 17105-8774
Email: RA-EPDMR@pa.gov

Trading Partner Agreement (3800-FM-BCW0425)

THE YORK WATER COMPANY
TEL. (717) 845-3601
130 EAST MARKET STREET
FAX (717) 852-0058
YORK, PENNSYLVANIA 17401-1219
www.yorkwater.com

3800-FM-BCW0425 Rev. 5/2018

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

eDMR TRADING PARTNER AGREEMENT

Identification: Your username and password are unique to you. If you are using another person's name and password, you are submitting false information. Likewise, if someone else uses your name and password, they are submitting false information. If someone else gains access to your name and password, please notify us immediately.

Authorization: By signing below, you are certifying that you are a responsible corporate officer, a general partner, a proprietor or a principle executive officer in accordance with 40 CFR 122.22(a) or are otherwise a duly authorized representative of that person in accordance with 40 CFR 122.22(b) and are authorized to submit reports to the Department of Environmental Protection (DEP).

Security Procedure: When you send us information, we will display it as it will appear in the DEP's official record. If you have corrections to make to the displayed information, resubmit the information or click on the "Cancel" button. **Do not click the "Submit" button if the information is incorrect.** If the information is correct, click the "Submit" button to make it part of DEP's official record.

False Reporting: You are submitting official information. Any false statement is subject to substantial civil and criminal penalties, including 18 P.S. § 4904 (unsworn falsification to authorities). If you discover that the eDMR information you submitted is incorrect, please notify us immediately.

Electronic Signature: When you click a button labeled "I Agree" or "Submit," it has the same legal effect as a written signature under the Electronic Transactions Act, 73 P.S. § 2260.101 et seq.

Confidential Information: You must identify any confidential information as such when reporting. Any information that is not identified as confidential will be treated as public information. DEP will notify you if it does not agree that the identified information is confidential.

Agreement: By signing below, you agree to be bound by the terms of this Trading Partner Agreement, which shall be governed by the laws of Pennsylvania and enforced in Pennsylvania courts.

Joseph J Hand
Signature Required

JANUARY 8, 2020
Date

JOSEPH T. HAND
Printed Name

PA 0082201
Permit Number

3800-FM-BCW0425 Rev. 5/2018

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

eDMR TRADING PARTNER AGREEMENT

Identification: Your username and password are unique to you. If you are using another person's name and password, you are submitting false information. Likewise, if someone else uses your name and password, they are submitting false information. If someone else gains access to your name and password, please notify us immediately.

Authorization: By signing below, you are certifying that you are a responsible corporate officer, a general partner, a proprietor or a principle executive officer in accordance with 40 CFR 122.22(a) or are otherwise a duly authorized representative of that person in accordance with 40 CFR 122.22(b) and are authorized to submit reports to the Department of Environmental Protection (DEP).

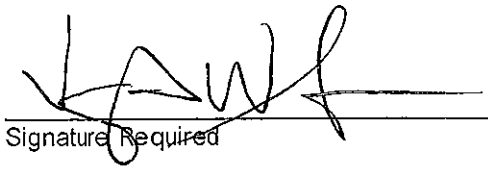
Security Procedure: When you send us information, we will display it as it will appear in the DEP's official record. If you have corrections to make to the displayed information, resubmit the information or click on the "Cancel" button. **Do not click the "Submit" button if the information is incorrect.** If the information is correct, click the "Submit" button to make it part of DEP's official record.

False Reporting: You are submitting official information. Any false statement is subject to substantial civil and criminal penalties, including 18 P.S. § 4904 (unsworn falsification to authorities). If you discover that the eDMR information you submitted is incorrect, please notify us immediately.

Electronic Signature: When you click a button labeled "I Agree" or "Submit," it has the same legal effect as a written signature under the Electronic Transactions Act, 73 P.S. § 2260.101 et seq.

Confidential Information: You must identify any confidential information as such when reporting. Any information that is not identified as confidential will be treated as public information. DEP will notify you if it does not agree that the identified information is confidential.

Agreement: By signing below, you agree to be bound by the terms of this Trading Partner Agreement, which shall be governed by the laws of Pennsylvania and enforced in Pennsylvania courts.



Signature Required

01/02/2020
Date

VAUGHN WENGER
Printed Name

PA0082201
Permit Number

3800-FM-BCW0425 Rev. 5/2018

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

eDMR TRADING PARTNER AGREEMENT

Identification: Your username and password are unique to you. If you are using another person's name and password, you are submitting false information. Likewise, if someone else uses your name and password, they are submitting false information. If someone else gains access to your name and password, please notify us immediately.

Authorization: By signing below, you are certifying that you are a responsible corporate officer, a general partner, a proprietor or a principle executive officer in accordance with 40 CFR 122.22(a) or are otherwise a duly authorized representative of that person in accordance with 40 CFR 122.22(b) and are authorized to submit reports to the Department of Environmental Protection (DEP).

Security Procedure: When you send us information, we will display it as it will appear in the DEP's official record. If you have corrections to make to the displayed information, resubmit the information or click on the "Cancel" button. **Do not click the "Submit" button if the information is incorrect.** If the information is correct, click the "Submit" button to make it part of DEP's official record.

False Reporting: You are submitting official information. Any false statement is subject to substantial civil and criminal penalties, including 18 P.S. § 4904 (unsworn falsification to authorities). If you discover that the eDMR information you submitted is incorrect, please notify us immediately.

Electronic Signature: When you click a button labeled "I Agree" or "Submit," it has the same legal effect as a written signature under the Electronic Transactions Act, 73 P.S. § 2260.101 et seq.

Confidential Information: You must identify any confidential information as such when reporting. Any information that is not identified as confidential will be treated as public information. DEP will notify you if it does not agree that the identified information is confidential.

Agreement: By signing below, you agree to be bound by the terms of this Trading Partner Agreement, which shall be governed by the laws of Pennsylvania and enforced in Pennsylvania courts.

Signature Required	1/3/2020 Date
JOHN M. LONGSTREET Printed Name	PA 0082201 Permit Number

3800-FM-BCW0425 Rev. 5/2018

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

eDMR TRADING PARTNER AGREEMENT

Identification: Your username and password are unique to you. If you are using another person's name and password, you are submitting false information. Likewise, if someone else uses your name and password, they are submitting false information. If someone else gains access to your name and password, please notify us immediately.

Authorization: By signing below, you are certifying that you are a responsible corporate officer, a general partner, a proprietor or a principle executive officer in accordance with 40 CFR 122.22(a) or are otherwise a duly authorized representative of that person in accordance with 40 CFR 122.22(b) and are authorized to submit reports to the Department of Environmental Protection (DEP).

Security Procedure: When you send us information, we will display it as it will appear in the DEP's official record. If you have corrections to make to the displayed information, resubmit the information or click on the "Cancel" button. **Do not click the "Submit" button if the information is incorrect.** If the information is correct, click the "Submit" button to make it part of DEP's official record.

False Reporting: You are submitting official information. Any false statement is subject to substantial civil and criminal penalties, including 18 P.S. § 4904 (unsworn falsification to authorities). If you discover that the eDMR information you submitted is incorrect, please notify us immediately.

Electronic Signature: When you click a button labeled "I Agree" or "Submit," it has the same legal effect as a written signature under the Electronic Transactions Act, 73 P.S. § 2260.101 et seq.

Confidential Information: You must identify any confidential information as such when reporting. Any information that is not identified as confidential will be treated as public information. DEP will notify you if it does not agree that the identified information is confidential.

Agreement: By signing below, you agree to be bound by the terms of this Trading Partner Agreement, which shall be governed by the laws of Pennsylvania and enforced in Pennsylvania courts.

Grover Eric Swacker — Signature Required

1-6-2020 — Date

Grover Eric Swacker — Printed Name

PA 0082201 — Permit Number

Compliance History
(Existing Permittee)

Consent Order and Agreement (COA)

THE YORK WATER COMPANY
TEL. (717) 845-3601

130 EAST MARKET STREET
FAX (717) 852-0058

YORK, PENNSYLVANIA 17401-1219
www.yorkwater.com

Good afternoon,

In response to the Departments correspondence with Mr. DelGrande and Mr. Rahauser, we have revised the proposed Consent Order and Agreement (clean copy and markup copies attached).

The Department reduced the proposed civil penalty to $4,008.00, which represents an amount that is less than 20% of the total penalty calculated using the Department's SOP for Determining Civil Penalties under the Clean Streams Law (Doc No. BPNPSM-ENF-004) and Section 605 of the Clean Streams Law.

Additionally, we provided the requested revisions to the COA to add corrective actions for an engineering evaluation and upgrade/modification of the aeration system at the Letterkenny Twp. WWTP.

The timelines I included were taken from similar cases, but if the timelines for the upgrade/modification of the WWTP aeration system need to be adjusted, please let me know and I can provide a new revision.

If Letterkenny Township has additional requests or comments regarding the revised COA, please submit them to me within ten (10) calendar days.

I will mail a hard copy of the revised COA to Letterkenny Township and Mr. DelGrande by the end of the week.

If Letterkenny Township finds the revised COA acceptable, please sign three copies of the attached clean copy of the COA (last page only) and return them, along with payment of the civil penalty and copies of the Authority's Resolution, to me within forty-five (45) calendar days.

We will send you a fully executed copy for your records when finalized by the Department.

If you have any further comments or questions, please feel free to contact me.

Thanks,

Erick

Erick M. Ammon | Environmental Protection Compliance Specialist
Clean Water Program | Southcentral Regional Office
Department of Environmental Protection
909 Elmerton Avenue | Harrisburg, PA 17110
Phone: 717.705.4775 | Fax: 717.705.4760

24-Hour Emergency Response: 1.866.825.0208
www.dep.pa.gov

pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

September 11, 2018

CERTIFIED MAIL NO. 9171 9690 0935 0150 2174 09

Mr. Charles H. Myers
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244

Re: Executed Consent Order and Agreement-3A
LTMA STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Dear Mr. Meyers,

Enclosed is a fully executed copy of the Consent Order and Agreement (COA). This will also acknowledge receipt of check number 3555 in the amount of $4,008.00, in accordance with the COA dated September 10, 2018.

Thank you for your cooperation in settling your violations of the Clean Streams Law. If you have any questions regarding this COA, please contact me at 717.705.4775 or eammon@pa.gov.

Sincerely,

Erick M Ammon
Environmental Protection Compliance Specialist
Clean Water Program

cc: (with enclosures): Mr. William D. DelGrande P.E.

Enclosure: September 10, 2018 COA with Exhibits

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In The Matter Of:

Letterkenny Township Municipal Authority	:	Clean Streams Law
4924 Orrstown Road	:	NPDES Permit No. PA0082201
Orrstown, PA 17244	:	Letterkenny Township
	:	Franklin County

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement ("COA") is entered into this 10th day of September 2018, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department") and the Letterkenny Township Municipal Authority ("Letterkenny").

The Department has found and determined the following:

A. The Department is the agency with the duty and authority to administer and enforce the Pennsylvania Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. §§ 691.1 et seq. ("The Clean Streams Law"); Section 1917-A of the Administrative Code, the Act of April 9, 1929, P.L. 177, as amended, 71 P.S. § 510-17 ("Administrative Code") and the rules and regulations promulgated thereunder, and which has been delegated authority to administer the National Pollutant Discharge Elimination ("NPDES") permit program under Section 402 of the Federal Clean Water Act, 33 U.S.C § 1342.

B. Letterkenny is a municipal authority formed under the laws of the Commonwealth of Pennsylvania, with a business and mailing address of 4924 Orrstown Road. Orrstown, PA 17244.

C. Letterkenny owns a municipal wastewater treatment plant ("Plant"), which is located in Letterkenny Township, Franklin County, Pennsylvania. The Plant discharges treated sewage to the Conodoguinet Creek, a Water of the Commonwealth, as "waters of the Commonwealth" is defined in Section 1 of the Clean Streams Law, 35 P.S. § 691.1.

D. The Plant's discharge constitutes sewage pursuant to Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202.

E. The discharge from the Plant is authorized by NPDES Permit No. PA0082201 ("NPDES Permit") issued by the Department to Letterkenny on May 18, 2018, pursuant to Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202. NPDES Permit No. PA0082201 became effective on June 1, 2018, and expires on May 31, 2023.

F. All dischargers, including Letterkenny, are required by their NPDES Permits and Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, to fully comply with the effluent limits set forth in their NPDES permits.

G. At times between April 2013 and August 2017, Letterkenny discharged wastewater contrary to the terms and conditions set forth in its NPDES Permit. The monthly Discharge Monitoring Report ("DMR") violations are fully listed in Exhibit Number 1, which is attached hereto and incorporated herein by reference.

H. On January 2, 2018, the Department conducted an inspection of the Plant. During this inspection, the Department observed and documented a one to three-inch-thick blanket of accumulated sewage solids at Plant outfall 001 extending approximately 100 feet downstream in the Conodoguinet Creek.

I. On January 5, 2018, the Department mailed a Notice of Violation ("January 5, 2018 NOV") to Letterkenny for the violations noted in Paragraph H, above. In its January 5, 2018 NOV, the Department requested that Letterkenny provide a response within fifteen days that summarized the cause of the accumulation of sewage sludge in the Conodoguinet Creek and include any planned mitigation activities that Letterkenny would undertake to prevent recurrence of the violations along with a corrective action schedule.

J. On January 10, 2018, the Department conducted a follow-up inspection at the Plant to observe the removal of accumulated sewage solids at Plant outfall 001 and in downstream areas in the Conodoguinet Creek. During this inspection, the Department observed remaining accumulations of sewage solids from approximately seventy-five to one hundred feet downstream of Plant outfall 001. The Department's inspection report dated January 10, 2018, requested Letterkenny to remove the remaining accumulated sewage solids from the stream.

K. On January 18, 2018, the Plant certified operator notified the Department that the requested stream cleanup had not been completed due to weather conditions. The Plant certified operator stated that he planned to have a septage hauler remove accumulated solids from the Conodoguinet Creek using a vacuum truck.

L. On January 18, 2018, the Department conducted a second follow-up inspection at the Plant to observe conditions at Plant outfall 001 and in downstream areas of the Conodoguinet Creek. During the inspection the Department noted no sewage solids accumulations at Plant outfall 001 or in downstream areas of the Conodoguinet Creek. The Department's inspection report noted that the Plant daily operations log contained an entry for January 12, 2018, stating that the operator had "cleaned stream during high water flow."

M. On January 22, 2018, the Department requested that the Plant certified operator provide clarification as to what the daily operator meant by the statement "cleaned during high water flow."

N. On January 23, 2018, the Department received correspondence from the Plant certified operator stating that the daily operator's statement of "cleaned during high water flow" in the Plant daily log meant that they manually brushed the stream substrate during higher stream flows to disperse the accumulated solids. This method of disposal is contrary to the Plant certified operator's plan to have a septage hauler remove accumulated solids from the Conodoguinet Creek using a vacuum truck.

O. On January 25, 2018, Letterkenny submitted a response to the Department's January 5, 2018 NOV noted in Paragraph I, above. In its response, Letterkenny states that the sewage sludge accumulation at the Plant outfall and in the Conodoguinet Creek was most likely due to activated sludge inventory management issues in the Plant treatment units, increased final effluent solids discharge to Plant outfall 001, and low flows in the Conodoguinet Creek. Letterkenny's response proposed Plant process control optimization, and operation and maintenance changes to address the solids accumulation issues.

P. Section 201 of the Clean Streams Law provides: "No person or municipality shall place or permit to be placed, or discharge or permit to flow, or continue to discharge or permit to flow, into any of the waters of the Commonwealth any sewage, except as hereinafter provided in this act."

Q. Section 202 of the Clean Streams Law provides that no person or municipality shall discharge or permit the discharge of sewage without first obtaining a permit from the Department. A discharge of sewage without a permit or contrary to the terms and conditions of a permit is declared a nuisance.

R. The conditions at Letterkenny's Plant described in Paragraphs G, H, J, L, & N, above, constitute violations of Sections 201 and 202 of The Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, and NPDES Permit No. PA0082201.

S. The violations described in Paragraph R, above, constitutes unlawful conduct under Sections 402(b) and 611 of The Clean Streams Law, 35 P.S. §§ 691.402(b) and 691.611; a statutory nuisance under Sections 202, 402(b), and 601 of The Clean Streams Law, 35 P.S. §§ 691.202, 691.402(b), and 691.601; and subjects Letterkenny to civil penalty liability under Section 605 of The Clean Streams Law, 35 P.S. § 691.605.

ORDER

After full and complete negotiation of all matters set forth in this Consent Order and Agreement, and upon mutual exchange of covenants contained herein, the parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by Letterkenny as follows:

1. Authority. This Consent Order and Agreement is an Order of the Department authorized and issued pursuant to Section 5 of the Clean Streams Law, 35 P.S. § 691.5; and Section 1917-A of the Administrative Code, 71 P.S. §§ 510-17.

2. Findings.

a. Letterkenny agrees that the findings in Paragraph A through S are true and correct and, in any matter or proceeding involving Letterkenny and the Department, Letterkenny shall not challenge the accuracy or validity of these findings.

b. The parties do not authorize any other persons to use the findings in this Consent Order and Agreement in any matter or proceeding.

3. Corrective Action.

a. Immediately upon execution of this Consent Order and Agreement, Letterkenny shall begin inspecting Plant outfall DP001 and downstream areas of the Conodoguinet Creek at least daily for accumulations of sewage solids. Letterkenny shall log outfall conditions daily and keep such logs available at the Plant for inspection. If accumulations of sewage solids are detected, Letterkenny shall contract a licensed septage hauler to properly remove and dispose of the solids within two (2) calendar days.

b. Within thirty (30) calendar days of the execution of this Consent Order and Agreement, Letterkenny shall submit for Department review and approval a Process Control Plan ("PCP"), which complies with requirements 25 Pa. Code § 302.1203(c). The PCP shall contain a Standard Operating Procedure ("SOP") for the implementation of process control activities to properly balance the amount of solids within the treatment system. The SOP shall instruct all operators at the Plant to compute and set the wasting rates to maintain an appropriate balance of sludge in the system. Seasonal variations shall be considered in developing sludge wasting rates.

Relocation of Plant Outfall 001

c. Within thirty (30) calendar days of the execution of the Consent Order and Agreement, Letterkenny shall submit, for Department review and approval, a Preliminary Investigation Report regarding the relocation of the Plant outfall to a new section of the Conodoguinet Creek. The Preliminary Investigation shall determine whether a Water Quality Management Permit ("WQM Part II Permit"), Erosion and Sedimentation Permit, Wetlands Permit or any other authorization is required for the relocation of the Plant discharge.

d. Within thirty (30) calendar days of the Department's approval of the Preliminary Investigation, Letterkenny shall submit complete applications to the appropriate authorities for any authorizations which the Department or Letterkenny determine are required to relocate the Plant discharge, as listed in the Preliminary Investigation Report submitted pursuant to Paragraph 3.c, above.

e. Within sixty (60) calendar days of receiving all permits and authorizations for the relocation of the Plant discharge location, Letterkenny shall begin construction and relocation of the discharge.

f. Within forty-five (45) calendar days of beginning construction, Letterkenny shall complete relocation of the Plant discharge and issue WQM Post Construction Certification (Department Document No. 3800-PM-WSFR0179a 9/2005) as required by the WQM Part II Permit.

Upgrade/Modification of Plant Aeration System

g. Within sixty (60) calendar days of the execution of the Consent Order and Agreement, Letterkenny shall submit, for Department review and approval, a report summarizing a professional engineer's evaluation of the condition and operability of the Plant. The report shall include, but not be limited to, an evaluation of the efficacy of the Plant treatment units and aeration system to ensure and to maintain compliance with NPDES Permit requirements. Any upgrades or modifications of the aeration system for treatment optimization shall be included in the report, with a proposed timeline of activities. The report must be submitted under the seal of a Professional Engineer.

h. Within forty-five (45) calendar days of the Department's approval of the report, Letterkenny shall submit an administratively and technically complete application for WQM Part II Permit for the upgrade or modification of the Plant aeration system, pursuant to Paragraph 3.g, above.

i. Within sixty (60) calendar days of receiving the WQM Part II Permit for the upgrade or modification the Plant aeration system, Letterkenny shall begin construction.

j. Within forty-five (45) calendar days of beginning construction, Letterkenny shall complete the upgrade or modification the Plant aeration system, and issue the Post Construction Certification as required by the WQM Part II Permit.

k. Upon execution of this COA, Letterkenny shall submit quarterly progress reports on the status of the maintenance, repair, or replacement projects at the Plant until this COA is Terminated.

l. If the Department or any other entity requests additional information to review or approve any submittal necessary to comply with this Consent Order and Agreement, Letterkenny shall submit the requested information within ten (10) calendar days of the date of the Department's or the entity's notice that such information is required; however, upon written request, including a justification from Letterkenny, the Department may allow an extension for such a submittal.

4. Civil Penalty Settlement. Letterkenny consents to the assessment of a civil penalty in the amount of $4,008.00, which shall be paid in full immediately upon signing this Consent Order and Agreement. This payment is in settlement of the Department's claim for civil penalties for the violations set forth in Paragraph G, H, J, L, N, Q, and R, above. The payment shall be by corporate check or the like, made payable to "Commonwealth of Pennsylvania" with a notation of "Clean Water Fund" on the memo line and sent c/o Erick M. Ammon, Environmental Protection Compliance Specialist, DEP Clean Water Program, 909 Elmerton Avenue, Harrisburg, PA 17110-8200.

5. Stipulated Civil Penalties.

a. Until termination of this Consent Order and Agreement, Letterkenny shall pay a stipulated penalty of $1,000.00 for any Department inspection where sewage solids accumulations are discovered at and/or below the Plant outfall in the Conodoguinet Creek.

b. In the event Letterkenny fails to comply in a timely manner with the provisions of Paragraphs 3.a through 3.j of this Consent Order and Agreement, Letterkenny shall be in violation of this Consent Order and Agreement and, in addition to other applicable remedies, shall pay a civil penalty in the amount determined under the following schedule:

i. For any violation of paragraph 3, Letterkenny shall pay the Department a civil penalty of $100 per day for the first 30 days of each violation and $200 per day for each violation extending beyond the first 30 days;

ii. For any violation of its NPDES Permit effluent limits, Letterkenny shall pay the Department a civil penalty as outlined in Exhibit 2.

c. Stipulated civil penalty payments shall be due automatically and without notice, and are payable monthly on or before the fifteenth day of each succeeding month, and shall be forwarded as described in Paragraph 4 (Civil Penalties) above.

d. Any payment under this paragraph shall neither waive the Letterkenny's duty to meet its obligations under this Consent Order and Agreement nor preclude the Department from commencing an action to compel Letterkenny's compliance with the terms and conditions of this Consent Order and Agreement. The payment resolves only Letterkenny's liability for civil penalties arising from the violation of this Consent Order and Agreement, for which the payment is made.

6. Additional Remedies.

a. In the event Letterkenny fails to comply with any provision of this Consent Order and Agreement, the Department may, in addition to the remedies prescribed

herein, pursue any remedy available for a violation of an order of the Department, including an action to enforce this Consent Order and Agreement.

b. The remedies provided by this paragraph and Paragraph 5 (Stipulated Civil Penalties) are cumulative and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated penalty is paid.

7. Reservation of Rights. The Department reserves the right to require additional measures to achieve compliance with applicable law. Letterkenny reserves the right to challenge any action which the Department may take to require those measures.

8. Liability of Operator. Letterkenny shall be liable for any violations of the Consent Order and Agreement, including those caused by, contributed to, or allowed by its officers, agents, employees, or contractors. Letterkenny also shall be liable for any violation of this Consent Order and Agreement caused by, contributed to, or allowed by its successors and assigns.

9. Transfer of Site.

a. The duties and obligations under this Consent Order and Agreement shall not be modified, diminished, terminated or otherwise altered by the transfer of any legal or equitable interest in the Plant or any part thereof.

b. If Letterkenny intends to transfer any legal or equitable interest in the Plant which is affected by this Consent Order and Agreement, Letterkenny shall serve a copy of this Consent Order and Agreement upon the prospective transferee of the legal and

comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

c. the Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by Letterkenny and other information available to the Department. In any subsequent litigation, the Letterkenny shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

13. Severability. The paragraphs of this Consent Order and Agreement shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

14. Entire Agreement. This Consent Order and Agreement shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

15. Attorney Fees. The parties shall bear their respective attorney fees, expenses and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this Consent Order and Agreement.

16. Modifications. No changes, additions, modifications, or amendments of this Consent Order and Agreement shall be effective unless they are set out in writing and signed by the parties hereto.

17. Titles. A title used at the beginning of any paragraph of this Consent Order and Agreement may be used to aid in the construction of that paragraph, but shall not be treated as controlling

18. Decisions Under Consent Order. Any decision which the Department makes under the provisions of this Consent Order and Agreement, including a notice that stipulated civil penalties are due, is intended to be neither a final action under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa. C.S.A. § 101. Any objection which Letterkenny may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.

19. Termination. The obligations of this Consent Order and Agreement shall terminate after Letterkenny has completed to the Department's satisfaction the actions required in Paragraphs 3.a through 3.j, above, demonstrated six (6) consecutive months of compliance with its NPDES Permit final effluent limits after completing the corrective action required by Paragraph 3.j above, and paid any stipulated penalties due under Paragraph 5.

20. Execution of Agreement. This Consent Order and Agreement may be signed in counterparts, each of which shall be deemed to be an original and all of which together shall constitute one and the same instrument.

21. Resolution. Attached hereto as Exhibit 3 is a resolution of the Board of Supervisors of Letterkenny Township Municipal Authority authorizing its signatories below to enter into this Consent Order and Agreement on its behalf.

IN WITNESS WHEREOF, the parties hereto have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of Letterkenny certify under penalty of law, as provided by 18 Pa. C.S.A. 4904, that they are authorized to execute this Consent Order and Agreement on behalf of Letterkenny; that Letterkenny consents to the entry of this Consent Order and Agreement as a final ORDER of the Department; and that Letterkenny hereby knowingly waives its rights to appeal this Consent Order and Agreement and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, Act of July 13, 1988, P.L. 530, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa. C.S.A. § 103(a) and Chapters 5A and 7A; or any other provisions of law. Signature by Letterkenny's attorney certifies only that the agreement has been signed after consulting with counsel.

FOR LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY:

Name Charles H. Myers Date: 8-28-18
Title Chairman of the Board

Name Lance G. Norton Date: 8-28-18
Title Vice Chairman

Name David W Rahauser Date: 8-28-18
Attorney for Letterkenny Twp. M.A.

FOR THE COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION:

Maria D. Bebenek P.E. Date: 9/10/18
Program Manager, Clean Water Program

Janna Williams Date: 9/11/18
Assistant Counsel

Exhibit 1
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County
DMR final effluent violations reported between April 2013 and August 2017

DMR Month	Parameter		DMR Value	Permit Limit
April-13	Total Residual Chlorine	IMAX	2.07 mg/L	2.0 mg/L
August-15	Total Residual Chlorine	Ave. Mo.	0.57 mg/L	0.5 mg/L
August-15	Total Residual Chlorine	IMAX	2.2 mg/L	1.6 mg/L
March-16	Fecal Coliform	Mo. GeoMean	2,839 CFU/100 ml	2,000 CFU/100 ml
July-16	Fecal Coliform	Mo. GeoMean	210 CFU/100 ml	200 CFU/100 ml
July-16	pH	Minimum	5.9 S.U.	6.0 S.U.
July-16	Dissolved Oxygen	Minimum	4.5 mg/L	5.0 mg/L
June-17	Dissolved Oxygen	Minimum	4.9 mg/L	5.0 mg/L
August-17	Fecal Coliform	IMAX	1,330 CFU/100 ml	1,000 CFU/100 ml
June-18	Fecal Coliform	Mo. GeoMean	300 CFU/100 ml	200 CFU/100 ml

Exhibit 2
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Stipulated penalties for violations of NPDES effluent limits (all limits except pH and DO)

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Monthly/Geometric Average Violations	**Assessed**	**Monthly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100%	$125.00	$250.00
Weekly Average Violations	**Assessed**	**Weekly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00
Instantaneous/Daily Maximum Violations	**Assessed**	**Monthly**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00

Stipulated penalties for violations of pH

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Instantaneous/Daily Maximum Violations	**Assessed**	**Daily**
9.1 – 9.6 S.U.	$50.00	$100.00
9.7 – 10.2 S.U.	$75.00	$150.00
10.3 – 10.8 S.U.	$100.00	$200.00
≥ 10.9 S.U.	$125.00	$250.00
Instantaneous/Daily Maximum Violations	**Assessed**	**Daily**
5.4 – 5.9 S.U.	$50.00	$100.00
4.8 – 5.3 S.U.	$75.00	$150.00
4.2 – 4.7 S.U.	$100.00	$200.00
≤ 4.2 S.U.	$125.00	$250.00

Stipulated penalties for violations of Dissolved Oxygen

	Penalty from Execution of COA through completion of Paragraph 3.j requirements	Penalty from completion of Paragraph 3.j through Termination
Instantaneous/Daily Minimum Violations	**Assessed**	**Daily**
>0-33 %	$50.00	$100.00
>33.1-67 %	$75.00	$150.00
>67.1-100 %	$100.00	$200.00
>100 %	$125.00	$250.00

Exhibit 3
Letterkenny Township STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County
Resolution of the Board of Supervisors of Letterkenny Township Municipal Authority

RESOLUTION 2018-1

A RESOLUTION OF THE BOARD FOR THE LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY (LTMA) AUTHORIZING CHARLES H. MYERS AND LANCE G. NORTON TO ACT AS AGENTS AND SIGNATORIES ON BEHALF OF LTMA FOR THE PURPOSE OF SIGNING AND SUBMITTING AGREEMENTS.

WHEREAS, Charles H. Myers is the Chairman of the Board and Lance G. Norton is the Vice Chairman of the Board for the Letterkenny Township Municipal Authority (LTMA); and,

WHEREAS, the DEP Consent Order and Agreement requires two authorized signatures;

NOW, THEREFORE, BE IT RESOLVED by the Board representing the Letterkenny Township Municipal Authority (LTMA), Franklin County, Pennsylvania, that Charles H. Myers and Lance G. Norton are authorized to act on behalf of LTMA for the purpose of signing and submitting agreements.

RESOLVED AND ENACTED this 28th day of August 2018, by the Board representing the Letterkenny Township Municipal Authority.

Attest:

Melissa W Kibbe
Melissa W Kibbe, Secretary

LTMA BOARD

Charles H. Myers
Charles Myers, Chairman

Lance G. Norton
Lance Norton, Vice Chairman

Barry Atherton
Barry Atherton

Donald E. Potteiger
Donald Potteiger

Wanda J. Stouffer
Wanda Stouffer

Act 537 Plan Update Special Study

THE YORK WATER COMPANY
130 EAST MARKET STREET
YORK, PENNSYLVANIA 17401-1219
TEL. (717) 845-3601
FAX (717) 852-0058
www.yorkwater.com

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

December 9, 2019

Letterkenny Township Supervisors
c/o Township Secretary
4924 Orrstown Road
Orrstown, PA 17244

Re: Approval Letter – Special Study
Act 537 Planning
Letterkenny Township Act 537.Update Special Study
DEP CODE NO. B1-28910-ACT
APS ID No. 1006130; AUTH ID No. 1296156
Letterkenny Township, Franklin County

Dear Supervisors:

The Department of Environmental Protection (DEP) has reviewed the proposed Special Study submitted on November 6, 2019, prepared by Martin & martin, Inc., and entitled Act 537 Update Special Study. The proposal is located in Letterkenny Township and consists of the transfer in ownership of the collection, conveyance and treatment facilities from Letterkenny Township to York Water Company. The submission is consistent with the planning requirements in Chapter 71 of DEP's regulations.

The plan is approved with the following comment:

- All sewage permits (NPDES and WQM Part II) currently held by Letterkenny Township must be transferred to York Water Company.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the

appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at http://ehb.courtapps.com or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have any questions or concerns, please call Michael McNulty at 717.705.4758, and refer to DEP Code No. B1-28910-ACT, Application No. 1006130 and Authorization No. 1296156.

Sincerely,

Maria D. Bebenek, P.E.
Program Manager

cc: York Water Company /
Martin & Martin, Inc.
Franklin County Planning Commission

Letterkenny Township

Act 537 Plan Update Special Study

Part 3 – General Plan Content

LTMA LD and Sewer Plans

607.13 Letterkenny Twp.
537 Plan Update
text

Table of Contents

Introduction 1

I. Previous Wastewater Planning 1

A. Past Wastewater Planning Impact on Current Planning Effort 1

1. Previous Act 537 Planning

2. Planning that Has Not Been Carried out According to Approved Plan Implementation Schedule 2

3. Anticipated or Planning by Sewer Authority or Approved Under Chapter 94 Corrective Action Plan 2

4. Planning Modules for New Land Development, Planning "Exemptions" and Addenda 2

II. Physical and Demographic Analysis 2

A. Planning Area and Wastewater Service Area 2

B. Physical Characteristics 3

III. Existing Sewage Facilities in the Planning Area 3

A. Identify, Map, and Describe Municipal Sewage Systems in the Planning Area 3

1. Location, Size and Ownership of Treatment Facilities, Interceptors, Pumping Stations, and Force Mains 3

2. Treatment Process Narrative and Schematic 3

3. Description of Problems with Existing Facilities 4

4. Scheduled Treatment Facility Upgrades 4

5. Disposal Areas 4

IV. Future Growth and Land Development 5

V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities 5

VI. Evaluation of Alternatives 5

A. Evaluation of Selected Alternative 5

B. Proposed Purchase Price and Costs of Implementing Proposed Acquisition 7

C. Analyze the Need for Immediate or Phased Implementation of the Proposed Alternative 7

D. Evaluate Administrative Organizations and Legal Authority Necessary for Plan Implementation 7

VII. Institutional Evaluation 9

A. Analysis and Description of Institutional Alternatives Necessary to Implement Proposed Alternatives 9

1. Need for New Municipal Departments or Municipal Authorities 9

2. Functions of Existing and Proposed Organizations 9

3. Cost of Administration and Capability of Authority/Agency to Reaction to Future Needs 9
B. Description of Administrative and Legal Activities 10
1. Incorporation of Authorities or Agencies 10
2. Ordinances, Regulations, Standards, Agreements, Inter-Municipal0 Agreements 10
3. Transfer of Rights-of-Way, Easements, and Land Transfer 11
4. Adoption of Other Municipal Sewage Facilities Plans 11
5. Other Legal Documents 11
6. Dates or Timeframes for Items 1 to 5 Above 11
C. Justification for Choosing Specific Institutional Alternative 11
VIII. Implementation Schedule and Justification for Selected Alternatives 14
A. Identify Technical Wastewater Disposal Alternative 14
1. Existing Wastewater Disposal Needs 14
2. Future Wastewater Disposal Needs 14
3. Operation and Maintenance Considerations 15
4. Available Management and Administrative Systems 15
5. Environmental Soundness and Compliance with Natural Resources Planning and Preservation Programs 15
B. Designate and Describe Implementation Schedule 15

List of Attachments

Figure 1 Planning and Wastewater Service Areas, and Collection System and Facilities

Appendix A Independent Auditor's Report of LTMA

Appendix B York Water Company SEC Filing

Introduction

This Act 537 Plan Update Special Study is being prepared pending the acquisition of the Letterkenny Township Municipal Authority (LTMA) wastewater system by the York Water Company (YWC). As documented by this Act 537 Plan Update Special Study, the contemplated acquisition of the Letterkenny Township system by YWC, and the subsequent operation of that system by YWC, assures operation of the system and implementation of related Act 537 Plan provisions by a technically-competent and financially-sound entity, assuring that the Act 537 Plan objectives will continue to be met. Figure 1 shows the Act 537 planning area, which matches the previously approved Act 537 Planning Area, and the location of existing Letterkenny Township wastewater facilities.

Upon closing of the proposed transaction, YWC would assume the operation and management of the existing wastewater collection and treatment facilities currently owned by Letterkenny Township. This Special Study addresses the institutional arrangements for ownership and operation of the Letterkenny Township system.

On June 25, 2019 Letterkenny Township executed an Asset Purchase Agreement with YWC. This Act 537 Plan Update Special Study (1) evaluates the administrative and financial capabilities of YWC and YWC's ability to successfully operate and maintain Letterkenny Township's sewage collection and treatment system, (2) sets forth the allocation of responsibilities and process for implementation of the Act 537 Plan's requirements, and (3) discusses "General Plan Content" items that are relevant to the scope and objective of this Act 537 Plan Update.

I. Previous Wastewater Planning

A. Past Wastewater Planning Impact on Current Planning Effort

1. Previous Act 537 Planning

Letterkenny Township Act 537 Plan - March 2003

Letterkenny Township prepared an Act 537 Official Sewage Facilities Plan in March 2003. The plan indicated three (3) areas requiring sewage facilities: Upper Strasburg, Pleasant Hall, and the Kensington Heights Area. Cumberland Franklin Joint Municipal Authority (CFJMA) extended their collection system in 2009 to serve the Upper Strasburg and Pleasant Hall areas. The Kensington Heights area is served by Hamilton Township Municipal Authority. The Roxbury Holiness Camp Area is served by its own private system.

At the time of the Act 537 Plan there were two (2) areas in the Township served by public sewer. The first area is the residential subdivision known as Hill View Estates near the Village of Roxbury. The collection system and treatment plant were installed in 1980 by the developer. The system was expanded and dedicated to LTMA in 1994. This system is the subject of this Act 537 Plan Update Special Study.

The second area is known as Old Kensington Heights. In the late 1970's when Hamilton Township Municipal Authority installed an expansive collection system, the new Kensington Heights system was connected to it. Letterkenny Township has since transferred ownership, maintenance, and revenue of the collection lines to Hamilton Township.

2. Planning that Has Not Been Carried out According to Approved Plan Implementation Schedule

   The areas identified in the 2003 Act 537 Plan as needing sewage collection and treatment have been addressed.

3. Anticipated or Planning by Sewer Authority or Approved Under Chapter 94 Corrective Action Plan

   Ultraviolet light disinfection equipment was installed at the WWTP and became operational in November 2018. It was determined that the WWTP outfall needs to be relocated, and is currently at the design/permit stage. The 2019 engineering evaluation concluded that the treatment facility tanks, processes, and appurtenances, including the aeration system, conform to the design guidelines of the Domestic Wastewater Facilities Manual. The report also noted that final-effluent aeration practices in the existing chlorine-contact tank must improve to consistently meet discharge-permit requirements for dissolved oxygen. These improvements require that operating staff optimize air flow (increase) to the existing final-effluent aeration system in the chlorine-contact tank. This practice requires relocation and reinstallation of the flow-meter downstream of the new ultraviolet light wastewater disinfection unit. Flow-meter relocation will resolve the problem of excessive diffused air interfering with the flow-metering weir.

4. Planning Modules for New Land Development, Planning "Exemptions" and Addenda

   The projected growth area for the LTMA service area is significantly limited at this time. The recent Skyline Drive extensions and the recently developed Dollar General retail store are the only system additions of note in recent years. Lurgan Township is currently updating its Act 537 Plan and is proposing connection to the LTMA system for the village of Roxbury and 90-100 associated EDUs. This would require a significant investment and expansion of the existing WWTP, if approved. YWC would be involved with any future agreements with Lurgan Township to coordinate such a service request.

II. Physical and Demographic Analysis

A. Planning Area and Wastewater Service Area

LTMA is a municipally owned wastewater system that serves a small portion of Letterkenny Township in Franklin County, Pennsylvania. Letterkenny Township is situated in the north-central section of Franklin County, Pennsylvania. The wastewater treatment plant (WWTP) and sanitary collection system provide service to 185 customers. The customer base is mainly residential with three commercial customers.

Figure 1 shows the area served by LTMA.

B. Physical Characteristics

Letterkenny Township is a rural township located in the north-central section of Franklin County, Pennsylvania, about 10 miles north of the Borough of Chambersburg. The Township consists of 42.6 square miles and is bounded by the Townships of Fannett, Metal, St. Thomas, Hamilton, Greene, Southampton, and Lurgan.

The approved 2003 Act 537 Official Sewage Plan contains more detailed background information regarding physical characteristics and related topics such as soils, geologic features, and topography.

III. Existing Sewage Facilities in the Planning Area

A. Identify, Map, and Describe Municipal Sewage Systems in the Planning Area

1. Location and Ownership of Interceptors and Force Mains

   The Letterkenny Township wastewater system, which is shown in Figure 1, provides wastewater collection and treatment services to 185 customer connections. The Wastewater System's collection system consists of the following:

Sanitary Sewer Pipe

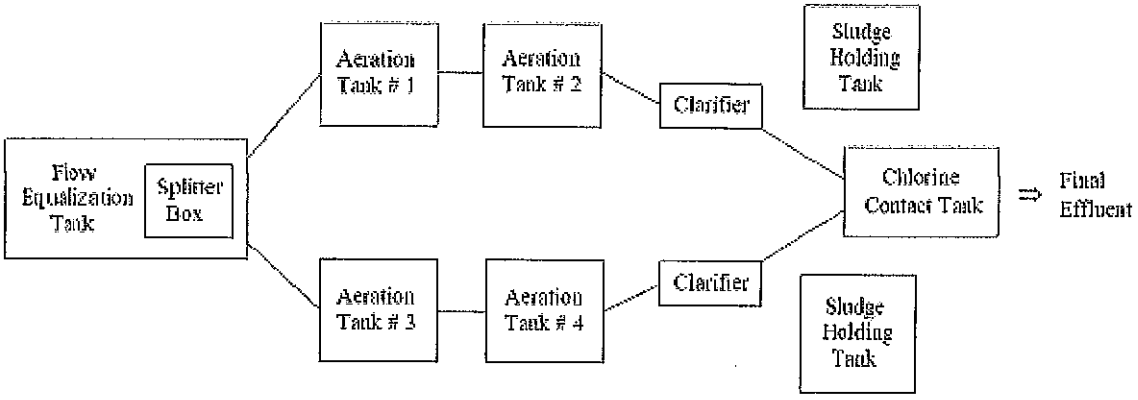
Diameter	Material	Footage	System
2"	PVC	585	Septic Tank Effluent Gravity (STEG)
2.5"	PVC	679	Septic Tank Effluent Gravity (STEG)
3"	PVC	116	Septic Tank Effluent Gravity (STEG)
4"	PVC	1,730	Septic Tank Effluent Gravity (STEG)
6"	PVC	8,247	Hillview Estates
8"	PVC	10,834	Interceptors, Cardinal Rd. (West), Skyline Dr.
Total		22,190	

   The Septic Tank Effluent Gravity (STEG) component runs along Mountain Road (SR 4004) and is a combination system whereby solids are collected in septic tanks and liquids feed via gravity through small diameter pipes to Manhole LT9 and then continue to the WWTP via 8" PVC interceptors. Approximately 25 effluent pumps and septic tanks comprise the STEG system.

2. Treatment Process Narrative and Schematic

   The Letterkenny Township Municipal Authority (LTMA) facilities operate a 0.042 MGD wastewater treatment plant. The treatment plant is an extended aeration, activated sludge type and was constructed by the developer of Hillview Estates in the late 1980's. The original design flow of the plant was 0.017 MGD and design organic removal was approximately 33.3 lbs/day. In 1995 the plant was upgraded to handle 0.042 MGD of flow and 82.2 lbs/day BOD removal. The purpose of the upgrade was to accommodate the remaining EDUs in Hillview Estates and allow connection of the Mountain Road residences and the Roxbury Holiness Camp Byers Conference Center and Legacy Retreat Center. In addition, collection capacity for Skyline Drive was made available. The Letterkenny Township WWTP schematic is shown in Figure 2.

Figure 2: Letterkenny Township Municipal Wastewater Treatment Plant Schematic



3. Description of Problems with Existing Facilities

LTMA entered into a Consent Order & Agreement (COA) on September 11, 2018, chiefly as a result of solids accumulation within the intermittent stream discharge point as well as DMR effluent violations that occurred between 2013 and 2018. The COA required several actions including an engineering evaluation of treatment plant operation and facilities, improvements to the disinfection system, and relocation of the outfall approximately 200' to discharge directly into the receiving stream. LTMA installed ultraviolet light disinfection equipment that became operational in November 2018. The outfall relocation remains at the design/permit stage. The engineering evaluation concluded in December 2018 and confirmed that the treatment facility tanks, processes, and appurtenances, including the aeration system, conform to the design guidelines of the Domestic Wastewater Facilities Manual.

However the report also noted that final-effluent aeration practices in the existing chlorine-contact tank must improve to consistently meet discharge-permit requirements for dissolved oxygen. These improvements require that operating staff optimize air flow (increase) to the existing final-effluent aeration system in the chlorine-contact tank. This practice requires relocation and reinstallation of the flow-meter downstream of the new ultraviolet light wastewater disinfection unit. Flow-meter relocation will resolve the problem of excessive diffused air interfering with the flow-metering weir.

4. Scheduled Treatment Facility Upgrades

YWC plans to continue operating the WWTP after the acquisition and make necessary capital improvements as warranted by the condition and performance of the various WWTP components.

5. Disposal Areas

Other than the outfall to the Conodoguinet Creek, the WWTP does not use any disposal areas for effluent.

IV. Future Growth and Land Development

Letterkenny Township is rural in nature and the population is scattered throughout the Township. Concentrations exist in Pleasant Hall, Upper Strasburg, Hill View Estates and the Kensington Heights area. The U.S. Census indicates the population for Letterkenny Township was 2,074 in the year 2000, and 2,318 in the year 2010. The population for 2017 was estimated to be 2,400 (2013-2017 American Community Survey 5-Year Estimates). Due to the Township's rural nature, minimal population growth is anticipated. The LTMA system currently serves 185 wastewater customers with no additional customers anticipated in 2019 and 4 additional customers anticipated in 2020.

V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities

The Letterkenny Township wastewater system will require investment to continue to provide safe, reliable, and adequate wastewater conveyance and treatment services for Township residents. Letterkenny Township has determined that the sale of its wastewater assets is in the best long-term interest of its residents. The Township has reached an agreement with YWC to purchase the wastewater facilities.

Letterkenny Township is exiting the wastewater business primarily due to the lack of trained plant operators, increased regulations, and administrative burden on a small, rural township. YWC will be able to provide expertise and other benefits due to economies of scale.

VI. Evaluation of Alternatives

A. Evaluation of Selected Alternative

YWC has superior institutional and financial capabilities, and is well qualified to own, operate, improve and maintain the Letterkenny Township wastewater system in an efficient and effective manner. Proper management of the sewer facilities is a key element in the long-term performance of the wastewater system. Management includes ownership, operation, maintenance, repairs, replacement, and planned growth of the facilities. The Township has taken this into account while identifying potential buyers. The Township selected YWC because of the financial stability and proven experience in the operation and maintenance of wastewater systems.

The transaction will result in affirmative public benefits of a substantial nature. Reasons outlined below establish YWC's commitment and ability to address any currently unmet or future Letterkenny Township wastewater needs.

First, YWC has extensive experience in the operation of wastewater collection and treatment systems. YWC, as a large and long-established public utility, has the managerial, technical, and financial fitness to operate the System in a safe and efficient manner in compliance with the Pennsylvania Public Utility Code, the Pennsylvania Clean Streams Law, and all other applicable statutory and regulatory requirements.

Second, Letterkenny Township 's current customers will benefit in several ways from becoming YWC customers. YWC is a large, financially-sound company that has the capacity to finance necessary capital additions and improvements that will benefit its customers. In addition, given its size, its access to capital, and its recognized strengths in system planning, capital budgeting,

and construction management, YWC is well-positioned to ensure that high quality wastewater service meeting all applicable state and federal regulatory requirements is provided to Letterkenny Township's customers. Additionally, YWC is subject to the jurisdiction of the PA Public Utility Commission and must comply with its Code.

Third, Letterkenny Township's current customers will benefit from enhanced and proven customer service that YWC provides. These customer service enhancements include, but are not limited to, additional bill payment options, extended customer service and call center hours, enhanced customer information and education programs, and access to YWC's customer assistance program.

Finally, the transaction will benefit YWC's existing customers and Letterkenny Township's current customers in the long-term by expanding YWC's customer base. There will be no immediate rate impact on YWC's existing customers, and it is expected that the transaction will help YWC maintain reasonable rates for all its customers going forward. Customers who benefit from near-term improvements will one day help pay for improvements on behalf of other customers in other parts of the YWC system. Being able to spread the costs of investing in and maintaining public wastewater systems over a growing customer base, particularly in a time of increased environmental requirements, is essential to the continued success of wastewater systems and maintaining reasonable rates for customers. Indeed, the Pennsylvania General Assembly recognized, as a matter of public policy, the importance of consolidation and cost sharing in the passage of Act 11 of 2012. There is also a clear legislative intent associated with Section 1329 and its allowance of fair market valuation for ratemaking purposes. The General Assembly intended to facilitate the acquisition of municipal water and wastewater systems by investor-owned utilities for the benefit of municipal corporations and their customers.

The proposed sale and transfer of the Letterkenny Township wastewater system to YWC serves the public interest for numerous reasons:

- YWC is a technically-competent, economically-strong operator with substantial and deep experience in wastewater system operations.
- YWC's larger base and breadth of operations allow for economies of scale across the spectrum of operations, including purchasing power for commodities, more efficient staffing and shared support, and application of the latest technological capabilities.
- By transferring the wastewater assets to YWC, the system and its customers will become part of an exponentially larger customer base, under regulatory arrangements (including Pennsylvania Act 11) that allow a spreading of system costs across that larger base, thereby reducing potential rate shock and burdens that are inherent in having a small system bear major capital and operating expenses.
- The transfer offers prospects for improved customer service and operations under YWC ownership of the System.
- YWC will have better and more varied access to capital to make required System expenditures and improvements and comply with applicable legal requirements, such as collection system and pump station improvements.
- The transaction will bring additional expert oversight of the System from the Public Utility Commission and other agencies that routinely monitor utility operations and

participate in utility proceedings.

- As a private entity, YWC will be a taxpayer that will be paying additional property taxes that will increase revenues to the Township.

B. Proposed Purchase Price and Costs of Implementing Proposed Acquisition

Per the June 25, 2019 Agreement of Wastewater Collection System Sale Agreement, the purchase price for the Assets is $225,000.

The estimated costs of operating the Letterkenny Township Wastewater System are shown in the Independent Auditor's Report in Appendix A.

C. Analyze the Need for Immediate or Phased Implementation of the Proposed Alternative

All changes related to the proposed sale of the Letterkenny Township Wastewater System to YWC will be in effect on the date the acquisition closes.

D. Evaluate Administrative Organizations and Legal Authority Necessary for Plan Implementation

The York Water Company (YWC) is the oldest investor-owned water utility in the United States and is duly organized under the laws of the Commonwealth of Pennsylvania. YWC has operated continuously since 1816. YWC owns and operates three wastewater collection systems and two wastewater treatment systems. YWC operates within its franchised water territory, which covers 39 municipalities within York County, Pennsylvania and nine municipalities within Adams County, Pennsylvania. YWC's wastewater operations include portions of four municipalities in York County, Pennsylvania. YWC is regulated by the Pennsylvania Public Utility Commission (PUC) for both water and wastewater in the areas of billing, payment procedures, dispute processing, terminations, service territory, debt and equity financing and rate setting. YWC must obtain PUC approval before changing any practices associated with the aforementioned areas.

YWC's business does not require large amounts of working capital and is not dependent on any single customer or a very few customers for a material portion of its business. Increases in revenues are generally dependent on YWC's ability to obtain rate increases from the PUC in a timely manner and in adequate amounts and to increase volumes of water sold through increased consumption and increases in the number of customers served. YWC continuously looks for water and wastewater acquisition and expansion opportunities both within and outside its current service territory as well as additional opportunities to enter into bulk water contracts with municipalities and other entities to supply water.

YWC has agreements with several municipalities to provide sewer billing and collection services. YWC also has a service line protection program on a targeted basis in order to further diversify its business. Under this optional program, customers pay a fixed monthly fee, and YWC will repair or replace damaged customer service lines, as needed, subject to an annual maximum dollar amount. YWC continues to review and consider opportunities to expand both initiatives.

As a regulated utility, YWC operates within an exclusive franchised territory that is substantially

free from direct competition with other public utilities, municipalities and other entities. Although YWC has been granted an exclusive franchise for each of its existing community water and wastewater systems, the ability of YWC to expand or acquire new service territories may be affected by currently unknown competitors obtaining franchises to surrounding systems by application or acquisition. These competitors may include other investor-owned utilities, nearby municipally-owned utilities and sometimes competition from strategic or financial purchasers seeking to enter or expand in the water and wastewater industry. The addition of new service territory and the acquisition of other utilities are generally subject to review and approval by the PUC.

Provisions of water and wastewater service are subject to regulation under the federal Safe Drinking Water Act, the Clean Water Act and related state laws, and under federal and state regulations issued under these laws. In addition, YWC is subject to federal and state laws and other regulations relating to solid waste disposal, dam safety and other aspects of its operations.

The Clean Water Act regulates discharges from water and wastewater treatment facilities into lakes, rivers, streams and groundwater. YWC complies with this Act by obtaining and maintaining all required permits and approvals for discharges from its water and wastewater facilities and by satisfying all conditions and regulatory requirements associated with the permits.

PADEP monitors the quality of wastewater discharge effluent under the provisions of the National Pollutant Discharge Elimination System, or NPDES. YWC submits monthly reports to the DEP showing the results of its daily effluent monitoring and removal of sludge and biosolids. YWC is not aware of any significant environmental remediation costs necessary from the handling and disposal of waste material from its wastewater operations.

YWC has a strong and ongoing commitment to investing in and maintaining infrastructure, and an established track record of successfully managing large capital investment projects in order to continually provide reliable service to the communities it serves. In general, YWC has a more positive future financial outlook than Letterkenny Township. In this regard, the contemplated transaction will provide a public benefit to Letterkenny Township system customers because they will join YWC's large customer base. Because of its size and expertise in wastewater management and the leveraging of economies of scale, YWC will be able to improve efficiencies and lower the costs that would otherwise be incurred to operate the Letterkenny Township system and fund necessary improvements to the system. These efficiencies will help keep rates lower for the Letterkenny Township system customers than they would be if not allowed to become part of YWC's customer base.

Capital expenditures and operating costs required as a result of water quality standards and environmental requirements have been traditionally recognized by state public utility commissions as appropriate for inclusion in establishing rates. The capital expenditures currently required as a result of water quality standards and environmental requirements have been budgeted in the Company's capital program and represent less than 10% of its expected total capital expenditures over the next five years. YWC is currently in compliance with wastewater environmental standards and does not anticipate any major capital expenditures for its current wastewater business.

VII. Institutional Evaluation

A. Analysis and Description of Institutional Alternatives Necessary to Implement Proposed Alternatives

1. Need for New Municipal Departments or Municipal Authorities

   Following the acquisition, the Letterkenny Township Sewer System will be owned and operated by YWC. Letterkenny Township Operations will become part of the existing YWC organizational structure, and no new departments or authorities will be created as part of this acquisition. LTMA will be legally dissolved and cease to exist. YWC will operate and maintain the Letterkenny Township Wastewater Treatment System utilizing a licensed operator supervised by existing staff from YWC. System staff will receive additional support from the YWC company-wide engineering, operations, human relations, legal and other service teams. Where necessary, operating staff will be supplemented with specialized services provided by both company-level and corporate parent and affiliate personnel, bringing specialized expertise and talents to bear to address particular issues and concerns.

2. Functions of Existing and Proposed Organizations

   Upon closing the acquisition of the Letterkenny Township sewer system, the existing Letterkenny Township sewer customers will become direct customers of YWC. As direct customers of YWC, the wastewater tariff as approved by the Pennsylvania Public Utilities Commission (PUC) will define the rates, rules and regulations governing the furnishing of wastewater collection and disposal service. After the acquisition is completed, YWC will own and maintain one (1) WWTP and all collection system mains including customer service laterals from the main to the limits of the rights-of-way or easement as applicable. Laterals beyond that point on private property are the responsibility of the owner for proper operation and maintenance.

   YWC would respond to and investigate and respond to any reports of sewer overflows. If the overflow is discovered within the YWC owned and maintained collection system, YWC will stabilize the situation and make corrective actions as necessary to eliminate the overflow. Blocked laterals within the right-of-way shall also be corrected by YWC. Blockage on the homeowner's side of the service is the responsibility of the homeowner.

3. Cost of Administration and Capability of Authority/Agency to Reaction to Future Needs

   The Independent Auditor's Report for the year ended December 31, 2018 for the Letterkenny Township Municipal Authority is included in Appendix A.

   YWC's Securities and Exchange Commission (SEC) Form 10-K Annual Report for the year ended December 31, 2018 is included in Appendix B.

   YWC anticipates that the operations expenses will be similar to that of Letterkenny Township during its first year of operation. YWC will not be assuming any of Letterkenny Township's debt. Instead, Letterkenny Township will address its debt prior to closing.

B. Description of Administrative and Legal Activities

1. Incorporation of Authorities or Agencies

   As owner and operator of the wastewater system, YWC will be responsible for the operation, maintenance, repair, replacement, and monitoring of all elements of the wastewater system within the former Letterkenny Township direct service territory, from the laterals at the point of the road right- of-way through the collection system piping.

2. Ordinances, Regulations, Standards, Agreements, Inter-Municipal Agreements

   The Agreement of Wastewater Collection System Sale between YWC and Letterkenny Township contains provisions related to rates. YWC must keep 2019 rate of $45 per month until a new rate is approved by the PUC. YWC anticipates applying for a new rate in 4 to 5 years after acquisition of the system. After acquisition, YWC will implement quarterly billing.

   Letterkenny Township has existing sewer ordinances that will remain in effect after the acquisition. Township supervisors are committed to the enforcement of all ordinances, codes and policies of the Township regarding planning, evaluation, design, construction, monitoring and maintenance of the wastewater facilities.

   Letterkenny Township will maintain authority to enforce plumbing code and on-lot residential and commercial ordinances, in cooperation with YWC, including grease trap, sump pump and lateral inspection.

   Letterkenny Township is expected to update/amend, maintain, and enforce ordinances (1) prohibiting or regulating the discharge into the sewage system of fats, oils, grease, acids and other prohibited substances consistent with the regulations governing the wastewater system (which are consolidated into the YWC IPP Regulations required by PaDEP); and (2) prohibiting the discharge into any sanitary sewer of surface or groundwater. YWC will work with Letterkenny Township if the ordinances need updating.

   Letterkenny Township will remain responsible for sewage facilities planning in accordance with Act 537. YWC will be responsible for the ownership, operation, maintenance, upgrade, expansion, permitting and compliance.

   YWC will be responsible for preparing the annual Chapter 94 Report as well as other wastewater system permits and notifications, including industrial discharge permitting and sanitary sewer overflow notifications. YWC will also be responsible for review and approval of planning modules for new connections with respect to the available collection, conveyance and treatment capacity.

   Complaints regarding the public sewer system will be directed to YWC with the ability to contact the Township if issues are not adequately handled to obtain assistance in resolving problems. Private sewer systems and on-lot systems will be the responsibility of the property owner.

   After the acquisition, agreements and inter-municipal agreements can be negotiated by YWC with other sewer authorities or municipalities. If new development or redevelopment is proposed, YWC will cooperate with Letterkenny Township in the review and approval of sewage facility planning modules for such projects. YWC will accept, convey, and treat all

domestic sewage flows from such development/redevelopment projects within the certificated franchise are. YWC will accept, convey and treat new or increased industrial wastewaters of quantities and physical/chemical characteristics consistent with YWC's IPP regulations, all applicable federal and state regulations and NPDES permit requirements, and the hydraulic and treatment capacity of the Letterkenny Township WWTP.

Letterkenny Township shall be the responsible party for any municipal separate storm sewer system (MS4). If any existing combined sewer systems, which there are none currently known, are separated into separate sanitary only systems and MS4 stormwater systems, the facilities and assets relating to the MS4 systems will be conveyed to and become the responsibility of the involved municipality or responsible party.

3. Transfer of Rights-of-Way, Easements, and Land Transfers

   Pursuant to the Agreement of Wastewater Collection System Sale, Letterkenny Township will convey to YWC all of Letterkenny Township's rights to all real and personal property comprising the wastewater system, including all property owned in fee, all easements, and all rights-of-way for the wastewater system's collection, pumping, and discharge facilities. As a PUC-regulated public utility, YWC has the right to obtain rights-of-way within municipal streets and highways for underground water and wastewater lines, and YWC anticipates cooperating with the involved municipalities in the siting and installation of such facilities. Where the acquisition of easements or other rights to private property are necessary, YWC endeavors to negotiate an amicable purchase of such rights on mutually acceptable terms where feasible. Where necessary, as a PUC-regulated facility, YWC may exercise the power of eminent domain to acquire easements or property under the provisions of the Eminent Domain Code.

4. Adoption of Other Municipal Sewage Facilities Plans

   Letterkenny Township would be responsible for any required adoption of other municipal sewage facilities plans that impact the sewage disposal needs of Letterkenny Township. YWC, as owner and operator of the Letterkenny Township wastewater system, would provide stakeholder input and be involved in the planning process of other municipal sewage facility plans that may affect the Letterkenny Township wastewater system.

5. Other Legal Documents

   Not Applicable

6. Dates or Timeframes for Items 1 to 5 Above

   Items 1 to 5 above would be in effect at the date of the closing.

C. Justification for Choosing Specific Institutional Alternative

YWC is the Nation's oldest investor-owned provider of water and wastewater services. As a leading water and wastewater provider in Pennsylvania, YWC brings significant expertise and has extensive technical experience in upgrading, operating, and maintaining sewer facilities. YWC provides well-maintained and reliable water and wastewater service and has extensive local knowledge due to our decades of experience providing services to numerous communities in nearby York and Adams Counties. Given YWC's existing

platform in relation to operation of water and wastewater systems in the region, YWC is best positioned to provide wastewater service to Letterkenny Township on a cost-effective basis.

YWC currently employs approximately 110 professionals with expertise in all areas of water and wastewater utility operations including engineering, regulatory compliance, water and WWTP operation and maintenance, distribution and collection system operation and maintenance, material management, risk management, human resources, legal, accounting, and customer service. YWC is well positioned to address the projected operating and capital expense requirements for the Letterkenny Township Municipal Authority sewer system area. YWC's current market valuation is approximately $400 million.

Additional information about reasons for public benefits provided by the proposed Letterkenny Township Municipal Authority wastewater system transfer to YWC is provided in Section VI(A).

As a PUC-regulated public utility, the rates charged by YWC for water and wastewater services are regulated by the PUC through a process, which provides clear and robust opportunities for involvement and participation by affected communities and consumers.

The PUC is composed of five commissioners, appointed by the Governor with the advice and consent of the Pennsylvania Senate. The commissioners serve terms of five years. The PUC is an independent commission, meaning that it is not under the direction of the Governor or any other political entity. It is charged with making regulatory decisions, including decisions relating to rates, based on the evidence and applicable law.

In order to provide economical and efficient service to a community, the state grants to water and wastewater companies the right to provide service within a specified geographic area, subject to regulation by the PUC of both the quality and terms of service and the rates charged for those services. The ratemaking and approval process involves multiple steps, and is subject to articulated criteria for assuring fair and reasonable rates.

The Rate Filing: When a regulated utility such as YWC seeks an increase or change in its base rates, it must file a request with the PUC that shows the proposed new rates and effective date, and must prove that the increase is needed. The utility also must notify customers at least 60 days in advance. The notice must include the amount of the proposed rate increase, the proposed effective date, and how much more the consumer can expect to pay.

YWC seeks rate increases only when warranted. Because rate proceedings are time-consuming and complex, as a general matter, YWC typically files rate proceedings on a 3 to 4 year cycle. As noted below, in these periodic rate proceedings, YWC has been seeking to utilize the authorities provided under Pennsylvania's Act 11 to more broadly spread costs over its larger customer base in order to moderate cost increases and mitigate to the extent possible major increases impacting localized systems, where major capital improvements are required to meet environmental or other regulatory mandates.

How the PUC Sets Rates: The PUC ratemaking process ensures the lowest reasonable rate for consumers while maintaining the financial stability of utilities. Under the Public Utility Code, a utility is entitled to recovery of its reasonably incurred expenses and a fair return on its investment. The PUC evaluates each utility's request for a rate increase based on those criteria.

In a rate proceeding, YWC is required to provide detailed information concerning its historic and

projected costs of operation (including predictive and preventive maintenance, repair and replacement) and its historic and projected program of capital improvements across all elements of its water and wastewater systems. Annualized costs are typically projected to a future "test" year, which is usually one year following the rate proceeding. The process of determining those costs, and allocating such costs among different classes of consumers (e.g., residential, commercial and industrial customers) involves a series of evaluations and cost-of-service studies. Only those costs determined to be "reasonable and prudent" may be recovered, and in rate proceedings, the PUC will examine whether costs claimed are appropriately justified and reasonable.

The PUC Review Process: The PUC rate review process is far more detailed and arduous than that followed by municipalities and municipal authorities. By operation of law, the rate request is suspended for up to seven months if the PUC does not act before the proposed effective date for the rate increase for water and wastewater companies. The PUC uses that time to investigate and determine what, if any, of the requested increase is justified.

The PUC's Bureau of Investigation and Enforcement {I&E) and public advocates, including the state's Office of Consumer Advocate (OCA) and Office of Small Business Advocate (OSBA), intervene and participate in that process. I&E reviews the company's records and their request and presents its view on what is in the public interest. Individual consumers may become formal parties by filling out a formal complaint form. OCA and OSBA represent consumers and small businesses respectively, and likewise examine in detail the background and materials submitted by the utility. Prior to hearings on the proposed rates, I&E, OCA, OSBA and others submit information requests to the utility and obtain responses to better understand and investigate the facts behind the proposed rates.

When the PUC investigates a rate increase, it is assigned to an Administrative Law Judge (ALJ), who is an attorney with experience in administrative law. The ALJ presides at formal hearings, which are open to the public and conducted like a formal court proceeding. At the formal hearing, the utility, I&E, OCA, OSBA and other parties present their cases and are subject to cross-examination. Consumers may speak for themselves, or an attorney may represent individual consumers or groups of consumers. Consumers also can have their say informally by writing or calling the PUC or completing the objection/ comment form. Consumers also may testify at public input hearings.

By providing testimony, consumers place their views in the official record on the case. Public input hearings are conducted by the ALJ in the utility's service territory. Consumer testimony becomes part of the record on which the PUC will base its decision.

Following the conclusion of hearings before the ALJ, the entire record of testimony, documents and other evidence is compiled. Proposed findings of fact and briefs may be submitted by the formal parties. After weighing the evidence and hearing the arguments, the ALJ writes a recommended decision addressing each issue in the case within the limits set by law. The recommended decision may approve, disapprove or modify the original request. The ALJ's report and recommended decision are presented to the PUC Commissioners. Parties to the rate case may file exceptions to the ALJ's report, and responses to objections presented by other parties.

Finally, the matter is brought before the PUC Commissioners for a vote and final decision. The Commissioners make the final decision, authorizing rates that: (1) permit revenues that allow the company to meet its reasonable expenses, pay interest on its debt and provide a fair return

to stockholders so it will continue to attract investment; and (2) assign the proper rate for residential, commercial and industrial customers that reflects the cost of service.

Together with the 60-day notice period, the PUC's administrative rate review and hearing process takes about nine months. Decisions made by the PUC may be appealable. Aggrieved parties may seek review of the PUC's determinations through an appeal to the Commonwealth Court. The Commonwealth Court's decisions, in turn, may be subject to review by the Supreme Court of Pennsylvania if that court grants a petition to allow appeal.

Collection System Improvement Charge Process: The paragraphs above describe the process for a base rate proceeding, which sets the basic water and wastewater rates for YWC's systems. In the period between periodic base rate cases, the Public Utility Code allows for wastewater companies to calculate and assess a Collection System Improvement Charge (CISC), which allows a limited surcharge on customer bills to accelerate the replacement of existing aging facilities that might otherwise be deferred until completion of a base rate case. Eligible projects involve principally replacement investments, not system expansions or extensions of facilities to serve new customers. System improvement charges are designed to provide ratepayers with improved service quality; greater rate stability; fewer main breaks; fewer service interruptions; and increased safety. The maximum amount of a CISC is a cumulative 5% above base rates. The CISC process involves an annual review by the PUC and reconciliation of recoverable costs and revenues associated with the charge, and an annual reconciliation hearing under Section 1307(e) of the Public Utility Code. The PUC conducts audits to assure that funds generated from a CISC surcharge are spent on CISC-eligible projects.

VIII. Implementation Schedule and Justification for Selected Alternatives

A. Identify Technical Wastewater Disposal Alternative

As indicated above, the selected alternative involves a sale of the Letterkenny Township Municipal Authority wastewater system to YWC, with YWC becoming the owner and operator of all wastewater system assets within the direct service territory. Responsibilities for implementation of elements of the Act 537 Plan would be assigned as described above.

The selected alternative is the best alternative based on the following considerations:

1. Existing Wastewater Disposal Needs

   The selected alternative assures that existing wastewater needs will be managed by a well-experienced, technically-competent, economically-sound public utility company with deeper resources, broader experience, and stronger access to capital than Letterkenny Township. YWC has a strong record of managing water and wastewater systems, for marshalling resources, planning and constructing capital projects, and managing systems on a sustainable basis using modern preventive and predictive maintenance methods and leading edge system management technologies. The depth of resources brought by YWC and its parent and affiliated companies, which supplement a sound staffing plan for the local system, assure proper long-term capability of meeting existing wastewater needs.

2. Future Wastewater Disposal Needs

   Likewise, the selected alternative provides a means of meeting future wastewater disposal

needs. System acquisition by YWC, which opens the door to broader access to capital together with the potential for spreading costs over a broader customer base via Act 11, promises improved capabilities to meet these current and future wastewater needs.

3. Operation and Maintenance Considerations

   The selected alternative provides a foundation to sustain over the long-term and improve operational and maintenance practices. YWC's preventive and predictive maintenance programs, coupled with the engineering and operational experience of YWC engineering and operations management and staff, will bring more modern methods, practices and technologies to the Letterkenny Township wastewater system. YWC's platform offers the capability of supporting the system with shared services and expert staff, providing more cost-effective and efficient staffing. YWC's purchasing practices for key inputs, such as chemicals and commodities, offer market volume purchasing and negotiating advantages.

4. Available Management and Administrative Systems

   YWC has been a leader in water and wastewater system-sustainable management. Under the selected alternative, YWC brings predictive/preventive maintenance programs, system automation and monitoring systems, a well-experienced engineering and operations management team, and well-developed programs for capital investment and system improvement.

5. Environmental Soundness and Compliance with Natural Resources Planning and Preservation Programs

   Under the selected alternative, the Letterkenny Township wastewater system will be operated in a manner that best assures compliance with applicable environmental regulations, including the Pennsylvania Clean Streams Law and Clean Water Act. The basic wastewater system will remain as currently contemplated by the Act 537 Plan (and hence no significant changes are anticipated in relation to the system's consistency with natural resource planning or preservation programs). In short, YWC is bringing to the Letterkenny Township Municipal Authority wastewater system the expertise and resources necessary to address any water quality and environmental problems.

B. Designate and Describe Implementation Schedule

Meeting with PaDEP	August 15, 2019
Update special study to PaDEP Guidance	August-October 2019
Prepare draft resolution and public notice	September 2019
Attend and explain special study to Letterkenny Township Planning Commission	September 24, 2019
Attend and explain special study to Letterkenny Township Supervisors	September 24, 2019
Submit special Study to Letterkenny Township and Franklin County Planning Commission	October 3, 2019

Advertise public notice in newspaper	October 3 and 11, 2019
Incorporate comments received from Letterkenny Township and Franklin County Planning Commission into the Plan	November 2019
Letterkenny Township Resolution Adoption	November 5, 2019
Formal submission to PaDEP	November 7, 2019
PaDEP Approval of Act 537 Plan Special Study	December 31, 201

Wastewater Treatment Facilities – Aeration System & Plant Performance Report

THE YORK WATER COMPANY
TEL. (717) 845-3601

130 EAST MARKET STREET
FAX (717) 852-0058

YORK, PENNSYLVANIA 17401-1219
www.yorkwater.com

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

F-34

September 11, 2018

CERTIFIED MAIL NO. 9171 9690 0935 0150 2174 09

Mr. Charles H. Myers
Letterkenny Township Municipal Authority
4924 Orrstown Road
Orrstown, PA 17244

Re: Executed Consent Order and Agreement-3A
LTMA STP
NPDES Permit No. PA0082201
Letterkenny Township, Franklin County

Dear Mr. Meyers,

Enclosed is a fully executed copy of the Consent Order and Agreement (COA). This will also acknowledge receipt of check number 3555 in the amount of $4,008.00, in accordance with the COA dated September 10, 2018.

Thank you for your cooperation in settling your violations of the Clean Streams Law. If you have any questions regarding this COA, please contact me at 717.705.4775 or eammon@pa.gov.

Sincerely,

Erick M Ammon
Environmental Protection Compliance Specialist
Clean Water Program

cc: (with enclosures): Mr. William D. DelGrande P.E.

Enclosure: September 10, 2018 COA with Exhibits

bcc: Janna Williams, Assistant Counsel OGC (electronic bcc)
Victor Landis, Environmental Group Manager (electronic bcc)
Sarah Wriglesworth, Water Quality Specialist Supervisor (electronic bcc)
File
T (Hard copy & electronic bcc) ✓

MR. CHARLES H. MYERS
LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
4924 ORRSTOWN ROAD
ORRSTOWN, PA 17244

MR. WILLIAM D. DELGRANDE P.E.
DELGRANDE & ASSOCIATES, LLC
29 MILL RACE LANE
FAYETTEVILLE, PA 17222-1436

Memorandum

Date:	October 10, 2018
To:	Mr. Erick M. Ammon, PADEP Compliance Specialist
From:	W. Dwayne DelGrande, P.E.
Re:	Letterkenny Township Municipal Authority (Franklin County) Consent Order & Agreement (COA), executed September 10, 2018 – 30-Day Report
cc:	Authority Chairman, Solicitor

Introduction

This memorandum provides an initial response (30-Days) to the Pennsylvania Department of Environmental Protection (PADEP) request for Corrective Action as per the COA referenced above.

Description of Facilities

The wastewater treatment facilities consist of two activated sludge (extended aeration) units operating in parallel, possessing a design flow of 42,000 gpd with an organic design load of eighty-two (82 #/D) of BOD_5. Typical loadings at the facility approximate 25,000 gpd and 25 #/D of BOD_5. Headworks pumping consists of two submersible pumps (lead and lag) within a flow equalization basin (nominal volume = 9,000 gallon) each operating at about 30 gpm (peak flow = 0.086 MGD. Final effluent discharges to a perennial stream tributary to Conodoguinet Creek.

Process Control

Principal facility performance relies upon daily process control centered upon sludge/solids management (correct sludge wasting practices).

Activated sludge process control consists of the following

Daily Actions:

1) 30 minute settleability measurement and recording of same (each aeration tank).
2) Calculation and recording of Sludge Volume Index (SVI) for each aeration tank.

Weekly Actions:

1) Measurement and recording of dissolved oxygen (D.O.) for each aeration tank.
2) Measurement and recording of sludge blanket depth for each aeration tank.

Bi-monthly Process Actions:

1) Measurement and recording of mixed liquor suspended solids (MLSS) for each aeration tank.
2) Measurement and recording of mixed liquor volatile suspended solids (MLVSS) for each tank.
3) Measurement and recording of raw wastewater biochemical oxygen demand (BOD5).
4) Calculation of food to microorganism (F/M) ratio.
5) Calculation of sludge age.

Summary

As per a Consent Order & Agreement (COA) dated September 10, 2018, this report describes equipment, processes and operations at the Hillview wastewater treatment plant (Letterkenny Township Municipal Authority – "LTMA"), an extended-aeration activated sludge facility in Franklin County, PA., possessing a hydraulic design capacity[1] of 0.042 MGD.

This report confirms that the treatment facility tanks, processes and appurtenances, including the aeration system, conform to the design guidelines of the Domestic Wastewater Facilities Manual[2]. However, this report notes that final-effluent aeration practices in the existing chlorine-contact tank must improve to consistently meet discharge-permit requirements for dissolved oxygen. These improvements require that operating staff optimize air flow (increase) to the existing final-effluent aeration system in the chlorine-contact tank. This practice requires relocation/reinstallation of the flow-meter downstream of the new ultraviolet light wastewater disinfection unit. Flow-meter relocation resolves the problem of excessive diffused air interfering with the flow-metering weir.

A flow-meter technician (WG Malden) also recently confirmed the need to relocate the flow-meter as well, due to false high readings (≤ 4 gpm) that appear to result from a "backwater effect" from both excessive diffused air and the installation of the new disinfection unit. Past operation practices throttled post-aeration air flow due to flow metering accuracy concerns. This report recommends that the Owner (LTMA) correct the air/metering problem as soon as practicable, before the end of the forthcoming winter (March 21, 2019).

General Plant Process Description

Raw domestic wastewater enters through a comminutor (pretreatment-grinding) via gravity and into a 0.01 MG aerated wet-well/flow-equalization tank, followed by lifting into a splitter box via submersible headworks pumps (2 each @ 30 gpm). Flow splits into two extended aeration activated sludge tanks (nominal volume = 0.02 MG each), operating in parallel. Pumping of waste-sludge and return-activated-sludge (RAS) from the final clarifiers occurs via airlifts. A 0.01 MG aerated tank provides for waste-sludge storage for subsequent disposal by a licensed hauler. Post-aeration of final effluent occurs in the chlorine contact tank (≤ 800g) prior to disinfection in the newly-installed ultraviolet light equipment.

---

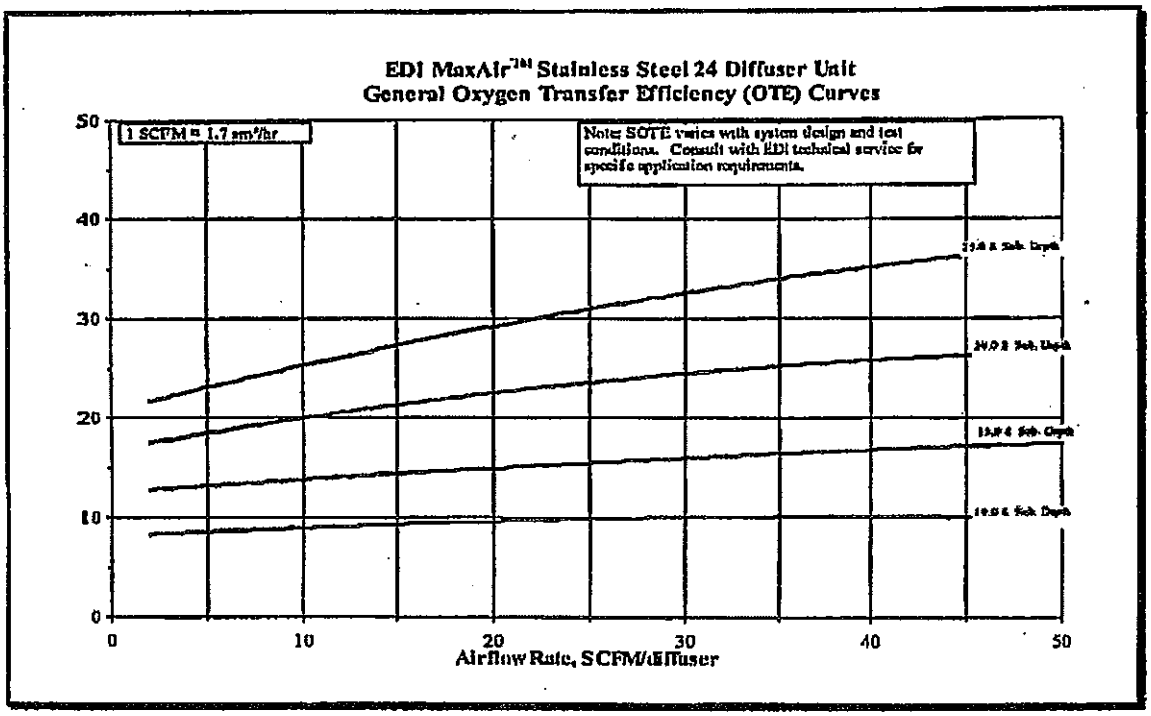
[1] *Hydraulic design capacity*—The maximum monthly design flow, expressed in millions of gallons per day, at which a plant is expected to consistently provide the required treatment or at which a conveyance structure, device or pipe is expected to properly function without creating a backup, surcharge or overflow. This capacity is specified in the water quality management permit (Part II permit issued under PACODE Chapter 91).

[2] Domestic Wastewater Facilities Manual – A Guide For The Preparation of Applications, Reports and Plans, Bureau of Water Quality Protection, Pennsylvania Department of Environmental Protection, Commonwealth of PA – October 1997.

Aeration Equipment, Organic Loading

Air-supply blowers consist of four (4) positive-displacement units, including three (3) URAI Roots™ 33 units (5HP motors) and one (1) URAI Roots™ 22 unit (2HP motor). The smaller unit remains solely dedicated to pre-aeration in the wet-well/flow-equalization tank. Pre-aeration mediates odor complaints, chiefly in hot weather. Typical air operating pressures range up to 5 psig in the activated sludge tanks. This report includes manufacturer's information about blower-unit performance.

The main air-header piping consists of recently-installed/repaired four-inch SCH80. Diffusers consist of new 24" stainless steel open-bottom coarse-bubble units, manufactured by Environmental Dynamics International. The manufacturer's diffuser performance-curve appears as follows:



Average water depth above diffusers approximates ten feet (10') in the process tanks.

Design Loads, Air and Oxygen Requirements

The wastewater treatment plant possesses an organic design rating of eighty-two (82#/D)[3] of BOD_5. The report air calculations herein assume a relatively-elevated ammonia-nitrogen loading at the facility of twenty (20#/D), a condition reflective of the use of septic-effluent systems in portions of the collection system.

The aforementioned design guidelines for the activated sludge process recommend a minimum of 1.5 # of O_2 per pound of BOD_5 (extended aeration process) and 4.6 # of O_2 per pound of ammonia-nitrogen. These guidelines result in a total theoretical oxygen requirement as follows:

BOD_5 Oxygen Requirement = (82 #/D of BOD_5) x (1.5 # O_2 per # BOD_5) = 120 #/D of O_2
NH_3-N Oxygen Requirement = (20 #/D of NH_3-N) x (4.6 # O_2 per # NH_3-N) = 90 #/D of O_2

Total Minimum Oxygen Requirement = 210 #/D

The resulting weight flow of air (210 # O_2) under standard[4] conditions thus equals:

Weight of air = (210#/Day of O_2 ÷ 20.9% O_2 fraction of air by volume) = 1,000 # of Air/Day

The theoretical air volume requirement with the existing diffusers (assuming 6% O_2 transfer in mixed liquor, rags, etc.) results as follows:

Volume of air = (1,000 #/D of air ÷ 0.07 #/ft³ at plant site @ 86° F) ÷ 1,440 min/D ÷ 6% = 165 scfm.

A comparison of theoretical air requirements to the PADEP-recommended volume of air to mix (30 cfm per 1,000 ft³) yields the following:

Volume of air to mix aeration tanks = 30 cfm x 5.3 TCF = 160 cfm

---

[3] *Organic design capacity*—The highest daily organic load at which a sewage treatment facility or a portion thereof is expected to provide a specific predetermined level of treatment. This capacity is normally specified in the water quality management permit (Part II permit issued under Chapter 91).

[4] Standard conditions, 68° F, 14.7 psia, 36% relative humidity.

Other Air Requirements

The 10,000 g. aerated sludge tank requires complete mixing capability. Thus the resulting volume of air to mix for the sludge tank equals:

Volume of air = 30 cfm x 1.3 TCF = 40 cfm.

Other air requirements include the sludge return and scum lines from the final clarifier, as well as the post-treatment aeration in the chlorine-contract tank, all of which require a total air flow of about **10 cfm.**

Summary of Theoretical Air Requirements

As noted above, total air requirements (process tanks, sludge tanks, sludge/scum lines) require approximately **210 scfm.**

Power Requirements to Deliver Air

The calculation of the weight flow of air under extreme high temperature condition (40° C = 104° F) occurs as follows:

Volume[5] of Air, cfm = ((460 + 104) ÷ (460 + 68)) x 210 scfm = 224 cfm
Weight Flow of Air, #/s = (224 cfm x 0.07 # ft^3 at plant site) ÷ 60s/min = 0.26 #/s

The theoretical brake horsepower requirement for adiabatic compression of air results from the following expression:

Brake HP = (wRT/550ne) x ((p_2/p_1)^n)-1)

Where:
w = weight flow of air, #/s
R = gas constant (53.5)
T = absolute inlet temperature, ° Rankine
p_1 = absolute inlet pressure, psia = 14.7 psia
p_2 = absolute outlet pressure, psia = 20.5 psia
n = (k-1)/k = 0.283 for air
k = 1.395 for air
e = efficiency for blowers, usually ranging from 70% to 80%

Thus, the brake HP requirement equals (wRT/550ne) x ((p_2/p_1)^n)-1)
= ((0.26#/s of air x 53.5 x 564° R) ÷ (550 x 0.283 x 70%)) x ((20.5 psi ÷ 14.7 psi) ^ 0.283 – 1)

= 4.8 BHP

[5] Volume correction for absolute temperature, 460° R = 0° F.

Principal Air Piping

Conservative air piping design traditionally maintains velocities low enough in manifolds and headers to minimize friction losses to the greatest degree practicable. Recommended velocities in smaller header pipes (4" to 10") should range from 1,800 to 3,000 fpm[6]. The following expression describes the velocities (fpm) in the principal air pipe.

Velocity, Main Header Pipe (4" dia.), fpm = 230 cfm ÷ 0.087 ft^2 = **2,600 fpm**

Summary of Findings

Given the narrative and information above, the principal air piping and the aforementioned three URAI Roots™ 33 units (3 blowers, 180 cfm each, 5HP motors) possess the ability to provide sufficient air to the treatment plant processes with the largest blower out of service. The "stand alone" URAI Roots™ 22 unit (2HP motor) suffices for pre-aeration, chiefly as a means to reduce undesirable odors.

Present operations due not fully utilize the capability of the existing post-aeration equipment in the chlorine contact tank due to the conflict between excessive diffused air and a properly functioning flow-meter. This report proposes the installation of a new flowmeter (vendor description attached) as per the previously noted end-date (March 21, 2019).

[6] Wastewater Engineering Treatment and Reuse 4th Edition – Metcalf & Eddy, McGraw Hill, 2003

pdblowers Inc

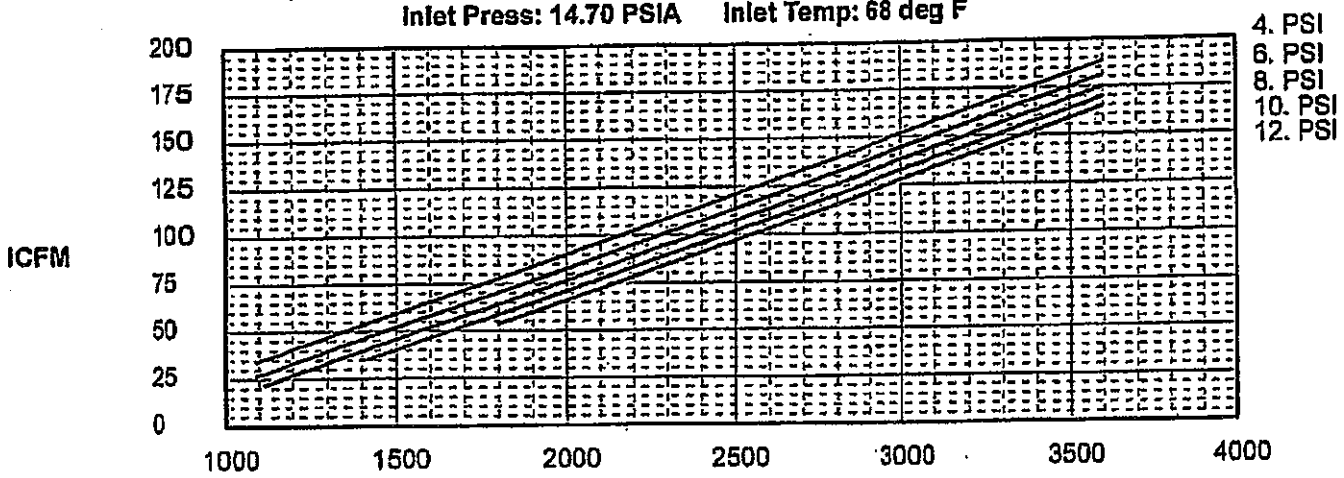
Blower Performance Curves

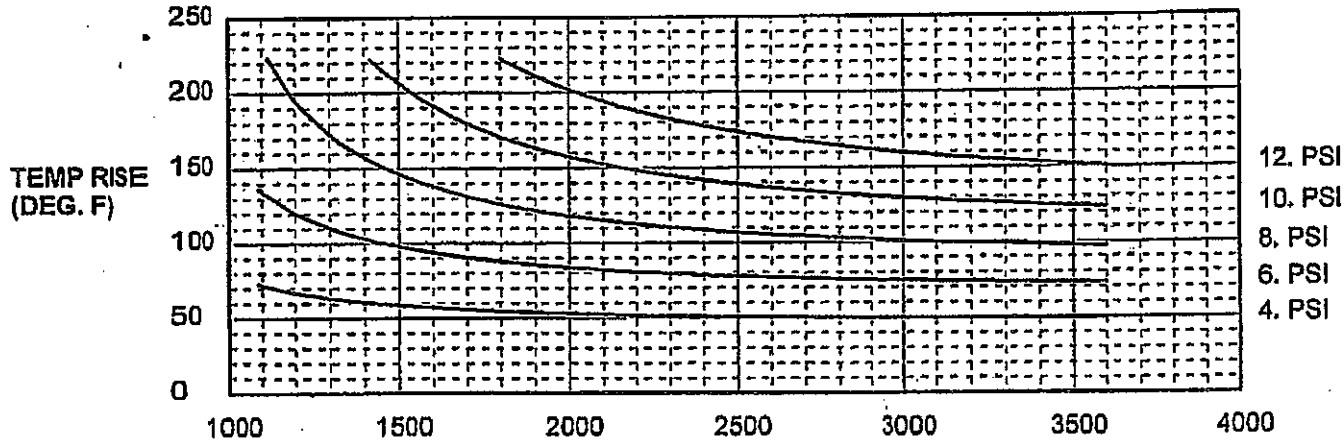
PDAnalysis 2013 Version 4.20

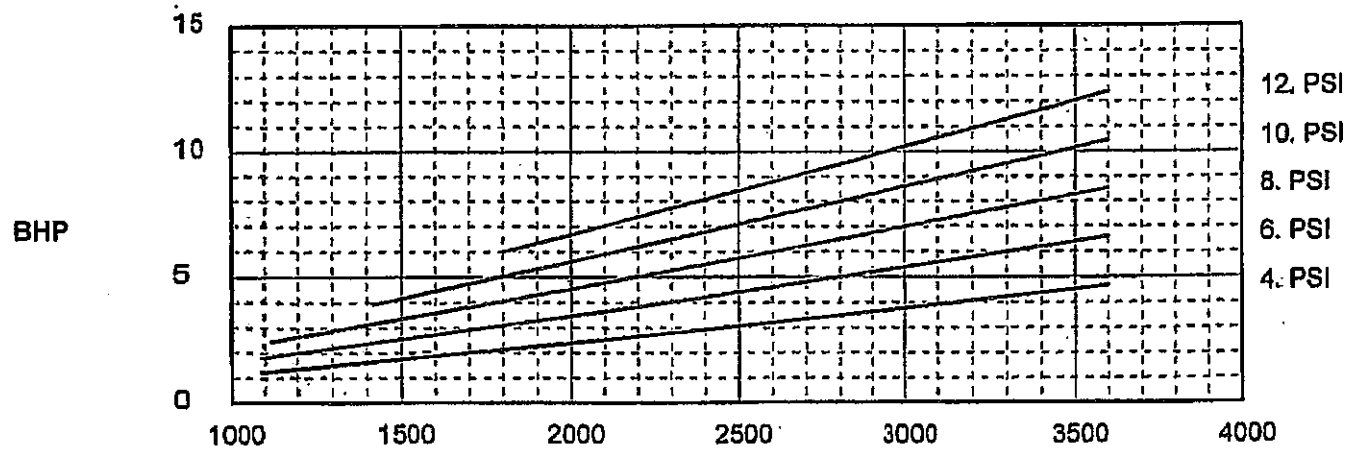
Saturday, May 20, 2017

Pressure Performance
Roots Model 33 URAI

Maximum Pressure Rise: 12 PSI **Maximum Speed: 3600 RPM**
Inlet Press: 14.70 PSIA **Inlet Temp: 68 deg F**







BLOWER SPEED (RPM)

pdblowers inc

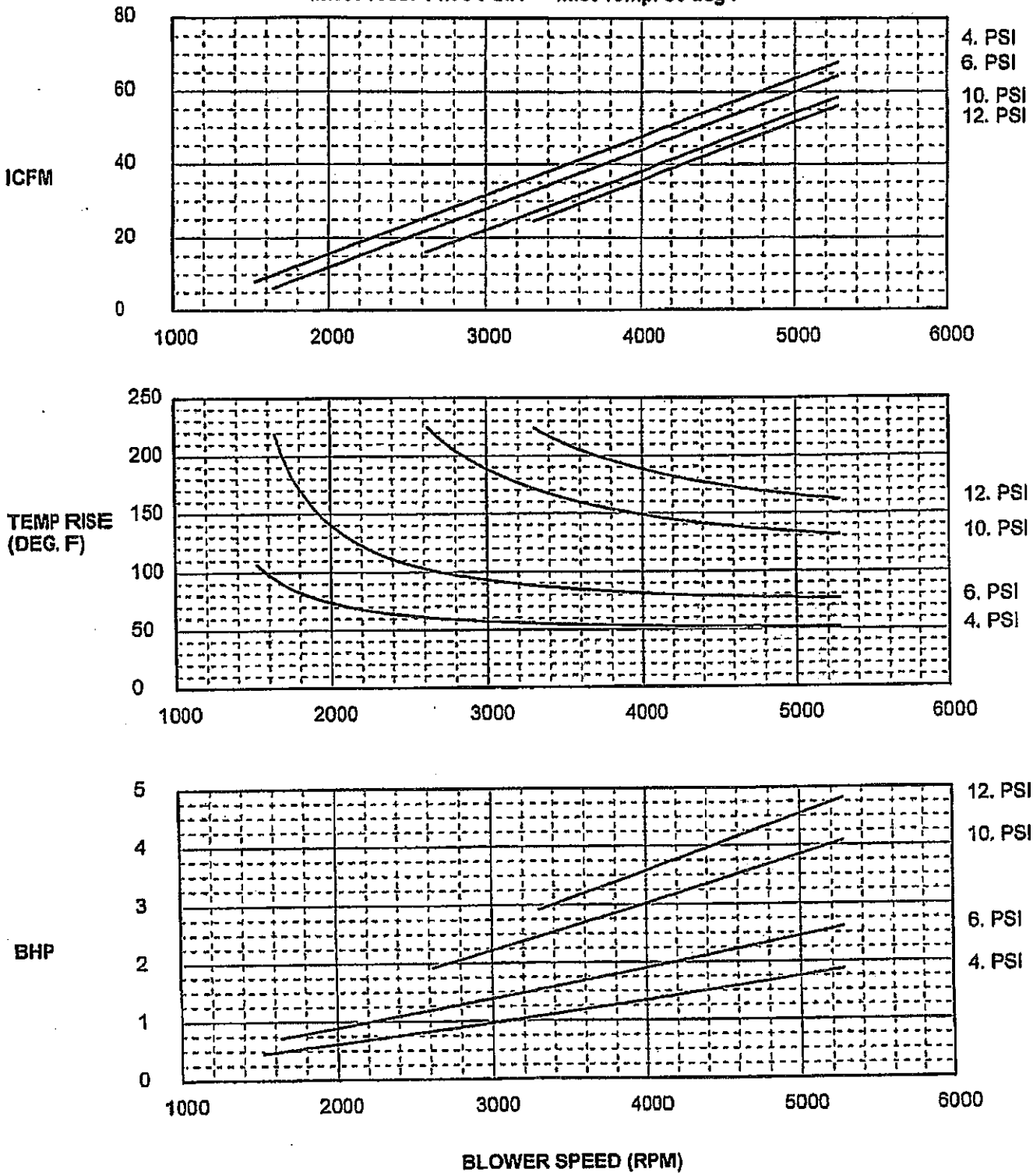
Blower Performance Curves

PDAnalysis 2013 Version 4.20

Pressure Performance
Roots Model 22 URAI

Saturday, May 20, 2017

Maximum Pressure Rise: 12 PSI **Maximum Speed: 5275 RPM**
Inlet Press: 14.70 PSIA **Inlet Temp: 68 deg F**



PERFORMANCE TABLE: ROOTS Universal URAI

Frame Size	Speed	4 PSI		5 PSI		6 PSI		7 PSI		8 PSI		9 PSI		10 PSI		12 PSI		13 PSI		14 PSI		15 PSI		VACUUM DATA		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	INHGV	CFM	BHP
22	2950	31	0.9	29	1.1	27	1.3	26	1.5	24	1.7	23	1.9	21	2.1									13	20	1.3
	3550	40	1.0	39	1.3	37	1.5	35	1.8	34	2.0	32	2.3	31	2.5	28	3.0							14	28	1.7
	5275	68	1.6	66	2.0	64	2.4	63	2.7	61	3.1	60	3.5	59	3.8	56	4.6							15	53	2.8
24	2950	68	1.7	65	2.1	63	2.5	60	2.9															14	48	2.8
	3550	88	2.0	85	2.5	82	3.0	79	3.5															14	67	3.4
	5275	143	3.1	140	3.9	137	4.6	134	5.4															15	119	5.5
32	1750	54	1.4	51	1.7	48	2.1	45	2.4	43	2.8	41	3.1	39	3.5	35	4.1							13	37	2.2
	2950	108	2.4	105	3.0	102	3.6	99	4.2	97	4.7	95	5.3	93	5.9	89	7.1	87	7.6	86	8.2	84	8.8	15	84	4.3
	3550	135	3.0	132	3.7	129	4.4	126	5.1	124	5.8	122	6.5	120	7.2	116	8.6	114	9.3	113	10.0	111	10.6	16	108	5.6
33	1750	75	1.9	71	2.4	67	2.9	64	3.3	61	3.8	58	4.3	56	4.7	51	5.7							13	53	3.0
	2950	149	3.3	145	4.1	141	4.9	138	5.7	135	6.5	132	7.3	130	8.1	125	9.7							15	119	5.9
	3550	186	4.1	182	5.0	178	6.0	175	6.9	172	7.9	169	8.8	167	9.8	162	11.7							15	156	7.2
36	1750	132	3.2	126	3.9	121	4.7	117	5.5															14	95	5.4
	2950	254	5.5	249	6.8	244	8.1	239	9.4															16	212	9.8
	3550	316	6.7	310	8.3	305	9.9	300	11.5															15	273	11.9
42	1750	78	1.9	74	2.4	71	2.8	69	3.3	66	3.7	64	4.2	61	4.7	57	5.6	55	6.0					14	55	3.2
	2950	150	3.3	147	4.1	144	4.9	141	5.7	139	6.5	136	7.2	134	8.0	130	9.6	128	10.3	126	11.1	124	11.9	16	121	6.2
	3550	187	4.1	183	5.1	180	6.0	177	7.0	175	7.9	172	8.8	170	9.8	166	11.6	164	12.6	162	13.5	160	14.4	16	157	7.6
45	1750	161	3.8	155	4.7	150	5.6	145	6.6	140	7.5	136	8.4	132	9.3									14	121	6.4
	2950	306	6.7	300	8.2	295	9.8	290	11.3	285	12.9	281	14.4	277	16.0									16	253	12.5
	3550	379	8.2	373	10.1	368	12.0	363	13.9	358	15.7	354	17.6	349	19.5									16	326	15.2
47	1750	215	5.0	208	6.2	201	7.4	195	8.6															14	165	8.4
	2950	407	8.8	399	10.8	392	12.9	386	14.9															15	348	15.4
	3550	502	10.9	495	13.3	488	15.8	482	18.3															15	444	18.8
53	1170	113	2.7	108	3.4	103	4.1	99	4.8	96	5.4	92	6.1	89	6.8	82	8.1							13	85	4.3
	1750	189	4.2	184	5.2	180	6.2	176	7.2	172	8.2	168	9.2	165	10.3	159	12.3	156	13.3	153	14.3			15	151	7.5
	2850	334	7.4	329	9.0	325	10.7	321	12.3	317	14.0	313	15.6	310	17.2	304	20.5	301	22.1	298	23.8	295	25.4	16	291	13.4
56	1170	196	4.6	188	5.7	182	6.9	175	8.0	170	9.1	164	10.2	159	11.4	150	13.6							14	146	7.8
	1750	324	7.0	316	8.7	310	10.4	304	12.1	298	13.8	292	15.5	287	17.2	278	20.5	273	22.2					15	266	12.6
	2850	567	12.2	560	15.0	553	17.7	547	20.5	541	23.2	536	26.0	530	28.7	521	34.2	517	37.0					16	501	22.4
59	1170	299	6.7	290	8.4	281	10.0	273	11.7															14	237	11.4
	1750	486	10.3	477	12.8	469	15.2	461	17.7															15	414	18.4
	2850	842	18.0	832	22.0	824	26.0	816	30.0															15	770	30.8
66	1170	223	5.2	215	6.4	208	7.7	202	8.9	196	10.2	190	11.5	185	12.7	175	15.2	171	16.5	166	17.7			14	171	8.7
	1750	365	8.0	358	9.9	351	11.8	344	13.7	339	15.6	333	17.4	328	19.3	318	23.1	313	24.9	309	26.8	305	28.7	16	297	15.1
	2350	513	11.4	505	13.9	499	16.4	492	19.0	486	21.5	481	24.0	475	26.5	465	31.6	461	34.1	456	36.6	452	39.1	16	445	20.6
88	1170	358	8.3	345	10.3	334	12.3	324	14.3	314	16.3	305	18.3	297	20.3	281	24.4	274	26.4	267	28.4			14	275	13.9
	1750	587	12.7	574	15.7	563	18.7	553	21.8	544	24.8	535	27.8	526	30.8	510	36.8	503	39.8	496	42.9			16	478	24.0
	2350	824	17.8	811	21.8	800	25.9	790	29.9	781	34.0	772	38.0	763	42.1	747	50.2	740	54.2	733	58.3			16	715	32.8
615	1170	670	15.4	647	19.1	626	22.9	607	26.7															11	581	20.5
	1750	1099	23.4	1076	29.1	1055	34.7	1036	40.4															12	989	33.7
	2350	1643	32.4	1520	40.0	1499	47.6	1480	55.2															12	1433	46.0
76	1170	393	8.6	383	10.6	374	12.7	367	14.8	359	16.8	352	18.9	346	21.0	333	25.1	328	27.2	322	29.2	317	31.3	15	319	15.4
	1750	628	13.4	618	16.5	609	19.6	601	22.7	594	25.8	587	28.9	580	32.0	568	38.1	562	41.2	557	44.3	552	47.4	16	543	24.9
	2050	749	16.2	740	19.8	731	23.4	723	27.0	716	30.6	709	34.3	702	37.9	690	45.1	684	48.7	678	52.4	673	56.0	16	664	29.5
711	1170	738	15.5	723	19.2	710	23.0	697	26.8	686	30.5	675	34.3	665	38.1									15	623	27.9
	1750	1166	23.9	1151	29.5	1138	35.2	1125	40.8	114	46.4	1103	52.0	1093	57.7									16	1035	45.0
	2050	1387	28.6	1372	35.2	1359	41.8	1347	48.4	1335	55.0	1324	61.6	1314	68.2									16	1256	53.1
718	1170	1224	25.0	1202	31.1	1183	37.2																	12	1122	36.3
	1750	1920	38.2	1898	47.4	1879	56.5																	12	1818	54.8
	2050	2280	45.5	2258	56.2	2239	66.9																	12	2178	64.7

PERFORMANCE TABLE: ROOTS Universal URAI

FRAME	SPEED	1 PSI		2 PSI		3 PSI		4 PSI		5 PSI		6 PSI		7 PSI		8 PSI		10 PSI		11 PSI		12 PSI		13 PSI		14 PSI		15PSI		Max. Vacuum		
SIZE	RPM	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	"HG	CFM	BHP
32	1200	37	0.2	30	0.4	24	0.7	20	0.9	16	1.1	12	1.4																	8	15	0,9
	1800	64	0.4	57	0.8	51	1.1	47	1.5	43	1.8	39	2.2	36	2.5	33	2.9	27	3.6											10	35	1.7
	2500	95	0.6	88	1.1	83	1.6	78	2.1	74	2.5	71	3.0	67	3.5	64	4.0	59	5.0	56	5.5	54	6.0	51	6.5					13	56	3.2
	3600	145	0.9	138	1.6	133	2.3	128	3.0	124	3.7	120	4.4	117	5.1	114	5.9	108	7.3	106	8.0	103	8.7	101	9.4	98	10.1	96	10.8	16	93	5.7
33	1200	52	0.3	42	0.6	36	1.0	29.6	1.3	24	1.6	20	1.9																	8	23	1.3
	1800	89	0.5	80	1.0	72	1.5	66.5	1.9	61	2.4	57	2.9	52	3.4	48	3.9	40	4.8											10	51	2.4
	2500	132	0.9	123	1.5	116	2.2	110	2.9	104	3.5	100	4.2	95	4.9	91	5.6	84	6.9	80.4	7.6	77	8.2							13	80	4.3
	3600	200	1.2	190	2.1	183	3.1	177	4.1	172	5.0	167	6.0	163	7.0	159	7.9	152	9.9	148	10.8	145	11.8							15	137	7.3
35	1200	91	0.6	78	1.1	68	1.6	60	2.2	52	2.7	46	3.2	39	3.8															8	50	2.1
	1800	152	0.9	139	1.7	129	2.5	121	3.3	113	4.1	107	4.9	101	5.7															10	99	4.0
	2500	224	1.3	211	2.5	201	3.6	192	4.7	185	5.8	178	6.9	172	8.0															13	150	7.2
	3600	336	2.1	323	3.7	313	5.3	304	6.9	297	8.5	290	10.1	284	11.7															15	248	12.1
42	1200	54	0.3	46	0.6	40	0.9	35	1.3	30	1.6	26	1.9	22	2.2															8	29	1.3
	1800	90	0.6	82	1.0	76	1.5	71	2.0	66	2.5	62	2.9	59	3.4	55	3.9	49	4.8	46	5.3									10	58	2.4
	2500	132	0.8	124	1.5	118	2.2	113	2.8	109	3.5	105	4.1	101	4.8	98	5.5	91	6.8	88	7.4	85	8.1	83	8.8	80	9.4	77	10.1	13	88	4.3
	3600	199	1.4	191	2.4	185	3.3	180	4.3	175	5.2	171	6.2	168	7.1	164	8.1	158	10.0	155	10.9	152	11.9	149	12.8	147	13.8	144	14.7	16	140	7.7
45	1200	111	0.7	97	1.3	86	2.0	77	2.6	69	3.2	61	3.9	55	4.5	49	5.1													8	67	2.5
	1800	184	1.0	170	2.0	159	2.9	150	3.9	142	4.8	134	5.8	128	6.7	121	7.7	110	9.6											10	126	4.7
	2500	268	1.6	254	3.0	243	4.3	234	5.6	226	6.9	219	8.2	212	9.6	206	10.9	195	13.5											13	189	8.6
	3600	402	2.7	387	4.6	377	6.5	367	8.4	359	10.3	352	12.2	345	14.1	339	16.0	328	19.8											16	297	15.4
47	1200	148	0.9	131	1.7	117	2.5	105	3.4	95	4.2	86	5.0	78	5.9															8	92	3.3
	1800	244	1.4	226	2.6	213	3.9	201	5.1	191	6.4	182	7.6	173	8.9															10	171	6.2
	2500	356	2.1	338	3.8	324	5.6	313	7.3	303	9.1	293	10.8	285	12.5															13	255	11.3
	3600	531	3.6	513	6.1	500	8.6	488	11.1	478	13.6	469	16.1	460	18.6															15	410	19.1
53	800	77	0.4	66	0.9	57	1.3	49	1.8	43	2.2	37	2.7	32	3.2															8	41	1.8
	1400	157	0.9	145	1.7	136	2.5	129	3.3	122	4.1	116	4.9	111	5.7	106	6.5	96	8.2	92	9.0	88	9.8							10	109	4.0
	1800	209	1.3	198	2.3	189	3.4	181	4.4	175	5.4	169	6.5	163	7.5	158	8.6	149	10.6	145	11.7	141	12.7	137	13.7	133	14.8			13	144	6.7
	2850	348	2.5	336	4.2	327	5.8	320	7.5	313	9.1	307	10.7	302	12.4	297	14.0	287	17.3	283	18.9	279	20.6	275	22.2	271	23.8	268	25.5	16	262	13.4
56	800	134	0.8	117	1.5	104	2.3	92	3.1	82	3.9	73	4.6	64	5.4	57	6.2													8	79	3.0
	1400	267	1.6	250	2.9	236	4.3	225	5.6	215	6.9	206	8.3	197	9.6	190	11.0	176	13.7	169	15.0	163	16.4	157	17.7					10	195	6.7
	1800	355	2.1	338	3.9	325	5.6	313	7.3	303	9.1	294	10.8	286	12.5	278	14.3	264	17.7	257	19.5	251	21.2	245	22.9					13	257	11.2
	2850	588	4.0	570	6.8	557	9.5	545	12.3	535	15.0	526	17.8	518	20.5	510	23.3	496	28.8	490	31.5	483	34.3	477	37.0					16	457	22.4
59	800	205	1.2	183	2.4	166	3.5	152	4.6	137	5.7	128	6.9	118	8.0															8	136	4.4
	1400	399	2.3	377	4.3	360	6.2	346	8.2	333	10.2	322	12.1	312	14.1															10	309	9.8
	1800	528	3.1	506	5.6	489	8.1	475	10.7	462	13.2	451	15.7	441	18.3															13	404	16.5
	2650	867	5.9	845	9.9	828	13.9	814	18.0	802	22.0	790	26.0	780	30.0															15	718	30.8
65	700	128	0.8	110	1.5	96	2.3	85	3.0	74	3.8	65	4.5	56	5.3	48	6.0													8	71	3.0
	1400	301	1.8	282	3.3	269	4.8	257	6.3	246	7.8	237	9.3	229	10.8	221	12.3	206	15.3	199	16.8	193	18.3	187	19.8	181	21.3			10	226	7.5
	1800	399	2.5	381	4.4	367	6.4	355	8.3	345	10.2	336	12.2	327	14.1	319	16.0	304	19.9	298	21.8	291	23.8	285	25.7	279	27.6	273	29.5	13	297	12.7
	2350	534	3.8	516	6.3	502	8.9	491	11.4	480	13.9	471	16.4	462	18.9	454	21.5	440	26.5	433	29.0	426	31.5	420	34.1	414	36.6	409	39.1	16	400	20.6
68	700	206	1.2	177	2.5	155	3.7	136	4.9	119	6.1	104	7.3	91	8.5															8	115	4.8
	1400	483	2.7	454	5.2	431	7.6	412	10.0	396	12.4	381	14.8	367	17.2	354	19.7	331	24.5	320	26.9	309	29.3	300	31.7	290	34.1			10	363	12.0
	1800	641	3.8	612	6.9	589	10.0	570	13.1	554	16.2	539	19.3	525	22.4	512	25.5	489	31.7	478	34.8	467	37.9	458	41.0	448	44.1			13	477	20.2
	2350	858	5.6	829	9.7	806	13.7	788	17.8	771	21.8	756	26.2	742	29.9	729	34.0	706	42.1	695	46.1	685	50.2	675	54.2	665	58.3			16	642	32.8
615	700	386	2.3	332	4.6	290	6.8	255	9.0	223	11.3																			8	215	8.9
	1400	904	5.0	850	9.5	808	14.0	773	18.5	741	23.0	713	27.5	688	32.1															10	681	22.4
	1800	1200	6.7	1146	12.6	1104	18.4	1069	24.2	1037	30.0	1009	35.8	984	41.6															12	922	34.7
	2350	1607	9.7	1553	17.3	1511	24.8	1476	32.4	1444	40.0	1416	47.6	1391	55.2															13	1300	49.7

Protechs LLC dba
WG MALDEN
PO BOX 196, EAST EARL, PA 17519 TELEPHONE 717.768.0800 FAX 717.768. 0802

November 27, 2018

Don Potteiger
Letterkenny Township
14306 Mountain Road
Orrstown, PA. 17244

Dear Don Potteiger,

W. G. Malden is pleased to have this opportunity to provide you with the following quotation:

1. One (1) 6" palmer bowlus 4D+1 flume with pipe end adaptors and ferncos	**$1,218.00**
2. Installation of flume, conduit, programing, and calibration	**$1485.00**
	$2,703.00

Note: All excavation work by others contact us for what needs to be done

Any extra parts needed, will be an additional cost. Prices are assuming we can use existing conduit if applicable. Prices are valid for 60 days and do not include taxes or shipping and handling charges. Payment terms are net 30. A 1.5% late payment fee will be assessed for payments received after 30 days. Please allow 3-4 weeks delivery after receipt of order.

Sincerely,

Jerry Lawrey
W.G. Malden
SG

_____
Authorizing Signature to Proceed

PO#_____

WE WILL PROCEED ONLY AFTER RECEIPT OF AUTHORIZING SIGNATURE

Ammon, Erick

From: Dwayne DelGrande <ddelgrande@greenetownshipma.com>
Sent: Thursday, December 6, 2018 3:51 PM
To: Ammon, Erick
Cc: Melissa Kibbe; Dave Rahauser (dwr@dwrlaw.us)
Subject: [External] Re: LTMA Air Report
Attachments: LTMA Air Report.pdf

ATTENTION:*This email message is from an external sender. Do not open links or attachments from unknown sources. To report suspicious email, forward the message as an attachment to CWOPA_SPAM@pa.gov.*

Erick

Please see attached report for LTMA.

Please do not hesitate to contact me with any questions or concerns.

Thanks

W. Dwayne DelGrande

Memorandum

Date:	January 25, 2018
To:	PADEP, LTMA Board & Staff
From:	W. Dwayne DelGrande, P.E.
Re:	PADEP Inspection and Notice of Violation (NOV) Dated 1/5/18 – Page 1-9 (attached)

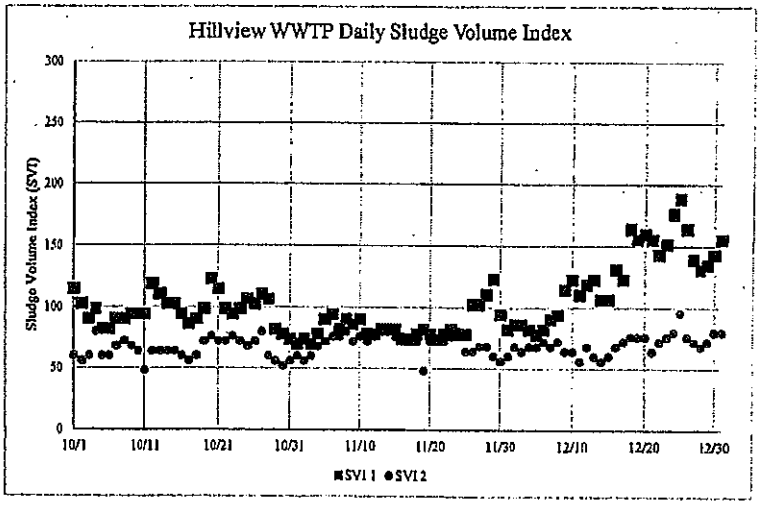
The biosolids deposits observed in the receiving stream channel appear to result from three principal conditions as follows: **1)** excess sludge inventory in the #1 aeration basin, **2)** possible straggler floc[1] and other particles passing through the treatment processes and **3)** extremely low flows in the receiving stream that prohibit effluent mixing and discharge to the main receiving stream. This memorandum describes these problems and their mediation/correction as follows:

Sludge Inventory

Process controls at the facility include the daily monitoring of sludge settleability and the maintenance of an optimum Food to Microorganism (F:M) ratio via daily sludge wasting.

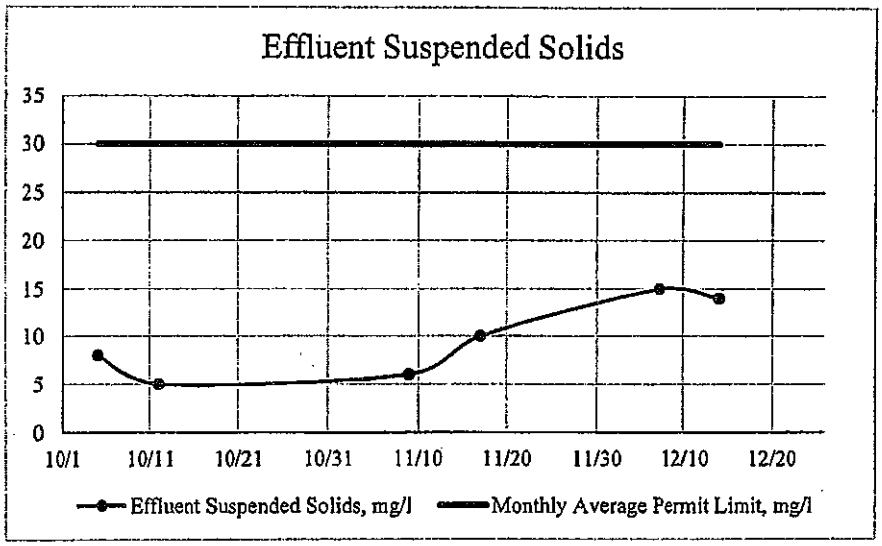
Sludge settleability monitoring and evaluation occurs as follows:

Sludge Volume Index (SVI)[2] – Operations staff conduct daily 30-minute mixed liquor settleability tests. Mixed liquor suspended solids analyses occur twice per month. The operator calculates SVI accordingly. A graphical summary of the resulting SVI for each aeration train for the last three full months appears as follows:



[1] "Straggler floc" – floating or drifting particles (reference activated sludge treatment operations literature)
[2] SVI_{30} = (ml of settled sludge in 30 minutes x 1,000) ÷ (mg/l of suspended matter in mixed liquor).

The graph illustrates that SVI_1 trended upwards and within 150 to 200, historically considered a "range of concern" for most activated sludge plants, a condition that forebodes secondary clarification problems. Effluent suspended solids results for the most recent time period available appear as follows:



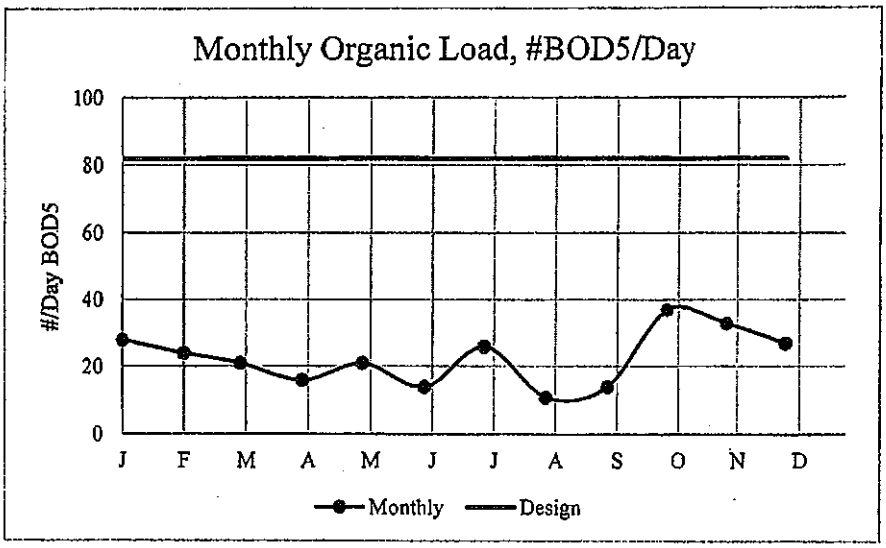
Operators waste sludge manually via air lift pumps actuated by the opening and closing of air line valves. This usually occurs daily. However, operators observed apparent partial and eventually complete freezing of the waste sludge lines from late December until January 13, 2018. The full impact of the freezing upon the sludge wasting effectiveness and effluent suspended solids remains unknown as extreme freezing weather adversely affected wastewater composite-sampling efforts. The chlorine contact tank usually remains free of most settleable solids, as noted within the PADEP inspection report. However, reduced sludge wasting, even for a few days, increases sludge age, while decreasing the Food to Microorganism (F:M)[3] ratio, conditions that can adversely affect effluent suspended solids. Recent more aggressive sludge wasting should improve sludge settlability very quickly.

"Straggler Floc"

The facility possesses 42,000 gallons of extended aeration activated sludge tank capacity. Hydraulic detention time averaged about two days during December 2017, about double the design detention time for extended aeration activated sludge. This flow, combined with low

[3] Commonly expressed as pounds of BOD_5 (five-day biochemical oxygen demand) per pound of MLVSS (mixed liquor volatile suspended solids).

organic loading yields an extreme endogenous (starvation) environment that may manifest straggler floc and other particles of neutral buoyancy. The appearance of "zoogleal" slimes, the greasy-appearing air-entrapped solids that reside on the surface of the final clarifier represents a continuous maintenance challenge at the facility that usually requires daily scum-removal practices. Operations staff routinely remove (skim) and/or break up these solids as they accumulate in the final settling tank. The baffles in the final clarifier usually prevent these particles from escaping from the treatment plant. The following graph illustrates 2017 monthly average organic loading at the facility:



Receiving Stream

The plant outfall discharges to a small tributary, about two hundred feet above the confluence of the effluent water stream and the main receiving stream.

Precipitation in November and December averaged among the lowest recorded for those months in several decades. As noted in the introductory paragraph, low flows inhibit conveyance of the effluent to the receiving stream and thus apparently contributed to the chronic accumulation solids.

The LTMA Board recently authorized their Engineer to arrange for a survey to identify a means of extending the outfall past the confluence point. The timeline of the design, permitting and financing of the outfall extension remains unknown at this writing.

Ammon, Erick

From: Dwayne DelGrande <ddelgrande@greenetownshipma.com>
Sent: Wednesday, October 10, 2018 2:53 PM
To: Ammon, Erick
Cc: Melissa Kibbe; Dave Rahauser (dwr@dwrlaw.us)
Subject: Re: LTMA - Franklin County, PA - COA of 9/10/2018
Attachments: October 2018 COA Memo.pdf; Memorandum of Jan 25 2018 - LTMA Treatment Plant.pdf

Erick

Please see attached memorandums relative to the COA noted above.

Please do not hesitate to contact me with questions or concerns.

W. Dwayne DelGrande

Exhibit “R”

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
FRANKLIN COUNTY, PENNSYLVANIA

RESOLUTION 2018-1

A RESOLUTION OF THE BOARD OF THE LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY AMENDING THE QUARTERLY SEWER CHARGE.

Whereas the Letterkenny Township Municipal Authority (LTMA) reserves the right to adopt, from time to time, modifications, amendments, or supplements as deemed necessary and proper in connection with the use and operation of the Sewer System; and

Whereas increased expenses have deemed it necessary to increase the quarterly sewer charge;

Now, therefore, be it Resolved that the Board representing the Letterkenny Township Municipal Authority (LTMA), Franklin County, Pennsylvania, approves an increase in the quarterly sewer charge from $120.00 per quarter to $135.00 per quarter, effective January 1, 2019.

Resolved and enacted this 25th day of September, 2018.

ATTEST:

Melissa W Kibbe
Melissa W Kibbe, Secretary

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY BOARD

Charles D Myers
Charles Myers, Chairman

Lance R. Norton
Lance Norton, Vice Chairman

Barry Atherton
Barry Atherton

Donald E. Potteiger
Donald Potteiger

Wanda J. Stouffer
Wanda Stouffer

Exhibit “R-1”

4-15-19
Audited
OS 4/4/MRS

Letterkenny Township Municipal Authority
Board Meeting
September 25, 2018

PRESENT WERE:
Atherton, Myers, Norton, Potteiger, Stouffer Secretary: Kibbe

The regular monthly meeting of the Letterkenny Township Municipal Authority was held on September 25, 2018. The meeting was called to order at 8:15 p.m. by Chairman Myers.

The minutes of August 28, 2018, were approved by the Board following a motion by Norton, seconded by Potteiger. Paying the bills as listed was approved by the board following a motion by Stouffer, seconded by Norton. The Treasurer's Report was approved by the Board following a motion by Atherton, seconded by Norton.

Report on Delinquent Accounts
-The Board reviewed the list. No action needed.

Information and Discussion Items
-The recent Consent Order from DEP was fully executed.

Action Items
-Following a motion by Norton, seconded by Atherton, the Board unanimously gave permission for Jay Fisher to run a lateral line from 13280 Cumberland Hwy to connect to the main sewer line as long as he obtains an easement from Brad and Tracey Hare at 10034 Cardinal Drive to run through their property.
-Following a motion by Norton, seconded by Potteiger, the Board unanimously agreed to raise the sewer rate to $135.00 per quarter for each connection beginning January 1, 2019.
-Following a motion by Norton, seconded by Potteiger, the Board unanimously agreed to advertise for a new treatment plant operator by posting signs throughout the township as opposed to advertising in the newspaper.
-Following a motion by Potteiger, seconded by Atherton, the Board unanimously agreed to sell the treatment plant and immediately proceed with process.

There being no further business, the meeting adjourned at 9:25 p.m. following a motion by Stouffer, seconded by Potteiger.

Respectfully submitted,
Melissa W Kibbe

Melissa W Kibbe
Secretary/Treasurer

Exhibit “R-2”

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
FRANKLIN COUNTY, PENNSYLVANIA

RESOLUTION 2016-1
AMENDING RESOLUTION 1981-1

A RESOLUTION OF THE BOARD OF THE LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY AMENDING THE TAPPING FEE, SEWER CHARGES, AND BILLING CYCLE FOR SEWER SERVICE PROVIDED BY THE LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY.

Whereas the Letterkenny Township Municipal Authority (LTMA) reserves the right to adopt, from time to time, modifications, amendments, or supplements as deemed necessary and proper in connection with the use and operation of the Sewer System; and

Whereas expenses related to monthly billing and Treatment Plant operations and maintenance have increased dramatically;

Now, therefore, be it Resolved that the Letterkenny Township Municipal Authority (LTMA):

1. establishes the Tapping Fee as $3,500 and the Facilities Fee as $75 for each Dwelling Unit; and

2. sets the sewer charge as $120 per quarter for each Dwelling Unit, to be billed quarterly, on or about the fifteenth day of the second month in each quarter and due to be paid by the fifteen day of the third month in each quarter.

Resolved and enacted this 26th day of July, 2016.

ATTEST:

Melissa W Kibbe
Melissa W Kibbe, Secretary

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY BOARD

Charles D. Myers
Charles Myers, Chairman

Lance N Norton
Lance Norton, Vice Chairman

Barry Atherton
Barry Atherton

Donald E Potteiger
Donald Potteiger

Wanda J Stouffer
Wanda Stouffer

Exhibit “T-1”

File

Pennsylvania Department of Environmental Protection
1331 South Seventh Street, Suite 6
Chambersburg, PA 17201-3852
August 25, 2003

Office: 717-267-3364
Fax: 717-267-3740

Chambersburg District Office

Letterkenny Township Supervisors
c/o Joann Wright
4924 Orrstown Rd.
Orrstown, PA 17244

Re: Act 537 Planning
APS ID No. 332770
DEP Code No. A1-28910-ACT
Letterkenny Township, Franklin County

Ladies and Gentlemen:

The Department of Environmental Protection (Department) has reviewed your March 2003 Act 537 Plan, submitted March 29, 2003, prepared by Martin and Martin, Inc., and entitled Act 537 Official Sewage Facilities Plan for Letterkenny Township, Franklin County, Pennsylvania. The Department's review period has exceeded regulatory limits and the submission is deemed approved pursuant to Chapter 71, Section 71.32(c) of the rules and regulations of the Department.

The plan provides for an agreement with the Cumberland Franklin Joint Municipal Authority to extend sewer services to the areas of Pleasant Hall and Upper Strasburg. The plan also provides for maintenance of on-lot sewage disposal systems and requirements for preliminary hydrogeologic evaluations for new subdivisions in areas with existing or potential nitrate problems.

The plan is approved with the following conditions:

1. The approved project will require a Clean Streams Law (CSL) permit for the construction and operation of the proposed sewerage facilities. The permit application must be submitted in the name of the Authority. Approval of this planning module is only approval of the preliminary concept of the proposed

project and does not assure that a permit application will be acted upon favorably by the Department. Issuance of a CSL permit will be based upon a technical evaluation of the permit application and supporting information. Starting construction prior to obtaining a permit is a violation of The Clean Streams Law.

2. Instructions and applications may be obtained from the Department of Environmental Protection, Southcentral Regional Office, Water Management Program, 909 Elmerton Ave., Harrisburg, PA 17110-8200.

3. Other Department permits may be required for construction if encroachment to streams or wetlands will result. Information regarding the requirements for such permits or approvals can be obtained from the Department's Soils and Waterways Section, Water Management Program, Southcentral Regional Office, 909 Elmerton Ave., Harrisburg, PA 17110-8200, telephone 717-705-4707.

4. Following final municipal adoption, copies of the Holding Tank, Privy, OLDS Management, and any other ordinances associated with the implementation of your plan must be submitted to the Chambersburg District Office.

It is now Letterkenny Township's's responsibility to implement the 537 Plan in accordance with the schedules contained within the Plan.

Since the Department has approved your Plan, you are now eligible to receive a 50 percent planning cost reimbursement as provided under Section 6 of the Sewage Facilities Act (Act 537). A copy of the reimbursement application is enclosed. You are reminded that reimbursement applications must show detailed cost breakdowns of tasks completed or you will place your reimbursement in jeopardy.

Any person aggrieved by this action may appeal, pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. Section 7514, and the Administrative Agency Law, 2 Pa. C.S. Chapter 5A, to the Environmental Hearing Board, Second Floor, Rachel Carson State Office Building, 400 Market Street, PO Box 8457, Harrisburg, PA 17105-8457, 717-787-3483. TDD users may contact the Board through the Pennsylvania Relay Service, 800-654-5984. Appeals must be filed with the Environmental Hearing Board within 30 days of receipt of written notice of this action unless the appropriate statute provides a different time period. Copies of the appeal form and the Board's rules of practice and procedure may be obtained from the Board. The appeal form and the Board's rules of practice and procedure are also available in braille or on audiotape from the Secretary to the Board at 717-787-3483. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST REACH THE BOARD WITHIN 30 DAYS. YOU DO NOT NEED A LAWYER TO FILE AN APPEAL WITH THE BOARD.

IMPORTANT LEGAL RIGHTS ARE AT STAKE, HOWEVER, SO YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD (717-787-3483) FOR MORE INFORMATION.

If you have any questions, please contact me at the letterhead address or telephone number.

Sincerely,

Michael C. McNulty
Sewage Planning Specialist
Water Management Program

cc: Martin and Martin, Inc.
Cumberland-Franklin Joint Municipal Authority
Franklin County Planning Commission
Dennis E. Black Engineering, Inc.

ACT 537

OFFICIAL SEWAGE FACILITIES PLAN

FOR

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

REVISED:
MARCH 2003

PREPARED BY:

MMI martin and martin incorporated
37 south main street • suite A
chambersburg, pennsylvania . 17201
phone: (717) 264-6759

Commonwealth of Pennsylvania
Department of Environmental Protection
Bureau of Water Quality Protection

ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

For specific details covering Act 537 planning requirements, refer to Chapters 71 and 73 of the Department's Regulations.

Municipality: Letterkenny Township County: Franklin

Local Municipal Contact Official: Charles Myers

Telephone Number of Official: 717-532-8716

Consultant: Martin and Martin, Inc.

Consultant's Telephone Number: 717-264-6759

Consultant's Contact Person: Scott Shildt

Title of Submission: Letterkenny Township Act 537 Plan Revision

Date Submitted: **March 29, 2003**

About this checklist.....

* These pages replace pages I-13 to I-26 in DEP publication 3640-BK-DER1480 11/92. "A Guide For Preparing Act 537 Update Revisions -- November 1992" (Planning Guide). Do not use checklist pages in that publication. These pages will appear in future versions of that publication.

* You must complete and attach this checklist when you submit the Plan to the Department for review and approval.

* This checklist is composed of two parts, one for Administrative Completeness and one for General Plan Content. A Plan must be "administratively complete" in order to be formally reviewed and approved by the Department. The General Plan Content checklist identifies each of the issues which must be addressed in your Act 537 Plan Update based on a pre-planning meeting between you and/or your consultant and the Department. The Administrative Completeness checklist is found on Pages I-14 and I-15. The General Content checklist is found on Pages I-16 through I-26. PENNVEST funded or applicant plans must address planning requirements on Pages I-27 through I-29.

* You must use the right-hand column blanks in the checklist to identify the page in the Plan on which each planning issue is found or reference a previously approved update or special study (title and page number.)

* If you determine a planning issue is not applicable even though it was previously thought to be needed, please explain your decision within the text of the Plan (or as a footnote) and indicate the page number where this documentation is found.

Submit three (3) copies of the Plan, any attachments or addenda, and this checklist to the Department.

ADMINISTRATIVE COMPLETENESS CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	In addition to the main body of the Plan, the Plan must include items 1 through 8 listed below to be accepted for formal review by the Department. Incomplete Plans will be returned unless the municipality is clearly requesting an advisory review, only.
____	iv	1. Table of Contents
		2. Plan Summary
____	v	A. Identify the proposed service areas and major problems evaluated in the Plan. (Reference - Title 25, §71.21.a.7.i)
____	v	B. Identify the alternative(s) chosen to solve the problems and serve the areas of need identified in the plan. Also, include any institutional arrangements necessary to implement the chosen alternative(s). (Reference Title 25 §71.21.a.7.ii)
____	v	C. Present the estimated cost of implementing the proposed alternative (including the user fees) and the proposed funding method to be used. (Reference Title 25, §71.21.a.7.ii)
____	v	D. Identify the municipal commitments necessary to implement the Plan. (Reference Title 25, §71.21.a.7.iii)
____	v	E. Provide a schedule of implementation for the project which identifies the MAJOR milestones with dates necessary to accomplish the project to the point of operational status. (Reference Title 25, § 71.21.a.7.iv)
____	Appendix A	3. Original, signed and sealed Resolution of Adoption by the Municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. (Reference Title 25, §71.31.f) Section V.F. of the Planning Guide.
____	Appendix A	4. Evidence that the municipality has requested, reviewed, and considered comments by appropriate official planning agencies of the municipality, planning agencies of the county, planning agencies with areawide jurisdiction (where applicable), and any existing county or joint county departments of health. (Reference-Title 25, §71.31.b) Section V.E.1 of the Planning Guide.
____	Appendix A	5. Proof of Public Notice which documents the proposed plan adoption, plan summary, and the establishment and uncontested conduct of a 30 day comment period. (Reference-Title 25, §71.31.c) Section V.E.2 of the Planning Guide.
____	Appendix A	6. Copies of ALL written comments received and municipal response to EACH comment in relation to the proposed plan. (Reference-Title 25, §71.31.c) Section V.E.2 of the Planning Guide.
____	vi	7. A complete project implementation schedule with milestone dates specific for each existing and future area of need. Other activities in the project implementation schedule should be indicated as occurring a finite number of days from a major milestone. (Reference-Title 25, §71.31.d) Section F of the Planning Guide. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference Title 25, §71.21.b)

DEP Use Only	Indicate Page #(s) in Plan	In addition to the main body of the Plan, the Plan must include items 1 through 8 listed below to be accepted for formal review by the Department. Incomplete Plans will be returned unless the municipality is clearly requesting an advisory review, only.
____	vi	8. Documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements in 71.21.(a)(5)(i-iii). (Reference-Title 25, §71.31.e) Appendix B of the Planning Guide .

GENERAL PLAN CONTENT CHECKLIST

DEP Use Only	Indicate Page#(s) In Plan	Item Required
		I. Previous Wastewater Planning
		A. Identify and briefly analyze all existing wastewater planning that:
____	1-2	1. Has been previously undertaken under the Sewage Facilities Act (Act 537). (Reference-Act 537, Section 5 §d.1)
____	2	2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference-Title 25, §71.21.a.5.i.A-D) Section V.F of the Planning Guide.
____	2	3. Is anticipated or planned by applicable sewer authorities. (Reference-Title 25, §71.21.a.5.i.A) Section V.D. of the Planning Guide.
____	2	4. Has been done through planning modules for new land development, planning "exemptions" and addenda. (Reference-Title 25, §71.21.a.5.i.A).
		B. Identify and briefly summariezes all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:
____	2-3	1. All land use plans and zoning maps which identify residential, commercial, industrial, agricultural, recreational, and open space areas. (Reference-Title 25, §71.21.a.3.iv).
____	3	2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference-Title 25 §71.21.a.3.iv).
____	3	3. All limitations and plans related to floodplain and stormwater management and special protection (Ch. 93) areas. (Reference-Title 25 §71.21.a.3.iv) Appendix B, Section II.F of the Planning Guide.
		II. **Physical and Demographic Analysis utilizing written description and mapping** (All items listed below require MAPS, and all maps should show all current lots and structures and be of appropriate scale to clearly show significant information).
____	4	A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference-Title 25, §71.21.a.1.i).
____	4	B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference-Title 25, §71.21.a.1.ii).
____	4-5	C. Soils - Analysis with description by soil type and soils mapping. Show areas suitable for in-ground on-lot systems, elevated sand mounds, individual residential spray irrigation systems, and areas unsuitable for soil dependent systems. (Reference-Title 25, §71.21.a.1.iii). Show Prime Agricultural Soils and any locally protected agricultural soils. (Reference-Title 25, §71.21.a.1.iii).

DEP Use Only	Indicate Page #(s) In Plan	Item Required
	5-6	D. Geologic Features - Identification through analysis, mapping and their relation to existing or potential nitrate-nitrogen pollution and drinking water sources. Include areas where existing nitrate-nitrogen levels are in excess of 5 mg/l. (Reference-Title 25, §71.21.a.1.iii).
	6	E. Topography - Depict slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds; slopes that are unsuitable for on-lot systems. (Reference-Title 25, §71.21.a.1.ii).
	6	F. Potable Water Supplies - Identification through mapping, description and analysis to include available public water supply capacity and aquifer yield for groundwater supplies. (Reference-Title 25 §71.21.a.1.vi) Section V.C. of the Planning Guide.
	6	G. Wetlands-Identify wetlands as defined in Title 25, Chapter 105 by description, analysis and mapping. Include National Wetland Inventory mapping and potential wetland areas per USDA, SCS mapped hydric soils. Proposed collection, conveyance and treatment facilities and lines must be located and labeled, along with the identified wetlands, on the map. (Reference-Title 25,§71.21.a.1.v) Appendix B, Section II.I of the Planning Guide.
		III. Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs
		A. Identify, map and describe municipal and nonmunicipal, individual and community sewerage systems in the planning area including:
	7	1. Location, size and ownership of treatment facilities, main intercepting lines, pumping stations and force mains including their size, capacity, point of discharge. Also include the name of the receiving stream, drainage basin, and the facility's effluent discharge requirements. (Reference-Title 25, §71.21a.2.i.A)
	7	2. A narrative and schematic diagram of the facility's basic treatment processes including the facility's NPDES permitted capacity, and the Clean Streams Law permit number. (Reference-Title 25, §71.21.a.2.i)
	8	3. A description of problems with existing facilities (collection, conveyance and/or treatment), including existing or projected overload under Title 25, Chapter 94 (relating to municipal wasteload management) or violations of the NPDES permit, Clean Streams Law permit, or other permit, rule or regulation of the Department. (Reference-Title 25, §71.21.a.2.i.B)
	8	4. Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. Discuss any remaining reserve capacity and the policy concerning the allocation of reserve capacity. Also discuss the compatibility of the rate of growth to existing and proposed wastewater treatment facilities. (Reference-Title 25,§71.21.a.4.i & ii)
	8	5. A detailed description of operation and maintenance requirements of the municipality for on-lot systems and the status of past and present compliance with these requirements and any other requirements relating to sewage management programs. (Reference-Title 25, §71.21.a.2.i.C)

DEP Use Only	Indicate Page #(s) In Plan	Item Required
___	8	6. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference-Title 25, §71.21.a.4.i & ii)
		B. Using DEP's manual titled "Sewage Disposal Needs Identification Guidance," identify, map and describe areas that utilize individual and community on-lot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:
___	9	1. The types of systems in use. (Reference-Title 25, §71.21.a.2.ii.A).
___	9-10	2. A sanitary survey complete with a description of documented and potential public health pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Sewage Facilities Act, the Clean Stream Law or regulations promulgated thereunder. (Reference-Title 25, §71.21.a.2.ii.B).
___	10-11	3. A comparison of the types of on-lot sewage systems installed in an area with the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations sewage flows, and Title 25 Chapter 73 (relating to standards for sewage disposal facilities). (Reference-Title 25, §71.21.a.2.ii.C).
___	11-15	4. An individual water supply survey to identify possible contamination by malfunctioning on-lot sewage disposal systems consistent with the DEP Sewage Disposal Needs Identification Guidance manual. (Reference-Title 25 §71.21.a.2.ii.B)
		C. Identify wastewater sludge and septage generation, transport, and disposal methods. Include this information in the sewage facilities alternative analysis including:
___	15	1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference-Title 25 §71.71)
___	15	2. Quantities of the types of sludges or septage generated. (Reference-Title 25 §71.71).
___	15	3. Present disposal methods, locations, capacities, and transportation methods. (Reference-Title 25 §71.71).
		IV. Future Growth and Land Development
		A. Delineate and describe the following through map, text and analysis:
___	15	1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of EDU's in development, total number of EDU's currently developed, and total number of EDUs remaining to be developed (include time schedule for EDU's remaining to be developed). (Reference-Title 25, §71.21.a.3.i).
___	15	2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference-Title 25,§71.21.a.3.ii). Include a comparison of proposed land use as allowed by zoning and existing sewage facility planning (Reference-Title 25, §71.21.a.3.iv).

DEP Use Only	Indicate Page #(s) In Plan	Item Required
____	15	3. Future growth areas with population and EDU projections for these areas using historical, current and future population figures and projections of the municipality. Discuss and evaluate discrepancies between local, county, state and federal projections as they relate to sewage facilities. (Reference-Title 25, §71.21.a.1.iv). (Reference-Title 25, §71.21.a.3.iii).
____	16	4. Zoning, and/or subdivision regulations; local, county or regional omprehensive plans; and existing plans of a Commonwealth agency relating to the development, use and protection of land and water resources with special attention to: (Reference-Title 25, §71.21.a.3.iv) --public ground/surface water supplies --recreational water use areas --groundwater recharge areas --industrial water use --wetlands
____	16	5. Sewage planning to provide adequate wastewater treatment for the municipality. This planning must be related to both the five and ten year future planning periods and be based on growth impacts on existing and proposed wastewater collection and treatment facilities. (Reference-Title 25, §71.21.a.3.v)
		V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities
		A. Conventional collection, conveyance, treatment, and discharge alternatives including:
____	16-17	1. The potential for regional wastewater treatment. (Reference-Title 25, §71.21.a.4).
____	17	2. The potential for extension of existing municipal or non-municipal sewage facilities to areas in need of new or improved sewage facilities. (Reference-Title 25, §71.21.a.4.i)
____	17	3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following: (Reference-Title 25, §71.21.a.4.ii).
____	17	a. Repair. (Reference-Title 25, §71.21.a.4.ii.A)
____	17	b. Upgrading. (Reference-Title 25, §71.21.a.4.ii.B)
____	17	c. Reduction of hydraulic or organic loading to existing facilities. (Reference-Title 25, §71.71)
____	17	d. Improved operation and maintenance. (Reference-Title 25, §71.21.a.4.ii.C)
____	17	e. Other applicable actions that will resolve or abate the identified problems. (Reference-Title 25, §71.21.a.4.ii.D).
____	17	4. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference-Title 25, §71.21.a.4.iii).

DEP Use Only	Indicate Page #(s) In Plan	Item Required
____	17	5. Repair or replacement of collection and conveyance system components. (Reference-Title 25, §71.21.a.4.ii.A).
____	18	6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities. (Reference-Title 25, §71.21.a.4.ii.B).
		B. The use of individual sewage disposal systems including individual residential spray irrigation systems based on:
____	18	1. Soil and slope suitability. (Reference-Title 25, 71.21.a.2.ii.C)
____	18	2. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.21.a.2.ii.C)
____	18	3. The establishment of a sewage management program. (Reference-Title 25, §71.21.a.4.iv). See also Part "F" below.
____	18	4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for on-lot disposal considering: (Reference-Title 25, §71.21.a.4).
____	18	a. Existing technology and sizing requirements of Title 25 Chapter 73. (Reference-Title 25,§73.31-73.72).
____	18	b. Use of expanded absorption areas or alternating absorption areas. (Reference-Title 25,§73.16.
____	18	c. Use of water conservation devices. (Reference-Title 25, §71.73.b.2.iii).
		C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes based on: (Reference-Title 25, §71.64.d).
____	18	1. Treatment and discharge requirements. (Reference-Title 25, §71.64.d).
____	18	2. Soil suitability. (Reference-Title 25, §71.64.c.l).
____	18	3. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.64.c.3).
____	18	4. Agency or other controls over operation and maintenance requirements. (Reference-Title 25, §71.64.d). See Part "F" below.
		D. The use of community land disposal alternatives including:
____	18	1. Soil and site suitability. (Reference-Title 25, 71.21.a.2.ii.C)
____	18	2. Preliminary hydrogeologic evaluation. (Reference-Title 25, 71.21.a.2.ii.C)
____	18	3. Controls over operation and maintenance requirements through a Sewage Management Program (Reference-Title 25, 71.21.a.2.ii.C). See Part "F" below.
____	18	4. The rehabilitation or replacement of existing malfunctioning community land disposal systems. (See Part V, B, 4, a, b, c above). See also Part "F" below.

DEP Use Only	Indicate Page #(s) In Plan	Item Required
		E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference- Title 25, §71.21.a.4).
	19	1. Commercial, residential and industrial use. (Reference-Title 25, §71.63.e).
	19	2 Designated conveyance facilities (pumper trucks). (Reference-Title 25, §71.63.b.2).
	19	3. Designated treatment facilities or disposal site. (Reference-Title 25, 71.63.b.2).
	19	4. Implementation of a retaining tank ordinance by the municipality. (Reference-Title 25, §71.63.b.2). See Part "F" below
	19	5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure.(Reference-Title 25, §71.63.c.2).
		F. Sewage management programs to assure the future operation and maintenance of existing and proposed sewage facilities through:
	19	1. Municipal ownership or control over the operation and maintenance of individual on-lot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference-Title 25, §71.21.a.4.iv)
	19	2. Requiried inspection of sewage disposal systems on a schedule established by the municipality. (Reference-Title 25, §71.73.b.1.)
	20	3. Required maintenance of sewage disposal systems including septic and aerobic treatment tanks and other system components on a schedule established by the municipality. (Reference-Title 25, §71.73.b.2)
	20	4. Repair, replacement or upgrading of malfunctioning on-lot sewage systems. (Reference-Title 25, §71.21.a.4.iv) through:
		a. Aggressive pro-active enforcement of ordinances which require operation and maintenance and prohibit malfunctioning systems. (Reference-Title 25, §71.73.b.5)
		b. Public education programs to encourage proper operation and maintenance and repair of sewage disposal systems.
	20	5. Establishment of joint municipal sewage management programs. (Reference-Title 25, §71.73.b.8)
	20	6. Requirements for bonding, escrow accounts, management agencies or associations to assure operation and maintenance for non-municipal facilities. (Reference-Title 25, §71.71)

DEP Use Only	Indicate Page #(s) In Plan	Item Required
		G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including: (Reference-Title 25, §71.21.a.4)
		1. Modification of existing comprehensive plans involving:
____	20	a. Land use designations. (Reference-Title 25, §71.21.a.4)
____	20	b. Densities. (Reference-Title 25, §71.21.a.4)
____	20	c. Municipal ordinances and regulations. (Reference-Title 25, §71.21.a.4)
____	20	d. Improved enforcement. (Reference-Title 25, §71.21.a.4)
____	20	e. Protection of drinking water sources. (Reference-Title 25, §71.21.a.4)
____	20	2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development. (Reference-Title 25, §71.21.a.4)
____	21	3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal which consider lot sizes and protection of replacement areas. (Reference-Title 25, §71.21.a.4)
____	21	4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference-Title 25, §71.21.a.4)
		H. A no-action alternative which includes discussion of both short-term and long-term impacts on: (Reference-Title 25, §71.21.a.4).
____	21	1. Water Quality/Public Health. (Reference-Title 25, §71.21.a.4).
____	21	2. Growth potential (residential, commercial, industrial). (Reference-Title 25, 71.21.a.4).
____	21-22	3. Community economic conditions. (Reference-Title 25, 71.21.a.4)
____	22	4. Recreational opportunities. (Reference-Title 25, §71.21.a.4)
____	22	5. Drinking water sources. (Reference-Title 25, §71.21.a.4)
____	22	6. Other environmental concerns. (Reference-Title 25, 71.21.a.4)
		VI. Evaluation of Alternatives
		A Technically feasible alternatives identified in Section V of this checklist must be evaluated for consistency with respect to the following: (Reference-Title 25, §71.21.a.5.i.A)
____	22	1. Applicable plans developed and approved under Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act (33 U.S.C.A. 1288). (Reference-Title 25, §71.21.a.5.i.A) Appendix B, Section II.A of the Planning Guide.
____	22	2. Municipal wasteload management plans developed under PA Code, Title 25, Chapter 94. Reference-Title 25, §71.21.a.5.i.B) The municipality's recent Wasteload Management (Chapter 94) Reports should be examined to determine if the proposed alternative is consistent with the recommendations and findings of the report. Appendix B, Section II.B of the Planning Guide.

DEP Use Only	Indicate Page #(s) In Plan	Item Required
____	22	3. Plans developed under Title II of the Clean Water Act (33 U.S.C.A. 1281-1299) or Title II and Titles II and VI of the Water Quality Act of 1987 (33 U.S.C.A 1251-1376). (Reference-Title 25, §71.21.a.5.i.C) Appendix B, Section II.E of the Planning Guide.
____	23	4. Comprehensive plans developed under the Pennsylvania Municipalities Planning Code. (Reference-Title 25, §71.21.a.5.i.D) The municipality's comprehensive plan must be examined to assure that the proposed wastewater disposal alternative is consistent with land use and all other requirements stated in the comprehensive plan. Appendix B, Section II.D of the Planning Guide.
____	23	5. Antidegradation requirements as contained in PA Code, Title 25, Chapters 93, 95 and 102 (relating to water quality standards, wastewater treatment requirements and erosion control) and the Clean Water Act. (Reference-Title 25, §71.21.a.5.i.E) Appendix B, Section II.F of the Planning Guide.
____	23	6. State Water Plans developed under the Water Resources Planning Act (42 U.S.C.A. 1962-1962 d-18). (Reference-Title 25, §71.21.a.5.i.F) Appendix B, Section II.C of the Planning Guide.
____	23	7. Pennsylvania Prime Agricultural Land Policy contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. Provide narrative on local municipal policy and an overlay map on prime agricultural soils. (Reference-Title 25, §71.21.a.5.i.G) Appendix B Section II.G of the Planning Guide.
____	23	8. County Stormwater Management Plans approved by the Department under the Storm Water Management Act (32 P.S. 680.1-680.17). (Reference-Title 25, §71.21.a.5.i.H) Conflicts created by the implementation of the proposed wastewater alternative and the existing recommendations for the management of stormwater in the County Stormwater Management Plan must be evaluated and mitigated. If no plan exists, no conflict exists. Appendix B, Section II.H of the Planning Guide.
____	23	9. Using wetland mapping developed under Section II.A.7, identify and discuss mitigative measures including the need to obtain permits for any encroachments on wetlands from the construction or operation of any proposed wastewater facilities. Appendix B, Section II.I of the Planning Guide.
____	23	10. Protection of rare, endangered or threatened plant and animal species as identified by the Pennsylvania Natural Diversity Inventory (PNDI). (Reference-Title 25, §71.21.a.5.i.J) Provide the Department with a copy of the completed Request For PNDI Search document. Also provide a copy of the response letter from the Department of Conservation and Natural Resources' Bureau of Forestry regarding the findings of the PNDI search. Appendix II.J.
____	24	11. Historical and archaeological resource protection under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission. (Reference-Title 25, §71.21.a.5.i.K) Provide the Department with a completed copy of a Cultural Resource Notice request to the Bureau of Historic Preservation (BHP) to provide a listing of known historical sites and potential impacts on known

DEP Use Only	Indicate Page #(s) In Plan	Item Required
		archaeological and historical sites. Also provide a copy of the response letter from the BHP. Appendix B, Section II.K of the Planning Guide.
	24	B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting a letter from the appropriate agency stating that the agency has received, reviewed, and concurred with the resolution of identified inconsistencies. (Reference-Title 25, §71.21.a.5.ii) Appendix B of the Planning Guide.
	24-25	C. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference-Title 25, §71.21.a.5.iii).
	25-58	D. Provide cost estimates using present worth analysis for construction, financing, on going administration, operation and maintenance and user fees for alternatives identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within five (5) years from the date of plan submission. (Reference-Title 25, §71.21.a.5.iv).
	58	E. Provide an analysis of the funding methods available to finance the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within five years from the date of the plan submission. (Reference-Title 25, §71.21.a.5.v).
		F. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference-Title 25, §71.21.a.5.vi).
	58	1. A description of any activities necessary to abate critical public health hazards pending completion of sewage facilities or implementation of sewage management programs. (Reference-Title 25, §71.21.a.5.vi.A)
	58	2. A description of the advantages, if any, in phasing construction of the facilities or implementation of a sewage management program justifying time schedules for each phase. (Reference-Title 25, §71.21.a.5.vi.B)
	58	G. Evaluate administrative organizations and legal authority necessary for Plan implementation. (Reference - Title 25, §71.21.a,5,vi,D.)
		VII. Institutional Evaluation
		A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including:
	58	1. Financial and debt status. (Reference-Title 25, §71.61.d.2)
	59	2. Available staff and administrative resources. (Reference-Title 25, §71.61.d.2)

DEP Use Only	Indicate Page #(s) In Plan	Item Required
		3. Existing legal authority to:
____	59	a. Implement wastewater planning recommendations. (Reference-Title 25, §71.61.d.2)
____	59	b. Implement system-wide operation and maintenance activities. (Reference-Title 25, §71.61.d.2)
____	59	c. Set user fees and take purchasing actions. (Referernce-Title 25, §71.61.d.2)
____	59	d. Take enforcement actions against ordinance violators. (Reference-Title 25, §71.61.d.2)
____	59	e. Negotiate agreements with other parties. (Reference-Title 25, §71.61.d.2)
____	59	f. Raise capital for construction and operation and maintenance of facilities. (Reference-Title 25,§71.61.d.2)
		B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:
____	59	1. Need for new municipal departments or municipal authorities. (Reference-Title 25, §71.61.d.2)
____	59	2. Functions of existing and proposed organizations (sewer authorities, on-lot maintenance agencies, etc.). (Reference-Title 25, §71.61.d.2)
____	59	3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference-Title 25, §71.61.d.2)
		C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:
____	59	1. Incorporation of authorities or agencies. (Reference-Title 25, §71.61.d.2)
____	59	2. Development of all required ordinances, regulations, standards, and inter-municipal agreements. (Reference-Title 25, §71.61.d.2)
____	59	3. Description of activities to provide rights-of-way, easements, and land transfers. (Reference-Title 25,§71.61.d.2)
____	59	4. Adoption of other municipal sewage facilities plans. (Reference-Title 25, §71.61.d.2)
____	60	5. Any other legal documents. (Reference-Title 25, §71.61.d.2)
____	60	6. Dates or timeframes for items 1-5 above on the project's implementation schedule.

DEP Use Only	Indicate Page #(s) In Plan	Item Required
	60	D. Identify the chosen institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference-Title 25, §71.61.d.2)

VIII. **Justification for Selected Technical & Institutional Alternatives**

A. Identify the technical wastewater disposal alternative which best meets the wastewater treatment needs of each study area of the municipality. Justify the choice by providing documentation which shows that it is the best alternative based on:

	60	1. Existing wastewater disposal needs. (Reference-Title 25, §71.21.a.6)
	60	2. Future wastewater disposal needs. (5 and 10 years growth areas). (Reference-Title 25, §71.21.a.6)
	60	3. Operation and maintenance considerations. (Reference-Title 25, §71.21.a.6)
	60	4. Cost-effectiveness. (Reference-Title 25, §71.21.a.6)
	61	5. Available management and administrative systems. (Reference-Title 25, §71.21.a.6)
	61	6. Available financing methods. (Reference-Title 25, §71.21.a.6)
	61	7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference-Title 25, §71.21.a.6)
	61	B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan.

PENNVEST I.D. No. _____

ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS

Municipalities that propose to implement their official sewage facilities plan updates with PENNVEST funds must meet five additional requirements to be eligible for such funds. All requirements except No. 1, pertaining to Environmental Impact Assessment, are outside the scope of Act 537planning process. and must be complete independently. Note that several of these requirements are part of the design, construction, or post-construction phases of projects.

DEP Use Only	Plan Page No.	Item Required
_____	_____	1. Environmental Impact Assessment. (Planning phase) (Title 25 PA Code Chapter 963; 40 CFR, part 6) An environmental impact assessment must be prepared, which describes the project's positive and negative consequences, and the mitigative steps to be taken for unavoidable negative consequences, for the categories listed below. Items a, b, c, e and g of the Environmental Impact Assessment requirement are eligible for Act 537 grant participation to the extent of identification of a potential impact. Studies required to determine impact, to mitigate participation. Such studies may be eligible for PENNVEST funding. Items d, f, h, i, j,k and l are not required by Chapter 71, but may be eligible for Act 537 grant participation. a. Historical and Archaeological Sites b. Wetlands c. Endangered and Protected Species d. Air Quality e. Floodplains f. Fish and Wildlife g. Agricultural Lands h. Wild and Scenic Rivers i. Coastal Zone Management j. Socio-Economic Impacts k. Water Supplies l. Other Environmentally Sensitive Areas
_____	_____	2. Value engineering (Design phase) (Title 25 PA Code Chapter 963) 43 P.S. 165, P.L. 987 of August 15, 1961, as amended) Sponsors of PENNVEST projects with estimated costs for treatment works in excess of $5 million must contact PENNVEST to determine if value engineering will be required. See Appendix N of the Planning Guide
_____	_____	3. Civil Rights (Design/Construction Phase) (Title XI, Section 13, 40 CFR, Part 7). Projects must provide that no person shall be subject to discrimination. See Appendix N for guidance.
_____	_____	4. Minority Business Enterprise/Women's Business Enterprise. (Design/Construction Phase) (PA Executive Order 1996-8; Federal executive orders 11625 and 12138) Minority and Women's Business must be solicited. See Appendix N for guidance.
_____	_____	5. Initiation of Operation/Performance Certification (Post-construction phase) (Title 25 PA Code Chapter 963) The project facilities must be certified to function properly. See Appendix N of the Planning Guide.

I/A TECHNOLOGIES

PARTIAL LISTING OF INNOVATIVE AND ALTERNATIVE TECHNOLOGIES

TREATMENT TECHNOLOGIES

Aquaculture
Aquifer Recharge
Biological Aerated Filters
Constructed Wetlands
Direct Reuse (NON-POTABLE)
Horticulture
Overland Flow
Rapid Infiltration
Silviculture
Microscreens
Controlled Release Lagoons
Swirl Concentrator

SLUDGE TREATMENT TECHNOLOGIES

Aerated Static Pile Composting
Enclosed Mechanical Composting (In vessel)
Revegetation of Disturbed Land
Aerated Windrow Composting

ENERGY RECOVERY TECHNOLOGIES

Anaerobic Digestion with >90 percent Methane Recovery
Cogeneration of Electricity
Self-Sustaining Incineration

INDIVIDUAL & SYSTEM-WIDE COLLECTION TECHNOLOGIES

Cluster Systems
Septage Treatment
Small Diameter Gravity Sewers
Step Pressure Sewers
Vacuum Sewers
Variable Grade Sewers
Septic Tank Effluent Pump with Pressure Sewers

Recycled Paper

TABLE OF CONTENTS

		PAGE(S)
1.	Table of Contents	i-iv
2.	Plan Summary	
	A. Identification of Proposed Service Area and Major Problems	v
	B. Alternative(s) to Service Area of Need	v
	C. Estimated Cost of Implementing Proposed Alternative	v
	D. Necessary Municipal Commitments	v
	E. Schedule of Implementation	v
3-6.	Resolution of Adoption, Proof of Public Notice, Comments and Responses to Proposed Plan	Appendix A
7.	Project Implementation Schedule	vi
8.	Project Implementation Ordinances	vi

General Plan

I.	Previous Waste Water Planning	
	A. Identify and analyze all existing wastewater planning that:	
	1. Has been previously undertaken under the Sewage Facilities Act	1-2
	2. Has not been carried out according to approved implementation schedule	2
	3. Is anticipated or planned by applicable sewer authorities	2
	4. Has been done through planning modules for new land development, planning exemptions, addenda	2
	B. Identify all municipal and county planning documents	
	1. All land use plans and zoning maps	2-3
	2. Subdivision regulations controlling lot size based upon sewage flows	3
	3. All limitations and plans related to floodplain and stormwater management and special protection areas	3
II.	Physical and Demographic Analysis	
	A. Identification of Planning Area, Municipal Boundaries, Sewer Authority/Management Agency service areas	4
	B. Physical Characteristics	4
	C. Soils	4-5
	D. Geologic Features	5-6
	E. Topography	6
	F. Potable Water Supply	6
	G. Wetlands	6
III.	Existing Sewage Facilities in the Planning Area	
	A. Municipal and non-municipal, individual and community sewage systems	
	1. Location of treatment facilities	7
	2. Narrative and schematic design of facilities	7
	3. Description of problems with existing facilities	8
	4. Details of scheduled or in-progress up-grading or expansion of	8

treatment facilities

5. Description of operation and maintenance requirements 8
6. Ultimate Disposal Areas (if other than creek) 8

B. Individual and community on-lot sewage disposal
1. Type of system in use 9
2. Documented and potential public health pollution and operational problems 9-10
3. A comparison of the type of systems installed and the appropriate system for the soil, geology, and topographic limitations 10-11
4. Well water survey 11-15

C. Wastewater sludge and septage generation, transport and disposal methods
1. Location of sources of wastewater sludge or septage 15
2. Quantities and types of sludge 15
3. Present disposal methods, locations and capacities 15

IV. Future Growth and Development

A. Delineate and describe the following through map, text and analysis:
1. Areas with existing development or plotted subdivisions 15
2. Land use designations 15
3. Future growth areas, population and EDU projections 15
4. Zoning; subdivision regulations; local, county, or regional comprehensive plans relating to development, use and protection of land and water resources 16
5. Sewage Planning required to provide adequate service related to five and ten year growth impacts 16

V. Alternatives to Provide New or Improved Wastewater Disposal Facilities

A. Conventional collection, conveyance, treatment, and discharge alternatives including:
1. Regional Wastewater Treatment Concepts 16-17
2. Extension of existing municipal or non-municipal systems 17
3. Continued use of existing municipal or non-municipal systems 17
4. New community sewage systems 17
5. Repair or replacement of collection/conveyance components 17
6. Alternative methods of collection/conveyance 18

B. Use of individual sewage disposal systems based on:
1. Soil and slope suitability 18
2. Preliminary hydrogeologic evaluation 18
3. Establishment of a sewage management program 18
4. Repair, replacement or upgrade of existing malfunctioning systems 18

C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters 18

D. The use of community land disposal alternatives including:
1. Soil and site suitability 18
2. Preliminary hydrogeologic evaluation 18
3. Controls over operation and maintenance requirements through Sewage Management program 18
4. Rehabilitation or replacement of existing malfunctioning community land disposal systems 18

E. Use of retaining tank alternatives including:
1. Commercial, residential and industrial use 19
2. Designated conveyance facilities 19
3. Designated treatment facilities or disposal site 19
4. Implementation of retaining tank ordinance by municipality 19
5. Financial guarantee when retaining tanks are used as an interim sewage disposal measure 19

F. Sewage management programs to assure the future operation and maintenance of existing and proposed sewage facilities through:
1. Municipal control over the operation of on-lot systems, etc. 19
2. Required inspection of sewage disposal systems 19
3. Required maintenance of sewage disposal systems 20
4. Repair, replacement or upgrading of malfunctioning systems 20
5. Establishment of joint municipal sewage management programs 20
6. Requirements for bonding, escrow accounts, management agencies or associations to assure operation and maintenance for non-municipal facilities 20

G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting future sewage disposal needs including:
1. Modification of existing comprehensive plans 20
2. Consideration of local comprehensive plan 20
3. Alternatives for creating or changing subdivision regulations 21
4. Evaluation of existing local agency programs regarding training 21

H. A no-action alternative which includes discussion of both short-term and long-term impacts on:
1. Water Quality/Public Health 21
2. Growth potential 21
3. Community economic conditions 21-22
4. Recreational opportunities 22
5. Drinking water sources 22
6. Other environmental concerns 22

VI. Evaluation of Alternatives

A. Technically feasible alternatives
1. Application plans developed and approve under the Clean Streams Law or Clean Water Act 22
2. Municipal wasteload management plans 22
3. Plans developed under the Clean Water Act or Water Quality Act 22
4. Comprehensive plans developed under the Pennsylvania Municipalities Planning Code 23
5. Antidegradation requirements 23
6. State Water Plans developed under the Water Resources Planning Act 23
7. Pennsylvania Prime Agricultural Land Policay 23
8. County Stormwater Management Plans 23
9. Identify and discuss wetland mitigative measures 23
10. Protection of rare, endangered or threatened species 23
11. Historical and archaeological resource protection 24
12. Other Environmental Considerations 24

B. Provide for the resolution of any inconsistencies 24
C. Evaluate alternatives with respect to applicable requirements 24-25

D. Cost estimates using present worth analysis 25-58
E. Provide analysis of the available funding methods 58
F. Analyze the ability of the municipality to implement each alternatives proposed including:
1. Activities necessary to abate health hazards 58
2. Advantages of phasing construction 58
3. Administrative organization and legal authority necessary for plan implementation 58

VII. Institutional Evaluation

A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performances including:
1. Financial debt status 59
2. Available staff and administrative resources 59
3. Existing legal authority 59

B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed alternative including:
1. Need for new municipal departments 59
2. Functions of existing and proposed organizations 59
3. Cost of administration, implementation, and the capability of the authority to react to future needs 59

C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:
1. All legal authorities 59
2. Development of all required ordinances, regulations, standards, and inter-municipal agreements 59
3. Activities to provide rights-of-way, easements, and land transfers 60
4. Other municipal sewage facilities plan adoptions 60
5. Any other legal documents 60
6. Dates or timeframes for items 1-5 above on the project's implementation schedule 60

D. Identify the chosen institutional alternative for implementing the chosen wastewater disposal alternative. 60

VIII. Justification for Selected Technical & Institutional Alternatives

A. Technical wastewater disposal alternatives that best meet the wastewater treatment needs for each study area of the municipality. Justify the choice by providing documentation that shows that it is the best alternative based on:
1. Existing wastewater disposal needs 60
2. Future wastewater disposal needs 60
3. Operation and maintenance considerations 60-61
4. Cost-effectiveness 61
5. Available management and administrative systems 61
6. Available financing methods 61
7. Environmental soundness and compliance with natural resource planning and preservation programs 61

B. Designate and describe capital financing plan chosen 61

2. Plan Summary

A. Identify the proposed service areas and major problems evaluated in the plan.

The study area encompasses all of Letterkenny Township. There are three areas in need of public sewer. First, the area surrounding and including Upper Strasburg, second, the area surrounding and including Pleasant Hall, and third, the Kensington Heights area.

The major problem is the malfunctioning of on-lot disposal systems due to the unsuitable soils. This has caused many of the private wells to become contaminated.

B. Identify the alternative(s) chosen to solve the problems and serve the areas of need identified in the plan.

The Township has accepted the offer of the Cumberland-Franklin Joint Municipal Authority (CFJMA) to serve the Upper Strasburg and Pleasant Hall areas with public sewer pending 537 Plan approval. The sewering of the Kensington Heights area will be the responsibility of Hamilton Township as per an earlier agreement, a copy of which is attached as Appendix E.

C. Include the cost of implementing the proposed alternative (including user fees) and the proposed funding method to be used.

The implementation cost and funding method for the chosen alternative is explained under Section VI, items D and E.

D. Identify the municipal commitments necessary to implement the plan.

Letterkenny Township has exhibited through its Resolution of Adoption its commitment to implement the provisions of this Act 537 Plan. The Township will adopt a Municipal On-Lot Sewage Management Ordinance and a Well Driller's Ordinance. The Township will also require preliminary hydrogeological testing of any proposed subdivision within ¼-mile of a well with nitrate/nitrogen pollution or underlain by limestone, and will require replacement for on-lot sewage disposal. Finally, the Township will accept the offer of CFJMA to serve the Upper Strasburg and Pleasant Hall areas with public sewer pending 537 Plan approval.

E. Provide a schedule of implementation for the project identifying major milestones with dates necessary to accomplish the project to the point of operational status.

Schedule of Implementation

1. Re-submit 537 Plan to DEP..... April 1, 2003
2. Ordinances Adopted.....September 1, 2003

Schedule for selected treatment alternative

1. Design Collection System .....May 1, 2004
2. Begin Construction.....May 1, 2005
3. Operation of Collection System.....March 1, 2006

3.-6. Resolution of Adoption, Proof of Public Notice, Comments and Responses to Proposed Plan

These documents can be found in Appendix A.

7. Project Implementation Schedule. Include dates for future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion in excess of five years.

   See above schedule located in Section 2E of the Plan Summary. The Plan currently has no projects scheduled for implementation in excess of five years.

8. Written documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements.

   See Appendix B for comment and response from appropriate agencies.

Letterkenny Township, Franklin County
General Plan

I. Previous Wastewater Planning

A. Identify and analyze all existing wastewater planning that:

1. Has been previously undertaken under the Sewage Facilities Act (Act 537)

Letterkenny Township adopted its first Official Sewage Facilities Plan in 1971. The plan indicated four (4) areas requiring sewage facilities: Upper Strasburg, Pleasant Hall, the Holiness Camp Area and the Kensington Heights Area. The Upper Strasburg and Pleasant Hall facilities would employ treatment plants using the principle of spray irrigation on "farm" lands and sewage in the Holiness Camp Area would be delivered to a proposed Roxbury Plant. Sewage from Kensington Heights would be delivered to Hamilton Township. Construction was divided into three (3) phases. Completion of construction, start-up of treatment plant and actual use of the sewage collection system and sewage treatment facilities was scheduled for October 1973.

In 1976, a revision was made to the 1971 plan that considered the inclusion of the following areas: the proposed subdivision of Jacob Heisy and the expansion of the Holiness Camp of the Brethren in Christ Church.

In 1989, pursuant to DEP instructions, a Supplement to Letterkenny's Official Plan was submitted and the plan was approved. In the supplement it stated that if PennVest funding was procured Letterkenny Township Municipal Authority (LTMA) proposed to build the four (4) systems indicated (Pleasant Hall, Upper Strasburg, Roxbury and the Holiness Camp) serving approximately 300 EDUs. In addition, service would extend from the Roxbury Area system to 17 additional EDUs along Skyline Drive. Hill View Estates would expand as well as Kensington Heights. In Pleasant Hall, the development of 40 +/- acres would extend service to 35 EDUs. The sewage treatment plant for the Pleasant Hall System would be designed for a 50,000-gpd capacity, serving 102 EDUs. Likewise, the Upper Strasburg system would have a 50,000-gpd capacity serving 122 EDUs. The Roxbury plant would expand from 17,000 gpd to 75,000 gpd. Construction was scheduled for completion by February 1992. However, funding was never obtained and the projects were not implemented.

Presently there are two (2) areas in the Township served by public sewer. The first area is near the Village of Roxbury and is located in the residential subdivision known as Hill View Estates. The collection system and treatment plant installed by the developer, Jacob Heisy, is now owned and operated by LTMA. Service lines have been extended to include part of Mountain Road.

The second area is known as **Old** Kensington Heights. This area has remained essentially unchanged since the original 537 Plan in 1971. However, a number of changes have occurred adjacent and west of **Old** Kensington Heights in an area known as "New" Kensington Heights. The majority of these properties lie across the Township boundary line within Hamilton Township. Initially, a community collection system and treatment plant were installed by the developer. In the late 1970's when Hamilton Township Municipal Authority installed an expansive collection system, the New Kensington Heights system was connected to it and the community system removed. Ownership, maintenance and revenue of the collection lines were transferred solely to Hamilton Township. The 1967 Franklin County Comprehensive Plan's 10-year improvement plan called for the establishment of a waste disposal system in the Pleasant Hall-Orrstown area due to significant projected growth. Orrstown has implemented a system for their borough, while Letterkenny Township is considering public sewer for the Pleasant Hall area.

Comprehensive Water Quality Management Program

Letterkenny Township is located in the Lower Susquehanna River Basin Region, which includes portions of Franklin, Adams, Cumberland, Dauphin, Lancaster, Lebanon, Perry, Schuylkill, and York Counties. The COWAMP Plan (November 1978) for this basin describes the streams in this section of Franklin County as good quality and, excluding the Conodoguinet and Muddy Run, relatively small. Three planning areas have been identified with regard to wastewater treatment and/or conveyance systems. These are the Roxbury area, the Upper Strasburg area, and the Pleasant Hall area. Roxbury has been served with public sewer. The Selected Futures for the Upper Strasburg and Pleasant Hall areas recommend that unless a definite need for municipal wastewater facilities can be demonstrated, every effort should be made to utilize properly managed individual on-lot disposal systems to minimize overall wastewater treatment costs for the area.

State Water Plan

The State Water Plan describes Franklin County as having good water quality except for some local industrial waste discharge, improperly treated sewage and on-lot problems. Sources of contamination include septic tanks located in unsuitable soil, landfills, oil tank leaks, seepage from industrial waste treatment or storage lagoons, pipeline breaks and salt storage. Sediment is also considered a significant source of pollution throughout the Commonwealth.

The majority of Letterkenny Township is found in Sub-basin 7 of the State Water Plan and is further broken down into Watershed B: Conodoguinet Creek drainage area. This watershed is classified as an agricultural area except for forested ridges. In 1970, water use in Watershed B was about 15.7 millions of gallons per day (mgd), of which 64 percent was public water supply, 12 percent was self-supplied agriculture, 13 percent was self-supplied domestic, nine percent was self-supplied institutional and two percent was self-supplied industrial and golf courses. Water demand was projected to increase to 27.6 mgd by 1980 and 35.1 mgd by 1990. The total consumptive water use within the watershed was about 3.2 mgd in 1970, but was projected to increase to 12.1 mgd by 1980, and 16.6 mgd by 1990. These projected increases are due mostly to increasing irrigation requirements.

2. Has not been carried out according to an approved implementation schedule contained in the plans.

   The areas of Upper Strasburg and Pleasant Hall remain unsewered as per the 1972 plan, and rely on on-site disposal systems.

3. Is anticipated or planned by applicable sewer authorities.

   The Letterkenny Township Municipal Authority is proposing public sewer for Upper Strasburg and Pleasant Hall with extension of the existing sewer service lines along Mountain Road to Skyline Drive.

4. Has been done through planning modules for new land development, planning exemptions, addenda.

   In November of 1989, a Supplement to Letterkenny Township's Official 537 Plan was approved. This supplement stands as the latest revision to the Official Plan. Recently all collection lines in Kensington Heights have been transferred to Hamilton Township.

B. Identify all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code including:

   1. All land use plans and zoning maps which identify residential, commercial, industrial, agricultural, recreational and open space areas

      Letterkenny Township does not have zoning. The 1999 Franklin County Comprehensive Plan continues to be a planning guide for the Township. Within the Franklin County Comprehensive Plan is

a section entitled "Land Use and Housing Plan". The Land Use Plan points out growth areas and recommends planning tools such as environmental and agricultural conservation, zoning ordinances and subdivision and land development ordinances to help control future development and discourage low density "sprawl" in Franklin County.

2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods.

The Letterkenny Township Subdivision and Land Development Ordinance, Article IX, Section 902.D, gives the following minimum lot sizes. A copy of said Ordinance can be found in Appendix D.

	On-lot Water and Sewer	**On-lot Sewer Central Water**	**On-lot Water Central Water**	**Central Water and Sewer**
Single Family Residential	25,000 sq.ft	25,000 sq.ft	15,000 sq.ft	15,000 sq.ft
Single Family Semi-Detached	30,000 sq.ft	15,000 sq. ft	10,000 sq.ft	8,500 sq.ft.
Commercial	40,000 sq.ft minimum			

When on-lot sewer facilities are to be utilized, the Township Sewage Enforcement Officer or DEP may increase minimum lot size. A soil analysis and percolation test shall be required on each proposed lot. Pending results of the tests, the lot size shall be established large enough to provide for the specified minimum area required for the absorption field. If a public sewer system is available within 500 feet of any part of the development, the subdivider or developer shall connect to the system.

3. All limitations and plans related to floodplain and stormwater management and special protection areas

Stormwater

Section 1300: Stormwater Management of the Subdivision Land Development Ordinance requires a stormwater management plan for each subdivision or land development plan at both the preliminary and final plan submittal stages. Erosion and sedimentation control measures shall be included in the stormwater management plan. The purpose of the stormwater management provisions are: to protect life and property of homeowners located downstream and out of the flood zone, maintain and restore the flood carrying capacity of streams, protect and conserve groundwater recharge areas, and to protect waters from excessive sedimentation resulting from development of land and earthmoving activities.

Flood Hazard

Letterkenny Township also has a Floodplain Management Ordinance. According to the Ordinance, the identified floodplain area shall be any area of Letterkenny Township subject to the one hundred (100) year flood, which is identified as Zone A (Area of Special Flood Hazard) on the Flood Insurance Rate Map (FIRM) dated September 17, 1982. Floodplain areas are shown on Plate 14.

The 1999 Franklin County Comprehensive Plan delineates flood plain preservation areas. The primary function of this area is to protect sites, which are subject to periodic flooding, and to encourage the retention of a valuable resource, open space.

Wetlands

Wetlands are scattered throughout the Township. State laws require the protection of these delicate areas and encourage cooperation between local governments, the agricultural community and development community. Wetlands are shown on Plate 3.

II. Physical and Demographic Analysis utilizing written description and mapping:

A. Identification of Planning Areas, municipal boundaries, sewer authority/management agency service area boundaries

Letterkenny Township is bordered on the west by Metal Township and Fannett Township, on the north by Lurgan Township and Southampton Township, on the east by Greene Township and on the south by Hamilton Township and Saint Thomas Township. In 1941 the United States Army purchased approximately 19,000 acres of land, the majority of which was located in Letterkenny Township. The site became known as the Letterkenny Army Depot. The army depot is situated in what was the center of Letterkenny Township. The depot is currently being downsized by the U.S. Army and portions of the facility have been returned to two entities formed by Franklin County—Letterkenny Industrial Development Authority (LIDA) and Franklin County General Authority (FCGA)—and developed as a business park. All areas of the remaining military facilities and emerging business park will be served by the existing Depot central water and sewer facilities as operated by FCGA.

The Sewer Authority service area is defined by the location of the sewer collection system. Section 905: Standards for Sewer and Water Systems from the Subdivision and Land Development Ordinance states that any development within 500 feet of a sewer main is required to connect to the public sewer system.

B. Identification and Mapping of Physical Characteristics (streams, basins, lakes etc.)

Letterkenny Township has an abundance of streams and other physical characteristics that make it unique. The USGS map on Plate 12 identifies these characteristics. The Conodoguinet Creek travels throughout Upper and Lower Horse Valleys. The creek is surrounded on the east by Blue Mountain, Little Mountain and Broad Mountain, and on the west by Kittatiny Mountain. Surface elevations in these areas range from 1,000 to 2,000 feet above sea level (ASL). The Buchanan State Forest is located throughout this area as well. With the exception of mountainous areas in the Township, elevations range from 600 to 800 feet ASL. The Conodoguinet Creek serves as a municipal boundary to Letterkenny Township to the north and northeast. Several smaller tributaries of the Conodoguinet meander through Pleasant Hall, Upper Strasburg and the Roxbury areas. Lehman Run and Muddy Run also travel just south of Pleasant Hall. Several small ponds are located along these Runs. Plates 5 and 12 show the general topography and drainage basins of the Township.

Letterkenny Reservoir is located at the western base of Blue Mountain. Located within the mountainous terrain of Letterkenny Township are two natural springs that residents utilize for a water supply. One spring is located in Lower Horse Valley and the other is in Bear Valley.

C. Soils

The General Soil Associations found in Letterkenny Township are shown on Plate 9. Analysis of soil characteristics in relation to On-Lot Sewage Disposal is portrayed on Plate 4. In addition, Prime Agricultural Soils and Agricultural Security Areas (ASA) are identified on Plate 11. Descriptions of the soil series found within Letterkenny Township are as follows:

Laidig Series
The Laidig series consists of deep, nearly level to very steep well-drained, medium textured soils on middle and lower mountainsides. These soils are moderately permeable and have moderate moisture capacity. Main limitations may include coarse fragments, stoniness, moderately slow permeability and slope. Laidig soils are associated on the landscape with Buchanan and Murrill soils.

Buchanan Series
The Buchanan series consists of deep, nearly level to moderately steep, moderately well drained soils that are found on middle and lower foot slopes in uplands. Buchanan soils are slowly permeable and have moderate available moisture capacity. Slow permeability, seasonal high water table, coarse fragments, stoniness and slope are main limitations.

Murrill Series
Soils within the Murrill series are deep, nearly level to moderately steep well-drained soils on fans, benches and side slopes in uplands. These soils are moderately permeable and have high available moisture capacity. Main limitations include coarse fragments, complex slopes, stoniness, sinkholes and the hazard of groundwater contamination.

Weikert Series
The Weikert series consists of shallow, nearly level to very steep, well-drained soils on dissected uplands. Other characteristics include low to very low available moisture capacity and moderately rapid permeability. Depth to bedrock, coarse fragments and slope are limitations. Weikert soils are associated with Bedington and Berks soils.

Berks Series
Soils within the Berks series are moderately deep, nearly level to sloping, well-drained soils on rounded and dissected uplands. Berks soils are moderately to rapidly permeable and have low available moisture capacity. Depth to bedrock and slope are main limitations.

Bedington Series
The Bedington series consists of deep, nearly level to moderately steep, well-drained soils on dissected uplands. Soils are moderately to rapidly permeable and high in available moisture capacity. Slope and the hazard of erosion are main limitations.

D. Geologic Features

Geologic Formations are shown on Plate 6. The formations range in age from Silurian to Ordovician. Descriptions of the geologic formations found within Letterkenny Township are as follows:

Chambersburg Formation (Oc)
The Chambersburg Formation is characterized by rolling valleys of low relief and gentle, stable, natural slopes. Moderate to highly resistant to weathering this formation has good surface drainage but minor subsurface drainage. Although comprised of limestone, median groundwater yield is five gallons per minute showing that solution openings are not common. However a thorough investigation for sinkholes should be conducted prior to building.

Martinsburg Formation (Om, Omg)
This formation includes dark-gray shale, thin interbeds of siltstone, metabentonite and fine-grained sandstone as well as limy shale and silty limestone. Moderate weathering results in topography of a dissected valley of low relief with natural slopes that are steep and often unstable along streams. Median groundwater yields of 32 gallons per minute are reported. Water quality is poor due to hydrogen sulfide and high iron concentrations. In areas of limestone, investigations for solution openings should be conducted.

St. Paul Group (Osp)
The St. Paul Group contains magnesium limestone with numerous layers of chert and high calcium limestone in parts. Moderate resistance to weathering leads to a rolling valley of low relief with natural, gentle and stable slopes. Median groundwater yield is 25 gallons per minute and some wells encounter solution openings resulting in very large yields. This formation should be thoroughly investigated for possible solution cavities.

Wills Creek Formation (Swc)
The Wills Creek Formation is made of greenish-gray shale containing local limestone and sandstone zones. Undulating hills of low relief and gentle stable slopes are characteristic of the topography. This formation is slightly resistant to weathering and median groundwater yield is 32 gallons per minute. Water quality decreases with increasing depth; hydrogen sulfide and iron may cause problems.

Clinton Group (Sc)
The Clinton Group includes Keefer and Rose Hill Formations characteristic of fossiliferous sandstone, hematitic, oolitic sandstone and shale, fossiliferous shale with some limestone and iron sandstone. Moderate resistance results in rolling hills and ridges of medium relief and moderate slopes that are fairly steep and stable. Ridge-forming sandstones have poor topographic position for ground-water development therefore median yield is 12 gallons per minute.

Bald Eagle / Juniata Formation (Ojb)
This formation is a combination of the Bald Eagle Formation and the Juniata Formation and is highly resistant to weathering. The Bald Eagle formation is fine to coarse grained, cross bedded sandstone and quartz-pebble conglomerate. Characteristics of the Juniata Formation include fine-grained to conglomeratic, quartzitic sandstone and interbedded shale. Rough mountain ridges of high relief with very steep and stable slopes characterize the topography of both formations. Topographic position is poor for groundwater and median yield ranges from 10-17 gallons per minute.

Tuscarora Formation (St)
The Tuscarora Formation is fine coarse-grained sandstone and quartzite. Natural slopes are stable and steep on high mountains and ridges in rough terrain. This formation is highly resistant to weathering. Median groundwater yield is 23 gallons per minute; high topographic position is unfavorable for high yields.

Bloomsburg / Mifflintown Formation (Sbm)
The Bloomsburg Formation is predominantly red shale and siltstone, some sandstone and impure limestone. Rolling hills of medium relief and fairly steep and stable slopes are only slightly resistant to weathering. Median groundwater yield is 45 gallons per minute and hydrogen sulfide has been noted in some wells. The Mifflintown Formation is greenish-gray shale interbedded with fossiliferous limestone, shale and intraformational breccia. This formation is only slightly resistant to weathering with rolling to rough hills of medium to high relief on fairly steep and stable slopes. Median groundwater yield is 20 gallons per minute and quality decreases with increased depth. This formation should be investigated for collapse possibilities where limestone is encountered.

E. Topography

A topographic map of Letterkenny Township can be found on Plate 12. Plate 4 identifies slopes suitable for on-lot systems and other limitations for on-lot systems.

F. Potable Water Supplies

The majority of the Township relies on private wells for water. Public water systems exist in three areas: the Roxbury Holiness Camp, Old Kensington Heights and the Letterkenny Army Depot.

G. Wetlands

The Fish and Wildlife Service of the U.S. Department of the Interior has prepared a series of National Wetland Inventory maps outlining known or field verified wetland areas. The Inventory maps identify wetlands scattered throughout Letterkenny Township. Wetland areas are found adjacent to several Township streams including Muddy Run, the Conodoguinet Creek and their tributaries. Plate 3 depicts the general pattern of wetland occurrences throughout Letterkenny Township.

III. Existing Sewage Facilities in the Planning Area

A. Identify, map, and describe municipal and non-municipal, individual, community sewerage systems in the planning area including:

1. Location, size and ownership of treatment facilities, lines, pumping stations, force mains, including size, capacity, point of discharge. Also, include the name of the receiving stream, drainage basin and the facility's effluent discharge requirements.

LTMA owns and operates the existing treatment facilities and service lines for the Hill View Estates area near the Village of Roxbury. The permitted capacity of this plant is 0.42 MGD. The Conodoguinet is the receiving stream for treated effluent. The public sewer lines serving the Kensington Heights area are owned and operated by Hamilton Township.

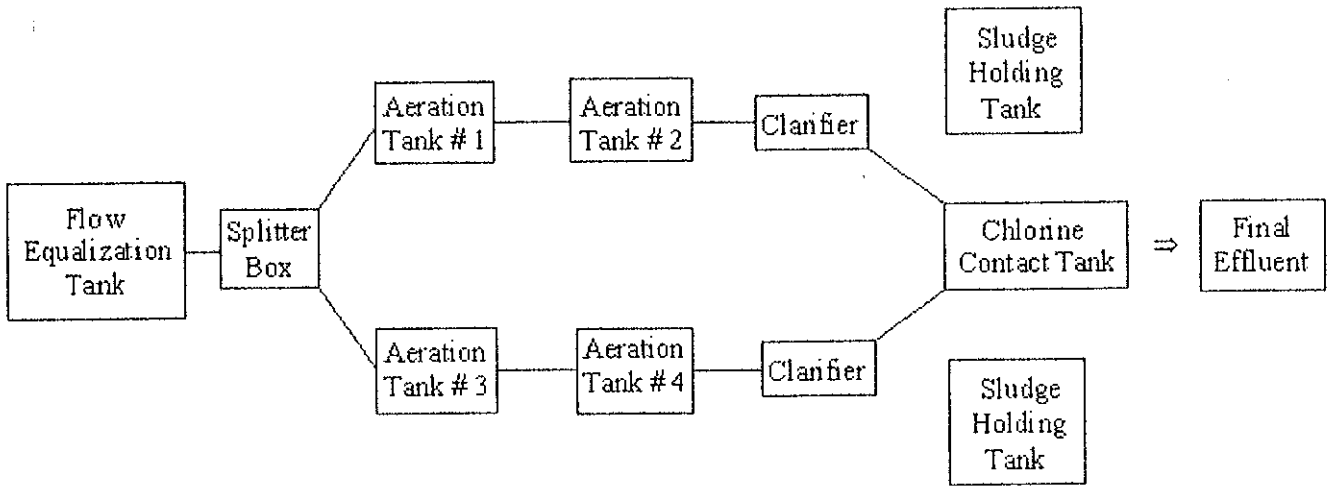
The U.S. Army currently maintains ownership of the treatment facilities, service lines, and rights-of-way in the Letterkenny Army Depot. However, operation of the facilities has been turned over to FCGA, and at some later date, ownership will also be turned over. Currently, there are two plants permitted and in use on the base. The first plant, the South Patrol Road Wastewater Treatment Plant, is designed for an average daily flow of 0.5 mgd and an influent organic loading rate of 834 lbs/day (these are conservative estimates provided by FCGA due to the lack of records provided by the U.S. Army during transfer of operations). The second plant, the Rocket Road Wastewater Treatment Plant, is a small package plant with a design capacity of 800 gpd. It treats approximately 100 gpd on average and use will ultimately be discontinued. Plate 10 shows the existing sanitary sewer plan for the Letterkenny Army Depot.

2. Narrative and Schematic diagram of the facility's basic treatment processes including the facility's NPDES permitted capacity, reserve capacity and policy of allocating the reserve capacity:

The LTMA sewage treatment plant is an extended air plant with a permitted capacity of 0.042 MGD. The following schematic represents the basic treatment process.

The FCGA plants utilize single stage extended air biological processes for the reduction of BOD, suspended solids and ammonia nitrogen. The large plant will be permitted for 0.5 mgd and the small plant will be permitted for 800 gpd.

Letterkenny Township Municipal Sewage Treatment Plant



3. Description of problems with existing facilities, existing or projected overloads, violations etc.

The facility has had problems with inflow and infiltration, but through visual observation and smoke testing, many leaks have been identified and repaired. Although the plant does not have a history of effluent compliance violations, there is an ongoing program to locate and correct leakage. Plant personnel respond promptly to any indication of problems with the sewer system and perform repair work in an expeditious manner. Plant personnel or contractors promptly perform all routine maintenance and mechanical repairs at the wastewater treatment plant to assure continued treatment of the wastewater.

The average daily hydraulic and organic loading rates for 2002 are shown on Graphs 1 and 2. The three-month maximum peak hydraulic load for 2002 was 0.013 MGD, which is well below the maximum design capacity of 0.042 MGD. The average monthly BOD Loading was 15.6 lbs/day, with the maximum monthly loading being 23.5 lobs/day. Current projections indicate that the waste water treatment facility will reach only 50% of its design organic loading capacity by 2007.

History shows that seven new sewer connections per year could normally be expected for this system from the individual single family dwellings within the existing sewer service area. This serves as a basis for projected additional EDU's.

The Letterkenny Army Depot's wastewater treatment facilities are operating well below the permitted limits. The average daily flow to the main treatment plant was 0.068 mgd during 1998, compared with the permitted capacity of 0.5 mgd. There are currently no known problems with the system.

4. Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. Discuss compatibility of the rate of growth to existing and proposed wastewater treatment facilities

Currently the hydraulic loading maximum observed average daily flow is 0.013 MGD. At the present, there are no planned extensions to the system. It is assumed that any additional development in the area in the form of subdivisions would require the developer to provide additional capacity to the treatment plant.

As stated earlier, the Letterkenny Army Depot treatment facilities are and have been operating well below maximum capacity. Therefore, no additional capacity is necessary at the present time.

5. Detailed description of operation and maintenance requirements and the status of past and present compliance with these requirements and any other requirements relating to sewage management programs.

Plant personnel or contractors promptly perform all routine maintenance and mechanical repairs at the wastewater treatment plant to assure continued treatment of the wastewater. Plant personnel respond promptly to any problems within the system. Enopcon, Incorporated tests weekly and calculates average monthly flows. Daily testing includes pH, Dissolved Oxygen, and Phosphates as well as maintenance in the form of cleaning the bar screen and hosing the plant down.

6. Ultimate disposal areas, if other than stream discharge and any applicable groundwater limitations.

Stream discharge will be the utilized as the ultimate disposal area.

B. Identify, map and describe areas that utilize individual and community on-lot sewage disposal and retaining tank systems in the planning area including:

1. The type of systems in use

The on-lot disposal systems in use within the Township are in-ground systems, elevated sand mounds, small flow treatment facilities, holding tanks and privies. Information obtained during the well sampling effort in Letterkenny Township supported these conclusions. According to residents who participated in the well sampling and were aware of the type of system operating on their property, 82 were utilizing septic tank disposal systems, six (6) were operating with an elevated sandmound system, two (2) were using holding tanks and (2) were using privies.

2. A description of documented and potential public health pollution, and operational problems with the systems (including malfunctions, violations of local ordinances, etc.).

The following paragraphs are extracted from a letter from the Pennsylvania Department of Health, dated September 22, 1970.

> *Upper Strasburg at the time, having 110 homes on individual water and sewer, was estimated to have at least 60% of the water supplies contaminated with sewage. The Department received 5-10 sewage nuisance complaints per year from this area.*
>
> *Pleasant Hall, having approximately 55 homes on individual water and sewer, was estimated to have 10-20% of the homes experiencing sewage system malfunctions or surface discharges. A 16-unit trailer park has a history of sewage system malfunctions.*

The following list identifies malfunctioning systems within Letterkenny Township since 1985. Operational problems have also occurred in the Pleasant Hall Mobile Home Park, which operates on a communal septic system.

Letterkenny Township Malfunctioning Systems Since 1985

Location	Problem	Solution
8446 Cumberland Hwy.	Bed clogged with sludge	Installed 12" new stone
10937 Mountain Rd.	Old septic tank	Installed new tank
12119 Mountain Rd.	Lines clogged with roots	Installed new pipe
12040 Sandy Mtn. Rd	Broken baffle	Installed new baffle
13474 Gilbert Rd.	Malfunctioning system	Installed new sand mound
9755 Cumberland Hwy.	Broken pipe	Installed new pipe and stone
Pleasant Hall Trailer Park	Old septic tanks	Installed new septic tanks
9771 Cumberland Hwy.	Old septic tank	Installe d new septic tank
12041 Mountain Rd.	Clogged pipe	Installed new pipe
Box 97 Upper Strasburg	Clogged pipe	Installed new pipe
12256 Mountain Rd.	Old septic tank	Installed new septic tank
9827 Cumberland Hwy.	Clogged pipe	Installed new pipe
8187 Orrstown Rd.	Malfunctioning system	Installed holding tanks
12687 Mountain Rd.	Pipe smashed by cows	Installed new pipe
10611 Mountain Rd.	Clogged pipe	Installed new pipe
11250 Sandy Mtn. Rd.	Clogged pipe	Installed new pipe
6159 Orrstown Rd.	Malfunctioning system	Installed sand mound
Pleasant Hall	Malfunctioning system	Installed sand mound
12923 Cumberland Hwy.	Clogged pipe	Installed new pipe
P. O. Box 101 Shives Ln.	Old septic tank	Installed new septic tank
12316 Sandy Mtn. Rd.	Malfunctioning system	Installed seepage bed
9 Kensington Dr.	Clogged pipe	Installed new pipe
10938 Mountain Rd.	Malfunctioning system	Installed seepage bed

Letterkenny Township Malfunctioning Systems Since 1985

Location	Problem	Solution
Pleasant Hall Fire Co.	Malfunctioning system	Installed sand mound
P.O. Box 25 Pleasant Hall	Clogged pipe, old tank	Installed new pipe & septic tank
Box 10 Upper Strasburg	Clogged pipe	Installed new pipe
5172 Orrstown Rd.	Malfunctioning system	Installed seepage bed
10357 Upper Horse Valley	Malfunctioning system	Installed seepage bed
11732 Lower Horse Valley	Malfunctioning system	Installed seepage bed

3. A comparison of the types of on-lot sewage systems installed in an area with the types of systems that are appropriate for the area according to soil, geologic conditions, topographic limitations, sewage flows and Title 25 Chapter 73.

   Many of the soil series found within Letterkenny Township have severe limitations for septic tank absorption fields and sewage lagoons. Slope, depth to bedrock, hazard of groundwater contamination, moderately slow permeability and seasonal high water table are characteristics that lead to on-lot disposal limitations. Plate 4 identifies areas not suitable for on-lot disposal systems.

   Participants in the well sampling efforts were also asked about their on-lot sewage disposal systems. Each of the five study areas (Pleasant Hall, Roxbury, Lower Horse Valley, Upper Horse Valley and Rocky Spring, Upper Strasburg) was broken down and analyzed with emphasis on the type of on-lot system, geology and soil type of the area.

   Pleasant Hall - In and around Pleasant Hall a total of 31 well samples were taken. At the time of the sampling a survey was also completed that questioned residents about their present sewage disposal systems. Of the households that took part in the survey, 25 homes were on septic tank disposal systems, three (3) were on sandmound systems and the remaining were unaware of the type of system in use.

   The Pleasant Hall area lies upon the Martinsburg Formation (Om). Soil series within this area include Blairton, Brinkerton, Markes, and Weikert. Limitations for on-lot systems within these soil areas include hydric components, seasonal high water table, moderately slow to moderate permeability, depth to bedrock, and slope.

   Roxbury - Within the Roxbury area 35 well samples were taken. Of the households which took part in the survey it was revealed that 21 septic tank disposal systems, one sand mound system, one holding tank were in use. The remaining participants were unaware of the type of sewage disposal system in use on the property.

   The geologic formation in this area is the Martinsburg Formation and the soil series include Weikert, Markes, Bedington, and Berks. Characteristics that lead to limitations for on-lot disposal systems within these soil series include moderate slope, moderate to rapid permeability, and depth to bedrock.

   Lower Horse Valley - A total of nine (9) wells were sampled within the Lower Horse Valley area. Of those residents who participated in the survey, seven (7) households utilize a septic tank disposal system and one utilizes a sand mound system.

   The geologic formations in this area include the Bloomsburg/Mifflintown Formation and the Clinton Group. The majority of the soils are of the Laidig Series. Characteristics that lead to limitations for on-lot disposal systems within this soil series include slow permeability, gravelly material, and slope.

   Upper Horse Valley and Rocky Spring - A total of 13 wells were sampled within the Upper Horse Valley and Rocky Spring Area. Of the households that took part in the survey, it was revealed that ten (10) septic tank sewage disposal systems and two (2) privies were in use.

The geologic formations in these two areas include the Bloomsburg/Mifflintown Formation, Clinton Group, Chambersburg Formation, St. Paul Group, Wills Creek Formation and the Martinsburg Formation. Soil Series include Andover, Atkins, Melvin, Berks, Bedington, Dekalb and Lehew, Edom, Hagerstown, Laidig, and Weikert. This area covers an extensive amount of acerage therefore many soil series are included in this analysis. Characteristics that lead to limitations for on-lot disposal systems within these soil series include the following: high water table, slow permeability, subject to flooding, slope, depth to bedrock, and hazard of groundwater contamination.

Upper Strasburg - A total of 23 wells were tested and surveyed in the Upper Strasburg area. Of the households that took part in the survey, 19 septic tank disposal systems, one holding tank and one sandmound system were in use.

The geologic formations in the Upper Strasburg area include the Chambersburg Formation, St. Paul Group and the Martinsburg Formation. Soil series include Atkins, Buchanan, Andover, Murrill, and Weikert. Characteristics that lead to limitations for on-lot disposal systems within these soil series include: subject to flooding, high water table, slow permeability, slope, gravelly material, hazard of ground water contamination, depth to bedrock, moderate permeability.

4. An individual water supply survey to identify possible contamination by malfunctioning on-lot sewage disposal systems.

In September of 1996 a well water sampling and survey was conducted throughout Letterkenny Township to identify possible contamination by malfunctioning on-lot sewage disposal systems. The Township was broken into five study areas: Pleasant Hall, Roxbury, Upper Strasburg, Lower Horse Valley, Upper Horse Valley and Rocky Spring. A total of 111 wells were tested within Letterkenny Township; of those 111 tested, 76 (68.5%) were confirmed to be contaminated in some way. Plates 7A and 7B show the results of the well sampling effort conducted in Letterkenny Township.

The following chart displays the results of the well sampling effort followed by the well sampling analytical results.

Well Sampling Results

Result	Total Wells Contaminated	Total Wells Tested	Percent of Total
COLIFORM	76	111	69.6 %
E. COLI	26	111	23.4 %
NITRATES	7	111	6.3 %
NITRATES & COLIFORMS	6	111	5.4 %
NO EVIDENCE OF CONTAMINATION	34	111	30.6 %

Letterkenny Township
Well Sampling Analytical Results
(TABLE I)

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)	Type of system / System Age	
1	Twp. Bldg.	Present	Absent	<0.5	septic tank	6-10 years
2	Foust	Present	Absent	<0.5	septic tank	
3	Gayman	Absent	Absent	<0.5.	septic tank	6-10 years
4	Hutchinson	Absent	Absent	<0.5	septic tank	
5	Archambeau	Present	Absent	<0.5	septic tank	11-20 years
6	Wetzel	Present	Absent	<0.5	septic tank	
7	Rotz	Absent	Absent	<0.5	septic tank	6-10 years
8	Frietas	Present	Present	<0.5	septic tank	11-20 years
9	Rosenberry	Present	Absent	<0.5	septic tank	20+ years
10	Foust	Present	Absent	<0.5	septic tank	20+ years
11	Keltner	Present	Absent	<0.5	septic tank	11-20 years
12	McCullough	Absent	Absent	<0.5	septic tank	
13	Myers	Present	Absent	7.23	septic tank	11-20 years
14	Thorson	Present	Absent	<0.5	septic tank	
15	Mathna's	Absent	Absent	<0.5	septic tank	20+ years
16	White	Present	Absent	<0.5	septic tank	
17	Etters	Absent	Absent	0.602		
18	Pittman	Present	Absent	0.605		
19	Kuhn	Present	Absent	<0.5	sand mound	6-10 years
20	Pugh	Present	Absent	<0.5	septic tank	20+ years
21	Reed	Present	Absent	<0.5	septic tank	20+ years
22	Vanscyoc	Absent	Absent	<0.5	sand mound	6-10 years
23	Foust	Absent	Absent	<0.5	sand mound	6-10 years
24	Beam	Present	Absent	<0.5	septic tank	0-5 years
25	Clever	Absent	Absent	<0.5	septic tank	0-5 years
26	<none>	Absent	Absent	<0.5		
27	Zullinger	Present	Present	<0.5	septic tank	20+ years
28	Pugh	Present	Absent	<0.5	septic tank	20+ years
29	Millhouse	Present	Absent	<0.5	septic tank	20+ years
30	Sprenkle	Absent	Absent	<0.5	septic tank	20+ years
31	Fire Hall	Present	Absent	<0.91	septic tank	
32	Stream test	Present	Present	<0.88		
1A	Baker, Jr.	Present	Absent	<0.5	septic tank	11-20 years
2A	Gayman	Present	Absent	<0.5	septic tank	20+ years
3A	Hess	Absent	Absent	3.02	septic tank	20+ years
4A	Reed	Present	Absent	<0.5		
5A	Forrester	Present	Absent	<0.5	septic tank	11-20 years
6A	Horn	Present	Absent	<0.5	septic tank	11-20 years
7A	Marpoe	Absent	Absent	<0.5	septic tank	20+ years
8A	Farkes	Present	Absent	<0.5	septic tank	20+ years
9A	Stouffer	Present	Absent	<0.5	septic tank	20+ years
10A	Douglas	Absent	Absent	<0.5	septic tank	11-20 years
11A	Gratkowski	Present	Absent	<0.5		
12A	Klahre	Present	Absent	<0.5		
13A	Brechbill	Present	Absent	<0.5		
14A	Reed	Present	Absent	<0.5		
15A	Deaven	Absent	Absent	<0.5		
16A	Rogers	Present	Absent	<0.5	septic tank	20+ years

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)	Type of system / System Age	
17A	Johnson	Present	Absent	<0.5		
18A	Greene	Absent	Absent	<0.5		
19A	Hess	Absent	Absent	<0.5		
20A	Jaymes	Present	Absent	1.01	septic tank	20+ years
21A	Mohler	Absent	Absent	<0.5	sandmound	0-5 years
22A	Knouse	Present	Present	<0.5	septic tank	0-5 years
23A	Myers	Absent	Absent	<0.5	holding tank	
24A	Ehkert	Present	Absent	<0.5	septic tank	11-20 years
25A	Witmer	Present	Absent	<0.5	septic tank	20+ years
26A	Stouffer, Jr.	Present	Absent	<0.5	septic tank	0-5 years
27A	Timmons	Present	Present	**6.09**	septic tank	11-20 years
28A	Sites	Present	Absent	0.90	septic tank	20+ years
29A	Rupert	Absent	Absent	<0.5	septic tank	20+ years
30A	Horn	Present	Present	<0.5	septic tank	20+ years
31A	Chesser	Present	Present	<0.5	septic tank	
32A	Locke	Present	Absent	<0.5	sewer	
33A	Timmons	Present	Absent	<0.5	sewer	
34A	Holiness Camp	Absent	Absent	<0.5		
35A	Alleman	Present	Absent	<0.5	septic tank	11-20 years
1B	Treat	Present	Present	<0.5		
2B	Hepfer	Present	Present	<0.5	septic tank	
3B	Grove	Absent	Absent	<0.5	sandmound	6-10 years
4B	Holmes(LHV Spring)	Present	Present	0.72		
5B	Urban	Absent	Absent	<0.5	septic tank	11-20 years
6B	Holmes	Present	Present	<0.5	septic tank	20+ years
7B	Peterson	Present	Absent	<0.5	septic tank	20+ years
8B	Peterson, Jr.	Present	Present	0.52	septic tank	11-20 years
9B	Walters	Absent	Absent	<0.5	septic tank	20+ years
10B	Elliot	Present	Absent	<0.5	septic tank	20+ years
1C	Holmes(Bear Val Spr)	Present	Present	1.43		
2C	Geyer	Absent	Absent	<0.5	septic tank	20+ years
3C	Ehman	Absent	Absent	2.09	septic tank	20+ years
4C	Crider, Jr.	Present	Present	<0.5	Privy	
5C	Henderson	Present	Absent	0.98	septic tank	20+ years
6C	Tornbau	Absent	Absent	<0.5	Privy	
7C	Carroll	Absent	Absent	<0.5	septic tank	20+ years
8C	Mackey	Present	Present	0.62	septic tank	20+ years
9C	Treat	Present	Absent	<0.5		
10C	Souders	Present	Present	2.73	septic tank	6-10 years
11C	Funk	Present	Present	4.01	septic tank	
12C	Reese	Present	Absent	1.86	septic tank	
13C	Hankins	Present	Present	0.57	septic tank	20+ years
14C	Barkman	Absent	Absent	<0.5	septic tank	
15C	Stream Test	Present	Present	3.16		
1D	Hurden	Present	Present	**6.78**	septic tank	11-20 years
2D	Hoover	Present	Present	**5.68**	septic tank	20+ years
3D	Mackey	Present	Present	0.86	septic tank	20+ years
4D	Hurst	Absent	Absent	**6.81**	Holding Tank	
5D	Lepp	Present	Present	4.61	septic tank	11-20 years
6D	McCardell	Present	Present	3.68	septic tank	

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)	Type of system / System Age	
7D	Allen	Present	Absent	2.50	septic tank	20+ years
8D	Harrison	Present	Present	1.87	septic tank	
9D	Fullmer	Absent	Absent	2.48		
10D	Shoop	Absent	Absent	2.50	septic tank	20+ years
11D	Shoop	Present	Present	**6.32**	septic tank	20+ years
12D	Leberknight	Present	Absent	<0.5	septic tank	11-20 years
13D	Wright	Absent	Absent	<0.5	septic tank	20+ years
14D	Wright	Absent	Absent	<0.5	septic tank	
15D	Ehnhart	Present	Absent	<0.5	septic tank	20+ years
16D	Hafer	Present	Absent	<0.5	septic tank	20+ years
17D	Atherton	Present	Present	**5.52**	septic tank	
18D	Yeomans	Present	Present	0.54	septic tank	
19D	Black	Present	Absent	2.84	septic tank	
20D	Burdge	Present	Present	3.11	septic tank	
21D	Stayman	Present	Present	<0.5	sandmound	
22D	Whited	Present	Present	2.26		
23D	Goshorn	Absent	Absent	<0.5	septic tank	11-20 years

The results of the testing are included on Plates 7A and 7B. Test results from each study area were analyzed to better demonstrate which areas exhibited the most contamination. The following chart displays the findings of that investigation.

Pleasant Hall	**# contaminated**	**percent of total**
Coliform	20/31	64.5%
E. Coli	2/31	6.5%
Nitrates	1/31	3.2%
No contamination	11/31	35.0%

Roxbury	**# contaminated**	**percent of total**
Coliform	25/35	71.4%
E. Coli	4/35	11.4%
Nitrates	1/35	2.9%
No contamination	10/35	29.0%

Lower Horse Valley	**# contaminated**	**percent of total**
Coliform	6/9	66.7%
E. Coli	4/9	44.4%
Nitrates	0/9	0.0%
No contamination	3/9	33.3%

Rocky Spring / Upper Horse Valley	**# contaminated**	**percent of total**
Coliform	8/13	61.5%
E. Coli	4/13	30.8%
Nitrates	0/13	0.0%
No contamination	5/13	38.5%

Upper Strasburg	**# contaminated**	**percent of total**
Coliform	17/23	73.9%
E. Coli	12/23	52.2%
Nitrates	5/23	21.7%
No contamination	5/23	21.7%

The above results indicate that all five test areas exhibited elevated levels of coliforms in their drinking water. Out of the 23 wells tested in Upper Strasburg over 73% tested positive for Coliform and over 52% tested positive for Coliform and E. Coli. In addition, the nitrate levels in this area are elevated, whereas the nitrates in the other four test areas are much less, if not zero.

C. Identify wastewater sludge and septage generation, transport, and disposal methods as it relates to sewage facilities alternative analysis including:

1. Location of sources of wastewater sludge or septage

   All properties not serviced by public sewer generate sludge from on-lot systems. The LTMA sewage treatment plant generates sludge.

2. Quantities of the types of sludge or septage generated

   On-lot systems generate domestic sludge. Disposal is not regulated and responsibility rests with the individual owner.

3. Present disposal methods, locations, capacities and transportation methods

   There is no systematic method of disposal of sludge from septic tanks. The Franklin County phone book lists several haulers of septage and sludge. The sludge from the LTMA treatment plant is disposed of at the Chambersburg plant.

   The Letterkenny Army Depot's main wastewater treatment plant has it's own sludge drying beds at the plant. After drying, the sludge is disposed of in a public landfill.

IV. Future Growth and Development

A. Delineate and describe the following through map, text and analysis:

1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of EDUs in development, currently developed, remaining to be developed

   Letterkenny Township is rural in nature and the population is scattered throughout the Township. Concentrations exist in Pleasant Hall, Upper Strasburg, Hill View Estates and the Kensington Heights area. The Hill View Estates development and the New Kensington Heights area both continue to expand. The 1995 Pennsylvania County Data Book indicates that in 1993 the total housing units within Letterkenny Township was 999, which indicates a 33.2% change from 1980 to 1993.

2. Land use designations established under the Pennsylvania Municipalities Planning Code including residential, commercial and industrial areas.

   Letterkenny Township relies upon the Franklin County Comprehensive Plan, which designates the Township as having mostly crop and pastureland with inclusions of both residential and commercial land uses.

3. Future growth areas and population and EDU projections for these areas

   Letterkenny Township's future growth rate is expected to be minimal. However, the Township will absorb part of the Letterkenny Army Depot, which is served by the Franklin County General Authority.

4. Zoning, subdivision regulations; local, county or regional comprehensive plans; and existing plans of a Commonwealth agency relating to the development, use and protection of land and water resources with special attention to:

Public ground/surface water supply sources - According to the 1977 Franklin County Comprehensive Plan, good quality groundwater for domestic use is generally obtainable from wells drilled in sandstone formations. In areas that rely on septic tank sewage disposal systems, there have been and will continue to be hazards of groundwater pollution. The best quality groundwater resources for domestic and industrial uses are the alluvial deposits near larger streams. The demand on this source is consequently high.

Section 1100 of the Subdivision Land Development Ordinance states that no sanitary landfill or surface mining operation shall be approved if the plan reveals that the operation is bordered by—or has passing through it—a creek, run, stream, or other moving body of water into which drainage, surface runoff, leachate, sediment, or effluent will be deposited.

Recreational water use areas
The Letterkenny Reservoir is used for recreational type activities such as fishing and boating. Other than the reservoir the Township does not have any substantial recreational water use areas.

Groundwater recharge areas - The Franklin County Comprehensive Plan indicates that an advantage of a streamside preservation program would be to protect homes and buildings now located in the Flood Plain Preservation area. In addition, surface water run-off would be slowed so that downstream flooding would be limited and the groundwater table would be recharged.

Letterkenny Township's Subdivision and Land Development Ordinance, Article XIII, Section 1300, deals with Storm Water Management. The purpose and scope of the provisions is to protect and conserve groundwater and groundwater recharge areas by requiring a storm water management plan for each subdivision or land development plan at both the preliminary and final plan submittal stage.

Industrial water use - A minimum of secondary treatment, or its equivalent, is required for all industrial and commercial waste.

Wetlands - Many of the wetlands throughout Letterkenny Township are located adjacent to streams and their tributaries. The Township does not specifically mention wetlands in their Subdivision Land Development Ordinance. However because many of the wetland areas fall within the 100-year floodplain, they are protected by the Township's Floodplain Ordinance. Plate 3 depicts wetland areas within Letterkenny Township.

5. Sewage planning required to provide adequate wastewater treatment for areas of the municipality related to:

Five and ten year population growth impacts on existing and proposed wastewater collection and treatment facilities which support the need for expansions of facilities within five to ten years.

Public sewer proposed within this plan will adequately address five and ten year growth impacts.

V. Alternatives to Provide New or Improved Wastewater Disposal Facilities

A. Conventional collection, conveyance, treatment, and discharge alternatives including:

1. Regional Wastewater Concepts

Until recently, it was not feasible to include either Pleasant Hall or Upper Strasburg into a regional system. Letterkenny Township was recently invited by Cumberland-Franklin Joint Municipal Authority

(CFJMA) to connect to its regional system. A detailed feasibility study for connecting Upper Strasburg and Pleasant Hall is included as Appendix H. This appears to be the best alternative available to Letterkenny Township.

2. The potential for extension of existing municipal or non-municipal sewage facilities to areas of need or improved sewage facilities.

   Residents of Letterkenny Township will continue to rely upon on-lot systems in areas that are not serviced by public sewer. The existing sewer system presides mostly in and around the Heisy Development off of Route 997 as well as along Mountain Road. It is planned that the collection system will be extended along Mountain Road to Skyline Road to serve existing development in that area.

3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following:

   Existing municipal and non-municipal sewage facilities will continue to operate by utilizing all of the following:

   a. Repair

      Daily operations and maintenance address any repairs that are needed. Infiltration and inflow overloads will be addressed.

   b. Upgrading

      Continued use of Letterkenny Township's facility will require upgrading to a more efficient system which will create a higher capacity.

   c. Improved operation and maintenance

      Certified Sewage Treatment Plant Operators handle maintenance of the existing facility. Operation and maintenance shall be carried out as usual.

4. The need for construction of new community sewage systems including sewer systems and/or treatment facilities.

   There is currently a need for public sewer due to the contamination of drinking water from malfunctioning on-lot septic systems. Unsuitable soils in developed areas of the Township restrict the construction or repair of on-lot septic systems. The Pleasant Hall and Upper Strasburg areas have demonstrated a need for community collection and treatment facilities and are the only areas that have population densities to support these facilities.

   Construction of a wastewater collection system serving the Upper Strasburg and Pleasant Hall areas will greatly reduce the contamination of drinking water sources from malfunctioning septic systems.

5. Repair or replacement of collection and conveyance system components.

   The existing treatment facility in the Heisy development was upgraded in 1995 and does not need repairs or replacement at this time. Although the plant does not have a history of effluent compliance violations, there is an ongoing program to locate and correct leakage.

6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities.

   The invitation by CFJMA to join their existing collection system provides an alternative to constructing individual collection and treatment systems in Pleasant Hall and Upper Strasburg. The type of collection system being proposed is a small diameter, variable grade sanitary sewer (SDVGSS). The advantage of SDVGSS is that it can run with the terrain and usually only requires a trench 3'-4' in depth, thereby significantly reducing the cost. In addition, this collection system would eliminate the need for individual treatment plants for Upper Strasburg and Pleasant Hall.

B. The continual and future use of individual and community subsurface sewage disposal system alternatives based on:

   1. Soil and slope suitability

      There are systems throughout Letterkenny Township that were installed prior to 1972 in unsuitable soils. Although not all soils are suitable for on-lot sewage disposal systems, the Township will continue to rely upon subsurface sewage disposal in areas not served by public sewer.

   2. Preliminary hydrological evaluation

      At this time, no preliminary hydrogeologic testing is required for proposed subdivisions. However, future preliminary hydrogeologic testing will be required for all proposed subdivisions or within ¼-mile radius of a known well with nitrate/nitrogen contamination.

   3. The establishment of a sewage management program

      Any unplanned subdivisions and developments should be inspected and evaluated to determine if any soils testing took place and whether the on-lot system is suitable. Unplanned subdivisions are indicated on Plate 8. A proposed Sewage Management Ordinance is included in Appendix C.

   4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for on-lot disposal considering:

      Previous malfunctions of on-lot disposal systems within the Township have been remedied. Future malfunctioning systems will be corrected using soil suitability, existing technology and sizing requirements, expanded absorption areas or alternating absorption areas and the use of water conservation devices

C. The use of small-flow sewage treatment facilities, land treatment alternatives, or package treatment facilities to serve individual homes or clusters of homes based on:

   Currently no such situations are known to exist within the Township. Upon the need to design a system of this nature, discharge requirements, soil suitability, hydrogeologic evaluation and operation and maintenance requirements will be primary factors.

D. The use of community land disposal alternatives including:

   1. Soil and site suitability
   2. Preliminary hydrogeological evaluation
   3. Controls over operation and maintenance requirements through a Sewage Management Program.
   4. The rehabilitation or replacement of existing malfunctioning community land disposal systems.

   Currently, no community land disposal systems exist in Letterkenny Township.

E. The use of retaining tank alternatives on a temporary or permanent basis including:

Of the existing four (4) holding tanks in use within Letterkenny Township, three (3) are permanent and one is temporary. Both of the existing privies in use are permanent.

1. Commercial, residential and industrial use

All existing holding tanks and/or privies within the Township are used for residential purposes. During the well sampling efforts in Letterkenny Township it was documented that at least three (3) residential holding tanks are in use. Letterkenny Township records indicate that four (4) holding tanks (3 permanent and 1 temporary), and two (2) privies (both permanent) have been installed since 1985.

2. Designated conveyance facilities

There are several listings in the Franklin County phone book of businesses providing septic tank cleaning services.

3. Designated treatment facilities or disposal site

The designated treatment sites by LTMA for wastes generated by retaining tanks and privies are the Chambersburg and Shippensburg Sewage Treatment Plants.

4. Implementation of a retaining tank ordinance by the Municipality

Letterkenny Township enacted a Holding Tank and Privy Ordinance originally in 1974 with revisions made in 1990. Its purpose was to establish procedures for the use and maintenance of existing and new holding tanks and privies designed to receive and retain sewage whether from residential or commercial uses. A copy of the Holding Tank and Privy Ordinance is included in Appendix C.

5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure.

The Township's existing Holding Tank and Privy Ordinance does not include a provision including financial guarantees.

F. Sewage management program to assure the future operation and maintenance of existing and proposed sewage facilities through:

1. Municipal ownership or other management control over the operation and maintenance of individual on-lot sewage disposal systems, small flow treatment facilities, or other non-municipal treatment facilities.

Following approval of this Act 537 Plan, the Township will adopt an on-lot sewage management program ordinance in order to determine the functional status individual on-lot systems. In the event of a malfunction, the authorized agent shall order action to be taken to correct the malfunction. The Proposed On-lot Sewage Disposal Ordinance is contained in Appendix C.

2. Requiring scheduled inspection of on-lot sewage disposal system.

Currently on-lot disposal systems are inspected when installed and any time a complaint is made. A Sewage Management Ordinance is being proposed to provide guidelines for inspection, maintenance and rehabilitation of on-lot sewage disposal systems. This ordinance can be found in Appendix C. This ordinance will require that any person owning and on-lot disposal system shall have it pumped by a qualified pumper/hauler. After the first year, all tanks may be inspected every three (3) years.

3. Requiring scheduled maintenance of septic and aerobic treatment tanks and associated system components.

   Maintenance of septic tanks is the responsibility of the owner. Any necessary repairs shall also be the responsibility of the property owner. The proposed Sewage Management Ordinance will require that, after the first year, all tanks shall be pumped every three (3) years.

4. Repair, replacement or upgrading of malfunctioning on-lot sewage systems

   a. Aggressive enforcement of ordinances, which require operation and maintenance and prohibit malfunctioning systems

      The report of any complaint will be immediately investigated by the Sewage Enforcement Officer.

   b. Public education program to encourage proper operation and maintenance and repair of sewage disposal systems.

      Public notification will be presented in the Township newsletter that is distributed to all residents of the Township.

5. Establishment of joint municipal sewage management programs

   Not applicable.

6. Requirements for bonding, escrow accounts, management agencies or associations to assure proper operation and maintenance for non-municipal facilities

   Not applicable.

G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including:

   1. Modification of existing comprehensive plans involving:

      Letterkenny Township will continue to rely upon the Franklin County Comprehensive Plan for guidance in land development. The Franklin County Comprehensive Plan was recently updated and takes into consideration the following parameters:

      a. Land Use Designations
      b. Densities
      c. Municipal ordinances and regulation
      d. Improved enforcement
      e. Protection of drinking water sources
      f. Natural Resources and Agricultural Conservation
      g. Land Use and Housing
      h. Transportation
      i. Economic Development
      j. Community Facilities and Services

   2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development.

      Letterkenny Township will continue to rely upon the Franklin County Comprehensive Plan for guidance in land development.

3. Alternatives for creating or changing municipal subdivision regulations to assure long term use of on-site sewage disposal

   Currently no regulations regarding on-site sewage disposal have been set forth in the Letterkenny Subdivision and Land Development Ordinance. Adoption of several ordinances regulating on-site sewage disposal systems is being proposed. If necessary, these regulations may be changed upon adoption or expanded by the Board of Supervisors.

4. Evaluation of existing local agency programs and the need for technical or administrative training.

   Currently there are no local agency programs within Letterkenny Township. The need for technical and administrative training is an ongoing process in Letterkenny Township as well as in other Municipalities.

H. A no-action alternative which includes both short-term and long-term impacts on:

1. Water Quality / Public Health

   Both Pleasant Hall and Upper Strasburg rely upon private wells. Many of these wells are contaminated with coliform, E. Coli, and nitrate/nitrogen from septic systems that pre-date sewage planning. Continued use of existing septic systems will cause continuing degradation of the water quality and could have adverse health effects.

   The water quality of Upper Strasburg and Pleasant Hall will continue to decline if a no action alternative is followed. In the past both of these areas exhibited contamination from on-lot sewage disposal systems and continue to exhibit problems today. Public health will be negatively effected if a proper disposal system is not constructed.

   In a letter from the Pennsylvania Department of Health, dated September 22, 1970, sewage problem concerns were indicated:

   > *Upper Strasburg at the time, having 110 homes on individual water and sewer, was estimated to have at least 60% of the water supplies contaminated with sewage. The Department received 5-10 sewage nuisance complaints per year from this area. The area is noted for a high water table, which was observed during trench excavations.*
   >
   > *Pleasant Hall, having approximately 55 homes on individual water and sewer, was estimated to have 10-20% of the homes experiencing sewage system malfunctions or surface discharges. A 15-unit trailer park has a history of sewage system malfunctions. The soil structure around Pleasant Hall has a slow percolation rate as evidenced by tests conducted by the Department of Health.*

2. Growth potential

   Growth potential will remain minimal if the no-action alternative is chosen. A public sewer in both Upper Strasburg and Pleasant Hall will have a moderate impact on the potential for future development. Public sewer directly influences all residential, commercial and industrial growth. Growth in this respect will be extremely beneficial to the Township.

3. Community economic conditions

   Currently there is very little business and industry in Letterkenny Township, and the economy of the Township is poor. This is at least in part due to the lack of public utilities. Businesses and industries are attracted to areas serviced by public water and sewer. The justification for public sewer in

Letterkenny Township is based on need. A public sewer system in Pleasant Hall and Upper Strasburg will benefit the community.

4. Recreational opportunities

   There are no recreational opportunities directly affected by malfunctioning systems.

5. Drinking water sources

   There is direct evidence that existing septic systems are polluting the groundwater. Well water test results are displayed on Plates 7A and 7B as well as in Table 1. According to many of the well water testing participants, bottled water is used for consumption. Evidence of water contamination exists throughout Letterkenny Township. A sewer system in Pleasant Hall and Upper Strasburg will enhance the quality of water.

6. Other environmental concerns

   Not applicable

VI. The Evaluation of Alternatives

A. Each technically feasible alternative evaluated for consistency with respect to the following:

1. Applicable plans developed and approved under Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act

   The Lower Susquehanna River Basin Comprehensive Water Quality Management Plan (COWAMP) of 1978 contains the following recommendations and statements for Letterkenny Township:

   "In the area of Upper Strasburg there has been found serious malfunctions due to the shallow depth to bedrock and seasonally high water table. This area is expected to have moderate to slow population growth in the future. Since projections are low, the COWAMP study recommends the maintenance and/or improvement of properly managed individual on-lot disposal systems. In the area of Pleasant Hall there are also serious on-lot disposal system malfunctions. Indications are made in the plan that a treatment facility has been permitted by DEP however there are insufficient priority points to obtain Federal Funding. The COWAMP Plan suggests as a solution the use of the proposed treatment plant or continued use of on-lot systems with maintenance and improvements to the systems."

2. Municipal wasteload management plans developed under PA Code, Title 25 Chapter 94

   Letterkenny Township's 1998 Chapter 94 annual report states that from a comprehensive standpoint, the entire system was in good operating condition. No expansion of the existing collection and treatment system is planned at this time.

3. Plans developed under Title II of the Clean Water Act

   This Act 537 Plan was found to be consistent with Letterkenny Township's original Act 537 Plan of 1971, which recommended sanitary sewers for the villages of Upper Strasburg and Pleasant Hall. Likewise, the 1989 Addendum to the Township's Official Plan recommended sewerage of these areas. The present plan is thus consistent with previous planning. In addition, the best practicable waste treatment technology alternatives have been considered in this Plan, while accounting for cost-effectiveness.

4. Comprehensive plans developed under the Pennsylvania Municipalities Planning Code

   Letterkenny Township has not developed a Comprehensive Plan at this time and will continue to rely on the County's Comprehensive Plan for guidance.

5. Anti-degradation requirements as contained in PA Code, Title 25, Chapters 93, 95, and 102

   The proposed Act 537 Plan is consistent with these provisions in that discharge of effluent resulting from the construction of public sewers and treatment facilities will enter Keasey Run and Leahman Run, neither of which is listed in COWAMP as high quality or exceptional value. Furthermore, the elimination of malfunctioning, on-lot septic systems in the villages of Pleasant Hall and Upper Strasburg will contribute to improve water quality in both streams. To ensure maintenance of stream quality, the proposed treatment plants will meet all NPDES permit requirements.

6. State water plans developed under the Water Resources Planning Act

   The Conodoguinet Creek forms the main stream watershed for Letterkenny Township. The Conodoguinet and its tributaries suffer from nutrient enrichment. Monitoring stations have detected significant quantities of nitrates and phosphates in the creek itself. Also, a considerable amount of algal activity has been detected within the Creek. Since Letterkenny Township does not withdraw public water supplies from the Creek, these findings have no significant impact on the Township. However, if the Township would decide to use the Creek as a future water source, measures to conserve and preserve the water would be necessary.

7. Pennsylvania Prime Agricultural Land Policy contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W.

   Plate 11 shows the location of both Prime Agricultural soils and Agricultural Security Areas (ASA). While the proposed sewerage of the Upper Strasburg and Pleasant Hall areas will involve ASAs and Prime Agricultural soils, the impact will be minimal due to the fact that the proposed sewer will be constructed primarily along the existing already developed residential corridors.

8. County Stormwater Management Plans approved by the Department under Storm Water Management Act

   Franklin County has no Stormwater Management Plan applicable to the watershed in which the proposed sewer systems are located.

9. Wetland Protection under PA Code, Title 25, Chapter 105.

   The proposed alternatives presented in this Act 537 Plan should not impact wetlands in the Township. Plate 3 identifies wetlands for Letterkenny Township. In the event that wetlands will be affected, all necessary permits will be obtained prior to construction in order to be consistent with PA Code, Title 25, Chapter 105. Also, the project will comply with all current Departmental regulations regarding stream crossings and erosion and sedimentation control.

10. Protection of rare, endangered or threatened plant and animal species as identified by the Pennsylvania National Diversity Inventory (PNDI)

    Correspondence with the Bureau of Forestry regarding PNDI indicates that no rare, threatened, or endangered species are expected to be affected by the proposed construction of Letterkenny Township's sewer systems. (See Appendix B for a copy of the correspondence)

11. Historical and Archaeological Resource Protection under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical Museum Commission.

    Correspondence with the Pennsylvania Historical and Museum Commission Bureau of Historic Preservation indicates a high probability that prehistoric and historic archaeological resources are located in this project area. However, in the Commission's opinion, the proposed sewering of Pleasant Hall and Upper Strasburg "should have no effect on such resources". (See Appendix B for copy of correspondence.)

12. Other Environmental Considerations

    The sewage collection facilities proposed for Letterkenny Township will have very limited impact on recreation and open spaces. Construction will occur primarily along roadways, such that existing recreational areas will not be affected, nor will additional recreational areas become available as a result of construction. Air quality will be affected in that new sources of emissions or odors will be created due to the of new treatment facilities. However, due to the relatively small size of the treatment facilities, creation of new odors should be minimal. The quality of local groundwater supplies will be enhanced by the elimination of malfunctioning on-lot septic systems.

    Other environmental concerns that will be affected minimally or not at all include the following:

    Floodplains — No floodplains will be impacted by the proposed projects. Plate 14 shows the floodplains for Letterkenny Township.

    Erosion and Sedimentation — All necessary measures will be taken, and all regulations followed in order to prevent erosion and sedimentation problems.

    Noise — The proposed expansion of sewage collection facilities will not be a source of additional noise except during construction.

    Land Use — The project should have little effect on land use.

    Energy — The proposed project will have no impact on energy resources.

    Coastal Zone Management — Not applicable.

    Aesthetics — No negative impacts should occur, except temporarily during the construction phase of the project.

    Socio-economic — Letterkenny Township is a community of low to moderate income levels. If grants and low interest loans are available, economic impacts can be reduced. Otherwise, moderate impacts can be expected.

B. Provide for the resolution of any inconsistencies

    There have been no inconsistencies found to date.

C. Evaluate each alternative with respect to applicable water quality standards

    Several alternative treatment systems have been evaluated. These include the following:

WASTEWATER TREATMENT ALTERNATIVES

- Extended Aeration Treatment Plant
- Membrane Filtration Plant
- Sequencing Batch Reactor (SBR)

Extended Aeration Plant

Extended aeration is a completely mixed process with equalization tanks, aeration tanks, aeration system, clarifier, disinfection, and sludge handling components. The aeration tank is typically sized to provide an average hydraulic detention time of 24 to 72 hours. As a result, this system generates a more stabilized sludge than other variations of the activated sludge process. Minor limitations to this system include denitrification in the final clarifier causing solids carryover, difficult control of mixed liquor suspended solids, cold weather upsets, sensitive operational control and ability to adequately process large wet weather flows. An ultraviolet system can be used with an extended aeration plant to provide disinfection prior to discharge, eliminating the need for chlorination/dechlorination. A UV system of this nature would include a channel assembly plus additional equipment, a power distribution center, engineering services, wall mounted UV lamp module servicing/cleaning rack assembly, system spare parts, on-site services, system documentation/operating instruction manuals and equipment packaging. The extended aeration plant would consist of the following zones: equalization, aeration, digester, and clarifier. The following equipment would be included: steel tankage, sludge return and waste system, scum removal system, air supply system with stainless steel coarse bubble diffusers, access walkway with galvanized grating and handrails, hopper type clarifier, inlet bar screen, access ladder, duplex positive displacement blowers, primer and finish and a control panel.

Membrane Filtration

This technology is based on the combination of bio-oxidation and membrane separation. The system is designed to treat wastewater to a tertiary quality effluent. The system includes a steel tank with internal piping and diffusers, membrane filtration system, programmable controller, blower system, and sump transfer pumps. The disadvantages of this system include high costs and intensive maintenance.

Sequencing Batch Reactor (SBR)

The SBR process combines aeration, sedimentation and decant functions in a single reactor. It consists of two parallel tanks. The process employs a seven-stage cycle: Mixed Fill, React Fill, React, Settle, Decant/Waste Sludge, and Idle. Each reactor operates on five cycles per day.

Critical components of a SBR system include mixing, aeration, decanters and process controls. They are important for nutrient removal, a high quality effluent, energy efficiency, easy installation, simple operation and low maintenance. The key advantages of the SBR process are its simplicity, reliability, suitability for wide variations in flow rates, less operator attention than most mechanical systems, high operational flexibility and very consistent effluent quality due to quiescent batch settling. The disadvantages for this type of process include the need for skilled operators, regular inspection and maintenance and the need for additional monitoring in the reactors to maintain high effluent quality. Operation and maintenance requirements for a SBR are minimal when compared to other conventional activated sludge treatment systems. Generally, a SBR generates the same quantities of sludge as an extended aeration process. This sludge will be aerobically digested and either land applied or dewatered using a sludge press and then landfilled.

D. Provide cost estimates using present worth analysis for construction, financing, on-going administration, operation and maintenance and user fees for each alternative identified

Letterkenny Township has commissioned and has reviewed a variety of alternatives for providing sewage treatment to the Upper Strasburg and Pleasant Hall areas. In order to minimize costs, it is in the Township's

best interest to avoid pumping stations if possible. The terrain in the Upper Strasburg area allows completely for gravity flow. Pleasant Hall is located on a knoll and a combination of gravity, pumping stations, and grinder pumps would be necessary.

Description of Collection Alternatives

UPPER STRASBURG (Plates 15.1 through 1D)

Five collection alternatives have been developed for the Upper Strasburg area, four collection alternatives have been developed for the Pleasant Hall area, and one collection alternative has been developed that combines the two areas.

Alternative #1 studied a gravity collection system and treatment plant for Upper Strasburg that discharges to a tributary of Keasey Run.

Alternative #1A is similar to Alternative #1. A pressure sewer line and pump station are used near the intersection of SR 4004 and SR 533. Also the treatment plant is in a different location.

Alternative #1B is similar to Alternative #1. However the service area northeast along SR 4004 has been reduced and the treatment plant is in a different location.

Alternative #1C is similar to Alternative #1. However the service mains in the village area have been moved from the State rights-of-way to alleys running behind the homes.

Alternative #1D is similar to #1C except that the service area northeast on along SR 4004 has been reduced.

PLEASANT HALL (Plates 15.2 through 2C)

Alternative #2 studied a combination of gravity sewer, pressure sewer and pump stations, and grinder pumps for Pleasant Hall. The treatment plant will discharge the treated effluent into Lehman Run.

Alternative #2A is similar to Alternative #2. However the service area has extended east along SR 0533 and Iron Bridge Road (T-598) using a grinder pump system.

Alternative #2B is similar to Alternative #2. However one of the pump stations was eliminated by running a gravity line through private land and along Keasey Run to the treatment plant.

Alternative #2C is similar to Alternative #2A. However the extended area along SR 0533 and T-598 are served with a gravity/pressure line system rather than the grinder pump system as proposed in #2A.

COMBINATION OF PLEASANT HALL AND UPPER STRASBURG (Plate 3)

Alternative #3 uses a combination of Alternatives #1D and #2A. These two Alternatives would be connected by gravity and force sewer along S.R. 0533. One treatment plant would be utilized for the two service areas and the residents between the towns would also be tied into the public system. The treatment plant would be located midway between the towns and would discharge into a tributary of Keasey Run.

CUMBERLAND-FRANKLIN JOINT MUNICIPAL AUTHORITY PROPOSAL (Appendix H)

Alternative #4 a small diameter, variable grade sanitary sewer (SDVGSS) collection system with modified septic tanks at individual residences to collect solids. Waste would be transported through 2" to 4" pipe from Upper Strasburg and Pleasant Hall to the existing collection system located in Orrstown. This waste would be treated in the existing Borough of Shippensburg treatment plant.

Cost analyses for the above Alternatives are as follows:

UPPER STRASBURG
COLLECTION ALTERNATIVE #1

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	18050 LF	$ 41.00	$ 740,050.00
2	Highway Crossing	7	$ 4,000.00	$ 28,000.00
3	Manholes	56	$ 2,000.00	$ 112,000.00
4	PennDOT Backfill	13650 LF	$ 5.00	$ 68,250.00
5	PennDOT Shoulder Restoration	13650 LF	$ 7.00	$ 95,550.00
6	Township Shoulder Restoration	2650 LF	$ 3.00	$ 7,950.00
7	Lawn/Rights-of-way Restoration	900 LF	$ 3.00	$ 2,700.00
			SUBTOTAL	$ 1,054,500.00
	Sewage Treatment Plant			$ 600,000.00
			SUBTOTAL	$ 1,654,500.00
	15% Contingencies			$ 248,175.00
			SUBTOTAL	$ 1,902,675.00
	25% Overhead			$ 475,700.00
			SUBTOTAL	$ 2,378,375.00
	Connection Fees (140 x $2,000)			$ (280,000.00)
	Amount to be financed by Township		TOTAL	$ 2,098,375.00

Assume 20 year PennVest loan at 2 %	
Amount to be financed	$ 2,098,375.00
Annual Cost to Twp. @ 2%	$ 127,380.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 157,380.00
Annual Cost per EDU	$ 1,124.14
Monthly Cost per EDU	$ 93.68

Assume 20 year loan at 4.5%	
Amount to be financed	$ 2,098,375.00
Annual Cost to Twp. @ 4.5%	$ 159,300.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 189,300.00
Annual Cost per EDU	$ 1,352.14
Monthly Cost per EDU	$ 112.68

Assume 45% Grant with 20 year loan at 4.5%	
Amount to be financed	$ 2,098,375.00
Assuming 45 % Grant	$ (944,268.75)
Amount to be financed after Grant	$ 1,154,106.25
Annual Cost to Twp. @ 4.5%	$ 87,617.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 117,617.00
Annual Cost per EDU	$ 840.12
Monthly Cost per EDU	$ 70.01

COLLECTION ALTERNATIVE #1
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 2,098,375.00	$ 127,380.00	$ 30,000.00	$ 157,380.00	0.95693780	$ 150,602.87
2		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.91572995	$ 144,117.58
3		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.87629660	$ 137,911.56
4		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.83856134	$ 131,972.78
5		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.82045105	$ 129,122.59
6		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.76789574	$ 120,851.43
7		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.73482846	$ 115,647.30
8		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.70318513	$ 110,667.28
9		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.67290443	$ 105,901.70
10		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.64392768	$ 101,341.34
11		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.61619874	$ 96,977.36
12		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.58966386	$ 92,801.30
13		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.56427164	$ 88,805.07
14		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.53997286	$ 84,980.93
15		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.51672044	$ 81,321.46
16		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.49446932	$ 77,819.58
17		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.47317639	$ 74,468.50
18		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.45280037	$ 71,261.72
19		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.43330179	$ 68,193.04
20		$ 127,380.00	$ 30,000.00	$ 157,380.00	0.41464268	$ 65,256.46
		TOTALS:		$ 3,147,600.00		$ 2,050,021.85

COLLECTION ALTERNATIVE #1
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 2,098,375.00	$ 159,300.00	$ 30,000.00	$ 189,300.00	0.95693780	$ 181,148.33
2		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.91572995	$ 173,347.68
3		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.87629660	$ 165,882.95
4		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.83856134	$ 158,739.66
5		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.82045105	$ 155,311.38
6		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.76789574	$ 145,362.66
7		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.73482846	$ 139,103.03
8		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.70318513	$ 133,112.95
9		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.67290443	$ 127,380.81
10		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.64392768	$ 121,895.51
11		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.61619874	$ 116,646.42
12		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.58966386	$ 111,623.37
13		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.56427164	$ 106,816.62
14		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.53997286	$ 102,216.86
15		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.51672044	$ 97,815.18
16		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.49446932	$ 93,603.04
17		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.47317639	$ 89,572.29
18		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.45280037	$ 85,715.11
19		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.43330179	$ 82,024.03
20		$ 159,300.00	$ 30,000.00	$ 189,300.00	0.41464268	$ 78,491.86
		TOTALS:		$ 3,786,000.00		$ 2,465,809.74

COLLECTION ALTERNATIVE #1
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,154,106.25	$ 87,617.00	$ 30,000.00	$ 117,617.00	0.95693780	$ 112,552.15
2		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.91572995	$ 107,705.41
3		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.87629660	$ 103,067.38
4		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.83856134	$ 98,629.07
5		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.82045105	$ 96,498.99
6		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.76789574	$ 90,317.59
7		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.73482846	$ 86,428.32
8		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.70318513	$ 82,706.53
9		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.67290443	$ 79,145.00
10		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.64392768	$ 75,736.84
11		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.61619874	$ 72,475.45
12		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.58966386	$ 69,354.49
13		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.56427164	$ 66,367.94
14		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.53997286	$ 63,509.99
15		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.51672044	$ 60,775.11
16		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.49446932	$ 58,158.00
17		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.47317639	$ 55,653.59
18		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.45280037	$ 53,257.02
19		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.43330179	$ 50,963.66
20		$ 87,617.00	$ 30,000.00	$ 117,617.00	0.41464268	$ 48,769.03
		TOTALS:		$ 2,352,340.00		$ 1,532,071.55

UPPER STRASBURG
COLLECTION ALTERNATIVE #1A

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	19300 LF	$ 41.00	$ 791,300.00
2	4-inch Force Line	350 LF	$ 25.00	$ 8,750.00
3	Highway Crossing	8	$ 4,000.00	$ 32,000.00
4	Manholes	61	$ 2,000.00	$ 122,000.00
5	Pump Station	1	$ 75,000.00	$ 75,000.00
6	PennDOT Backfill	12250 LF	$ 5.00	$ 61,250.00
7	PennDOT Shoulder Restoration	12250 LF	$ 7.00	$ 85,750.00
8	Township Shoulder Restoration	4650 LF	$ 3.00	$ 13,950.00
9	Lawn/Rights-of-way Restoration	1700 LF	$ 3.00	$ 5,100.00
			SUBTOTAL	$ 1,195,100.00
	Sewage Treatment Plant			$ 600,000.00
			SUBTOTAL	$ 1,795,100.00
	15% Contingencies			$ 269,265.00
			SUBTOTAL	$ 2,064,365.00
	25% Overhead			$ 516,091.25
			SUBTOTAL	$ 2,580,456.25
	Connection Fees (140 x $2,000)			$ (280,000.00)
	Amount to be financed by Township		TOTAL	$ 2,300,456.25

Assume 20 year loan at 2 %		
	Amount to be financed	$ 2,300,456.25
	Annual Cost to Twp. @ 2%	$ 139,650.00
	Annual Operating and Maintenance Cost	$ 30,000.00
	Total Annual Cost to Township	$ 169,650.00
	Annual Cost per EDU	$ 1,211.79
	Monthly Cost per EDU	$ 100.98

Assume 20 year loan at 4.5%		
	Amount to be financed	$ 2,300,456.25
	Annual Cost to Twp. @ 4.5%	$ 174,650.00
	Annual Operating and Maintenance Cost	$ 30,000.00
	Total Annual Cost to Township	$ 204,650.00
	Annual Cost per EDU	$ 1,461.79
	Monthly Cost per EDU	$ 121.82

Assume 45% Grant with 20 year loan at 4.5%		
	Amount to be financed	$ 2,300,456.25
	Assuming 45 % Grant	$ (1,035,205.31)
	Amount to be financed after Grant	$ 1,265,250.94
	Annual Cost to Twp. @ 4.5%	$ 96,055.00
	Annual Operating and Maintenance Cost	$ 30,000.00
	Total Annual Cost to Township	$ 126,055.00
	Annual Cost per EDU	$ 900.39
	Monthly Cost per EDU	$ 75.03

COLLECTION ALTERNATIVE #1A
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 2,300,456.25	$ 139,650.00	$ 30,000.00	$ 169,650.00	0.95693780	$ 162,344.50
2		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.91572995	$ 155,353.59
3		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.87629660	$ 148,663.72
4		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.83856134	$ 142,261.93
5		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.82045105	$ 139,189.52
6		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.76789574	$ 130,273.51
7		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.73482846	$ 124,663.65
8		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.70318513	$ 119,295.36
9		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.67290443	$ 114,158.24
10		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.64392768	$ 109,242.33
11		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.61619874	$ 104,538.12
12		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.58966386	$ 100,036.47
13		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.56427164	$ 95,728.68
14		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.53997286	$ 91,606.40
15		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.51672044	$ 87,661.62
16		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.49446932	$ 83,886.72
17		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.47317639	$ 80,274.37
18		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.45280037	$ 76,817.58
19		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.43330179	$ 73,509.65
20		$ 139,650.00	$ 30,000.00	$ 169,650.00	0.41464268	$ 70,344.13
		TOTALS:		$ 3,393,000.00		$ 2,209,850.09

COLLECTION ALTERNATIVE #1A
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 2,300,456.25	$ 174,650.00	$ 30,000.00	$ 204,650.00	0.95693780	$ 195,837.32
2		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.91572995	$ 187,404.13
3		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.87629660	$ 179,334.10
4		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.83856134	$ 171,611.58
5		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.82045105	$ 167,905.31
6		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.76789574	$ 157,149.86
7		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.73482846	$ 150,382.64
8		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.70318513	$ 143,906.84
9		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.67290443	$ 137,709.89
10		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.64392768	$ 131,779.80
11		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.61619874	$ 126,105.07
12		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.58966386	$ 120,674.71
13		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.56427164	$ 115,478.19
14		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.53997286	$ 110,505.45
15		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.51672044	$ 105,746.84
16		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.49446932	$ 101,193.15
17		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.47317639	$ 96,835.55
18		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.45280037	$ 92,665.60
19		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.43330179	$ 88,675.21
20		$ 174,650.00	$ 30,000.00	$ 204,650.00	0.41464268	$ 84,856.62
		TOTALS:		$ 4,093,000.00		$ 2,665,757.86

COLLECTION ALTERNATIVE #1A
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,265,251.00	$ 96,055.00	$ 30,000.00	$ 126,055.00	0.95693780	$ 120,626.79
2		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.91572995	$ 115,432.34
3		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.87629660	$ 110,461.57
4		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.83856134	$ 105,704.85
5		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.82045105	$ 103,421.96
6		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.76789574	$ 96,797.10
7		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.73482846	$ 92,628.80
8		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.70318513	$ 88,640.00
9		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.67290443	$ 84,822.97
10		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.64392768	$ 81,170.30
11		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.61619874	$ 77,674.93
12		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.58966386	$ 74,330.08
13		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.56427164	$ 71,129.26
14		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.53997286	$ 68,066.28
15		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.51672044	$ 65,135.20
16		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.49446932	$ 62,330.33
17		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.47317639	$ 59,646.25
18		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.45280037	$ 57,077.75
19		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.43330179	$ 54,619.86
20		$ 96,055.00	$ 30,000.00	$ 126,055.00	0.41464268	$ 52,267.78
		TOTALS:		$ 2,521,100.00		$ 1,641,984.40

UPPER STRASBURG
COLLECTION ALTERNATIVE #1B

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	17250 LF	$ 41.00	$ 707,250.00
2	Highway Crossing	7	$ 4,000.00	$ 28,000.00
3	Manholes	56	$ 2,000.00	$ 112,000.00
4	PennDOT Backfill	11850 LF	$ 5.00	$ 59,250.00
5	PennDOT Shoulder Restoration	11850 LF	$ 7.00	$ 82,950.00
6	Township Shoulder Restoration	2650 LF	$ 3.00	$ 7,950.00
7	Lawn/Rights-of-way Restoration	2400 LF	$ 3.00	$ 7,200.00
			SUBTOTAL	$ 1,004,600.00
	Sewage Treatment Plant			$ 500,000.00
			SUBTOTAL	$ 1,504,600.00
	15% Contingencies			$ 225,690.00
			SUBTOTAL	$ 1,730,290.00
	25% Overhead			$ 432,572.50
			SUBTOTAL	$ 2,162,862.50
	Connection Fees (122 x $2,000)			$ (244,000.00)
	Amount to be financed by Township		SUBTOTAL	$ 1,918,862.50

Assume 20 year loan at 2 %		
Amount to be financed	$	1,918,862.50
Annual Cost to Twp. @ 2%	$	116,485.00
Annual Operating and Maintenance Cost	$	30,000.00
Total Annual Cost to Township	$	146,485.00
Annual Cost per EDU	$	1,200.70
Monthly Cost per EDU	$	100.06

Assume 20 year loan at 4.5%		
Amount to be financed	$	1,918,862.50
Annual Cost to Twp. @ 4.5%	$	145,675.00
Annual Operating and Maintenance Cost	$	30,000.00
Total Annual Cost to Township	$	175,675.00
Annual Cost per EDU	$	1,439.96
Monthly Cost per EDU	$	120.00

Assume 45% Grant with 20 year loan at 4.5%		
Amount to be financed	$	1,918,862.50
Assuming 45 % Grant	$	(863,488.13)
Amount to be financed after Grant	$	1,055,374.38
Annual Cost to Twp. @ 4.5%	$	80,122.00
Annual Operating and Maintenance Cost	$	30,000.00
Total Annual Cost to Township	$	110,122.00
Annual Cost per EDU	$	902.64
Monthly Cost per EDU	$	75.22

COLLECTION ALTERNATIVE #1B
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,918,862.50	$ 116,485.00	$ 30,000.00	$ 146,485.00	0.95693780	$ 140,177.03
2		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.91572995	$ 134,140.70
3		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.87629660	$ 128,364.31
4		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.83856134	$ 122,836.66
5		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.82045105	$ 120,183.77
6		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.76789574	$ 112,485.21
7		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.73482846	$ 107,641.35
8		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.70318513	$ 103,006.07
9		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.67290443	$ 98,570.41
10		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.64392768	$ 94,325.75
11		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.61619874	$ 90,263.87
12		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.58966386	$ 86,376.91
13		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.56427164	$ 82,657.33
14		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.53997286	$ 79,097.92
15		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.51672044	$ 75,691.79
16		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.49446932	$ 72,432.34
17		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.47317639	$ 69,313.24
18		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.45280037	$ 66,328.46
19		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.43330179	$ 63,472.21
20		$ 116,485.00	$ 30,000.00	$ 146,485.00	0.41464268	$ 60,738.93
		TOTALS:		$ 2,929,700.00		$ 1,908,104.27

COLLECTION ALTERNATIVE #1B
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,918,862.50	$ 145,675.00	$ 30,000.00	$ 175,675.00	0.95693780	$ 168,110.05
2		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.91572995	$ 160,870.86
3		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.87629660	$ 153,943.41
4		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.83856134	$ 147,314.26
5		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.82045105	$ 144,132.74
6		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.76789574	$ 134,900.08
7		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.73482846	$ 129,090.99
8		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.70318513	$ 123,532.05
9		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.67290443	$ 118,212.49
10		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.64392768	$ 113,122.00
11		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.61619874	$ 108,250.71
12		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.58966386	$ 103,589.20
13		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.56427164	$ 99,128.42
14		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.53997286	$ 94,859.73
15		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.51672044	$ 90,774.86
16		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.49446932	$ 86,865.90
17		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.47317639	$ 83,125.26
18		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.45280037	$ 79,545.70
19		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.43330179	$ 76,120.29
20		$ 145,675.00	$ 30,000.00	$ 175,675.00	0.41464268	$ 72,842.35
		TOTALS:		$ 3,513,500.00		$ 2,288,331.35

COLLECTION ALTERNATIVE #1B
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,055,374.00	$ 80,122.00	$ 30,000.00	$ 110,122.00	0.95693780	$ 105,379.90
2		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.91572995	$ 100,842.01
3		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.87629660	$ 96,499.53
4		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.83856134	$ 92,344.05
5		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.82045105	$ 90,349.71
6		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.76789574	$ 84,562.21
7		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.73482846	$ 80,920.78
8		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.70318513	$ 77,436.15
9		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.67290443	$ 74,101.58
10		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.64392768	$ 70,910.60
11		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.61619874	$ 67,857.04
12		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.58966386	$ 64,934.96
13		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.56427164	$ 62,138.72
14		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.53997286	$ 59,462.89
15		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.51672044	$ 56,902.29
16		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.49446932	$ 54,451.95
17		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.47317639	$ 52,107.13
18		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.45280037	$ 49,863.28
19		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.43330179	$ 47,716.06
20		$ 80,122.00	$ 30,000.00	$ 110,122.00	0.41464268	$ 45,661.28
		TOTALS:		$ 2,202,440.00		$ 1,434,442.15

UPPER STRASBURG
COLLECTION ALTERNATIVE #1C

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	16450 LF	$ 41.00	$ 674,450.00
2	Highway Crossing	7	$ 4,000.00	$ 28,000.00
3	Manholes	52	$ 2,000.00	$ 104,000.00
4	PennDOT Backfill	8250 LF	$ 5.00	$ 41,250.00
5	PennDOT Shoulder Restoration	8250 LF	$ 7.00	$ 57,750.00
6	Township Shoulder Restoration	6100 LF	$ 3.00	$ 18,300.00
7	Lawn/Rights-of-way Restoration	1800 LF	$ 3.00	$ 5,400.00
			SUBTOTAL	$ 929,150.00
	Sewage Treatment Plant			$ 600,000.00
			SUBTOTAL	$ 1,529,150.00
	15% Contingencies			$ 229,372.50
			SUBTOTAL	$ 1,758,522.50
	25% Overhead			$ 439,630.63
			SUBTOTAL	$ 2,198,153.13
	Connection Fees (140 x $2,000)			$ (280,000.00)
	Amount to be financed by Township		TOTAL	$ 1,918,153.13

Assume 20 year loan at 2 %	
Amount to be financed	$ 1,918,153.13
Annual Cost to Twp. @ 2%	$ 116,443.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 146,443.00
Annual Cost per EDU	$ 1,046.02
Monthly Cost per EDU	$ 87.17

Assume 20 year loan at 4.5%	
Amount to be financed	$ 1,918,153.13
Annual Cost to Twp. @ 4.5%	$ 145,622.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 175,622.00
Annual Cost per EDU	$ 1,254.44
Monthly Cost per EDU	$ 104.54

Assume 45% Grant with 20 year loan at 4.5%	
Amount to be financed	$ 1,918,153.13
Assuming 45 % Grant	$ (863,168.91)
Amount to be financed after Grant	$ 1,054,984.22
Annual Cost to Twp. @ 4.5%	$ 80,092.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 110,092.00
Annual Cost per EDU	$ 786.37
Monthly Cost per EDU	$ 65.53

COLLECTION ALTERNATIVE #1C
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,918,153.13	$ 116,443.00	$ 30,000.00	$ 146,443.00	0.95693780	$ 140,136.84
2		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.91572995	$ 134,102.24
3		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.87629660	$ 128,327.50
4		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.83856134	$ 122,801.44
5		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.82045105	$ 120,149.31
6		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.76789574	$ 112,452.96
7		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.73482846	$ 107,610.48
8		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.70318513	$ 102,976.54
9		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.67290443	$ 98,542.14
10		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.64392768	$ 94,298.70
11		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.61619874	$ 90,237.99
12		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.58966386	$ 86,352.14
13		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.56427164	$ 82,633.63
14		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.53997286	$ 79,075.25
15		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.51672044	$ 75,670.09
16		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.49446932	$ 72,411.57
17		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.47317639	$ 69,293.37
18		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.45280037	$ 66,309.44
19		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.43330179	$ 63,454.01
20		$ 116,443.00	$ 30,000.00	$ 146,443.00	0.41464268	$ 60,721.52
		TOTALS:		$ 2,928,860.00		$ 1,907,557.19

COLLECTION ALTERNATIVE #1C
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,918,153.13	$ 145,622.00	$ 30,000.00	$ 175,622.00	0.95693780	$ 168,059.33
2		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.91572995	$ 160,822.33
3		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.87629660	$ 153,896.96
4		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.83856134	$ 147,269.82
5		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.82045105	$ 144,089.25
6		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.76789574	$ 134,859.39
7		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.73482846	$ 129,052.04
8		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.70318513	$ 123,494.78
9		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.67290443	$ 118,176.82
10		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.64392768	$ 113,087.87
11		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.61619874	$ 108,218.06
12		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.58966386	$ 103,557.95
13		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.56427164	$ 99,098.51
14		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.53997286	$ 94,831.11
15		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.51672044	$ 90,747.48
16		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.49446932	$ 86,839.69
17		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.47317639	$ 83,100.18
18		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.45280037	$ 79,521.71
19		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.43330179	$ 76,097.33
20		$ 145,622.00	$ 30,000.00	$ 175,622.00	0.41464268	$ 72,820.38
		TOTALS:		$ 3,512,440.00		$ 2,287,640.98

COLLECTION ALTERNATIVE #1C
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,054,984.22	$ 80,092.00	$ 30,000.00	$ 110,092.00	0.95693780	$ 105,351.20
2		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.91572995	$ 100,814.54
3		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.87629660	$ 96,473.25
4		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.83856134	$ 92,318.90
5		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.82045105	$ 90,325.10
6		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.76789574	$ 84,539.18
7		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.73482846	$ 80,898.73
8		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.70318513	$ 77,415.06
9		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.67290443	$ 74,081.39
10		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.64392768	$ 70,891.29
11		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.61619874	$ 67,838.55
12		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.58966386	$ 64,917.27
13		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.56427164	$ 62,121.79
14		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.53997286	$ 59,446.69
15		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.51672044	$ 56,886.79
16		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.49446932	$ 54,437.12
17		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.47317639	$ 52,092.94
18		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.45280037	$ 49,849.70
19		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.43330179	$ 47,703.06
20		$ 80,092.00	$ 30,000.00	$ 110,092.00	0.41464268	$ 45,648.84
		TOTALS:		$ 2,201,840.00		$ 1,434,051.38

UPPER STRASBURG
COLLECTION ALTERNATIVE #1D

Item	Description	Quantity		Unit Cost		Total
1	8-inch Main Line	13600 LF	$	41.00	$	557,600.00
2	Highway Crossing	6	$	4,000.00	$	24,000.00
3	Manholes	44	$	2,000.00	$	88,000.00
4	PennDOT Backfill	5400 LF	$	5.00	$	27,000.00
5	PennDOT Shoulder Restoration	5400 LF	$	7.00	$	37,800.00
6	Township Shoulder Restoration	6100 LF	$	3.00	$	18,300.00
7	Lawn/Rights-of-way Restoration	1800 LF	$	3.00	$	5,400.00
				SUBTOTAL	$	758,100.00
	Sewage Treatment Plant				$	500,000.00
				SUBTOTAL	$	1,258,100.00
	15% Contingencies				$	188,715.00
				SUBTOTAL	$	1,446,815.00
	25% Overhead				$	361,703.75
				SUBTOTAL	$	1,808,518.75
	Connection Fees (122 x $2,000)				$	(244,000.00)
	Amount to be financed by Township			SUBTOTAL	$	1,564,518.75

Assume 20 year loan at 2 %			
	Amount to be financed	$	1,564,518.75
	Annual Cost to Twp. @ 2%	$	94,975.00
	Annual Operating and Maintenance Cost	$	30,000.00
	Total Annual Cost to Township	$	124,975.00
	Annual Cost per EDU	$	1,024.39
	Monthly Cost per EDU	$	85.37

Assume 20 year loan at 4.5%			
	Amount to be financed	$	1,564,518.75
	Annual Cost to Twp. @ 4.5%	$	118,775.00
	Annual Operating and Maintenance Cost	$	30,000.00
	Total Annual Cost to Township	$	148,775.00
	Annual Cost per EDU	$	1,219.47
	Monthly Cost per EDU	$	101.62

Assume 45% Grant with 20 year loan at 4.5%			
	Amount to be financed	$	1,564,518.75
	Assuming 45 % Grant	$	(704,033.44)
	Amount to be financed after Grant	$	860,485.31
	Annual Cost to Twp. @ 4.5%	$	65,326.00
	Annual Operating and Maintenance Cost	$	30,000.00
	Total Annual Cost to Township	$	95,326.00
	Annual Cost per EDU	$	781.36
	Monthly Cost per EDU	$	65.11

COLLECTION ALTERNATIVE #1D
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,564,518.75	$ 94,975.00	$ 30,000.00	$ 124,975.00	0.95693780	$ 119,593.30
2		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.91572995	$ 114,443.35
3		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.87629660	$ 109,515.17
4		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.83856134	$ 104,799.20
5		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.82045105	$ 102,535.87
6		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.76789574	$ 95,967.77
7		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.73482846	$ 91,835.19
8		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.70318513	$ 87,880.56
9		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.67290443	$ 84,096.23
10		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.64392768	$ 80,474.86
11		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.61619874	$ 77,009.44
12		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.58966386	$ 73,693.24
13		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.56427164	$ 70,519.85
14		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.53997286	$ 67,483.11
15		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.51672044	$ 64,577.14
16		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.49446932	$ 61,796.30
17		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.47317639	$ 59,135.22
18		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.45280037	$ 56,588.73
19		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.43330179	$ 54,151.89
20		$ 94,975.00	$ 30,000.00	$ 124,975.00	0.41464268	$ 51,819.97
		TOTALS:		$ 2,499,500.00		$ 1,627,916.39

COLLECTION ALTERNATIVE #1D
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,564,518.75	$ 118,775.00	$ 30,000.00	$ 148,775.00	0.95693780	$ 142,368.42
2		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.91572995	$ 136,237.72
3		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.87629660	$ 130,371.03
4		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.83856134	$ 124,756.96
5		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.82045105	$ 122,062.60
6		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.76789574	$ 114,243.69
7		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.73482846	$ 109,324.10
8		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.70318513	$ 104,616.37
9		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.67290443	$ 100,111.36
10		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.64392768	$ 95,800.34
11		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.61619874	$ 91,674.97
12		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.58966386	$ 87,727.24
13		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.56427164	$ 83,949.51
14		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.53997286	$ 80,334.46
15		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.51672044	$ 76,875.08
16		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.49446932	$ 73,564.67
17		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.47317639	$ 70,396.82
18		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.45280037	$ 67,365.38
19		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.43330179	$ 64,464.47
20		$ 118,775.00	$ 30,000.00	$ 148,775.00	0.41464268	$ 61,688.46
		TOTALS:		$ 2,975,500.00		$ 1,937,933.67

COLLECTION ALTERNATIVE #1D
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 860,485.00	$ 65,326.00	$ 30,000.00	$ 95,326.00	0.95693780	$ 91,221.05
2		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.91572995	$ 87,292.87
3		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.87629660	$ 83,533.85
4		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.83856134	$ 79,936.70
5		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.82045105	$ 78,210.32
6		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.76789574	$ 73,200.43
7		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.73482846	$ 70,048.26
8		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.70318513	$ 67,031.83
9		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.67290443	$ 64,145.29
10		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.64392768	$ 61,383.05
11		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.61619874	$ 58,739.76
12		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.58966386	$ 56,210.30
13		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.56427164	$ 53,789.76
14		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.53997286	$ 51,473.45
15		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.51672044	$ 49,256.89
16		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.49446932	$ 47,135.78
17		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.47317639	$ 45,106.01
18		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.45280037	$ 43,163.65
19		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.43330179	$ 41,304.93
20		$ 65,326.00	$ 30,000.00	$ 95,326.00	0.41464268	$ 39,526.23
		TOTALS:		$ 1,906,520.00		$ 1,241,710.40

PLEASANT HALL
COLLECTION ALTERNATIVE #2

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	9600 LF	$ 40.00	$ 384,000.00
2	2-inch Force Line	3400 LF	$ 20.00	$ 68,000.00
3	4-inch Force Line	600 LF	$ 25.00	$ 15,000.00
4	Highway Crossing	8	$ 4,000.00	$ 32,000.00
5	Manholes	28	$ 2,000.00	$ 56,000.00
6	Pump Station	2	$ 75,000.00	$ 150,000.00
7	Grinder Pump	5	$ 3,000.00	$ 15,000.00
8	PennDOT Backfill	13300 LF	$ 5.00	$ 66,500.00
9	PennDOT Shoulder Restoration	13300 LF	$ 7.00	$ 93,100.00
10	Lawn/Rights-of-way Restoration	300 LF	$ 3.00	$ 900.00
			SUBTOTAL	$ 880,500.00
	Sewage Treatment Plant			$ 400,000.00
			SUBTOTAL	$ 1,280,500.00
	15% Contingencies			$ 192,075.00
			SUBTOTAL	$ 1,472,575.00
	25% Overhead			$ 368,143.75
			SUBTOTAL	$ 1,840,718.75
	Connection Fees (90 x $2,000)			$ (180,000.00)
	Amount to be financed by Township		TOTAL	$ 1,660,718.75
Assume 20 year loan at 2 %				
	Amount to be financed			$ 1,660,718.75
	Annual Cost to Twp. @ 2%			$ 100,815.00
	Annual Operating and Maintenance Cost			$ 30,000.00
	Total Annual Cost to Township			$ 130,815.00
	Annual Cost per EDU			$ 1,453.50
	Monthly Cost per EDU			$ 121.13
Assume 20 year loan at 4.5%				
	Amount to be financed			$ 1,660,718.75
	Annual Cost to Twp. @ 4.5%			$ 126,075.00
	Annual Operating and Maintenance Cost			$ 30,000.00
	Total Annual Cost to Township			$ 156,075.00
	Annual Cost per EDU			$ 1,734.17
	Monthly Cost per EDU			$ 144.51
Assume 45% Grant with 20 year loan at 4.5%				
	Amount to be financed			$ 1,660,718.75
	Assuming 45 % Grant			$ (747,323.44)
	Amount to be financed after Grant			$ 913,395.31
	Annual Cost to Twp. @ 4.5%			$ 69,343.00
	Annual Operating and Maintenance Cost			$ 30,000.00
	Total Annual Cost to Township			$ 99,343.00
	Annual Cost per EDU			$ 1,103.81
	Monthly Cost per EDU			$ 91.98

COLLECTION ALTERNATIVE #2
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,660,718.75	$ 100,815.00	$ 30,000.00	$ 130,815.00	0.9569378	$ 125,181.82
2		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.91572995	$ 119,791.21
3		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.8762966	$ 114,632.74
4		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.83856134	$ 109,696.40
5		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.82045105	$ 107,327.30
6		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.76789574	$ 100,452.28
7		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.73482846	$ 96,126.58
8		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.70318513	$ 91,987.16
9		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.67290443	$ 88,025.99
10		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.64392768	$ 84,235.40
11		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.61619874	$ 80,608.04
12		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.58966386	$ 77,136.88
13		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.56427164	$ 73,815.19
14		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.53997286	$ 70,636.55
15		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.51672044	$ 67,594.78
16		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.49446932	$ 64,684.00
17		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.47317639	$ 61,898.57
18		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.45280037	$ 59,233.08
19		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.43330179	$ 56,682.37
20		$ 100,815.00	$ 30,000.00	$ 130,815.00	0.41464268	$ 54,241.48
		TOTALS:		$ 2,616,300.00		$ 1,703,987.85

COLLECTION ALTERNATIVE #2
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,660,718.75	$ 126,075.00	$ 30,000.00	$ 156,075.00	0.9569378	$ 149,354.07
2		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.91572995	$ 142,922.55
3		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.8762966	$ 136,767.99
4		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.83856134	$ 130,878.46
5		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.82045105	$ 128,051.90
6		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.76789574	$ 119,849.33
7		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.73482846	$ 114,688.35
8		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.70318513	$ 109,749.62
9		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.67290443	$ 105,023.56
10		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.64392768	$ 100,501.01
11		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.61619874	$ 96,173.22
12		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.58966386	$ 92,031.79
13		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.56427164	$ 88,068.70
14		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.53997286	$ 84,276.26
15		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.51672044	$ 80,647.14
16		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.49446932	$ 77,174.30
17		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.47317639	$ 73,851.01
18		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.45280037	$ 70,670.82
19		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.43330179	$ 67,627.58
20		$ 126,075.00	$ 30,000.00	$ 156,075.00	0.41464268	$ 64,715.36
		TOTALS:		$ 3,121,500.00		$ 2,033,023.00

COLLECTION ALTERNATIVE #2
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 913,395.00	$ 69,343.00	$ 30,000.00	$ 99,343.00	0.9569378	$ 95,065.07
2		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.91572995	$ 90,971.36
3		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.8762966	$ 87,053.93
4		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.83856134	$ 83,305.20
5		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.82045105	$ 81,506.07
6		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.76789574	$ 76,285.07
7		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.73482846	$ 73,000.06
8		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.70318513	$ 69,856.52
9		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.67290443	$ 66,848.34
10		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.64392768	$ 63,969.71
11		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.61619874	$ 61,215.03
12		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.58966386	$ 58,578.98
13		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.56427164	$ 56,056.44
14		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.53997286	$ 53,642.52
15		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.51672044	$ 51,332.56
16		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.49446932	$ 49,122.07
17		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.47317639	$ 47,006.76
18		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.45280037	$ 44,982.55
19		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.43330179	$ 43,045.50
20		$ 69,343.00	$ 30,000.00	$ 99,343.00	0.41464268	$ 41,191.85
		TOTALS:		$ 1,986,860.00		$ 1,294,035.59

PLEASANT HALL
COLLECTION ALTERNATIVE #2A

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	6550 LF	$ 40.00	$ 262,000.00
2	2-inch Force Line	2750 LF	$ 20.00	$ 55,000.00
3	4-inch Force Line	3600 LF	$ 25.00	$ 90,000.00
4	Highway Crossing	9	$ 4,000.00	$ 36,000.00
5	Manholes	29	$ 2,000.00	$ 58,000.00
6	Pump Station	2	$ 75,000.00	$ 150,000.00
7	Grinder Pumps	21	$ 3,000.00	$ 63,000.00
8	PennDOT Backfill	14850 LF	$ 5.00	$ 74,250.00
9	PennDOT Shoulder Restoration	14850 LF	$ 7.00	$ 103,950.00
10	Township Shoulder Restoration	950 LF	$ 3.00	$ 2,850.00
11	Lawn/Rights-of-way Restoration	300 LF	$ 3.00	$ 900.00
			SUBTOTAL	$ 895,950.00
	Sewage Treatment Plant			$ 500,000.00
			SUBTOTAL	$ 1,395,950.00
	15% Contingencies			$ 209,392.50
			SUBTOTAL	$ 1,605,342.50
	25% Overhead			$ 401,335.63
			SUBTOTAL	$ 2,006,678.13
	Connection Fees (102 x $2,000)			$ (204,000.00)
	Amount to be financed by Township		TOTAL	$ 1,802,678.13

Assume 20 year loan at 2 %		
Amount to be financed	$	1,802,678.13
Annual Cost to Twp. @ 2%	$	109,430.00
Annual Operating and Maintenance Cost	$	30,000.00
Total Annual Cost to Township	$	139,430.00
Annual Cost per EDU	$	1,366.96
Monthly Cost per EDU	$	113.91

Assume 20 year loan at 4.5%		
Amount to be financed	$	1,802,678.13
Annual Cost to Twp. @ 4.5%	$	136,850.00
Annual Operating and Maintenance Cost	$	30,000.00
Total Annual Cost to Township	$	166,850.00
Annual Cost per EDU	$	1,635.78
Monthly Cost per EDU	$	136.32

Assume 45% Grant with 20 year loan at 4.5%		
Amount to be financed	$	1,802,678.13
Assuming 45 % Grant	$	(811,205.16)
Amount to be financed after Grant	$	991,472.97
Annual Cost to Twp. @ 4.5%	$	75,271.00
Annual Operating and Maintenance Cost	$	30,000.00
Total Annual Cost to Township	$	105,271.00
Annual Cost per EDU	$	1,032.07
Monthly Cost per EDU	$	86.01

COLLECTION ALTERNATIVE #2A
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,802,678.13	$ 109,430.00	$ 30,000.00	$ 139,430.00	0.95693780	$ 133,425.84
2		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.91572995	$ 127,680.23
3		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.87629660	$ 122,182.03
4		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.83856134	$ 116,920.61
5		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.82045105	$ 114,395.49
6		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.76789574	$ 107,067.70
7		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.73482846	$ 102,457.13
8		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.70318513	$ 98,045.10
9		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.67290443	$ 93,823.06
10		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.64392768	$ 89,782.84
11		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.61619874	$ 85,916.59
12		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.58966386	$ 82,216.83
13		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.56427164	$ 78,676.39
14		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.53997286	$ 75,288.42
15		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.51672044	$ 72,046.33
16		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.49446932	$ 68,943.86
17		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.47317639	$ 65,974.98
18		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.45280037	$ 63,133.96
19		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.43330179	$ 60,415.27
20		$ 109,430.00	$ 30,000.00	$ 139,430.00	0.41464268	$ 57,813.63
		TOTALS:		$ 2,788,600.00		$ 1,816,206.29

COLLECTION ALTERNATIVE #2A
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,802,678.13	$ 136,850.00	$ 30,000.00	$ 166,850.00	0.95693780	$ 159,665.07
2		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.91572995	$ 152,789.54
3		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.87629660	$ 146,210.09
4		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.83856134	$ 139,913.96
5		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.82045105	$ 136,892.26
6		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.76789574	$ 128,123.40
7		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.73482846	$ 122,606.13
8		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.70318513	$ 117,326.44
9		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.67290443	$ 112,274.10
10		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.64392768	$ 107,439.33
11		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.61619874	$ 102,812.76
12		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.58966386	$ 98,385.42
13		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.56427164	$ 94,148.72
14		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.53997286	$ 90,094.47
15		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.51672044	$ 86,214.81
16		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.49446932	$ 82,502.21
17		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.47317639	$ 78,949.48
18		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.45280037	$ 75,549.74
19		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.43330179	$ 72,296.40
20		$ 136,850.00	$ 30,000.00	$ 166,850.00	0.41464268	$ 69,183.13
		TOTALS:		$ 3,337,000.00		$ 2,173,377.47

COLLECTION ALTERNATIVE #2A
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 991,472.97	$ 75,271.00	$ 30,000.00	$ 105,271.00	0.95693780	$ 100,737.80
2		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.91572995	$ 96,399.81
3		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.87629660	$ 92,248.62
4		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.83856134	$ 88,276.19
5		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.82045105	$ 86,369.70
6		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.76789574	$ 80,837.15
7		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.73482846	$ 77,356.13
8		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.70318513	$ 74,025.00
9		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.67290443	$ 70,837.32
10		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.64392768	$ 67,786.91
11		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.61619874	$ 64,867.86
12		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.58966386	$ 62,074.50
13		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.56427164	$ 59,401.44
14		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.53997286	$ 56,843.48
15		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.51672044	$ 54,395.68
16		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.49446932	$ 52,053.28
17		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.47317639	$ 49,811.75
18		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.45280037	$ 47,666.75
19		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.43330179	$ 45,614.11
20		$ 75,271.00	$ 30,000.00	$ 105,271.00	0.41464268	$ 43,649.85
		TOTALS:		$ 2,105,420.00		$ 1,371,253.34

PLEASANT HALL
COLLECTION ALTERNATIVE #2B

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	10350 LF	$ 40.00	$ 414,000.00
2	2-inch Force Line	700 LF	$ 20.00	$ 14,000.00
3	4-inch Force Line	2150 LF	$ 25.00	$ 53,750.00
4	Highway Crossing	7	$ 4,000.00	$ 28,000.00
5	Manholes	34	$ 2,000.00	$ 68,000.00
6	Pump Station	1	$ 75,000.00	$ 75,000.00
7	Grinder Pumps	5	$ 3,000.00	$ 15,000.00
8	PennDOT Backfill	10900 LF	$ 5.00	$ 54,500.00
9	PennDOT Shoulder Restoration	10900 LF	$ 7.00	$ 76,300.00
11	Lawn/Rights-of-way Restoration	2250 LF	$ 3.00	$ 6,750.00
			SUBTOTAL	$ 805,300.00
	Sewage Treatment Plant			$ 400,000.00
			SUBTOTAL	$ 1,205,300.00
	15% Contingencies			$ 180,795.00
			SUBTOTAL	$ 1,386,095.00
	25% Overhead			$ 346,523.75
			SUBTOTAL	$ 1,732,618.75
	Connection Fees (90 x $2,000)			$ 180,000.00
	Amount to be financed by Township		TOTAL	$ 1,912,618.75

Assume 20 year loan at 2 %		
Amount to be financed		$ 1,912,618.75
Annual Cost to Twp. @ 2%		$ 116,100.00
Annual Operating and Maintenance Cost		$ 30,000.00
Total Annual Cost to Township		$ 146,100.00
Annual Cost per EDU		$ 1,623.33
Monthly Cost per EDU		$ 135.28

Assume 20 year loan at 4.5%		
Amount to be financed		$ 1,912,618.75
Annual Cost to Twp. @ 4.5%		$ 145,200.00
Annual Operating and Maintenance Cost		$ 30,000.00
Total Annual Cost to Township		$ 175,200.00
Annual Cost per EDU		$ 1,946.67
Monthly Cost per EDU		$ 162.22

Assume 45% Grant with 20 year loan at 4.5%		
Amount to be financed		$ 1,912,618.75
Assuming 45 % Grant		$ (860,678.44)
Amount to be financed after Grant		$ 1,051,940.31
Annual Cost to Twp. @ 4.5%		$ 79,861.00
Annual Operating and Maintenance Cost		$ 30,000.00
Total Annual Cost to Township		$ 109,861.00
Annual Cost per EDU		$ 1,077.07
Monthly Cost per EDU		$ 89.76

COLLECTION ALTERNATIVE #2B
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,912,618.75	$ 116,100.00	$ 30,000.00	$ 146,100.00	0.9569378	$ 139,808.61
2		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.91572995	$ 133,788.15
3		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.8762966	$ 128,026.93
4		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.83856134	$ 122,513.81
5		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.82045105	$ 119,867.90
6		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.76789574	$ 112,189.57
7		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.73482846	$ 107,358.44
8		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.70318513	$ 102,735.35
9		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.67290443	$ 98,311.34
10		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.64392768	$ 94,077.83
11		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.61619874	$ 90,026.64
12		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.58966386	$ 86,149.89
13		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.56427164	$ 82,440.09
14		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.53997286	$ 78,890.03
15		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.51672044	$ 75,492.86
16		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.49446932	$ 72,241.97
17		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.47317639	$ 69,131.07
18		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.45280037	$ 66,154.13
19		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.43330179	$ 63,305.39
20		$ 116,100.00	$ 30,000.00	$ 146,100.00	0.41464268	$ 60,579.30
		TOTALS:		$ 2,922,000.00		$ 1,903,089.29

COLLECTION ALTERNATIVE #2B
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,912,618.75	$ 145,200.00	$ 30,000.00	$ 175,200.00	0.9569378	$ 167,655.50
2		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.91572995	$ 160,435.89
3		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.8762966	$ 153,527.16
4		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.83856134	$ 146,915.95
5		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.82045105	$ 143,743.02
6		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.76789574	$ 134,535.33
7		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.73482846	$ 128,741.95
8		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.70318513	$ 123,198.03
9		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.67290443	$ 117,892.86
10		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.64392768	$ 112,816.13
11		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.61619874	$ 107,958.02
12		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.58966386	$ 103,309.11
13		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.56427164	$ 98,860.39
14		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.53997286	$ 94,603.25
15		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.51672044	$ 90,529.42
16		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.49446932	$ 86,631.02
17		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.47317639	$ 82,900.50
18		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.45280037	$ 79,330.62
19		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.43330179	$ 75,914.47
20		$ 145,200.00	$ 30,000.00	$ 175,200.00	0.41464268	$ 72,645.40
		TOTALS:		$ 3,504,000.00		$ 2,282,144.03

COLLECTION ALTERNATIVE #2B
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,051,940.00	$ 79,861.00	$ 30,000.00	$ 109,861.00	0.9569378	$ 105,130.14
2		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.91572995	$ 100,603.01
3		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.8762966	$ 96,270.82
4		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.83856134	$ 92,125.19
5		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.82045105	$ 90,135.57
6		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.76789574	$ 84,361.79
7		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.73482846	$ 80,728.99
8		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.70318513	$ 77,252.62
9		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.67290443	$ 73,925.95
10		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.64392768	$ 70,742.54
11		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.61619874	$ 67,696.21
12		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.58966386	$ 64,781.06
13		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.56427164	$ 61,991.45
14		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.53997286	$ 59,321.96
15		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.51672044	$ 56,767.42
16		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.49446932	$ 54,322.89
17		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.47317639	$ 51,983.63
18		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.45280037	$ 49,745.10
19		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.43330179	$ 47,602.97
20		$ 79,861.00	$ 30,000.00	$ 109,861.00	0.41464268	$ 45,553.06
		TOTALS:		$ 2,197,220.00		$ 1,431,042.38

PLEASANT HALL
COLLECTION ALTERNATIVE #2C

Item	Description	Quantity	Unit Cost	Total
1	8-inch Main Line	10100 LF	$40.00	$404,000.00
2	2-inch Force Line	650 LF	$20.00	$13,000.00
3	4-inch Force Line	4600 LF	$25.00	$115,000.00
4	Highway Crossing	10	$4,000.00	$40,000.00
5	Manholes	37	$2,000.00	$74,000.00
6	Pump Station	3	$75,000.00	$225,000.00
7	Grinder Pumps	5	$3,000.00	$15,000.00
8	PennDOT Backfill	13200 LF	$5.00	$66,000.00
9	PennDOT Shoulder Restoration	13200 LF	$7.00	$92,400.00
10	Township Shoulder Restoration	1700 LF	$3.00	$5,100.00
11	Lawn/Rights-of-way Restoration	300 LF	$3.00	$900.00
			SUBTOTAL	$1,050,400.00
	Sewage Treatment Plant			$500,000.00
			SUBTOTAL	$1,550,400.00
	15% Contingencies			$232,560.00
			SUBTOTAL	$1,782,960.00
	25% Overhead			$445,740.00
			SUBTOTAL	$2,228,700.00
	Connection Fees (102 x $2,000)			-$204,000.00
	Amount to be financed by Township		TOTAL	$2,024,700.00

Assume 20 year loan at 2 %			
	Amount to be financed	$	2,024,700.00
	Annual Cost to Twp. @ 2%	$	122,910.00
	Annual Operating and Maintenance Cost	$	30,000.00
	Total Annual Cost to Township	$	152,910.00
	Annual Cost per EDU	$	1,499.12
	Monthly Cost per EDU	$	124.93
Assume 20 year loan at 4.5%			
	Amount to be financed	$	2,024,700.00
	Annual Cost to Twp. @ 4.5%	$	153,710.00
	Annual Operating and Maintenance Cost	$	30,000.00
	Total Annual Cost to Township	$	183,710.00
	Annual Cost per EDU	$	1,801.08
	Monthly Cost per EDU	$	150.09
Assume 45% Grant with 20 year loan at 4.5%			
	Amount to be financed	$	2,024,700.00
	Assuming 45 % Grant	$	(911,115.00)
	Amount to be financed after Grant	$	1,113,585.00
	Annual Cost to Twp. @ 4.5%	$	84,541.00
	Annual Operating and Maintenance Cost	$	30,000.00
	Total Annual Cost to Township	$	114,541.00
	Annual Cost per EDU	$	1,122.95
	Monthly Cost per EDU	$	93.58

COLLECTION ALTERNATIVE #2C
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 2,024,700.00	$ 122,910.00	$ 30,000.00	$ 152,910.00	0.95693780	$ 146,325.36
2		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.91572995	$ 140,024.27
3		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.87629660	$ 133,994.51
4		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.83856134	$ 128,224.41
5		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.82045105	$ 125,455.17
6		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.76789574	$ 117,418.94
7		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.73482846	$ 112,362.62
8		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.70318513	$ 107,524.04
9		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.67290443	$ 102,893.82
10		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.64392768	$ 98,462.98
11		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.61619874	$ 94,222.95
12		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.58966386	$ 90,165.50
13		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.56427164	$ 86,282.78
14		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.53997286	$ 82,567.25
15		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.51672044	$ 79,011.72
16		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.49446932	$ 75,609.30
17		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.47317639	$ 72,353.40
18		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.45280037	$ 69,237.70
19		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.43330179	$ 66,256.18
20		$ 122,910.00	$ 30,000.00	$ 152,910.00	0.41464268	$ 63,403.01
		TOTALS:		$ 3,058,200.00		$ 1,991,795.92

COLLECTION ALTERNATIVE #2C
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 2,024,700.00	$ 153,710.00	$ 30,000.00	$ 183,710.00	0.95693780	$ 175,799.04
2		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.91572995	$ 168,228.75
3		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.87629660	$ 160,984.45
4		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.83856134	$ 154,052.10
5		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.82045105	$ 150,725.06
6		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.76789574	$ 141,070.13
7		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.73482846	$ 134,995.34
8		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.70318513	$ 129,182.14
9		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.67290443	$ 123,619.27
10		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.64392768	$ 118,295.95
11		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.61619874	$ 113,201.87
12		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.58966386	$ 108,327.15
13		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.56427164	$ 103,662.34
14		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.53997286	$ 99,198.41
15		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.51672044	$ 94,926.71
16		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.49446932	$ 90,838.96
17		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.47317639	$ 86,927.23
18		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.45280037	$ 83,183.96
19		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.43330179	$ 79,601.87
20		$ 153,710.00	$ 30,000.00	$ 183,710.00	0.41464268	$ 76,174.01
		TOTALS:		$ 3,674,200.00		$ 2,392,994.75

COLLECTION ALTERNATIVE #2C
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 1,113,585.00	$ 84,541.00	$ 30,000.00	$ 114,541.00	0.95693780	$ 109,608.61
2		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.91572995	$ 104,888.62
3		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.87629660	$ 100,371.89
4		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.83856134	$ 96,049.65
5		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.82045105	$ 93,975.28
6		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.76789574	$ 87,955.55
7		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.73482846	$ 84,167.99
8		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.70318513	$ 80,543.53
9		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.67290443	$ 77,075.15
10		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.64392768	$ 73,756.12
11		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.61619874	$ 70,580.02
12		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.58966386	$ 67,540.69
13		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.56427164	$ 64,632.24
14		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.53997286	$ 61,849.03
15		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.51672044	$ 59,185.68
16		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.49446932	$ 56,637.01
17		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.47317639	$ 54,198.10
18		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.45280037	$ 51,864.21
19		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.43330179	$ 49,630.82
20		$ 84,541.00	$ 30,000.00	$ 114,541.00	0.41464268	$ 47,493.59
		TOTALS:		$ 2,290,820.00		$ 1,492,003.77

UPPER STRASBURG AND PLEASANT HALL
COLLECTION ALTERNATIVE #3

Item	Description	Quantity		Unit Cost		Total
1	8-inch Main Line	29650 LF	$	40.00	$	1,186,000.00
2	2-inch Force Line	2750 LF	$	20.00	$	55,000.00
3	4-inch Force Line	10900 LF	$	25.00	$	272,500.00
4	Highway Crossing	17	$	4,000.00	$	68,000.00
5	Manholes	109	$	2,000.00	$	218,000.00
6	Pump Station	4	$	75,000.00	$	300,000.00
7	Grinder Pumps	21	$	3,000.00	$	63,000.00
8	PennDOT Backfill	19300 LF	$	5.00	$	96,500.00
9	PennDOT Shoulder Restoration	19300 LF	$	7.00	$	135,100.00
10	Township Shoulder Restoration	7050 LF	$	3.00	$	21,150.00
11	Lawn/Rights-of-way Restoration	3300 LF	$	3.00	$	9,900.00
				SUBTOTAL	$	2,425,150.00
	Sewage Treatment Plant				$	1,000,000.00
				SUBTOTAL	$	3,425,150.00
	15% Contingencies				$	513,772.50
				SUBTOTAL	$	3,938,922.50
	25% Overhead				$	984,730.63
				SUBTOTAL	$	4,923,653.13
	Connection Fees (241 x $2,000)				$	(482,000.00)
	Amount to be financed			TOTAL	$	4,441,653.13

Assume 20 year loan at 2 %		
Amount to be financed	$	4,441,653.13
Annual Cost to Twp. @ 2%	$	269,635.00
Annual Operating and Maintenance Cost	$	55,000.00
Total Annual Cost to Township	$	324,635.00
Annual Cost per EDU	$	1,347.03
Monthly Cost per EDU	$	112.25

Assume 20 year loan at 4.5 %		
Amount to be financed	$	4,441,653.13
Annual Cost to Twp. @ 4.5%	$	337,200.00
Annual Operating and Maintenance Cost	$	55,000.00
Total Annual Cost to Township	$	392,200.00
Annual Cost per EDU	$	1,627.39
Monthly Cost per EDU	$	135.62

Assume 45% Grant with 20 year loan at 4.5%		
Amount to be financed	$	4,441,653.13
Assuming 45 % Grant	$	(1,998,743.91)
Amount to be financed after Grant	$	2,442,909.22
Annual Cost to Twp. @ 4.5%	$	185,461.00
Annual Operating and Maintenance Cost	$	30,000.00
Total Annual Cost to Township	$	215,461.00
Annual Cost per EDU	$	894.03
Monthly Cost per EDU	$	74.50

COLLECTION ALTERNATIVE #3
ASSUME 2% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 4,441,653.13	$ 269,635.00	$ 55,000.00	$ 324,635.00	0.95693780	$ 310,655.50
2		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.91572995	$ 297,277.99
3		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.87629660	$ 284,476.55
4		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.83856134	$ 272,226.36
5		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.82045105	$ 266,347.13
6		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.76789574	$ 249,285.83
7		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.73482846	$ 238,551.04
8		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.70318513	$ 228,278.50
9		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.67290443	$ 218,448.33
10		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.64392768	$ 209,041.46
11		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.61619874	$ 200,039.68
12		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.58966386	$ 191,425.53
13		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.56427164	$ 183,182.32
14		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.53997286	$ 175,294.09
15		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.51672044	$ 167,745.54
16		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.49446932	$ 160,522.05
17		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.47317639	$ 153,609.62
18		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.45280037	$ 146,994.85
19		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.43330179	$ 140,664.93
20		$ 269,635.00	$ 55,000.00	$ 324,635.00	0.41464268	$ 134,607.53
		TOTALS:		$ 6,492,700.00		$ 4,228,674.82

COLLECTION ALTERNATIVE #3
ASSUME 4.5% FINANCING

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 4,441,653.13	$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.96	$ 375,311.01
2		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.92	$ 359,149.29
3		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.88	$ 343,683.53
4		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.84	$ 328,883.76
5		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.82	$ 321,780.90
6		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.77	$ 301,168.71
7		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.73	$ 288,199.72
8		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.70	$ 275,789.21
9		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.67	$ 263,913.12
10		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.64	$ 252,548.44
11		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.62	$ 241,673.15
12		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.59	$ 231,266.17
13		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.56	$ 221,307.34
14		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.54	$ 211,777.36
15		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.52	$ 202,657.76
16		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.49	$ 193,930.87
17		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.47	$ 185,579.78
18		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.45	$ 177,588.31
19		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.43	$ 169,940.96
20		$ 337,200.00	$ 55,000.00	$ 392,200.00	$ 0.41	$ 162,622.86
		TOTALS:		$ 7,844,000.00		$ 5,108,772.21

COLLECTION ALTERNATIVE #3
ASSUME 4.5% FINANCING AND 45% GRANT

Year	Initial Cost to Township	Annual Cap. For 20 Years	Annual Operating Cost	Total Annual Cost	PV Factor	Present Value
1	$ 2,442,909.00	$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.96	$ 206,182.78
2		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.92	$ 197,304.09
3		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.88	$ 188,807.74
4		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.84	$ 180,677.26
5		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.82	$ 176,775.20
6		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.77	$ 165,451.58
7		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.73	$ 158,326.87
8		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.70	$ 151,508.97
9		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.67	$ 144,984.66
10		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.64	$ 138,741.30
11		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.62	$ 132,766.80
12		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.59	$ 127,049.56
13		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.56	$ 121,578.53
14		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.54	$ 116,343.09
15		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.52	$ 111,333.10
16		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.49	$ 106,538.85
17		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.47	$ 101,951.06
18		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.45	$ 97,560.82
19		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.43	$ 93,359.64
20		$ 185,461.00	$ 30,000.00	$ 215,461.00	$ 0.41	$ 89,339.33
		TOTALS:		$ 4,309,220.00		$ 2,806,581.25

CFJMA - Feasibility Study

Combination (1D + 2A)

(Taken From Feasibility Study Prepared by Dennis E. Black Engineering, Inc.)

COLLECTION ALTERNATIVE #4

CONSTRUCTION - BID

Item	Description	Quantity		Unit Cost		Total
1	4" PVC	47600 LF	$	1.80	$	85,680.00
2	1.5" PVC	6100 LF	$	0.75	$	4,575.00
3	4"x4"x1.5" Tee	270	$	40.00	$	10,800.00
4	1.5" 45-degree elbow	180	$	15.00	$	2,700.00
5	4" 45-degree elbow	180	$	25.00	$	4,500.00
6	1.5" Cap	270	$	0.75	$	202.50
7	1.5" Check Valve	270	$	70.00	$	18,900.00
8	Effluent Pump	11	$	500.00	$	5,500.00
9	Mainline trench excavating 2'-6'	31000 LF	$	2.25	$	69,750.00
10	Precast 500 gal. Concrete tank	270	$	400.00	$	108,000.00
11	Precast cover	270	$	28.00	$	7,560.00
12	Precast riser	270	$	65.00	$	17,550.00
13	Stone aggregate	5840	$	12.50	$	73,000.00
14	Paving restoration	1260 LF	$	33.00	$	41,580.00
15	Topsoil seed & mulch	58802 LF	$	1.25	$	73,502.50
16	Highway crossing	12	$	5,000.00	$	60,000.00
				SUBTOTAL	$	583,800.00

SCENARIO 1 - CONSTRUCTION - CFJMA

Item	Description			
1	Labor and equipment		$	332,000.00
2	Permitting, Engineering, Legal and Easements		$	512,800.00
3	Contingency (15%)		$	214,400.00
		SUBTOTAL	$	1,059,200.00
	TOTAL PROJECT COST		$	1,643,000.00

USER DETERMINATION FEE (Assume 280 total EDUs)

Total Project Cost	$	1,643,000.00
Connection Fee @ $2,000	$	(560,000.00)
Net Project Cost	$	1,083,000.00
Financing @ 4.5% for 20 years	$	82,220.00
Reserve (10% of financing)	$	8,222.00
O&M (33% tnaks pumped each year @ $125 each)	$	11,258.00
Total Annual Cost	$	101,700.00
Annual Fee Per EDU (To Nearest Dollar)	$	363.00
Monthly Fee Per EDU (To Nearest Dollar)	$	30.00

SCENARIO 2 - ASSUME 3 PUMPING STATIONS AND UNUSUAL SITUATIONS

Original Estimated Project Cost	$	1,643,000.00
Three Pumping Stations @ $100,000 (including engineering)	$	300,000.00
Unusual Situations @ 10% of Project Cost	$	164,000.00
Connection Fee @ $2,000	$	(560,000.00)
Net Project Cost	$	1,547,000.00
Financing @ 4.5% for 20 years	$	117,460.00
Reserve (10% of financing)	$	11,740.00
O&M (33% tnaks pumped each year @ $125 each)	$	11,200.00
Total Annual Cost	$	140,400.00
Annual Fee Per EDU (To Nearest Dollar)	$	501.00
Monthly Fee Per EDU (To Nearest Dollar)	$	42.00

CHOSEN ALTERNATIVE

The best choice alternative was selected based on the lowest monthly cost per connection. The alternative with the lowest cost per EDU is Alternative #4, which ties Upper Strasburg and Pleasant Hall into the CFJMA regional wastewater collection system. Based on the best possible scenario, the monthly cost per EDU in Upper Strasburg and Pleasant Hall would be $30.00. This estimate is much lower than those calculated for Alternatives 1 through 3, which are extremely high when compared with the average income of the residents of the Township. Therefore Alternatives 1 through 3 are not affordable. In addition, Alternative #4 eliminates the need for new treatment plants, additional Township management and administration, and grant acquisitions for construction.

E. Provide an analysis of funding methods available to finance each of the proposed alternatives

The method of financing for the chosen alternative (Alternative #4) is expected to be a low-interest loan financed for 20 years by CFJMA. No grant monies would be sought related to construction of the collection system.

For Alternatives #1, #2, and #3, either a PennVest loan or a loan from a similar organization, along with any available grant monies, would be necessary. Without such a loan the costs associated with the design, construction, and implementation of the proposed systems will be too high for the residents of the Township to afford. For these alternatives, the Pleasant Hall and Upper Strasburg systems would be small, with no significant options for either the collection or treatment facilities that would significantly affect the cost of sewer service. If the cost of sewer service is prohibitive, both Pleasant Hall and Upper Strasburg will be included under the Municipal On-lot Subsurface Sewage Disposal Management Ordinance.

F. Analyze the ability of the municipality to implement each alternative proposed including:

1. The activities necessary to abate critical public health hazards pending completion of sewage facilities or sewage management programs

   The activities necessary to abate critical public health hazards are listed in the Plan Summary, Section 2E.

2. The advantages, if any, of phased development of the facilities or implementation of a sewage management program justifying time schedules for each phase.

   Due to the scope of the project, phasing would probably not provide any advantages.

G. The administrative organization and legal authority necessary for plan implementation

The Township Board of Supervisors, in conjunction with CFJMA, have all necessary authority for plan implementation.

VII. Institutional Evaluation

A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performances including:

1. Financial and debt status

   The Independent Auditor's Report as of December 31, 2001 for the Letterkenny Township Municipal Authority is included in Appendix G.

2. Available staff and administrative resources

   The Letterkenny Township Municipal Authority has 5 members and the Township Board of Supervisors has 3 members. Sufficient staff and administrative resources are available through the Township and Municipal Authority.

3. Existing legal authority exists at the Township Board of Supervisors and Municipal Authority for items a through f.

   a. Implement wastewater-planning recommendation.
   b. Implement system wide operation and maintenance activities
   c. Set user fees and take purchasing actions
   d. Take actions against adopted ordinance violators
   e. Negotiate agreements with other parties
   f. Raise capital for construction and operation and maintenance of facilities.

B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed alternative including:

1. Need for new municipal departments or municipal authorities

   No new municipal departments or municipal authorities will be required.

2. Functions of existing and proposed organizations

   CFJMA will be responsible for the operation and maintenance of the proposed collection. Letterkenny Township would be considered a customer of CFJMA, with the ability to become a member township at a later date.

3. Cost of administration, implementation and the capability of the authority to react to future needs

   Cost of administration for implementing the proposed alternative will be minimal. The Township and Municipal Authority are fully prepared to react to future needs regarding implementability.

C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:

1. All legal authorities of incorporation

   Not Applicable.

2. Development of all required ordinances, regulations, standards, and inter-municipal agreements

   Appendix C contains Proposed Ordinances for adoption pending approval of this Act 537 plan.

3. Activities to provide rights-of-way, easements, and land transfers

   Appropriate actions will be taken by the Township Board of Supervisors, in conjunction with CFJMA, to provide rights of way, easements, and land transfers.

4. Other municipal sewage facilities plan adoptions

   Hamilton Township has agreed to serve the Kensington Heights area with public sewer. Therefore, this issue has been and will be updated in Hamilton Township's 537 updates. A copy of this agreement is included in Appendix E.

5. Any other legal documents

   Not applicable.

6. Dates or timeframes for items 1-5 above on the project's implementation schedule.

   (1) Not applicable
   (2) Ordinances will be implemented pending approval of the 537 Plan
   (3) Dependent upon construction schedule following Plan approval
   (4) Not applicable
   (5) Not applicable

D. Identify the chosen institutional alternative for implementing the chosen wastewater disposal alternative. Provide justification.

   The Township Supervisors and the Authority will implement the chosen alternative based on existing legal authority.

VIII. Justification for Selected Technical and Institutional Alternatives

A. Identify one technical wastewater disposal alternative that best meets the needs of each area of the municipality studied. Justify the choices by providing documentation that shows that they are the best alternative(s) based on:

1. Wastewater disposal needs

   Pleasant Hall and Upper Strasburg need public sewer systems. The service areas are delineated on Plates 15.1 through 3. The remainder of the Township will rely on existing public treatment systems or private on-lot sewage disposal.

2. Future wastewater disposal needs

   Little growth is expected for Letterkenny Township over the next ten years, with the exception of the army depot. Sparse population concentrations in other areas of the Township do not make public wastewater disposal systems feasible, and these areas will continue to rely upon on-lot sewage disposal systems. Developments that occur within 500 feet of existing public collection systems will be required to tie into the system.

3. Operation and maintenance considerations

   The Township is presently operating a sewer system including a treatment plant and has an experienced management structure in place. However, because no new treatment facilities will be required with the chose alternative, and maintenance of the collection lines will be the responsibility of CFJMA, no new operation and maintenance considerations are necessary.

4. Cost-effectiveness

   Required maintenance is the most cost-effective measure for long term operation of on-lot septic systems. In Upper Strasburg and Pleasant Hall, holding tanks are the only alternative to public sewers and are very costly to maintain. The chosen wastewater treatment alternative is the construction of small diameter, variable grade sanitary sewer, with treatment occurring at the existing Shippensburg Borough waste water treatment plant.

5. Available management and administration systems

   Letterkenny Township can assume the required responsibilities of the proposed ordinances.

6. Financing methods available

   The common methods of available financing are loans from PennVest, Rural Utility Service, or from another lending institution. The chosen alternative proposes a low interest, 20-year loan with no grant money.

7. Environmental soundness and compliance with natural resource planning and preservation programs

   The selected alternative is in compliance with federal, state and local natural resources planning and preservation policies.

B. Describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan.

1. The chosen alternative will result in Letterkenny Township becoming a customer of the existing CFJMA. Therefore, financing of the project will be the responsibility of CFJMA.

martin and martin, incorporated

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)
email: martinmartin@innernet.net

March 29, 2003

Michael McNulty
Pennsylvania Department of Environmental Protection
1331 South Seventh Street, Suite 6
Chambersburg, PA 17201-3852

RE: Letterkenny Township Act 537 Plan
Our file: 607.13 (sszip1: 607.13f)

Dear Mr. McNulty:

As per your November 8, 2000 letter and our subsequent July 27, 2002 meeting at the PaDEP Harrisburg Office, there was some concern that the submitted Act 537 Plan for Letterkenny Township did not contain sufficient data and sample points within the proposed project areas in Pleasant Hall and Upper Strasburg to validate the survey. PaDEP indicated that this additional data would be necessary in order to justify the project as a funding priority. As you may or may not be aware, the Cumberland-Franklin Joint Municipal Authority (CFJMA) recently approached Letterkenny Township and offered, utilizing CFJMA resources, to extend sewer collection service to both Upper Strasburg and Pleasant Hall. Fortunately, this eliminates the need for government funding while greatly reducing the costs to Letterkenny Township that would be generated by implementing the alternative small independent treatment systems. In addition, the need to conduct further testing in the proposed project areas becomes unnecessary, thereby further reducing costs to the Township. The 537 Plan has therefore been revised to indicate that the best-choice alternative is to connect to CFJMA's collection system and four copies of said plan are hereby being resubmitted. Included in the plan is CFJMA's December 16, 2002 letter that serves as official written approval of the concept of a sewer extension into Letterkenny Township to serve the villages of Pleasant Hall and Upper Strasburg.

In the event that you have any questions or comments, please contact our office at your earliest convenience.

Sincerely,

MARTIN AND MARTIN, INCORPORATED

Scott R. Shildt

Scott R. Shildt

cc: Letterkenny Township

DEC 18 2002

Barry E. Perry, Sr.
MANAGER

.sa E. Suders
ASSISTANT MANAGER

Dwain W. Koser
FIELD SUPERINTENDENT

CUMBERLAND
FRANKLIN
JOINT
MUNICIPAL
AUTHORITY

725 Municipal Drive
Shippensburg, PA 17257
(717) 532-6949
FAX (717) 532-2880

December 16, 2002

Martin & Martin, Inc.
37 South Main Street
Chambersburg, PA 17201
Attn: Mr. Scott R. Shildt

Re: Extension of Sanitary Sewer
into Letterkenny Township

Dear Scott:

We are in receipt of your letter dated November 18, 2002 regarding your client's (Letterkenny Township) request for "acceptance" into the Cumberland-Franklin Joint Municipal Authority's (CFJMA) wastewater collection system.

This correspondence shall serve as official written approval of the concept of a sewer extension into Letterkenny Township to serve the villages of Pleasant Hall and Upper Strasburg.

As discussed at the regular CFJMA meeting of November 15, 2002, it would appear to be easier to accomplish this project initially by treating Letterkenny Township as a "customer", similar to the arrangement Letterkenny Township has with HTMA in the Kensington Heights area, rather than adding them as a member municipality. Amending the Authority Charter and the Intermunicipal Agreement with the Borough of Shippensburg to add Letterkenny Township to CFJMA as a member municipality may be best left to tackle at a later date since it could be a slow and cumbersome process and could delay the actual extension of the sewer system (see attached letter from G. Bryan Salzmann, Borough of Shippensburg Solicitor).

If Letterkenny Township desires to become a member immediately rather than possibly sometime in the future, please advise us of such. Please note, being a member or a customer will have no effect on projected monthly user rates or connection fees to Letterkenny Township residents.

This approval is subject to the following:

Based upon our review of the projected sewage generation rate for this project, and review of the latest Chapter 94 municipal wasteload reports submitted to the Pennsylvania Department of Environmental Protection (PA D.E.P.), capacity for the proposed project is available in the Cumberland-Franklin Joint Municipal Authority's collection and conveyance system and in the Borough of Shippensburg's Wastewater Treatment Plant (CFJMA's reserved portion). This project is not expected to cause a hydraulic or organic overload (or a five-year projected overload) in either the collection/conveyance system or the wastewater treatment system.

This determination of capacity is based upon five-year hydraulic and organic loading projections contained in the Chapter 94 reports.

This determination is not a guarantee nor a reservation of future capacity for the referenced project should the project not be completed within the five-year planning window or should actual or projected loadings change. To guarantee or reserve future capacity requires a connection permit with payment of applicable connection charges and/or tapping fees. Approval for such connection permits is granted on a first come, first serve basis, and will be based upon available hydraulic and organic capacity in the collection and treatment systems at the time of actual application for connection.

As discussed previously, to make this project feasible, CFJMA will be responsible to fund, design, permit, bid & build the system as well as maintain the system and bill customers upon completion. Letterkenny Township would be responsible to negotiate for and acquire easements per drawings provided by CFJMA; the reasonable costs of which will be provided for in the funding. Letterkenny Township would also need to adopt appropriate ordinances to establish requirements for mandatory connection, etc.

If you have any questions or require additional information, please contact the undersigned.

Very truly yours,
CUMBERLAND-FRANKLIN JOINT MUNICIPAL AUTHORITY

Barry E. Perry, Manager

c: Letterkenny Township Board of Supervisors
Ron Turo, Esquire
Lance S. Kegerreis, P.E., V.P., Dennis E. Black Engineering, Inc.

Encl.

SALZMANN, DEPAULIS & FISHMAN, P.C.

BRYAN SALZMANN, ESQ.
:VEN J. FISHMAN, ESQ.
ANN F. DEPAULIS, ESQ.
NORMA J. BARTKO, ESQ.*
WILLIAM W. THOMPSON, ESQ.*
MELISSA K. DIVELY, ESQ.

*Also Admitted to Maryland Bar

Paralegals
PAMELA R. KOHLER
BARBARA J. MOSIOR
LAURIE J. PORTER
TRICIA L. BAILEY

REPLY TO:
455 PHOENIX DRIVE • SUITE A • CHAMBERSBURG, PA 17201
(717) 263-2121 FAX (717) 263-0663

95 ALEXANDER SPRING ROAD • SUITE 3 • CARLISLE, PA 17013
(717) 249-6333 FAX (717) 249-7334

105 NORTH FRONT STREET • SUITE 401 • HARRISBURG, PA 17101
(717) 232-9420 FAX (717) 232-1970

December 12, 2002

Cumberland -Franklin Joint Municipal Authority
ATTN: Barry Perry, Manager
725 Municipal Drive
Shippensburg, PA 17257

RE: CFJMA-Extension of Sanitary Sewer into Letterkenny Township

Dear Mr. Perry:

This correspondence is in response to the letter dated September 26, 2002 from Dennis E. Black Engineering, Inc. regarding the Authority's proposal to provide a sewer extension into Letterkenny Township to service the existing needs areas in the villages of Pleasant Hall and Upper Strasburg.

As per Paragraphs 12, 31 and 34j of the Joint Agreement, as amended, this correspondence shall serve as written approval by Borough Council to allow the extension to occur.

I have advised the Borough of my legal opinion that this extension will not serve to make the Township a member of the Authority. To become a member of CFJMA, the Township would have to be approved as a member by all current parties to the Joint Agreement and would actually become a party to the Agreement. A line extension is a much easier task

Please feel free to contact me if you have any questions.

Very truly yours,

By: _____

G. Bryan Salzmann, Esquire

GBS/lam

JUN 06 2002

Pennsylvania Department of Environmental Protection

1331 South Seventh Street, Suite 6
Chambersburg, PA 17201-3852

June 5, 2002

Office: 717-267-3364
Fax: 717-267-3740

Chambersburg District Office

Letterkenny Township Supervisors
c/o Joann Wright
4924 Orrstown Road
Orrstown, PA 17244

Re: Act 537 Planning
APS ID No. 332770
DEP Code No. A1-28910-ACT
Letterkenny Township, Franklin County

Ladies and Gentlemen:

A recent review of our records indicates that your Act 537 Official Plan submission has remained inactive for an extended period. We notified you of deficiencies in your plan in our letter of November 8, 2000 (copy enclosed). Since that time, the Department has not received the additional information necessary to complete our review process. The last submission of your plan indicated serious sewage disposal problems in some areas of the township. However, these needs were not appropriately documented.

If you do not contact the Department, in writing, to coordinate a submission of the necessary information or to submit the previously requested data within 60 days from the date of this letter, the Department will disapprove your plan submission.

If you believe the stated deficiencies are not significant, you may ask the Department to make a decision based upon the previously submitted information. Your letter must justify how your current submission satisfies the deficiencies noted in the enclosed letter.

If you have any questions, or would like to meet to discuss these issues, please call me at 717-267-3364.

Sincerely,

Michael C. McNulty
Sewage Planning Specialist
Water Management Program

Enclosure

cc: Martin and Martin, Inc.
Franklin County Planning Commission

Pennsylvania Department of Environmental Protection

1331 South Seventh Street, Suite 6
Chambersburg, PA 17201-3852

November 8, 2000

Office: 717-267-3364
Fax: 717-267-3740

Chambersburg District Office

NOV 09 2000

Letterkenny Township Supervisors
c/o Joann Wright
4924 Orrstown Rd.
Orrstown, PA 17244

Re: Act 537 Planning
DEP Code No. A1-28910-ACT
Letterkenny Township, Franklin County

Ladies and Gentlemen:

The Department of Environmental Protection (Department) reviewed your August 2000 Act 537 Plan, received on September 21, 2000, and determined that it is incomplete for the following reasons:

1. Your plan does not contain a meaningful sewage disposal needs identification and analysis. A proper Act 537 Plan sewage disposal needs identification must follow procedures found in the Department's publication, "Act 537 Sewage Disposal Needs Identification Guidance" (March 1996), including sanitary surveys. While your plan contained suitable "tier 1" sanitary and water well surveys for the entire township, there were insufficient data and sample points within the proposed project areas in Pleasant Hall and Upper Strasburg to validate the survey. Your plan also fails to provide adequate narrative and mapped summarization of confirmed malfunctions. This is particularly crucial when the needs survey is being prepared with the intention of justifying a project as a funding priority (III-B).

2. Please note that the additional information gathered in response to Item 1 may necessitate evaluation of alternatives which were not previously considered. This evaluation may lead to a change in the selected alternative.

The deficiencies identified in this letter must be addressed and a plan resubmitted to the Department within 90 days of the date of this letter. Failure to respond during this time frame may result in Departmental action resulting in disapproval of your currently incomplete plan submission.

The 60-day review period for this Plan will not begin until the Department has received a complete plan submission. Please submit four complete copies of all plan resubmissions.

If you have any questions, please call me at 717-267-3364.

Sincerely,

Michael C. McNulty
Sewage Planning Specialist
Water Management Program

cc: Martin & Martin, Inc.
Letterkenny Township Municipal Authority
Franklin County Planning Commission

Plates, Tables, Graphs and Appendices

Plate 1	Township Map
Plate 2	Existing Land Uses
Plate 3	Wetlands
Plate 4	Soil Limitations
Plate 5	Drainage Basins
Plate 6	Geologic Formations
Plate 7A	Well Testing Results – E. Coli and Coliforms
Plate 7B	Well Testing Results – Nitrogen
Table 1	Well Sampling Analytical Results
Plate 8	Subdivisions without Sewage Planning
Table 2	Approved Subdivisions since 1972
Plate 9	General Soil Associations
Plate 10	Letterkenny Army Depot Sanitary Sewer Plan
Plate 11	Agricultural Security Areas/Prime Agricultural Soils
Table 3	Agricultural Security Areas
Plate 12	USGS Topographic Map
Plate 13A	Needs Analysis—Pleasant Hall
Plate 13B	Needs Analysis—Upper Strasburg
Plate 14	Floodplains
Plates 15 1-3	Collection Alternatives
Graph 1	1998 Hydraulic Loading
Graph 2	1998 Organic Loading
Appendix A	Resolution of Adoption, Proof of Public Notice, Comment and Response to Proposed Plan
Appendix B	Correspondences with Interested Parties
Appendix C	Proposed Ordinances
Appendix D	Existing Ordinances that Control Development
Appendix E	Hamilton/Letterkenny Sewer System Transfer Agreement
Appendix F	Needs Analysis Surveys and Well Water Test Results
Appendix G	Municipal Authority Financial Report, 2002
Appendix H	CFJMA Proposal

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY

Scale:
2000 1000 0 2000 4000

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

HAMILTON TOWNSHIP

SAINT THOMAS TOWNSHIP

LETTERKENNY ARMY DEPOT

ROXBURY

PLEASANT HALL

UPPER STRASBURG

STENGER

FREESTONE

ROCKY SPRING

Conodoguinet Creek

Letterkenny Reservoir

Dothan Run

Cedar Lake

Lehman Run

Broad Run

MOCKINGBIRD LANE T-581

CARDINAL DRIVE T-580

BLUE JAY CIRCLE T-582

SHORT ROAD T-590

SKYLINE DRIVE T-554

TIM ROAD T-693

PINE ROAD T-551

CHURCH ROAD T-631

CREEK ROAD T-637

PARK ROAD T-635

LIMEKILN ROAD T-603

MT. ROCK ROAD T-588

SANDY BEACH ROAD T-592

MOUNTAIN VIEW ROAD T-594

VALLEY ROAD T-556

HORSE SHOE ROAD T-558

SUNNYBROOK ROAD T-582

FOREST ROAD T-582

UPPER STRASBURG ROAD

LOWER STRASBURG ROAD

GILBERT ROAD T-351

CARRICK ROAD T-553

FOREST ROAD

BROAD RUN ROAD

IRON BRIDGE ROAD T-598

ROTZ ROAD T-601

MUDDY RUN ROAD

ROCKY SPRING ROAD T-538

McKENDRICK DRIVE T-525

LAWYERS ROAD T-692

KEEFER ROAD T-539

BOUNDARY ROAD T-544

COLDSMITH ROAD T-476

S.R. 4004

S.R. 4001

S.R. 4011

S.R. 0997

S.R. 0533

S.R. 533

DETAIL "A"

DETAIL "B"

DETAIL "C"

DETAIL "B"
SCALE: 1" = 600'

DETAIL "A"
SCALE: 1" = 600'

DETAIL "C"
SCALE: 1" = 600'

KENSINGTON HEIGHTS
and
THE FOOTHILLS AT KENSINGTON

SHEFFIELD DRIVE (T-840)
PEACH STREET (T-524)
CANTERBURY DRIVE (T-520)
GRIMSBY COURT
SURREY COURT (T-522)
LIVERPOOL COURT (T-521)
DEVON COURT
BUCKINGHAM DRIVE
WENNINGTON DRIVE
SANDDESHIRE LANE
KENSINGTON DRIVE T-537
WARWICK DRIVE T-526
NOTTINGHAM T-523

PLATE 1

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
EXISTING LAND USE

Scale: 2000 1000 0 2000 4000

N

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

SAINT THOMAS TOWNSHIP

HAMILTON TOWNSHIP

LETTERKENNY ARMY DEPOT

Lurgan Twp. Recreation Center

Roxbury Holiness Camp

Kay's Alterations

Ernie's American Express Parts

Garage

James Refrigeration

Timmon's Oil

R & A Bender

A & D Storage

Pleasant Hall Fire Department

Township Building

Keffner's Camping Supplies

Post Office

Mathnas Garage

DETAIL "A"

Air Hill Storage

Air Hill (vacant)

Letterkenny Elementary School

Ed Guyer Custom Butchery

L-L Storage Garage

DETAIL "B"

Bear Valley Forest Authority Maintenance

Horse Valley Gospel Mission

Church

DETAIL "C"

Upper Strasburg United Methodist Church

Emmanuel Luthern Church

Upper Strasburg Bible Church

Post Office

Full Gospel Mission Church of God

Pleasant Hall Fire Department

Zaccagnini Landscaping

PLEASANT HALL

DETAIL "A"
SCALE: 1" = 600'

SHEFFIELD DRIVE (T-840)

PEACH STREET (T-524)

CANTERBURY DRIVE (T-520)

GRIMSBY COURT

LIVERPOOL COURT (T-521)

SURREY COURT (T-522)

DEVON COURT

KENSINGTON HEIGHTS and THE FOOTHILLS AT KENSINGTON

DETAIL "C"
SCALE: 1" = 600'

DETAIL "B"
SCALE: 1" = 600'

LEGEND

- Commercial
- Public/Quasi-Public Structures

PLATE 2

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
WETLANDS

Scale:
2000 1000 0 2000 4000

LURGAN TOWNSHIP
FANNETT TOWNSHIP
SOUTHAMPTON TOWNSHIP
GREENE TOWNSHIP
METAL TOWNSHIP
HAMILTON TOWNSHIP
SAINT THOMAS TOWNSHIP
LETTERKENNY ARMY DEPOT

ROXBURY
PLEASANT HALL
UPPER STRASBURG
STENGER
ROCKY SPRING
FREESTONE

Conodoguinet Creek
Letterkenny Reservoir
Lehman Run
Cedar Lake
Dothan Run
Muddy Run
Broad Run

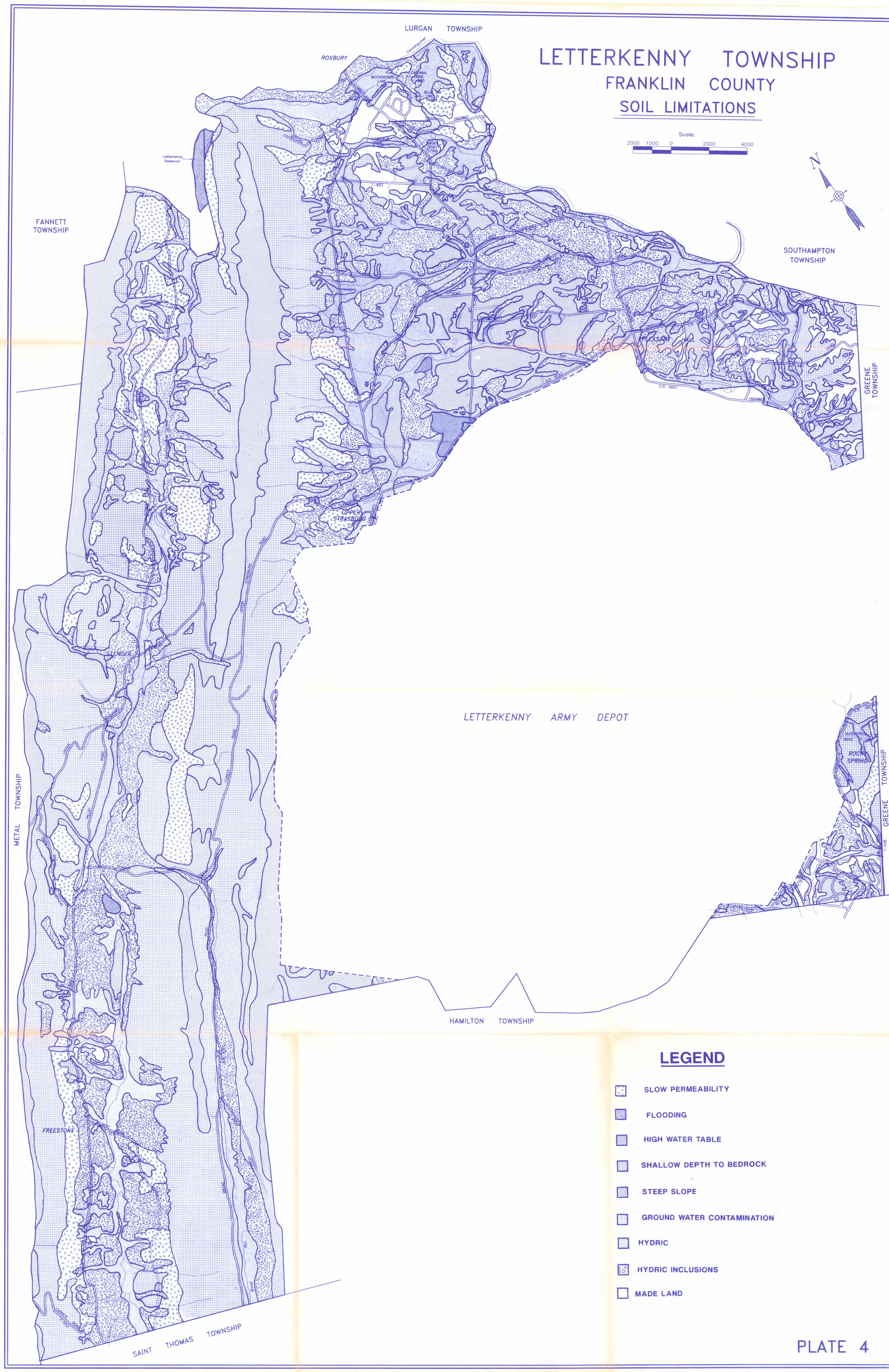
CUMBERLAND HIGHWAY
MOCKINGBIRD LANE T-581
CARDINAL DRIVE T-580
BLUE JAY CIRCLE T-582
SKYLINE DRIVE T-554
S.R. 0997
SHORT ROAD T-590
TIM ROAD T-693
S.R. 4004
PINE CREEK ROAD T-591
PARK ROAD T-635
CHURCH ROAD T-631
MT. ZION ROAD T-588
NEWBURG ROAD T-592
WYE ROAD
SANDY HILL ROAD T-589
ORRSTOWN ROAD S.R. 0533
LIMEKILN ROAD T-603
IRON BRIDGE ROAD T-598
ROTZ ROAD T-601
S.R. 0997
HORSE VALLEY ROAD T-556
LOWER VALLEY ROAD
UPPER STRASBURG ROAD
COMMUNITY ROAD T-578
STRASBURG ROAD
FOREST ROAD
SHANKSBROOK ROAD T-558
SHANKSBROOK T-592
McKENDRICK DRIVE T-525
SPRING ROAD S.R. 4017
ROCKY SPRING ROAD
FUNK ROAD T-538
LAWYERS ROAD T-693
ROCKY SPRING ROAD T-544
KEEFER ROAD 539
BOUNDARY ROAD
RUN ROAD S.R. 4001
BROAD FOREST ROAD
GILBERT ROAD T-
CARRICK ROAD T-553

PLATE 3

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
SOIL LIMITATIONS

Scale:
2000 1000 0 2000 4000

N



LEGEND

- SLOW PERMEABILITY
- FLOODING
- HIGH WATER TABLE
- SHALLOW DEPTH TO BEDROCK
- STEEP SLOPE
- GROUND WATER CONTAMINATION
- HYDRIC
- HYDRIC INCLUSIONS
- MADE LAND

PLATE 4

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
DRAINAGE BASINS

Scale:
2000 1000 0 2000 4000

N

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

HAMILTON TOWNSHIP

SAINT THOMAS TOWNSHIP

LETTERKENNY ARMY DEPOT

ROXBURY

PLEASANT HALL

UPPER STRASBURG

STENGER

FREESTONE

ROCKY SPRING

Conodoguinet Creek

Letterkenny Reservoir

Cedar Lake

Dothan Run

Lehman Run

Broad Run

MOCKINGBIRD LANE T-581

CARDINAL DRIVE T-580

BLUE JAY CIRCLE T-582

SKYLINE DRIVE T-554

SHORT ROAD T-590

TIM ROAD T-693

PINE ROAD T-591

CHURCH ROAD T-631

CREEK ROAD T-637

PARK ROAD T-635

LIMEKILN ROAD T-603

IRON BRIDGE ROAD T-598

ROTZ ROAD T-601

MUDDY ROAD

CUMBERLAND HIGHWAY

S.R. 0997

S.R. 0533

S.R. 4004

S.R. 4001

S.R. 4017

MT. ROCK ROAD T-588

SANDY MOUNTAIN ROAD T-592

WYE ROAD

COMMUNITY ROAD T-478

VALLEY ROAD

HORSE VALLEY ROAD T-556

LOWER STRASBURG ROAD

UPPER STRASBURG ROAD

FOREST ROAD

SWAMP BOOK ROAD T-558

SWAMP BOOK T-582

GILBERT ROAD T-551

CARRICK ROAD T-553

McKENDRICK DRIVE T-525

ROCKY SPRING ROAD

LAWYERS ROAD T-537

SPRING ROAD T-540

KEEFER ROAD T-539

BOUNDARY ROAD

CLINK ROAD T-538

BROAD RUN ROAD

FOREST ROAD

LEGEND

MAJOR DRAINAGE BASIN

MINOR DRAINAGE BASIN

PLATE 5

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
GEOLOGIC FORMATIONS

Scale:
2000 1000 0 2000 4000

N

LURGAN TOWNSHIP
ROXBURY
FANNETT TOWNSHIP
SOUTHAMPTON TOWNSHIP
GREENE TOWNSHIP
METAL TOWNSHIP
HAMILTON TOWNSHIP
SAINT THOMAS TOWNSHIP
LETTERKENNY ARMY DEPOT
PLEASANT HALL
UPPER STRASBURG
STENGER
FREESTONE
ROCKY SPRING

DETAIL "A"
DETAIL "B"
DETAIL "C"

LEGEND

- Oc – Chambersburg Formation
- Omg, Om – Martinsburg Formation
- Osp – St. Paul Group
- St – Tuscarora Formation
- Sbm – Bloomsburg, Mifflintown Formation
- Ojb – Bald Eagle, Juniata Formation
- Swc – Wills Creek Formation
- Sc – Clinton Group

PLATE 6

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
WELL WATER TEST RESULTS

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

SAINT THOMAS TOWNSHIP

HAMILTON TOWNSHIP

LETTERKENNY ARMY DEPOT

ROXBURY

FREESTONE

STENGER

UPPER STRASBURG

PLEASANT HALL

ROCKY SPRING

Scale: 2000 1000 0 2000 4000

DETAIL "A"

DETAIL "B"

DETAIL "C"

DETAIL "A"
SCALE: 1" = 500'

DETAIL "B"
SCALE: 1" = 500'

LEGEND

BACTERIA

- ABSENT
- COLIFORM
- COLIFORM & FECAL

PLATE 7A

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
WELL WATER TEST RESULTS

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

SAINT THOMAS TOWNSHIP

HAMILTON TOWNSHIP

LETTERKENNY ARMY DEPOT

Scale: 2000 1000 0 2000 4000

N

DETAIL "A"

DETAIL "B"

DETAIL "C"

SCALE: 1" = 500'

LEGEND

NITRATE / NITROGEN CONTAMINATION

- < 5 ppm
- > 5 ppm
- 1/4 MI. RADIUS

PLATE 7B

TABLE 1

WELL SAMPLING ANALYTICAL RESULTS

(as#2/w60713)

Letterkenny Township

Well Sampling Analytical Results

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)
1	Twp. Bldg.	Present	Absent	<0.5
2	Foust	Present	Absent	<0.5
3	Gayman	Absent	Absent	<0.5
4	Hutchinson	Absent	Absent	<0.5
5	Archambeau	Present	Absent	<0.5
6	Wetzel	Present	Absent	<0.5
7	Rotz	Absent	Absent	<0.5
8	Frietas	Present	Present	<0.5
9	Rosenberry	Present	Absent	<0.5
10	Foust	Present	Absent	<0.5
11	Keltner	Present	Absent	<0.5
12	McCullough	Absent	Absent	<0.5
13	Myers	Present	Absent	7.23
14	Thorson	Present	Absent	<0.5
15	Mathna's	Absent	Absent	<0.5
16	White	Present	Absent	<0.5
17	Etters	Absent	Absent	0.602
18	Pittman	Present	Absent	0.605
19	Kuhn	Present	Absent	<0.5
20	Pugh	Present	Absent	<0.5
21	Reed	Present	Absent	<0.5
22	Vanscyoc	Absent	Absent	<0.5
23	Foust	Absent	Absent	<0.5
24	Beam	Present	Absent	<0.5
25	Clever	Absent	Absent	<0.5
26		Absent	Absent	<0.5
27	Zullinger	Present	Present	<0.5
28	Pugh	Present	Absent	<0.5
29	Millhouse	Present	Absent	<0.5
30	Sprenkle	Absent	Absent	<0.5
31	Fire Hall	Present	Absent	<0.91
32	Stream test	Present	Present	<0.88

Well Sampling Analytical Results

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)	Sewage System Age
1A	Baker, Jr.	Present	Absent	<0.5	
2A	Gayman	Present	Absent	<0.5	
3A	Hess	Absent	Absent	3.02	
4A	Reed	Present	Absent	<0.5	
5A	Forrester	Present	Absent	<0.5	
6A	Horn	Present	Absent	<0.5	
7A	Marpoe	Absent	Absent	<0.5	
8A	Farkes	Present	Absent	<0.5	
9A	Stouffer	Present	Absent	<0.5	
10A	Douglas	Absent	Absent	<0.5	
11A	Gratkowski	Present	Absent	<0.5	
12A	Klahre	Present	Absent	<0.5	
13A	Brechbill	Present	Absent	<0.5	
14A	Reed	Present	Absent	<0.5	
15A	Deaven	Absent	Absent	<0.5	
16A	Rogers	Present	Absent	<0.5	
17A	Johnson	Present	Absent	<0.5	
18A	Greene	Absent	Absent	<0.5	
19A	Hess	Absent	Absent	<0.5	
20A	Jaymes	Present	Absent	1.01	
21A	Mohler	Absent	Absent	<0.5	
22A	Knouse	Present	Present	<0.5	
23A	Myers	Absent	Absent	<0.5	
24A	Ehkert	Present	Absent	<0.5	
25A	Witmer	Present	Absent	<0.5	
26A	Stouffer, Jr.	Present	Absent	<0.5	
27A	Timmons	Present	Present	6.09	
28A	Sites	Present	Absent	0.90	
29A	Rupert	Absent	Absent	<0.5	
30A	Horn	Present	Present	<0.5	
31A	Chesser	Present	Present	<0.5	
32A	Locke	Present	Absent	<0.5	
33A	Timmons	Present	Absent	<0.5	
34A	Holiness Camp	Absent	Absent	<0.5	
35A	Alleman	Present	Absent	<0.5	

Well Sampling Analytical Results

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)
1B	Treat	Present	Present	<0.5
2B	Hepfer	Present	Present	<0.5
3B	Grove	Absent	Absent	<0.5
4B	Holmes (LHV Spring)	Present	Present	0.72
5B	Urban	Absent	Absent	<0.5
6B	Holmes	Present	Present	<0.5
7B	Peterson	Present	Absent	<0.5
8B	Peterson, Jr.	Present	Present	0.52
9B	Walters	Absent	Absent	<0.5
10B	Elliot	Present	Absent	<0.5
1C	Holmes (Bear Val Spr)	Present	Present	1.43
2C	Geyer	Absent	Absent	<0.5
3C	Ehman	Absent	Absent	2.09
4C	Crider, Jr.	Present	Present	<0.5
5C	Henderson	Present	Absent	0.98
6C	Tornbau	Absent	Absent	<0.5
7C	Carroll	Absent	Absent	<0.5
8C	Mackey	Present	Present	0.62
9C	Treat	Present	Absent	<0.5
10C	Souders	Present	Present	2.73
11C	Funk	Present	Present	4.01
12C	Reese	Present	Absent	1.86
13C	Hankins	Present	Present	0.57
14C	Barkman	Absent	Absent	<0.5
15C	Stream Test	Present	Present	3.16
1D	Hurden	Present	Present	6.78
2D	Hoover	Present	Present	5.68
3D	Mackey	Present	Present	0.86
4D	Hurst	Absent	Absent	6.81
5D	Lepp	Present	Present	4.61
6D	McCardell	Present	Present	3.68
7D	Allen	Present	Absent	2.50
8D	Harrison	Present	Present	1.87
9D	Fullmer	Absent	Absent	2.48
10D	Shoop	Absent	Absent	2.50
11D	Shoop	Present	Present	6.32

12D	Leberknight	Present	Absent	<0.5
13D	Wright	Absent	Absent	<0.5
14D	Wright	Absent	Absent	<0.5
15D	Ehnhart	Present	Absent	<0.5
16D	Hafer	Present	Absent	<0.5
17D	Atherton	Present	Present	5.52
18D	Yeomans	Present	Present	0.54
19D	Black	Present	Absent	2.84
20D	Burdge	Present	Present	3.11
21D	Stayman	Present	Present	<0.5
22D	Whited	Present	Present	2.26
23D	Goshorn	Absent	Absent	<0.5

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
SUBDIVISIONS WITHOUT SEWAGE PLANNING

Scale: 2000 1000 0 2000 4000

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

HAMILTON TOWNSHIP

SAINT THOMAS TOWNSHIP

LETTERKENNY ARMY DEPOT

ROXBURY

PLEASANT HALL

UPPER STRASBURG

STENGER

ROCKY SPRING

FREESTONE

Letterkenny Reservoir

Conodoguinet Creek

Cedar Lake

Dothan Run

Lehman Run

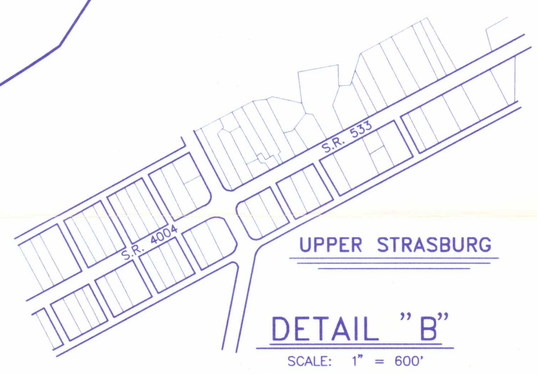
Muddy Run

Broad Run

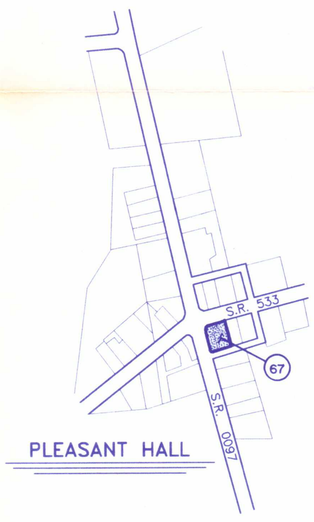
DETAIL "A"

DETAIL "B"

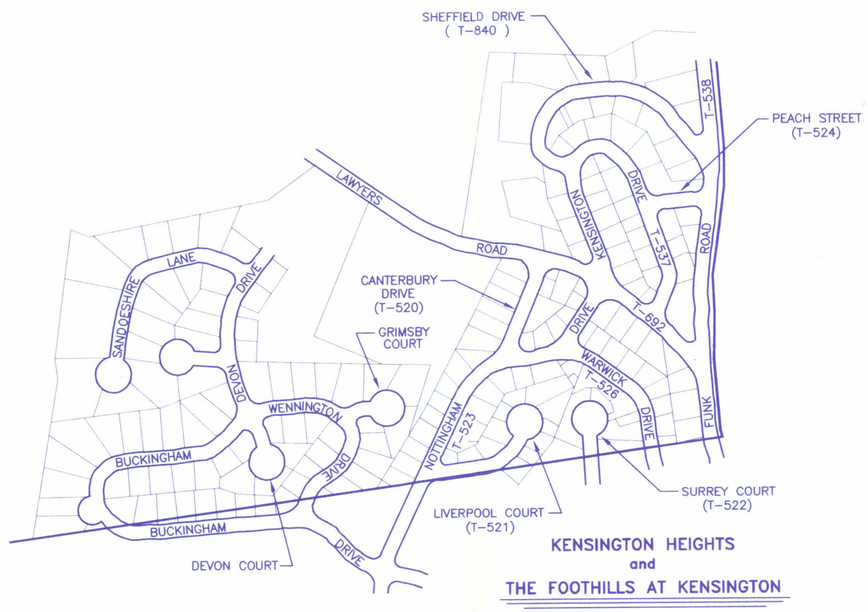
DETAIL "C"



DETAIL "B"
SCALE: 1" = 600'



DETAIL "A"
SCALE: 1" = 600'



DETAIL "C"
SCALE: 1" = 600'

PLATE 8

TABLE 2

APPROVED SUBDIVISIONS SINCE 1972

Approved Subdivisions since 1972

No.	Name of Subdivision	DEP Approval	#of lots
1.	Alleman	B	1
2.	Emeline Alleman	A	1
3.	Harold & Margaret Appleby	D	11
4.	Harold & Margaret Appleby	C	1
5.	Harold Appleby	C	1
6.	Harold Appleby	A	1
7.	Appleby	D	2
8.	Appleby	D	1
9.	Clarence Baker	10-29-92	1
10.	Charles Bender	C	1
11.	Charles Bender	C	1
12.	David & Charles Bender	C	1
13.	Richard & Bonita Bender	B	1
14.	Richard & Bonita Bender	D	2
15.	Bender Mobile Home Park	Application Withdrawn	
16.	Culbertson	C	1
17.	Black, Black & Kuhn	6-8-87	9
18.	Charles Brown	B	1
19.	Irene Bundarf	B	1
20.	Martin Burkholder	B	1
21.	Robert & Revela Carroll	D	23
22.	Kenneth T. Cichowicz	5-10-88	
23.	Hazel Clark	B	1
24.	Larry Cluck	B	1
25.	Frank & Ethel Mackey	A	1
26.	Joseph & Mary Cooley	A	1
27.	June Cramer	C, B	3
28.	Clark Culbertson	B, C	11
29.	Robert Daugherty	5-27-86	2
30.	Richard Davenport	B	1
31.	Janet Dice	C	2
32.	John L. Dunlap Sr.	8-25-92	1
33.	John L. Dunlap, Sr.	10-24-91	1
34.	Leroy Ebersole	7-7-94	4
35.	Ivan Ehman	B	2
36.	Daniel H. Eichenlaub	B	2
37.	Elizabeth C. Eichenlaub	C	1
38.	Wayne Eichenlaub	2-13-86	1
39.	Keith E. Eyer	D	2
40.	Robert Fields Sr.	B	1
41.	Robert Fields Sr.	E	1
42.	Robert Fields Sr.	A	1
43.	Kensington Heights	12-2-80	129
44.	Carl Flohr	D	2
45.	Glen Borbes	9-27-83	2
46.	Clarence Forrester	B	1

(continued)

No.	Name of Subdivision	DEP Approval	#of lots
47.	Clarence Forrester	D	1
48.	Dale M. & Betty Foust	B	2
49.	Dale M. & Betty Foust	B	1
50.	Gerald Foust	D	2
51.	Michael Fulton	9-1-89	1
52.	Eldon & Margaret Funk	B	1
53.	Alfred & Helen Miller	B	1
54.	Grace E. Gayman	B	1
55.	Grace E. Gayman	B	1
56.	James Geyer	B	1
57.	Lou & Mary Gibbons	B	1
58.	Lou & Mary Gibbons	B	1
59.	Curvin Gachenour	2-22-93	
60.	Luther Gontz	D	1
61.	Rose Mary Grove	B	1
62.	Gerald Hammond	B	1
63.	John Hawbaker	B	1
64.	Harry Hastings	B	2
65.	Jacob Heisy / Hill View Estates	D	124
66.	Carl and Sharman Helman	D	2
67.	Elizabeth Hoover	E	
68.	Lot absorbed for right-of-way to fire hall		
69.	Charles Horn	B	1
70.	Emery Horn	B	1
71.	Paul Horn	B	1
72.	ITT Thorpe Corp.	10-2-89	8
73.	ITT Thorpe Corp.	5-18-88	1
74.	ITT Thorpe Corp.	C	1
75.	ITT Thorpe Corp.	D	1
76.	Albertus Johnson	12-20-88	2
77.	Anna Johnson	12-6-90	1
78.	Clarence Johnson	B	1
79.	Merle Johnson	B	2
80.	Wm. & Grace Johnson	B	1
81.	George & Mary Jones	5-27-83	2
82.	Walter & Mable Jones	B	2
83.	Lester and Carol Jumper	B	1
84.	Margaret Susan Kauffman	B	1
85.	Rich Kauffman	6-13-90	2
86.	Gary Kauffman	B	2
87.	Galen & Irene Keller	C	2
88.	June Killian	D	1
89.	Gary Kitzmiller	B	1
90.	Heirs of Mary Klenzing	A	2
91.	David Kuhn	B	2
92.	Charles & Robert Lawyer	B	1
93.	Charles & Robert Lawyer	B	1
94.	Harry Leedy	Subdivision Denied	1
95.	Lowe Mobile Home Park	D	1

(continued)

No.	Name of Subdivision	DEP Approval	#of lots
96.	Frank & Ethel Mackey	Prior to 1972	3
97.	Robert Martin	B	2
98.	Robert & Sarah Martin	B	4
99.	Robert & Sarah Martin	D	8
100.	Robert & Sarah Martin	X	1
101.	Randy & Brenda McKenrick	8-9-79	10
102.	Josef Mentzer	B	1
103.	Josef Mentzer	C	1
104.	Josef Mentzer	B	1
105.	Harry & Dorothy Miley	B	1
106.	Paul E. Miller	B	2
107.	Barry Mohler	B	1
108.	Gerry Mohler	11-5-91	1
109.	Lynn & Barbara Mohler	C	2
110.	Charles Moreland Jr.	B	2
111.	Charles Myers	9-25-87	1
112.	George & Florence Myers	E	1
113.	Harry Myers	B	1
114.	John Myers	D	4
115.	Larry Myers	2-23-95	4
116.	Thomas & Sherri Myers	B	1
117.	Michael Sr. & Theresa Pensinger	B	1
118.	Pine Run Land Co.	7-7-86	8
119.	Elmer Piper	D	1
120.	Clarence Pugh	B	1
121.	Clarence Pugh	B	1
122.	Roy Rebuk	B	1
123.	Roy Rebuk	6-27-86	1
124.	Roy Rebuk	D	1
125.	Michael Reed	B	1
126.	Leroy Rexroth	B	1
127.	Zola Richardson	B	2
128.	Elmer & Hazel Rife	D	1
129.	Jan Ritter	D	1
130.	Jan & Donna Ritter	E	7
131.	Charles Reed	D	1
132.	David Jeanne Rosenberry	B	1
133.	Mary Rosenberry	A	4
134.	Edwin Rotz	B	2
135.	Norm Rotz et ux	B	1
136.	Roxbury Holiness Camp	2-24-95	1
137.	Rodney & Karen Shellhase		2
138.	James Shellhase	8-2-93	1
139.	Wm Schnoor	5-27-87	5
140.	John Schoenberger	3-25-87	4
141.	Kenneth Schooley	7-26-94	2
142.	Donald & Diane Shaffer	E	1
143.	Lester Shank	5-28-92	1
144.	James Shanks	D	2

(continued)

No.	Name of Subdivision	DEP Approval	#of lots
145.	Gary Shantz	E	1
146.	Eugene Shields	D	2
147.	Eugene Shields	D	2
148.	Kenneth Shoop	B	2
149.	Ray Shields	9-30-91	2
150.	Rex Roth	C	1
151.	Ray Shields	D	2
152.	Norman Shriver	B	1
153.	Erma Sollenberger	B	2
154.	Reuben Sollenberger Estate	B	1
155.	Bonny Stake	B	2
156.	Bonny Stake	B	1
157.	Kirby Stouffer	B	1
158.	Transferred to Firehall		
159.	D. Louis Stum	5-12-89	1
160.	Frank Timmons	6-16-94	1
161.	Frank Timmons	9-8-92	1
162.	Frank Timmons	B	1
163.	Guy Timmons	B	1
164.	Wm. Timmons	5-17-94	1
165.	William Timmons	B	1
166.	Alice Trail	B	2
167.	Cliff VanScyoc	B	1
168.	Cliff VanScyoc	B	2
169.	Wm. VanScyoc	B	1
170.	Wm. VanScyoc	A	2
171.	Harold & Betty Weaver	D	1
172.	Carl Wenger	6-23-81	1
173.	Catherine Wenger	B	1
174.	John & Catherine Wenger	B	1
175.	Kenneth Wenger	B	1
176.	Kenneth & Martha Wright	B	1
177.	Delvin Zullinger	C	1
178.	Delvin & Suzanne Zullinger	A	1
179.	Wm. Zullinger	C	2
180.	U.S. Postal Service	B	1
181.	John Keefer	6-28-96	1
182.	Myrl C. & Isabelli C. Reed	X (7-3-96)	2
183.	Robert Allen	2-13-96	1
184.	Rodney & Karen Schellhase	B	2
185.	Isabell F. Mummert	B	2
186.	Guy Timmons	F	1
187.	Clarence Pugh	B	1
188.	Bonny D. Stake	C	2
189.	Frank Timmons	6-16-94	1
190.	Etta J. Leberknight	incomplete data	
191.	Elizabeth Hoover	B	2
192.	Larry & Nancy Myers	2-23-95	4

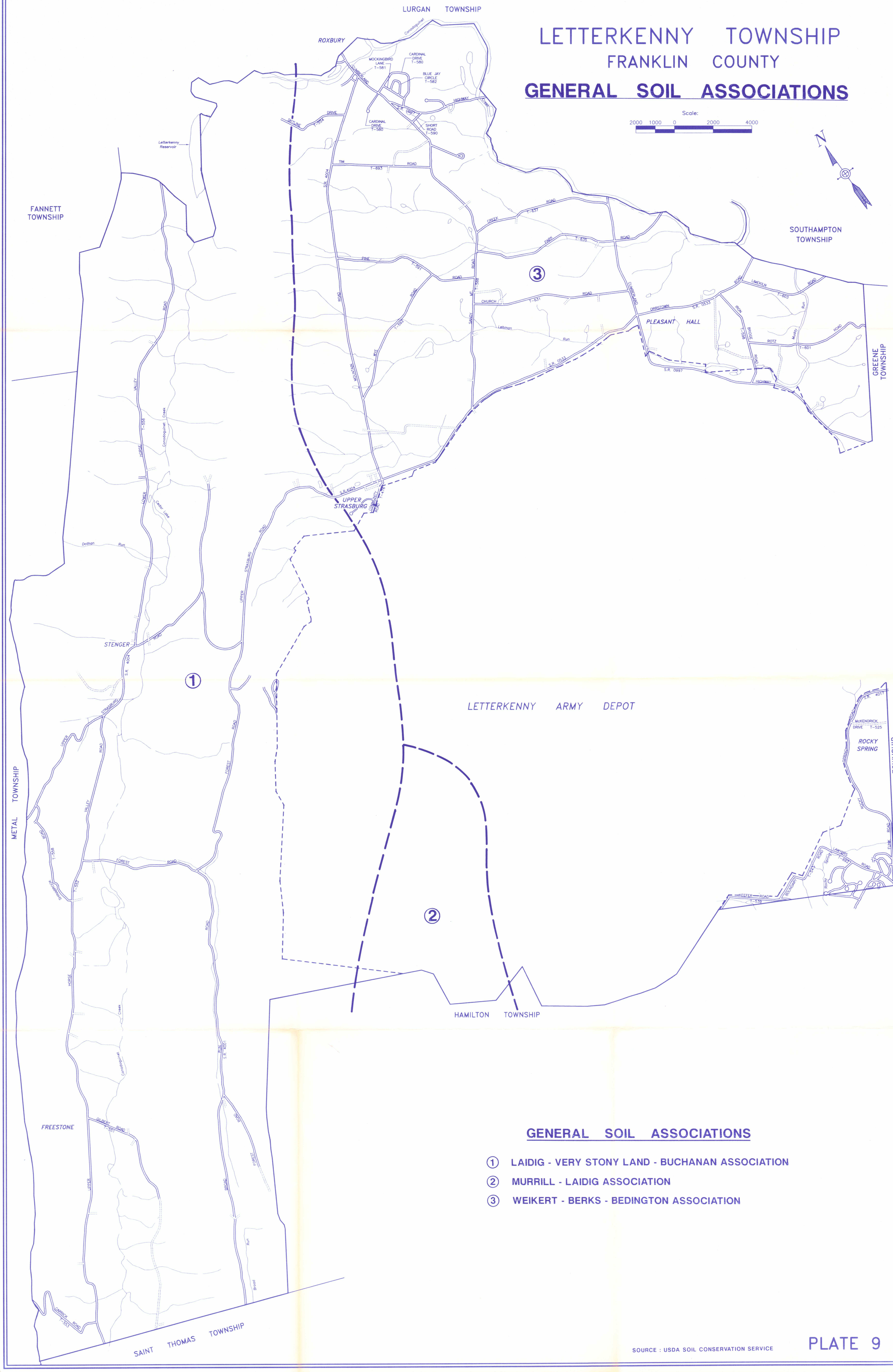
DEP Approval Key

A	=	Bloodline Conveyance
B	=	Lot addition, existing sewer and water facilities and/or no construction proposed
C	=	Agricultural Use
D	=	Modules sent to DEP, no response
E	**=**	**No Evidence of Planning**
F	=	Land Conveyance
X	=	Exemption granted from DEP

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
GENERAL SOIL ASSOCIATIONS

Scale:
2000 1000 0 2000 4000

N



GENERAL SOIL ASSOCIATIONS

① LAIDIG - VERY STONY LAND - BUCHANAN ASSOCIATION

② MURRILL - LAIDIG ASSOCIATION

③ WEIKERT - BERKS - BEDINGTON ASSOCIATION

SOURCE : USDA SOIL CONSERVATION SERVICE

PLATE 9

h:\coe_b\lead_brac\present\30u42\01sanitary.dgn
m:\basemap\gen_tbls\san_map.tbl
20 JAN 1999

Letterkenny Army Depot
Comprehensive Reuse Strategy
Franklin County, PA

Franklin County Reuse Committee

Hamilton, Rabinovitz & Alschuler, Inc.
Sasaki Associates, Inc.
Benatec Associates
Deloitte & Touche LLP – Fantus
Pepper, Hamilton & Scheetz

LEGEND

- AREA RETAINED BY ARMY
- REALIGNED AREA
- BUILDING RETAINED BY ARMY
- 8"S — SANITARY SEWER MAIN WITH LINE SIZE (ALL PIPES ARE 8" DIA UNLESS OTHERWISE NOTED)
- 8" FM — FORCE MAIN WITH LINE SIZE
- SANITARY SEWER MANHOLE AND FLOW DIRECTION
- NOTE: ALL PIPES ARE (VC) VITRIFIED CLAY UNLESS OTHERWISE NOTED AS:
  (AC) ASBESTOS CEMENT
  (CI) CAST IRON
  (STL) STEEL
- BUILDING SERVED BY SANITARY SEWER
- (A) SEWAGE PUMPING STATION (BLDG. No. 190) 2-100 GPM PUMPS
- (B) SEWAGE PUMPING STATION (BLDG. No. 233) 2-300 GPM PUMPS
- (C) SEWAGE PUMPING STATION (BLDG. No. 352) 2-300 GPM PUMPS
- (E) SEWAGE PUMPING STATION (BLDG. No. 1-370) 2-150 GPM PUMPS (UNDERGROUND)
- (F) SEWAGE PUMPING STATION (BLDG. No. 411) 2-125 GPM PUMPS
- (G) SEWAGE PUMPING STATION (BLDG. No. 531) 2-200 GPM PUMPS
- (H) SEWAGE PUMPING STATION (BLDG. No. 590) 1-100 GPM PUMPS
- (J) SEWAGE PUMPING STATION (BLDG. No. 508) 2-75 GPM PUMPS
- (N) SEWAGE PUMPING STATION (BLDG. No. 500) 2-150 GPM PUMPS
- (R) SEWAGE PUMPING STATION (BLDG. No. 1-42) 1-100 GPM PUMPS
- (Y) SEWAGE PUMPING STATION (BLDG. No. 49) 2-50 GPM PUMPS
- (431) SEWAGE PUMPING STATION
- (641) SEWAGE PUMPING STATION
- 56 SEWAGE EJECTORS
- 33 SEWAGE EJECTORS
- 3312 SEWAGE EJECTORS

LETTERKENNY ARMY DEPOT

SANITARY SEWER PLAN

Figure #3

PLATE 10

May, 1997

0 500 1000 1500

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
AGRICULTURAL SECURITY AREAS/ PRIME AGRICULTURAL SOILS

Scale: 2000 1000 0 2000 4000

N

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

SAINT THOMAS TOWNSHIP

HAMILTON TOWNSHIP

LETTERKENNY ARMY DEPOT

ROXBURY

PLEASANT HALL

UPPER STRASBURG

STENGER

FREESTONE

ROCKY SPRING

Conodoguinet Creek

Letterkenny Reservoir

Cedar Lake

Dothan Run

Lehman Run

Broad Run

MOCKINGBIRD LANE T-581

CARDINAL DRIVE T-580

BLUE JAY CIRCLE T-582

CUMBERLAND HIGHWAY

SKYLINE DRIVE

SHORT ROAD T-585

PINE ROAD T-683

CHURCH ROAD T-631

MOUNTAIN ROAD

HORSE VALLEY ROAD T-556

LOWER VALLEY ROAD

UPPER VALLEY ROAD

FOREST ROAD

SHIMABROOK ROAD T-558

COMMUNITY ROAD T-496

ORRSTOWN ROAD S.R. 0533

LIMEKILN ROAD T-603

BRIDGE ROAD T-601

KAUFFMAN ROAD T-600

S.R. 0997

S.R. 4004

S.R. 4001

S.R. 533

S.R. 401

MCKENDRICK DRIVE T-525

SPRING ROAD

LAWYERS ROAD T-697

KEEFER ROAD T-539

BOUNDARY ROAD T-543

ROCKY SPRING ROAD T-538

GILBERT ROAD T-551

CARRICK ROAD T-553

DETAIL "A"

SCALE: 1" = 600'

DETAIL "B"

SCALE: 1" = 600'

DETAIL "C"

SCALE: 1" = 600'

DETAIL "A"

DETAIL "B"

DETAIL "C"

SHEFFIELD DRIVE (T-840)

PEACH STREET (T-524)

CANTERBURY DRIVE (T-520)

GRIMSBY COURT

LIVERPOOL COURT (T-521)

SURREY COURT (T-522)

KENSINGTON HEIGHTS and THE FOOTHILLS AT KENSINGTON

LEGEND

AGRICULTURAL SECURITY AREAS

PRIME AGRICULTURAL SOILS

PLATE 11

TABLE 3

AGRICULTURE SECURITIES AREAS

(AS#10/607.13c)

Agricultural Security Areas
Letterkenny Township, Franklin County

	LANDOWNER'S NAME	TAX PARCEL #	TOTAL ACREAGE
1.	Charles A. Bender David A. Bender	F-13-16, F-13-63 F-13-17B, F-13-39 F-13-17C, F-13-33	300
2.	Geraldine G. Kane Ray R. Kane	F-13-22	95
3.	Samual F. Ebersol Mary K. Ebersol	F-13-17	8
4.	Clarence Forrester	F-8-172	156
5.	Guy G. Timmons	F-4-55	110
6.	David Timmons Linda K. Timmons	F-4-23	63.4
7.	John A. Witmer Carolyn Witmer	F-9-18	173
8.	Warren Grove Janet Grove	12-F-5-16	45
9.	William Smith Ida Smith	12-F-13-13	76
10.	Katherine Pearce		40
11.	Donald Holtry Shirley Holtry	12-F-13-10	89
12.	Raymond Zullinger Janet Zullinger	12-F-13-28	168
13.	William Barkman	12-F-32-11, 12-F-32-10	145
14.	Norman Norton	12-F-23-8	131
15.	Norman Rotz Emma Rotz	12-F-11-29 12-F-11-40	241

(continued)

16.	Carl Wenger Susanne Wenger	12-F-14A-7A, 12-F-14-6 12-F-14-19	165
17.	John Wenger Catherine Wenger	12-F-8-28 12-F-14-7	170
18.	Robert Fields, Jr. Ruth Fields	12-F-9-14	135
19.	Garnet Gayman Joy Gayman	12-F-13-26	168
20.	Eddie Forrester Tracy Forrester	12-F-9-1	56
21.	Richard Bender Alice Bender	12-F-14-10 12-F-14-9	70 24
22.	Clarence Pugh Ida Pugh	12-F-14-2	143
23.	Robert VanSyoc	F-18-11 F-18-36	105 127
24.	Harold Weaver Betty Weaver	F-18-14	70
25.	Paul Swartz Dorothy Swartz	F-14-8	173
26.	Irvin Gayman Grace Gayman	F-9-19 F-17-34	132 209
27.	David Detweiler	F-18-9	17
28.	Amos Diehl Pearl Diehl	F-18-16	32
29.	Charles Myers Joan Myers	F-22-20A F-18-27	121 237
30.	Max Shantz Emma Shantz	F-22-1	20
31.	Ray Myers Rozanna	F-18-33	120

(continued)

32.	Robert Ehrhart Gladys Ehrhart	12-F-8-31	39	
33.	Larry Cluck Leah Cluck	12-F-13-30	132	
34.	Paul Kelso	12-F-13-11	60	
35.	William Zullinger Ruth Zullinger	12-F-13-27	119	
36.	Harvey Mohler Charles Mohler	12-F-9-12	129	
37.	Wayne Gayman Lillian Gayman	12-F-8-30, 12-F-13-15 12-F-8-48, 12-F-13-14	123 37	170 40
38.	Guy Timmons, William Timmons Daniel Timmons, Thomas Timmons	F-4-24	174	

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
U.S.G.S. MAPPING

Scale:
2000 1000 0 2000 4000

N

LURGAN TOWNSHIP

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

LETTERKENNY ARMY DEPOT

HAMILTON TOWNSHIP

SAINT THOMAS TOWNSHIP

GREENE TOWNSHIP

PLATE 12

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
FLOODPLAINS

Scale:
2000 1000 0 2000 4000

N

LURGAN TOWNSHIP
FANNETT TOWNSHIP
SOUTHAMPTON TOWNSHIP
GREENE TOWNSHIP
METAL TOWNSHIP
HAMILTON TOWNSHIP
SAINT THOMAS TOWNSHIP
LETTERKENNY ARMY DEPOT

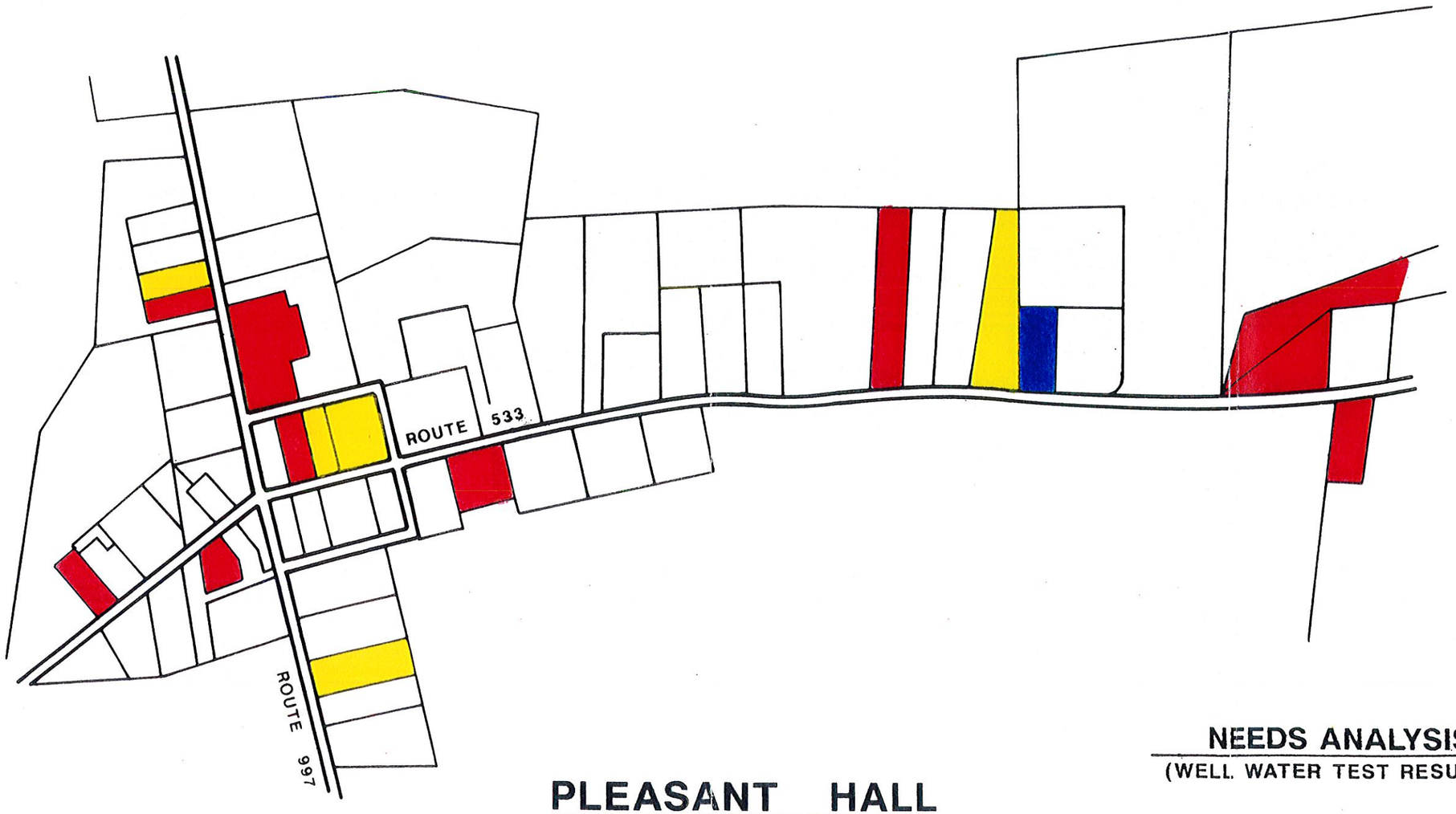
ROXBURY
PLEASANT HALL
UPPER STRASBURG
STENGER
FREESTONE
ROCKY SPRING

Conodoguinet
Letterkenny Reservoir
Dothan Run
Lehman Run
Muddy Run
Broad Run

CARDINAL DRIVE T-580
BLUE JAY CIRCLE T-582
SKYLINE DRIVE T-554
HIGHWAY S.R. 0997
SHORT ROAD T-590
TIM ROAD T-693
S.R. 4004
PINE ROAD T-591
MOUNTAIN ROAD
WYE ROAD T-592
MT. SANDY ROAD T-588
CHURCH ROAD T-631
CREEK ROAD T-637
PARK ROAD T-635
CUMBERLAND ROAD
ORRSTOWN S.R. 0533
LIMEKILN ROAD T-603
IRON BRIDGE ROAD T-598
ROTZ ROAD T-601
S.R. 0997
VALLEY ROAD
HORSE LOWER T-556
UPPER STRASBURG ROAD
COMMUNITY ROAD T-476
FOREST ROAD
SINKABOOK ROAD T-558
T-552
HORSE RUN S.R. 4001
FOREST ROAD
BROAD RUN
GARRICK ROAD T-563
S.R. 4017
McKENDRICK DRIVE T-525
SPRING ROCKY ROAD
FUNK ROAD T-538
LAWYERS ROAD T-637
T-543 ROAD
ROCKY SPRING BOUNDARY
KEEFER ROAD T-539

PLATE 14

PLATE 13A



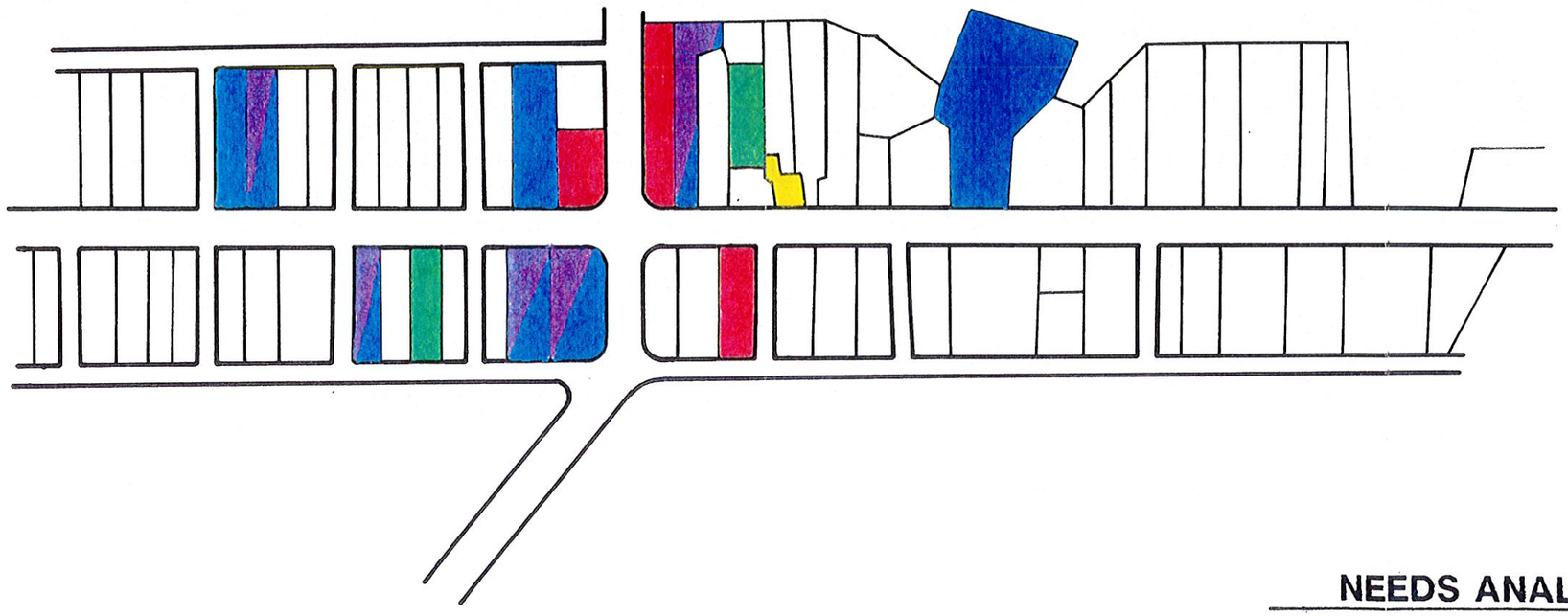
PLEASANT HALL

SCALE : 1" = 300´

NEEDS ANALYSIS
(WELL WATER TEST RESULTS)

- COLIFORM CONTAMINATON
- COLIFORM & E.COLI CONTAMINATION
- NITRATE CONTAMINATION
- NITRATE & COLIFORM CONTAMINATION
- NO CONTAMINATION

PLATE 13B



NEEDS ANALYSIS
(WELL WATER TEST RESULTS)

UPPER STRASBURG

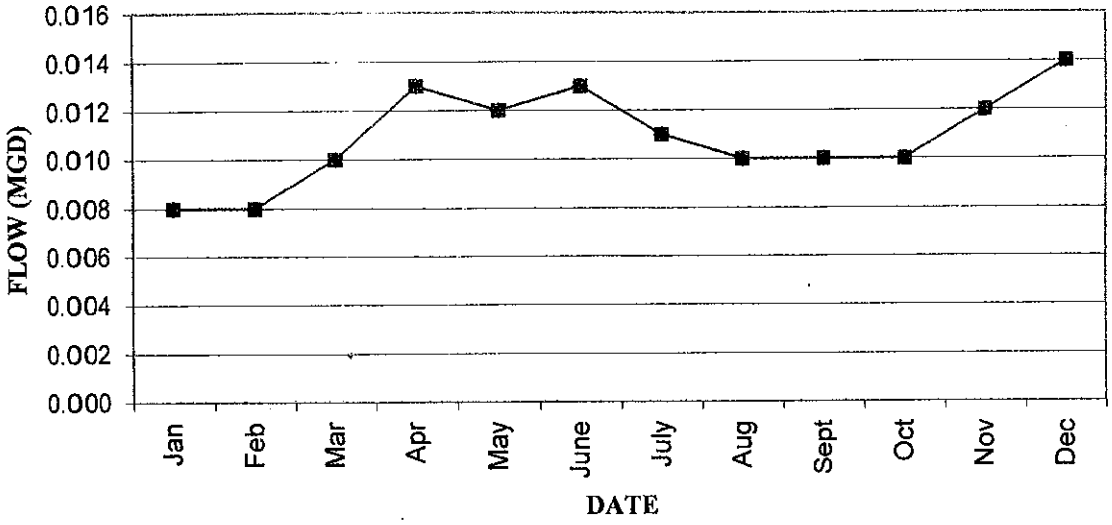
SCALE : 1' = 300´

- COLIFORM CONTAMINATON
- COLIFORM & E.COLI CONTAMINATION
- NITRATE CONTAMINATION
- NITRATE & COLIFORM CONTAMINATION
- NO CONTAMINATION

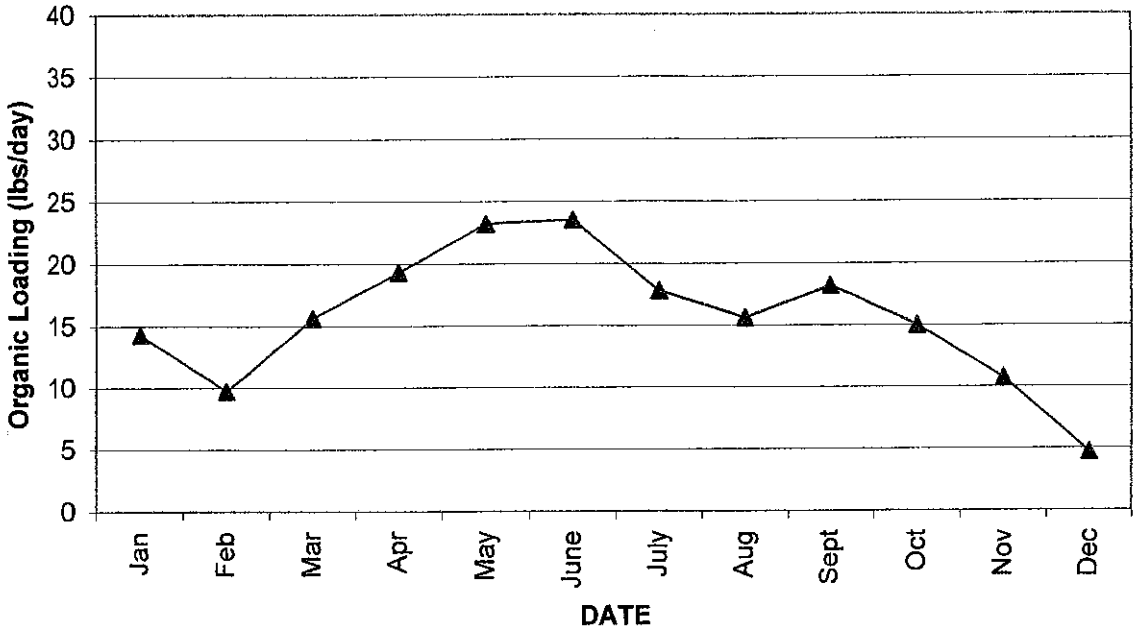
GRAPHS 1 AND 2

2002 HYDRAULIC AND ORGANIC LOADING

2002 Hydraulic Loading
Letterkenny Township (LTMA)



2002 ORGANIC LOADING
Letterkenny Township (LTMA)



APPENDIX A

RESOLUTION OF ADOPTION

PROOF OF PUBLIC NOTICE

COMMENT AND RESPONSE TO PROPOSED PLAN

RESOLUTION FOR PLAN REVISION #1-00

RESOLUTION OF THE SUPERVISORS OF LETTERKENNY TOWNSHIP, FRANKLIN COUNTY, PENNSYLVANIA (hereinafter "the municipality")

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act", as amended, and the Rules and Regulations of the Department of Environmental Protection (DEP) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, the Letterkenny Township Board of Supervisors has prepared an official Sewage Facilities Plan which provides for sewage facilities in a potion of Letterkenny Township, and

WHEREAS, Letterkenny Township finds that the Facility Plan described above conforms to applicable subdivision and other municipal ordinances and plans to comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of the Township of Letterkenny hereby adopts and submits to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the municipality, the above referenced Facility Plan. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act as amended.)

I, JOANN P. Wright, Secretary, Letterkenny Township Board of Supervisors, hereby certifies that the foregoing is a true copy of the Township's Resolution No. 1, adopted August 22, 2000.

AUTHORIZED SIGNATURE

Charles D Hayes

TOWNSHIP SEAL

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
4924 Orrstown Road
Orrstown, PA 17244

Phone (717) 532-8716 Fax (717) 532-7134

September 26, 2000

Martin and Martin, Inc.
37 South Main Street, Suite A
Chambersburg, PA 17201-2251

Gentlemen:

Letterkenny Township Municipal Authority has reviewed the proposed Letterkenny Township 537 Plan and has these few comments:

a. The reference on page 23 V, #2 implies that the collection system is to be extended along Mountain Road, whereas the line is already extended along Mountain Road. Skyline Road line is not served at this time.

b. Page 23 V, 3b refers to Antrim Township's facility in error.

c. Page 30 under VI: The Evaluation of Alternatives A.2 refers to Letterkenny Townships 1998 Chapter 94 Annual Report. This should refer to Letterkenny Township Municipal Authority.

Sincerely,

LETTERKENNY TWP MUNICIPAL AUTHORITY

J. RAY HEISEY
Chairman

LETTERKENNY TOWNSHIP
Board of Supervisors
4924 Orrstown Road
Orrstown, PA 17244

Phone (717) 532-8716 Fax (717) 532-7134

September 26, 2000

Martin and Martin, Inc.
37 South Main Street, Suite A
Chambersburg, PA 17201-2251

Gentlemen:

Letterkenny Township Planning Commission has reviewed the proposed Letterkenny Township 537 Plan and has no comment at this time.

Sincerely,

LETTERKENNY TWP PLANNING COMMISSION

Charles H. Myers

CHARLES H. MYERS
Chairman

LETTERKENNY TOWNSHIP
REGULAR MEETING
AUGUST 22, 2000

PRESENT WERE:
Supervisors: Holmes, Myers, Timmons

Solicitor: Rahauser
Secretary: Wright

The regular monthly meeting of the Letterkenny Township Board of Supervisors was held August 22, 2000. The meeting was called to order at 7:00 P.M. by Chairman Myers who led the Pledge of Allegiance.

The Chairman of the Board formally declared the opening of the 537 Plan Public Hearing advertised in the Public Opinion for this date at 7:00 P.M. in the Municipal Building. Chuck Sioberg and Scott Shildt, Martin & Martin, attended to discuss with the public & Supervisors the revised 537 Plan. (Sewer Systems for Pleasant Hall & Upper Strasburg). Billy Reed attended asking for drinking water instead of a Sewer System. Sioberg replied DEP has ordered for the township to look at the Sewer Plan. The Supervisors responded, it is in no way close to being implemented. There would have to be some serious funding. The Township's stand on this when it is submitted to DEP is "The township cannot afford this". Sioberg said a commentary will be inserted in the 537 Plan update that "residents want water instead of sewer".

Motion by Holmes, seconded by Timmons, unanimous by Myers adopting Resolution # 1-00 to submit to DEP the Revised 537 Plan for approval. Hearing was called to close at 8:00 P.M.

The minutes of July 25, 2000 were unanimously approved by the Board. The Treasurer's Report was approved unanimously by the Board following a Holmes/Timmons motion.

Andrew Neil, Jr. attended questioning the cost of maintaining the public alley. He is to talk with neighbor about sharing expense.

Motion by Holmes, seconded by Timmons, unanimous by Myers, to add statement to Building Permits "Residents of Hillview Estates- Wells must be 50' from existing or proposed sewer lines per DEP requirement".

Supervisors requested Rahauser send letter and pictures from Lillian Seefeldt on Ray Widney's junk at 4 Surrey Court, Kensington Heights to Hamilton Township Supervisors, since they collect the taxes on the property.

The Board discussed painting yellow lines on our roads. Myers will check on this for next meeting.

Motion by Holmes, seconded by Timmons, the bills for the month were approved, as listed. There being no further business, the meeting was adjourned at 8:57 P.M.

Respectfully submitted,

JOANN P. WRIGHT, Sec/Treas

LOCAL BRIEFS

Driver crashes into manure spreader

No injuries were reported in an accident Tuesday when a car struck the rear of a manure spreader on Pa. 995 near Welsh Run.

A tractor with the manure spreader, operated by Joseph Long, 58, of Greencastle, was stopped on Pa. 995 so that Long could close a gate, according to Pennsylvania State Police.

Glenn Hunsberger, 36, of Mercersburg, drove around a bend in the road and into the manure spreader at 3 p.m., police said.

The police report didn't include information on dam-

▼ LETTERKENNY TOWNSHIP

Funding sought for sewer system

By SALLY BRADY
Staff writer

Letterkenny Township Supervisors made a commitment Tuesday night to seek funding for sewer systems in both Pleasant Hall and Upper Strasburg.

Their commitment was part of the township's proposed sewage facilities plan, which supervisors adopted after a public hearing. The plan is required by the Pennsylvania Department of Environmental Protection (DEP).

In order to install and maintain sewer systems in both communities, "there has to be some serious funding," said Charles Myers, board president. "There's no easy fix. We're not saying we're doing anything right now. We're just complying with DEP."

According to the plan, the cost to install and maintain a sewer system in Pleasant Hall, serving 102 customers, would be about $1.8 million over 20 years. The plan assumes 45% would be covered by grants and includes a loan with a 4.5% interest rate. Residents' sewer bills would be about $86 a month.

A sewer system in Upper Strasburg, serving 122 customers, would cost about $1.6 million, under the same provision — meaning a monthly sewer bill of about $65 for residents.

"We have to have some miracles happen in the way of loans and grants or deal with malfunctioning septic tanks in the township," said Chuck Sioberg, an engineer for Martin and Martin Inc., township engineers.

Three-year old tests in Pleasant Hall and Upper Strasburg showed drinking wells were contaminated with bacteria and chemicals found in sewage leaking from septic tanks.

There were 16 contaminated wells in Pleasant Hall and 14 in Upper Strasburg, according to Scott Shildt, a land use planner for Martin and Martin Inc.

Contaminated water is the problem supervisors should be addressing, said Upper Strasburg resident Billie Reed during a public hearing.

"I would be more willing to pay a water bill for clean drinking water than for a sewer system," she said. "We are still not going to be able to drink our water."

Reed said she has to get about 100 gallons of drinking water a month, because her well water is not suitable to drink.

Sioberg said Reed was right.

"There is no guarantee a sewer system will clean up the water supply," he said. "If we don't fix the sewer, (septic tanks) continue to be groundwater contaminators."

The Roxbury Holiness Camp and residents in the Kensington heights area already have public sewer.

As part of the resolution, supervisors also agreed to pass an on-lot sewage management ordinance, requiring residents to empty septic tanks once every three years — similar to plans passed this year in both Greene and Hamilton townships.

They also agreed to pass a well drillers ordinance, require preliminary hydrogeological testing of any proposed subdivision within ¼ mile of a well with nitrate/nitrogen pollution or underlain by limestone and require replacement for on-lot sewage disposal.

The Department of Environmental Protection will review the plan, and suggest changes before the township adopts a final plan.

Sally Brady covers municipal government. She can be reached at 262-4752.

martin and martin, incorporated

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)
email: martinmartin@innernet.net

No comments were received from the public during the review period. The proposed Letterkenny Township Act 537 Plan was available for public review at the office of John Wayman, 9724 Cumberland Highway, Pleasant Hall, PA 17246 from May 30th to July 14th, 9:00am to 5:00pm. Mrs. Billie Reed, a citizen who attended the Public Hearing on August 22nd, stated that she would rather have a public water system than public sewer because the water system would show immediate benefits to the residents of the Township.

CLASSIFIED

264-6162 • 264-6163
1-800-782-0661
FAX (717) 264-2009
Se habla español
HOURS: Monday thru Friday
7:30 A.M. - 6 P.M.

LEGALS

The Tuscarora School District Board of Directors will hold an Executive session on Monday, June 5, 2000 at 7:00 P.M. at the James Buchanan High School Conference Room. The meeting will be for the discussion of legal issues and contract negotiations.

Richard G. Lipella
Board Secretary
553

Sealed bids will be received by the : Guilford Township Supervisors 2nd class of Franklin County, Pennsylvania at the Municipal Building, 115 Spring Valley Road, Chambersburg, Pennsylvania, 17201 until 4:00 P.M. on June 15, 2000 for the following:

Wanted: A Used Sewage Pumping Truck with a minimum of

16,000 lb. front axle
13 speed transmission
2,300 gallon tank
210 H.P. Diesel Engine

Proposals must be upon the forms furnished by the Municipality. Specifications may be picked up at the Municipal Office, 115 Spring Valley Road, Chambersburg.

Bids must be submitted in writing by 4:00 P.M. on June 15, 2000 to the Municipal Office, Guilford Township Supervisors, 115 Spring Valley Road, Chambersburg, Pa. 17201. Bids will be opened on June 15, 2000 at 7:00 P.M.

The Municipal reserves the right to reject any and all proposals.

GUILFORD TOWNSHIP SUPERVISORS
569

NOTICE OF FICTITIOUS NAME REGISTRATION
NOTICE IS HEREBY GIVEN, pursuant to the provisions of the fictitious Names Act, Act No. 1982-295, of the filing, with the Department of State of the Commonwealth of Pennsylvania, on April 27, 2000, of an application for a certificate for the conducting of a business under the assumed or fictitious name of Graveyard Enterprises, with its principal place of business at 2454 Smoketown Road, Fayetteville, Pennsylvania 17222. The name and address of the entity owning or interested in said business is Graveyard Enterprises, Inc., 2454 Smoketown Road, Fayetteville, PA 17222.
575

PUBLIC NOTICE
The Scotland School for Veterans' Children hereby gives notice that there will be a meeting of its Board of Trustees Friday, June 2, 2000, at 7:00 PM in the Library. Work session will be at 4:00 PM in Room 12 of the school building.
561

LEGALS

REQUEST FOR EXPRESSIONS OF INTEREST
GOLF COURSE
OPERATIONS and
MAINTENANCE

The Letterkenny Industrial Development Authority (LIDA) is seeking expressions of interest for golf course operations and maintenance. A response package is available upon request from Kip Feldman, LIDA, 4759 Innovation Way, Chambersburg, PA 17201. Telephone 717-267-9351 Ext. 29 or FAX 717-267-9353. a pre-response meeting will be held June 22, 2000. Response deadline is on before July 7, 2000.
578

NOTICE OF 537 PLAN

The Board of Supervisors of Letterkenny Township hereby notifies the public of its intent to adopt a proposed Act 537 Plan at a meeting on August 22, 2000 at 7:00 p.m., at the Township Building. The Township Building is located at 4924 Orrstown Road in Pleasant Hall (Letterkenny township), Franklin County, Pennsylvania. the public is invited to attend the meeting.

The nature of the 537 Plan is to protect the health, safety and welfare of citizens living in Letterkenny Township by correcting malfunctioning on-lot septic systems. The existence of improperly treated sewage can affect water supplies and allow disease organisms to reach people through drinking water. Development and implementation of plans for the sanitary disposal of sewage wastes can be very effective in resolving exhausting problems that threaten public health in the municipality. Proper planning can prevent sewage disposal problems that threaten public health in the municipality. Proper planning can prevent sewage disposal problems from occurring and provide for the protection of ground and surface water. Such planning is necessary before financing, permitting or construction of improved sewage treatment and disposal systems can begin.

The location of the planning area within the 537 Plan is the entire Township of Letterkenny. Within the planning area two major areas were identified as in need of public sewer, Upper Strasburg and Pleasant Hall.

The scope of the 537 Plan includes the specific planning needs of the municipality in which in the case of Letterkenny Township are providing public sewer to Pleasant Hall and Upper Strasburg.

The scope of the plan also proposes several ordinance including: a Sewage Management Ordinance, a Well Driller's Ordinance, a 10-acre Exemption Ordinance, a Grinder Pump Agreement and an amendment to the Subdivision and Land Development Ordinance. The specific purpose of the Sewage Management Ordinance is to provide or the municipal inspection, maintenance and rehabilitation of on-lot disposal systems; to permit the municipality to intervene in situation that are hazardous to public health and to establish penalties and an appeal procedure for proper administration of the sewage management program. Specific purposes of other ordinances being proposed include; a Well Driller's Ordinance to secure and maintain isolation distance between water supplies and a sewage disposal systems; a Preemption of the 10-acre Exemption Ordinance, which will require that all lots including those greater than 10 acres in size will require a permit for the installation of on-lot sewage disposal; a Grinders Pump Agreement that defines the maintenance and ownership of said pumps ; and an Amendment to the Subdivision and Land Development Ordinance, which requires a developer of a subdivision of 10 lots or greater to perform a preliminary hydrogeologic study of areas within 1/4 mile of well test sites known nitrogen /nitrate contamination.

Overall, the major recommendations of he plan include providing public sewer to the Upper Strasburg and Pleasant Hall areas.

The proposed plan will b available for public review at the office of John Wayman, 9724 Cumberland Highway, Pleasant Hall, PA 17246 from May 30 to July 14, 2000 during the hours of 9:00 a.m. to 5:00 p.m. Citizens of the Township are invited to review and address written comments about the proposed plan to the Township Supervisors.
573

ANNOUNCEMENTS

NOTICES

NOTICE
Classified advertising is accepted, edited or rejected by writers, prior to publication and approval of the publisher. After an ad is ordered it cannot be cancelled or corrected until after the first insertion.
READ YOUR AD CAREFULLY AFTER IT APPEARS THE FIRST TIME. IF IT CONTAINS AN ERROR, CALL US AT ONCE. PUBLIC OPINION WILL NOT BE RESPONSIBLE FOR MORE THAN ONE INCORRECT INSERTION.

LOST & FOUND

FOUND: Black Lab mix. Fayetteville, Hickory Dr. vicinity over weekend 352-9270.

LOST: DOG, Springer Spaniel/Lab mix, male, liver brown & white, w/pink collar w/chain attached. Last seen early Sun. morning. 369-4408

CALL THE EXPERTS!

LOST & FOUND

LOST - SHIH TZU, male, gray & white, 1 eye. Answers to MAX. Northend of Chbg 263-0842

LOST YOUR PET?
Here's What To Do...
#1 Call the Cumberland Valley Animal Shelter, 263-5791 or stop by at 2325 Country Road Chambersburg, Pa.
#2 Place your FREE ad in Public Opinion by calling
264-6162

SINGLES

BEGINNINGS
Friendships In The Making.
Every Monday, Wednesday and Saturday in Public Opinion's Classifieds. To listen to area singles describe themselves or to respond to ads, call
1-900-562-3356
$1.99 per minute.
Must be 18 yrs. or older.

BAIL BONDING

GET OUT OF JAIL FAST
Call collect 24 hrs. a day. Bonding in 2 states & 7 counties. Ken Stake Bail Bonding 352-8116. 352-9513, 352-2033

SERVICES

CALL 264-6162
HALF OFF FIRST 30 DAYS
Personal... Professional... Business Service Ads

CHILD CARE PROVIDERS

GREENVILLAGE, clean home, meals & snacks, TLC, 6am-5:15pm, 2 yr-5, F/T. 264-0274

LOOKING FOR SUMMER CARE?
The Chbg YMCA has affordable full day programming for children ages 6-11 includes day trips, swimming instruction, weekly themes & projects and hours of summer time fun. Family discounts available.
Call 263-8509

PERSONAL SERVICES

Atty. Reisman & Davis Pgh.
DIVORCE $185 TOTAL.
Uncontested. Free info.
No travel! 800-466-4070

BANKRUPTCIES
Feeling the financial crunch? Personal & business. Rick Bushman Attorney. Phone: 263-0814 or 349-7657

BANKRUPTCIES
Jill MacCracken, Attorney
(717) 263-3202

PROFESSIONAL SERVICES

ALWAYS BEHIND on bills? DUI? Other legal problems? Atty David R. Yoder (717) 263-9593

BUSINESS OPPORTUNITIES

CAREER OPPORTUNITY
Real Estate Broker/Associate Broker or Sales Person for existing office. Co/ownership available with no investment.
EXISTING & CONSTRUCTION SALES
Send reply to D4006 c/o Public Opinion, PO Box 499,

HOME IMPROVEMENT

ADDITIONS, Complete Remodeling, Custom Homes, Garages, Decks, Siding, and Concrete Installation. *Over 25 Years Experience*
John J. Stambaugh
263-4459

CALVIN H. MARTIN
Quality custom built homes, additions, roofing, siding & remodeling. You name it we do it! Phone 375-2440.

TRAVEL & ENTERTAINMENT

BUS TRIP
To See JOYCE MEYERS
June 3RD, Landover MD.
For more info. call Shelby at
(717)328-3709

MERCHANDISE

ABSOLUTELY FREE

KITTENS - Happy, Healthy. Litter Trained. Free to a good home. 263-0132

SCRAP METAL
free for hauling
(717)352-3403

Sofa & Chair fair condition
Free for hauling
(717)352-2398

ANTIQUES

BEAVER CREEK ANTIQUE MARKET
Hagerstown, MD has 150 Quality Dealers
Open Daily 9-5 (closed Wed.)
I-81 s.to I-70 e.to Exit 32A & go 1 mi. Look for covered wagon.
(301)739-8075
www.beavercreekantiques.com
Quality Dealer Applications Being Accepted.

APPLIANCES

NEW/USED Refrig., freezers, washers, dryers, ranges, ect. 30 day guarantee. Will buy good used appli's Parts & Service. Keith Garber 375-2505

FARM ANIMALS

WANTED:Jersey and Jersey cross bred Heifers, registered or grade, open or bred. (717) 349-2393 or 717-349-7732

FEED, SEED & GRAIN

CUSTOM BAGGING
BAGS & MACHINES
717-328-3191

FRUIT & PRODUCE

Strawberries
at Covert's - You pick, We pick.
Hrs 7-7 Bring Containers 1/4mi South Fr. Co. Fairgrounds on Shimmerbridge Rd 369-4765

STRAWBERRIES
Pick Your Own
Starting May 25
Hrs. as pick's
M & Sat. 8am-1(1pm)
Tues. & Thurs 4pm-8pm
Hrs. depending on berry availability
Containers provided
Paul Bert Farm, Naas Lurgan
532-5537

STRAWBERRIES
YOU PICK, WE PICK
Hours: M-F 7-7, Sat 7-4
Closed Sun. 267-3305 Drying Sited, 1567 Newcomer Rd.

FURNITURE

DINING ROOM TABLE 56x41w/1 leaf, 6 padded chairs, $100 obo. 530-1238

LAWN & GARDEN

MULCH
Rich - Dark-Old, Shredded
$18/ea. yd. Picked Up
Delivered Price Upon Request
GIESEY LOGGING, INC.
1970 Frank Rd., Chbg.
267-0866
M-F 8-5; Sat. 8-12

MISCELLANEOUS ITEMS

CABLE CONVERTER BOX w/remote, 128 channel, $175. (717)597-0415

CLINIQUE (NEW) lipsticks, $2/ea; Cosmetic Bags $2/ea. 262-2320

NEW AD TODAY
COLLECTIBLE DOLLS
Beautiful limited edition, vinyl & porcelain. $100 ea. 762-3608

CONCRETE
METERED READY MIX
SPECIAL WEEKEND
RATES ALSO EVENINGS
Call Dymond Concrete Products, Inc. 352-2321

Curtains, 100"wx63"L, semi sheer, light gray, adj pullback, 24" center panels, $25. 264-2803

GAS GRILL, dual burner, $55; BAR on Four legs w/2 stools $45 Call (717)369-5260

GLASSES Peanut Butter Bowls; Outdoor FERN $1.50/Pot; IRIS BULBS $1/ea 264-7783

JEEP Hotwheels 4x4, good cond. $100. Call (717)264-4152

NEW ADULT VIDEOS IN $5-$10. Must be 21 yrs. to buy. Call 264-0312

Nice arm desk chair with a cloth seating $20; Utility Tub $25; Craftsman 14" chain saw $50 (717)352-4198

PLASTIC BARRELS
55 gal., $5/ea.
Call 264-9250

SHOW CASE for 1/64 scale Winross and Ertl trucks Holds 128 $350 Some trucks and Hess trucks (717)352-2944

RESTAURANT EQUIPMENT
Complete family style, call for inventory pricing 369-3004

Sears 16 gallon Wet/Dry vacuum only used 3 days $65 267-1091

SPRING SALE ON BIG FAMILY SIZED POOLS
Ex: 20'x30' O.D. pool w/deck, fence, liner and ladder.
JUST $1,788
Call Tony Now for best selection, installation and full financing available.
1-800-833-3783

TY BEANIE
The Beginning $25
Call 267-2398

MUSICAL INSTRUMENTS

THIS OUT
DRUM LESSONS
Looking for new students to teach. Call Rob 262-3145

USED SPINET PIANO
Priced to sell Shockey's 301-739-1211

PETS

1 male Russian Dwarf Hamster $1.00 bites but CAN be tamed. Not to be used for snake food (717)263-7952

PETS

BRINDLE PUPS vet check, 1st shts/worm, tail docked/dewclaw Parents good temp good w/kids $200/mk $250/fml 485-0569

DACHSHUND AKC, female, small blk/tan, 2yr, $200. HIMMY cat, CFA, fl, $100 352-3447

ENGLISH MASTIFF PUPPIES, AKC, champion line, parents on premises, apricot & brindle, vet checked, ready now $800-$1000. 530-2055

HIMALAYAN KITTEN
Seal Point male $75
597-8284

Kittens
$10/ea.
(717)709-0908

Kittens Playful, gray & black & white $5 ea.
Call (717)532-7205

KITTENS Short & Long Haired Free to Good Home
(717)352-9584

PETLAND
CHAMBERSBURG
Hand Fed Baby Birds
LOW Prices on Aquarium Kits
$8 Cent Fish Sale EVERYDAY
Parakeets & Cockatiels
Hamsters & Guinea Pigs
Reptiles & Supplies
Domestic Kittens
Mixed breeds, Husky, Min Pin, Rottweiler, Rat Terrier, Bichon, Boxer, Cairn, Cocker, Golden Ret., Collie, Sheltie, Airedale, Irish Setter, Brittney Spaniel, Maltese, Pomeranian, Akita, Shih Tzu!!
PETLAND
Chambersburg
Next to Wal-Mart
Mon. - Thurs. 10am-9pm
Fri. & Sat. 10 am-10 pm
Sun. Noon - 6 pm
263-6161

Rottweiler, AKC, 3/ F $100. 1st shot/wonn Must Sell, neg. 349-2249

SHELTIE PUPS AKC Males $225, Females $275 Call 249-6634

Shep. pups 2 female 3mon. old wormed, no papers $50 each 352-0161 after 5

SHIH-TZU, AKC, 1 male/$450, 2 female/$400, black &white, 1st shots, (717)352-9401

TOY POODLE AKC, male, 3 1/2 years old, black, $100. Call (717)264-4152

TRAINING CLASSES, PUPPIES, basic & agility, over 25 yrs exp. 597-5078

SPORTING GOODS

GOLF BAG Man's leather w/4 woods, 11 irons, pull cart & access. $100 261-0296 after 4pm

ITEMS WANTED

CASH : For milk & soda bottles, Telephone insulators
Call 532-5466

Leave a BUNDLE
RUN YOUR AUTO AD FOR $1 $UPER $AVER
(717) 264-6162
*Call for details.

EMPLOYMENT

HELP WANTED PART TIME

NEW AD TODAY
ADVERTISING SALES
For Franklin County. Flexible hours. Call 301-733-1835 or FAX resume to 301-791-7722

EVENING COOK
4pm-8:30pm No Sunday work
Apply in person
SUNNYWAY DINER
Greencastle

NEW AD TODAY
FRANKLIN COUNTY
has an immediate opening for:
PURCHASING CLERK
Part-Time
Responsible to assist Purchasing Agent with receiving, verifying and completing requisitions, pricing and accountability of items needed by County; to assist with other duties within department as outlined in established policies and procedures. Qualified applicants should possess a high school diploma or equivalency, plus some additional computer and general office training. Should also possess 1-2 years working experience; preferably in a purchasing environment.
Interested applicants may obtain a job application form from the:
FRANKLIN COUNTY HUMAN RESOURCES DEPARTMENT
425 Franklin Farm Lane
Chambersburg, Pa 17201
Applications should be returned to the Human Resources Dept. prior to 4:30 PM on June 2, 2000.
EOE

NEW AD TODAY
FOOD & NUTRITION SERVICES AIDE
PART-TIME Varied shifts between 8:30am-7:00pm & every other weekend & holiday
Apply to:
WAYNESBORO HOSPITAL
Personnel Office
501 E. Main St.
Waynesboro, PA 17268
FAX: 717-765-3437

NEW AD TODAY
HOTEL
WEEKEND NIGHT HOUSEPERSON NEEDED
Responsibilities include cleaning of public areas, meeting room set-ups, assisting with guest requests. Must enjoy working with the public.
Apply in person
HAMPTON INN
955 Lesher Rd., Chbg.

NAIL TECH for very busy nail salon, yr exp. prof. but not nec. Send resume w/refer. to:
PERFECT 10 NAIL SALON
113 E. King St. Shbg PA 17257
No Phone Calls Please

NOW HIRING
C N A's
• Pleasant Environment
Shippensburg
Health Care Center
(717)530-9300

DAIRY FARM HELP, FT, milking & feeding, some field work, 5-1/2 days/wk. 530-9468

HELP WANTED PART TIME

NURSE - LPN
Part-time LPN position available to work with residents ages 9-17. Maryland license required. Experience in dealing with emotionally disturbed children preferred.
Send resume to:
Tim Cox,
Interim Director of Residential Services
BROOM LANE
HEALTH SERVICES
PO Box 1945
Hagerstown, MD 21742-1945
EOE

NEW AD TODAY
PART-TIME COMPUTER INSTRUCTORS
Needed for daytime classes in MS Office, Desktop Publishing, and Internet/WWW topics in non-credit curriculum. should have MS Office 97/2000, PageMaker 6.5, PhotoShop 5, Illustrator 8, Front Page 2000, or current Web Page design and implementation knowledge and experience. Send resume to Coordinator of Technology and Workforce Development, Wilson College for Continuing Education, 1015 Philadelphia Avenue, Chambersburg, PA 17201, or call (717) 262-2525 x 3220.

PART-TIME to repair small motors and hand tools, organize and stock small construction items. Ideal for retiree who want to work 1 to 2 days a week in Mercersburg.
Call (717)328-5211

NEW AD TODAY
Nurse in need reliable child care prov. for 6 & 2 yr. old 1-2 dys/wk for 2nd/3rd shift. My home or yours 267-2385

HELP WANTED FULL TIME

$ SUMMER MONEY $
Local Part-Time And Full-Time Work Available Immediately!! Don't Delay! Call Today!
1-800-973-1496

$400 SIGN ON BONUS
Rocker Barrel
Old Country Store
NOW HIRING:
• PROFESSIONAL DISH WASHERS & COOKS
Paying professional rates
Bring recent pay stub and we'll talk money
Apply in person:
1162 Wayne Rd. Chbg
EOE

YARD SALE
CHAMBERSBURG
136 S. FOURTH
Thurs, Fri, Sat
June 1, 2, 3
8-5
CHAMBERSBURG
WILLIAMSBURG CIRCLE
near Chbg. Mall
JUNE 1, 2 & 3 8-?
Infant-adult clothes, toys, household, jewelry, gold, pre 1930, little chest, basket full, linens, tractor, toddler dollhouse bed, Beanie Baby & bendies, and more. Some left over, like a whole
GREENCASTLE
155 ADDISON AVE
JUNE 1, & 2,
8AM-4PM
JUNE 3, 8AM-3PM
RAIN or SHINE
VERY LARGE SALE
Everything imaginable, antiques, collectibles, bedroom dressers, 3 bench rockers,

Notice of 537 Plan

The Board of Supervisors of Letterkenny Township hereby notifies the public of its intent to adopt a proposed Act 537 Plan at a meeting on August 22, 2000 at 7:00 p.m., at the Township Building. The Township Building is located at 4924 Orrstown Road in Pleasant Hall (Letterkenny Township), Franklin County, Pennsylvania. The public is invited to attend the meeting.

The nature of the 537 Plan is to protect the health, safety and welfare of citizens living in Letterkenny Township by correcting malfunctioning on-lot septic systems. The existence of improperly treated sewage can affect water supplies and allow disease organisms to reach people through drinking water. Development and implementation of plans for the sanitary disposal of sewage wastes can be very effective in resolving existing problems that threaten public health in the municipality. Proper planning can prevent sewage disposal problems from occurring and provide for the protection of ground and surface water. Such planning is necessary before financing, permitting or construction of improved sewage treatment and disposal systems can begin.

The location of the planning area within the 537 Plan is the entire Township of Letterkenny. Within the planning area two major areas were identified as in need of public sewer—Upper Strasburg and Pleasant Hall.

The scope of the 537 Plan includes the specific planning needs of the municipality, which in the case of Letterkenny Township are providing public sewer to Pleasant Hall and Upper Strasburg.

The scope of the plan also proposes several ordinances including: a Sewage Management Ordinance, a Well Driller's Ordinance, a 10-acre Exemption Ordinance, a Grinder Pump Agreement, and an amendment to the Subdivision and Land Development Ordinance. The specific purpose of the Sewage Management Ordinance is to provide Or the municipal inspection, maintenance and rehabilitation of on-lot disposal systems; to permit the municipality to intervene in situations that are hazardous to public health and to establish penalties and an appeal procedure for proper administration of the sewage management program. Specific purposes of other ordinances being proposed include: a Well Driller's Ordinance to secure and maintain isolation distances between water supplies and sewage disposal systems; a Preemption of the 10-acre Exemption Ordinance, which will require that all lots including those greater than 10 acres in size will require a permit for the installation of on-lot sewage disposal; a Grinder Pump Agreement that defines the maintenance and ownership of said pumps; and an Amendment to the Subdivision and Land Development Ordinance, which requires a developer of a subdivision of 10 lots or greater to perform a preliminary hydrogeologic study of areas within ¼ mile of well test sites with known nitrogen/nitrate contamination.

Overall, the major recommendations of the plan include providing public sewer to the Upper Strasburg and Pleasant Hall areas.

The proposed plan will be available for public review at the office of John Wayman, 9724 Cumberland Highway, Pleasant Hall, PA 17246 from May 30 to July 14, 2000, during the hours of 9:00 a.m. to 5:00 p.m. Citizens of the Township are invited to review and address written comments about the proposed plan to the Township Supervisors.

CLASSIFIED

LEGALS

REQUEST FOR EXPRESSIONS OF INTEREST GOLF COURSE OPERATIONS and MAINTENANCE

The Letterkenny Industrial Development Authority (LIDA) is seeking expressions of interest for golf course operations and maintenance. A response package is available upon request from Kip Feldman, LIDA, 4759 Innovation Way, Chambersburg, PA 17201. Telephone 717-267-9351 Ext. 29 or FAX 717-267-9353. a pre-response meeting will be held June 22, 2000. Response deadline is on before July 7, 2000. 578

NOTICE OF 537 PLAN

The Board of Supervisors of Letterkenny Township hereby notifies the public of its intent to adopt a proposed Act 537 Plan at a meeting on August 22, 2000 at 7:00 p.m. at the Township Building. The Township Building is located at 4924 Orrstown Road in Pleasant Hall (Letterkenny township), Franklin County, Pennsylvania. the public is invited to attend the meeting.

The nature of the 537 Plan is to protect the health, safety and welfare of citizens living in Letterkenny Township by correcting malfunctioning on-lot septic systems. The existence of improperly treated sewage can affect water supplies and allow disease organisms to reach people through drinking water. Development and implementation of plans for the sanitary disposal of sewage wastes can be very effective in resolving exhausting problems that threaten public health in the municipality. Proper planning can prevent sewage disposal problems that threaten public health in the municipality. Proper planning can prevent sewage disposal problems from occurring and provide for the protection of ground and surface water. Such planning is necessary before financing, permitting or construction of improved sewage treatment and disposal

The location of the planning area within the 537 Plan is the entire Township of Letterkenny. Within the planning area two major areas were identified as in need of public sewer - Upper Strasburg and Pleasant Hall.

The scope of the 537 Plan includes the specific planning needs of the municipality which in the case of Letterkenny Township are providing public sewer to Pleasant Hall and Upper Strasburg.

The scope of the plan also proposes several ordinances including: a Sewage Management Ordinance, a Well Driller's Ordinance, a 10-acre Exemption Ordinance, a Grinder Pump Agreement and an amendment to the Subdivision and

LEGALS

Land Development Ordinance. The specific purpose of the Sewage Management Ordinance is to provide or the municipal inspection, maintenance and rehabilitation of on-lot disposal systems, to permit the municipality to intervene in situation that are hazardous to public health and to establish penalties and an appeal procedure for proper administration of the sewage management program. Specific purposes of other ordinances being proposed include: a Well Driller's Ordinance to secure and maintain isolation distance between water supplies and a sewage disposal systems; a Preemption of the 10-acre Exemption Ordinance, which will require that all lots including those greater than 10 acres in size will require a permit for the installation of on-lot sewage disposal; a Grinders Pump Agreement that defines the maintenance and ownership of said pumps; and an Amendment to the Subdivision and Land Development Ordinance, which requires a developer of a subdivision of 10 lots or greater to perform a preliminary hydrogeologic study of areas within 1/4 mile of well test sites known nitrogen /nitrate contamination.

Overall, the major recommendations of he plan include providing public sewer to the Upper Strasburg and Pleasant Hall areas.

The proposed plan will b available for public review at the office of John Wayman, 9724 Cumberland Highway, Pleasant Hall, PA 17246 from May 30 to July 14, 2000 during the hours of 9:00 a.m. to 5:00 p.m. Citizens of the Township are invited to review and address written comments about the proposed plan to the Township Supervisors. 573

APPENDIX B

CORRESPONDENCE WITH INTERESTED PARTIES

APR 1 4 2000

Pennsylvania Department of Conservation and Natural Resources
Rachel Carson State Office Building
P.O. Box 8552
Harrisburg, PA 17105-8552
April 10, 2000

Bureau of Forestry **717-787-3444**

Martin & Martin, Inc.
37 South Main Street, Suite A
Chambersburg, PA 17201

Re: Pennsylvania Natural Diversity Inventory Review of Proposed Sewerage of the town of Upper Strasburg, Letterkenny Twp., Roxbury, PA **PER NO.:9161**

Dear Mr. Martin:

In response to your data request of January, 2000 to review the above mentioned project, we have reviewed the area using the Pennsylvania Natural Diversity Inventory (PNDI) information system. PNDI records indicate no occurrences of species of special concern within the project area, therefore we do not anticipate any impact on endangered, threatened, or rare species at this location.

PNDI is a site specific information system that describes significant natural resources of Pennsylvania. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Conservation and Natural Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files and is good for one year. An absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations.

Feel free to phone our office if you have questions concerning this response or the PNDI system, and please refer to the P.E.R. Reference Number at the top of the letter in future correspondence concerning this project.

Sincerely,

Jeanne Brennan (JMH)

Jeanne Brennan
Environmental Review Specialist
Pennsylvania Natural Diversity Inventory

Printed on Recycled Paper

FEB 24 2000

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

February 16, 2000

Scott R. Shildt
Martin and Martin, Incorporated
37 South Main Street
Suite A
Chambersburg, PA 17201-2251

Re: File No. ER 2000-1168-055-A
DEP ACT 537 Program, Letterkenny
Township Act 537 Plan, Letterkenny
Twp., Franklin Co.

Dear Mr. Shildt:

The Bureau for Historic Preservation has reviewed the above named project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 500 et seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

There is a high probability that prehistoric and historic archaeological resources are located in this project area. In our opinion, the activity described in your proposal should have no effect on such resources. Should the scope of the project be amended to include additional ground disturbing activity this office should be contacted immediately and a Phase I Archaeological Survey may be necessary to locate all potentially significant archaeological resources.

There may be resources in or adjacent to the project area which are eligible for the National Register of Historic Places. Unless structures over 50 years of age will be demolished or altered in any way, the activity described in your proposal will have no effect on such resources and your responsibility for consultation with this office is complete. If buildings over 50 years of age will be affected physically or visually by project activities, you must submit current photographs of the buildings, keyed to a map, and a description of the project's effect on the buildings.

If you need further information regarding archaeological survey please contact Noël Strattan at (717) 772-4519. If you need further information concerning historic structures please consult Ann Safley at (717) 787-9121. If you need a **status only** of the reviewed project please call Tina Webber at (717) 705-4036.

Sincerely,

Kurt W. Carr, Chief
Division of Archaeology & Protection

KWC/lmm

FC
LPC

Franklin County Planning Commission
Administrative Annex
218 North Second Street
Chambersburg, PA 17201-1642

Phone: 717-261-3855
Fax: 717-264-8667
TDD: 717-264-8474
Email: plan@franklinco.pa.net

JUN 09 2000

June 8, 2000

Letterkenny Township Supervisors
4924 Orrstown Road
Orrstown, PA 17244

RE: Act 537
Sewage Facilities Plan

Gentlemen:

The Franklin County Planning Commission recently reviewed the draft Act 537, Official Sewage Facilities Plan as prepared by Martin and Martin, Inc. on behalf of Letterkenny Township.

The plan outlines an ambitious strategy to address the sewage needs of the Township. Depending on the scope of future projects, the Township may qualify for Community Development Block Grant (CDBG) funding to assist in the cost of these endeavors. The Planning Department is the administrative entity for the CDBG funding in the non-entitlement municipalities of Franklin County. If we can be of further assistance in this regard, please contact us.

The Planning Commission recommends the Act 537 Plan for approval.

Sincerely,

Philip A. Tarquino
Director

cc: Martin & Martin ✓

APPENDIX C

PROPOSED ORDINANCES

Well Driller's Ordinance

Sewage Management Ordinance

Mandatory Hook-up Ordinance

Grinder Pump Agreement

10-acre Exemption Preemption

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

ORDINANCE NO. _____

WELL DRILLER'S ORDINANCE

AN ORDINANCE OF THE BOARD OF TOWNSHIP SUPERVISORS OF LETTERKENNY TOWNSHIP, FRANKLIN COUNTY, PENNSYLVANIA, PROVIDING FOR THE REGISTRATION, REGULATION AND CONTROL OF ALL WELLS WHICH MAY BE CONSTRUCTED FOR OBTAINING WATER FOR DOMESTIC PURPOSES.

Section 1. Short Title

This ordinance shall be known and may be cited as the "Water Well Ordinance."

Section 2. Purpose

The intention of this Ordinance is to ensure and protect the quality and suitability of domestic water supply, and to secure and maintain the minimum required isolation distances between water supplies and sewage disposal systems or other sources of contamination.

Section 3. Application

1. This ordinance shall apply to all wells which have not been completed, or which are not in operation or in an inoperable condition at the time of passage of this Ordinance.

2. This ordinance shall further apply to the reconstruction, major repair and other changes to existing wells, when, in the opinion of the Inspecting Officer, such reconstruction, major repair and other changes may affect the quality and suitability of the water supply on the property upon which the well is constructed or on surrounding properties.

Section 4. Standards

The following standards shall apply:

1. Location

Drilled and driven wells shall be located at a point free from flooding and at the following minimum distances to existing or possible fixture sources of pollution:

Source	Minimum Distance
Storm Drains	25 feet
Drains carrying domestic sewage or industrial wastes	50 feet
Septic or Holding Tanks	50 feet
Surface/subsurface sewage disposal fields	100 feet
Sewage seepage pits, cesspools	100 feet
Privies	50 feet
Fuel Tanks	as approved
Other (ditches, streams, barnyards, rainwater pits, etc.)	as approved

Additional Location Restrictions:

Driveways	10 feet
Principal structure/dwelling	20 feet
Property lines	10 feet

2. Source of Water

The source of supply shall be from a water bearing formation drawn not less than one hundred (100) feet from the ground surface, with at least twenty (20) feet of properly grouted well casing, and from no formation which is subject to pollution.

3. Construction

The well shall have a water-tight and durable wrought iron, steel, or other type of approved casing with a nominal thickness of 3/16 (.1875) inches and six and five-eighths (6-5/8) inches, outside diameter. The sections shall be joined together by threaded couplings, joints, by welding or any other water-tight approved joint or coupling.

Twenty (20) feet from the finishing grade and in any case shall be extended ten (10) feet into bedrock or other impervious strata. Driven wells shall be provided with a drive shoe or other effective casing seal.

The casing shall be sealed effectively against entrance of water from water bearing formations, which are subject to pollution, through which the casing may pass. If casings of smaller diameter are used in the lower portions of the well, effective watertight seals shall be provided between the casings where they telescope. In such instances, sections of casing shall telescope for a minimum distance of four (4) feet.

The top of the well casing shall extend a minimum of eight (8) to twelve (12) inches above the finished grade of the lot so that contaminated water or other substances cannot enter the well through the annular opening at the top of the well casing, wall or pipe sleeve.

Every potable water well shall be equipped with an overlapping cover of the top of the well casing or pipe sleeve. Covers shall extend downward at least two (2) inches over the outside of the well casing or wall. All well caps shall indicate well driller's main, depth of well and depth of casing.

Where pump sections or discharge pipes enter or leave a well through the side of the casing, the circle of contact shall be water-type. The use of plastic/nylon adapters for this purpose is not acceptable. A brass pitless adapter with brass connectors or equivalent are required.

All potable water wells and springs shall be constructed so that surface drainage will be diverted away from the well or spring.

Any pump room or any enclosure around the well pump shall be drained and protected from freezing by heating or other approved means. Where pumps are installed in basements, they shall be mounted on a block or shall not less than eighteen (18) inches above the basement floor. Well pits shall be prohibited.

4. Water service.

Size of water service pipe- The minimum diameter of water service pipe shall be three-fourths (3/4) inches. Separation of water service and building sewer/drain water service pipe shall be installed twelve (12) inches above sewer drains.

Section 5. Repairs/Reconstruction

1. Drilled Wells.

Any restoration/repair of wells with casing terminating below grade shall be raised above grade to eight (I) to twelve (12) inches minimum.

2. Springs.

Before rehabilitation shall begin on an existing spring, a report shall be made to determine the advisability of said reconstruction, which shall include as a minimum, quality and quantity of water. Springs for new construction are not considered an adequate water supply and will not be considered as valid for the issuance of a building permit. Reconstructed springs shall be completely enclosed by walls and a cover of reinforced concrete or equally durable water type material. The cover shall have a firm foundation so as to effectively prevent settling. The uphill wall shall be so constructed as to prevent entrance of surface water. Where manhole covers are used, the manholes shall be at least twenty-four (24) inches in diameter. It shall extend at least three (3) inches above the surrounding ground surface and be covered by an impervious durable cover of concrete, steel or equivalent material that overlaps the manhole vertically by at least two (2) inches. The manhole shall be kept secured by bolting, locking or equivalent means, and shall be kept so secured.

3. Abandoned Water Supplies.

Wells, springs, cisterns and water storage tanks, which are no longer in use shall be removed, filled or otherwise maintained in a condition such as to prevent access by unauthorized persons or animals to prevent accidental injury, and to effectively prevent pollution of ground water. Abandoned wells shall be completely filled with cement or equal impervious material.

4. Permits.

Permits shall be issued on a form provided by the Township of Letterkenny, which shall be executed by the duly authorized Inspecting Officer.. All permits shall be issued to the property owners or their duly authorized representative/well driller.

All permits shall be in effect as of the date of issuance, and shall remain in effect for a period of six (6) months. In the event that water supply construction under the permit has not been completed at the expiration of six (6) months from the date of issuance, the permit shall expire.

5. Inspection

Upon completion of construction, or at such other time as the Township Inspecting Officer may deem appropriate, the Inspecting Officer shall perform a final inspection of the well/water supply to determine whether there has been compliance with the permit issued.

6. Approval.

Upon completion of the inspection, the Inspecting Officer shall (a) issue an "APPROVAL OF OPERATION" upon the original permit, or (b) deny such approval due to noncompliance with the permit issued, in which event, written reasons for such denial shall be noted on the original permit.

Section 7. Reports Required

1. Driller's Report

A report for each well shall be prepared by the driller and shall be submitted to the Township of Letterkenny for evaluation and approval. The well report shall contain the following pertinent information:

Owner of Property	Address & Lot Number
Date of Completion	Depth of Casing
Depth of Well	Static Water Level
Well Driller	Yield in gal/min.
Type & Size of Casing	Pump Output in gal/min
Type of Test Pump used	

2. Owner's Report

Subsequent to house construction, but prior to occupancy the owner/contractor shall initiate appropriate action to have the on-site water supply tested by a certified laboratory, and provide to the Township of Letterkenny a laboratory report containing the following information:

Total Coliform	Fecal Coliform
Iron	Nitrates
Hardness: equivalent calcium carbonates	

3. A request for an extension to a permit must be submitted to the Township in writing, ten (10) days before the expiration date of the permit. Extensions are limited to thirty (30) days. Subsequent request must be accompanied by an application for a new permit with appropriate fee.

4. In the event a permit expires and construction has not begun, an application for a new permit must be submitted with appropriate fee.

5. Expiration of a permit during construction will result in the landowner being prosecuted in accordance with the Violations provision of this ordinance.

Section 8. Violations

1. Upon discovery of any violation of this ordinance, the Township of Letterkenny may, at its option, forego any prosecution hereunder, and may grant to the owner a period of seven (7) calendar days to comply with the provisions of this ordinance. Upon failure of the owner to effect such compliance, the Township may initiate prosecution as herein above set forth.

2. Any person who violates any of the provisions of this ordinance shall be subject to prosecution by the Township of Letterkenny, and upon conviction before the District Justice shall be subject to a fine of not less than One Hundred Dollars ($100.00), not more than One Thousand Dollars ($1,000.00).

3. For the purpose of this ordinance, each day of a continuing violation shall be considered a new and additional violation of this ordinance.

Section 9. Severability

The provisions of this ordinance shall be severable, and if any of its provisions shall be held to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect the validity of any of the remaining provisions of this ordinance.

Section 10. Liability

No responsibility, or liability for the construction of any well/water supply shall be deemed to be assumed or accepted the Township of Letterkenny, or its officers, agents, or employees by virtue of the terms of this ordinance or otherwise.

Section 11. Repealer

All other ordinances or parts of ordinances inconsistent herewith be and the same are hereby repealed.

ORDAINED AND ENACTED into law this ____ day of _____, 2000.

Duly enacted and ordained this ____ day of _____, 2000, by the Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, after due advertisement and discussion.

Letterkenny Township Supervisors

_____

_____

_____

Attest:

_____
Secretary

APPLICATION FOR WELL CONSTRUCTION
IN LETTERKENNY TOWNSHIP

Date of Application: _____

Lot Number: _____

Lot Owner: _____

Address: _____

WELL DRILLER

Name: _____

Address: _____

Pa. Certification Number: _____

_____
Owner/Contractor Signature

Attach a sketch of the lot indicating the location of the proposed well. If applicable, annotate the location of the on-site septic system/holding tank, also any streams, swales or utilities traversing the property.

Inspection Date: _____

Approved: _____
Code Enforcement Officer

PERMIT FOR WELL CONSTRUCTION
IN LETTERKENNY TOWNSHIP

Date of Permit: _____

Lot Owner: _____

Address: _____

WELL DATA

Driller Name: _____

Depth of Well: _____

Depth of Casing: _____

Yield in gal/min. _____

Static Water Level: _____

Type & Size of Casing: _____

Test Pump Type: _____

Date of Completion: _____

I certify that the information annotated above is accurate and complete to the best of my knowledge.

_____
Well Driller's Signature

NOTE: ATTACH A COPY OF WELL APPLICATION AND WELL DRILLER'S REPORT

Well Inspection (date): _____

Approval for operation: _____

Disapproved: _____ Reason: _____

_____
(Code Enforcement Officer)

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

ORDINANCE NO. _____

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF LETTERKENNY TOWNSHIP GOVERNING MUNICIPAL MANAGEMENT OF ON-LOT SUBSURFACE SEWAGE DISPOSAL FACILITIES.

Section 1. Short Title

This Ordinance may be cited as the OLDS (On-Lot Disposal System) Management Program for Letterkenny Township.

Section 2. Introduction

As mandated by the municipal codes, the Clean Streams Law (35 P.S. §691.1 to 691.1001), and the Pennsylvania Sewage Facilities Act (Act of January 24, 1966. P.L. 1535 as amended, 35 P.S. §750.1 et seq., known as Act 537), municipalities have the power and the duty to provide for adequate sewage treatment facilities and for the protection of the public health by preventing the discharge of untreated or inadequately treated sewage. The Official Sewage Facilities Plan for Letterkenny Township indicates that it is necessary to formulate and implement a sewage management program to effectively prevent and abate water pollution and hazards to the public health caused by improper treatment and disposal of sewage.

Section 3. Purpose

The purpose of this Ordinance is to provide for the inspection, maintenance and rehabilitation of on-lot sewage disposal systems; to further permit the Township to intervene in situations which are public nuisances or hazards to the public health; and to establish penalties and appeal procedures necessary for the proper administration of a sewage management program.

Section 4. Terms and Definitions

1. General Terms. In the interpretation of this Part, the singular shall include the plural, and the masculine shall include the feminine and the neuter.

2. Specific Terms. For the purposes of this Part, the terms used shall be construed to have the following meanings:

ACT - The Pennsylvania Sewage Facilities Act, Act of January 24, 1966, P.L. (1965) 1535, No. 537, as amended, 35 P.S. Section 750.1 et seq.

ALTERNATIVE SYSTEM - A system for the disposal of domestic waste-waters not operating below ground level but located on or near the site of the building or buildings being served (e.g. composing toilets, gray water recycling systems, incinerating toilets, spray irrigation and black water recycling systems, etc.)

AUTHORIZED AGENT - A licensed sewage enforcement officer, professional engineer or sanitarian, plumbing inspector, soils scientist, or any other qualified or licensed person who is delegated to function within the specified limits as the agent of the Board of Supervisors of Letterkenny Township to carry out the provisions of this Ordinance.

BOARD - The Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania.

CODES ENFORCEMENT OFFICER (hereinafter called C.E.O.) - An individual employed by the Township to administer and enforce this and other ordinances in the Township.

COMMUNITY SEWAGE SYSTEM - Any system, whether publicly or privately owned, for the collection of sewage publicly, or industrial wastes of a liquid nature from two or more lots or uses, or two or more equivalent dwelling units, and the treatment and/or disposal of the sewage or industrial waste on one or more of the lots or at any other site and which shall comply with all applicable regulations of the DEP.

DEP - The Department of Environmental Protection of the Commonwealth of Pennsylvania or any successor agency.

DEVELOPER - Shall be defined as any person, partnership or corporation which erects or contracts to erect a building on property owned by it with the intent to sell the building to some other party upon its full or partial completion, or upon the conveyance of property on which the building is to be built.

EQUIVALENT DWELLING UNIT (EDU) - For the purpose of determining the number of lots in a subdivision or land development, that part of a multiple family dwelling, commercial, industrial, or institutional establishment with sewage flows equal to four hundred (400) gallons per day.

IMPROVED PROPERTY - Any property within the Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure sewage shall or may be discharged.

INDIVIDUAL SEWAGE SYSTEM - Any system of piping, tanks, or other facilities serving a single lot and collecting and disposing of sewage in whole or in part into the soil or any

waters of the Commonwealth of Pennsylvania or by means of conveyance to another site for final disposal.

LAND DEVELOPMENT - A land development as defined in the Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247, as amended, 53 P.S. Section 10101 et seq.

LOT - a designated parcel, tract, or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit.

MALFUNCTION - The condition that occurs when an on-lot sewage disposal system causes pollution to the ground or surface waters, contamination of private or public drinking water supplies, nuisance problems or hazard to public health. Indications of malfunctioning systems include, but are not limited to, foul odors, lush grass growing over the system, backup of wastewater in the attached buildings, soggy ground over the system, surfacing sewage effluent flowing over the ground and occurring at any time of the year.

MANAGEMENT PROGRAM - The management program shall encompass the entire area of Letterkenny Township serviced by sewage facilities or any other alternative system which discharges into the soils of the Township. All systems shall be operated under the jurisdiction of the Letterkenny Township Board of Supervisors regulating the subsurface disposal and/or alternate systems, and other applicable laws of the Commonwealth of Pennsylvania.

OFFICIAL PLAN - A comprehensive plan for the provision of adequate sewage disposal systems adopted by the Township and approved by the DEP in accordance with the Act and with applicable DEP regulations.

ON-LOT SEWAGE DISPOSAL SYSTEM - Any sewage system disposing of sewage in whole or in part into the soil or any waters of the Commonwealth of Pennsylvania or by means of conveyance to another site for final disposal, and which is located upon the lot which it serves.

OWNER- Any person, corporation, partnership, etc. holding deed/title to lands within Letterkenny Township.

PERSON - Any individual, association, partnership, public or private corporation whether for profit or not-for-profit, trust, estate, or other legally recognized entity. Whenever the term "person" is used in connection with any clause providing for the imposition of a fine or penalty or the ordering of action to comply with the terms of this Part, the term "person" shall include the members of an association, partnership or firm and the officers of any public or private corporation, whether for profit or not-for-profit.

PLANNING MODULE FOR LAND DEVELOPMENT - A revision to, or exception to the revision of, the Township Official Plan submitted in connection with the request for approval of a subdivision or land development in accordance with DEP regulations.

PUMPER/HAULER- Any person, company, partnership or corporation which engages in cleaning community or individual sewage systems and transports the septage cleaned from these system.

PUMPERS REPORT/RECEIPT - Form which shall be used by all licensed Pumper/Haulers to report each pumping of on-lot sewage disposal systems in the Township.

REHABILITATION - Work done to modify, alter, repair, enlarge or replace an existing on-lot sewage disposal system.

REPLACEMENT AREA - An area designated as the future location of an individual on-lot sewage system that shall be installed should the initial individual on-lot system installed or to be installed fail or otherwise become inoperable and which shall meet all the regulations of the DEP and all applicable Township ordinances for an individual on-lot sewage system, and shall be protected from encroachment by an easement recorded on the Final Plan as filed with the Franklin County Recorder of Deeds.

SEPTAGE - The residual scum and sludge pumped from septic systems.

SEWAGE - Any substance that contains any of the waste products or excrement or other discharge from the bodies of human beings or any noxious or deleterious substance being harmful or inimical to the public health, or to animal or aquatic life or to the use of water for domestic water supply or for recreation.

SEWAGE ENFORCEMENT OFFICER (hereinafter called S.E.O.) - A person appointed by the Board to administer the provisions of this Part and authorized by the DEP in accordance with "Chapter 71, Administration of Sewage Facilities Program" of "Title 25, Rules and Regulations"; to perform percolation tests, site and soil evaluation, and issue sewage permits for on-lot disposal systems.

SEWAGE FACILITIES - Any method of sewage collection, conveyance, treatment, and disposal which will prevent the discharge of untreated or inadequately treated sewage into the waters of this Commonwealth or otherwise provide for the safe and sanitary treatment of sewage.

SINGLE AND SEPARATE OWNERSHIP - The ownership of a lot by one or more persons which ownership is separate and distinct from that of any abutting or adjoining lot.

SUBDIVISION - A subdivision as defined by the Pennsylvania Municipalities Planning Code, Act of July 31,1968, P.L. 805, No. 247, as amended, 53 P.S. Section 10101 et seq.

TOWNSHIP – Letterkenny Township, Franklin County, Pennsylvania.

All other definitions of words and terms used in this Part shall have the same meaning as set forth in "Chapter 73, Standards for Sewage Disposal Facilities" of "Title 25, Rules and Regulations, Department of Environmental Protection."

Section 5. Applicability

From the effective date of this Part, its provisions shall apply to all persons owning any property in the Township serviced by an on-lot sewage disposal system and to all persons installing or rehabilitating on-lot sewage disposal systems.

Section 6. Sewage Permit Requirements

1. No person shall install, construct or request bid proposals for construction or alter an individual sewage system or community sewage system or construct or request bid proposals for construction or install or occupy any building or structure for which an individual sewage system or community sewage system is to be installed without first obtaining a permit indicating that the site and the plans and specifications of such system are in compliance with the provisions of the Pennsylvania Sewage Facilities Act (hereinafter called "Act 537" or "Act") and the standards adopted pursuant to that Act.

2. No system or structure designed to provide individual or community sewage disposal shall be covered from view until approval to cover the same has been given by the municipal S.E.O. If seventy-two (72) hours have elapsed, excepting Sundays and Holidays, since the S.E.O. issuing the permit received notification of completion of construction, the applicant may cover said system or structure, unless permission has been specifically refused by the S.E.O.

3. The Township may require applicants for sewage permits to notify the Township's certified S.E.O. of the schedule for construction of the permitted on-lot sewage disposal system so that inspection(s) in addition to the final inspection required by Act 537 may be scheduled and performed by the Township's certified S.E.O. at the cost of the applicant.

4. No building or occupancy permit shall be issued by the Township or its C.E.O. for a new building which will contain sewage generating facilities until a valid sewage permit has been obtained from the Township's certified S.E.O.

5. No building or occupancy permit shall be issued and no work shall begin on any alteration or conversion of any existing structure, if said alteration or conversion will result in the increase or potential increase in sewage flows from the structure, until the Township's C.E.O. and the structure's owner receive from the Township's S.E.O. either a permit for alteration or a replacement of the existing sewage disposal system or written notification that such a permit will not be required. In accordance with Chapter 73 regulations, the certified S.E.O. shall determine whether the proposed alteration or conversion of the structure will result in increased sewage flows.

6. Sewage permits may be issued only by a certified S.E.O. employed by the Township for that express purpose. The DER shall be notified by the Township as to the identity of their currently employed certified S.E.O.

7. No sewage permit may be issued unless proof is provided the owner of record has owned the lot since May 15, 1972, or that Act 537 planning for that lot has been provided by the Township.

8. No final Act 241 approval on a subdivision plan may begin until Act 537 planning is approved by the Township.

Section 7. Ground Markers

Any person who shall install new or rehabilitated systems shall provide a marker or markers at ground level locating the subsurface waste disposal tank and other important components of the system requiring periodic inspection and maintenance. Requirements for marker types and locations will be determined by the Township's S.E.O. In addition, a riser or access hatch shall be constructed so as to enable easy access to the waste disposal tank, and prevent odors from escaping and to prevent children from removing the hatch. Accessibility for visual inspection and maintenance shall be provided in the drainage fields via four (4) inch vertical, non-perforated PVC pipe connected directly to the drain tile at a minimum of four (4) locations in the drainage field. If not installed by the Township or its Authorized Agent, such installation shall be subject to its approval.

Section 8. Replacement Areas

1. Requirements

   A. After the effective date of this Ordinance, a Replacement Area for an individual on-lot sewage system shall be required for all lots or lots to be created which are not serviced or to be serviced by a community sewage system, or for which a valid permit for installation of an individual on-lot sewage system has not been issued. Lots existing prior to the effective date of this Part shall be exempt from the requirements of this Section.

   B. The Replacement Area provided shall comply with the Act and with all regulations issued by the DEP as incorporated into this Part concerning individual on-lot sewage systems, including isolation distances, and with the terms of this Part and any other applicable Township ordinances.

2. Identification of Replacement Area

   A. Each Applicant who shall submit a plan for the subdivision or development of land or who shall apply for a permit for the installation of an individual on-lot sewage system, or who shall request approval of a Planning Module for Land Development or the adoption of a revision, exception to revision, or supplement to the Official Plan shall demonstrate to the satisfaction of the S.E.O. that a suitable area exists on the lot or on each lot to be created for an initial individual on-lot sewage system and for the Replacement Area. The S.E.O. shall perform or observe all tests required for the

location of an individual on-lot sewage system to confirm the suitability of the Replacement Area. Allowance of open land for the Replacement Area without testing performed or observed by the S.E.O. shall not constitute compliance with the requirements of this Section.

B. The location of the initial individual on-lot sewage system and the Replacement Area as confirmed by the S.E.O. shall be identified on the plot plans and diagrams submitted as part of the permit application.

C. If the application has been submitted as a part of an application for subdivision or land development approval or as part of a request that the Township approve a Planning Module for Land Development or amend its Official Plan, or a request for an exception to the revision of the Official Plan, the location of each initial individual on-lot sewage system and each Replacement Area shall be noted upon the plans. If the application is for subdivision or land development approval, a note constituting a permanent easement shall be added to the plans stating that no improvements shall be constructed upon the Replacement Area, and the deed to be recorded for each lot created as part of the subdivision or land development shall contain language reflecting this limitation..

D. Any revisions to a permit or plan affecting a Replacement Area which previously has been approved pursuant to the provisions of this Ordinance shall be reviewed for approval by the Board or its authorized representative.

3. Construction Restrictions

A. The easement for the Replacement Area noted upon the Plan and recorded with the Franklin County Recorder of Deeds shall state that no permanent or temporary improvements of any character, other than shallow-rooted plant matter, shall be constructed upon the Replacement Area.

B. This provision shall be enforced by the Township unless the person who desires to construct such improvements shall demonstrate to the satisfaction of the S.E.O. that an alternate Replacement Area which complies with all applicable regulations of the DEP, this ordinance and all other applicable Township ordinances, exists upon the lot. If such an alternate Replacement Area shall be identified, the alternate Replacement Area may be considered to be the Replacement Area required by this ordinance and shall be designated as the Replacement Area. The newly designated Replacement Area shall thereafter be considered the Replacement Area for the purposes of this ordinance.

4. Relief from Replacement Area Requirement

A. If any lot held in single and separate ownership as of the effective date of this ordinance does not contain land suitable for a Replacement Area, the Applicant

submitting a Land Development Plan or a Planning Module for Land Development or desiring to install an individual on-lot sewage system may request that the Board grant an exception to the requirement of providing a Replacement Area. The Applicant for such an exception shall present credible evidence to the Board demonstrating (a) that the lot was held in single and separate ownership on the effective date of this ordinance; (b) the size of the lot; (c) inability of the applicant to acquire adjacent land or the unsuitability of adjacent land which might be able to be acquired; and (d) the testing conducted to determine that the lot is not suitable to provide a Replacement Area.

B. At all times the burden to present credible evidence and the burden of persuasion shall be upon the Applicant for an exception from the terms of this Part. In no case shall any lot be exempted from the requirements of Section IV of this Part.

Section 9. Inspections

1. Any on-lot sewage disposal system may be inspected by the Township's Authorized Agent at any reasonable time as of the effective date of this Part.

2. The inspection may include a physical tour of the property, the taking of samples from surface water, wells, other ground water sources, the sampling of the contents of the sewage disposal system itself and/or the introduction of a traceable substance into the interior plumbing of the structure served to ascertain the path and ultimate destination of wastewater generated in the structure. A copy of the inspection report shall be furnished to the Owner and current resident which shall include all of the following information which is reasonably available to the individual or agency responsible for pumping the septic tank: date of inspection; name and address of system owner; description and diagram of the location of the system including location of access hatches, risers, and markers; size of tanks and disposal fields; current occupant's name and number of users; indication of any system malfunction observed; results of any and all soils and water tests; any remedial action required.

3. The Township's Authorized Agent shall have the right to enter upon land for the purposes of inspections described above. In the event that access to inspect the property is denied, the following steps shall be taken:

   A. The matter will be officially referred to the Board for action.

   B. The Board may schedule a review at the next scheduled meeting of the Board, or, if the situation threatens the health or safety of the residents of the Township, the Board may commence an immediate procedure to obtain a search warrant from the District Justice.

   C. Upon receipt of a search warrant to inspect the property, the Authorized Agent of the Township shall be accompanied by an officer of the County or State Police, and the inspection shall be completed in accordance with this Subsection.

D. The provisions of this Subsection for obtaining a search warrant may be waived only when the Board and its Authorized Agent have reason to believe that the sewage facilities or alternative system is malfunctioning or being operated improperly such that the situation poses an immediate and substantial safety, water pollution, or health hazard.

4. A schedule of routine inspections may be established by the Township, if necessary, to assure the proper function of the systems in the Township.

5. The Township's Authorized Agent shall inspect systems known to be, or alleged to be, malfunctioning. Should said inspections reveal that the system is malfunctioning, the Township shall take action to require the correction of the malfunction. If total correction is not technically or financially feasible in the opinion of the Township and a representative of DEP, action by the Owner to mitigate the malfunction shall be required.

6. There may arise geographic areas within the Township where numerous on-lot sewage disposal systems are malfunctioning. A resolution of these area wide problems may necessitate detailed planning and a Township sponsored revision to that area's Act 537 Official Sewage Facilities Plan. When a DEP authorized Official Sewage Facilities Plan Revision has been undertaken by the Township, mandatory repair or replacement of individual malfunctioning sewage disposal systems within the study area may be delayed, at the discretion of the Township, pending the outcome of the plan revision process. However, the Township may compel immediate corrective action whenever a malfunction, as determined by Township officials and the Pennsylvania DEP, represents a serious public health or environmental threat.

Section 10. Operation

1. Only normal domestic wastes shall be discharged into any on-lot sewage disposal system. The following shall not be discharged into the system.

   A. Industrial waste.
   B. Automobile oil and other non-domestic oil.
   C. Toxic or hazardous substances or chemicals, including but not limited to, pesticides, disinfectants, acids, paints, paint thinners, herbicides, gasoline and other solvents.

2. Clean surface or ground water, including water from roof or cellar drains, springs, basement sump pumps and French drains.

Section 11. Maintenance

1. Any person owning a building served by an on-lot sewage disposal system shall have the septic tank pumped by a qualified Pumper/Hauler within three (3) years following the effective date of this Part. Thereafter that person shall have the tank pumped at least once every three

years. Receipts from the Pumper/Hauler shall be submitted to the Township as required in §309.6.

2. Any person providing a receipt or other written evidence showing that their tank had been pumped within three (3) years of the first year anniversary of the effective date of this Part, then the Township may delay that person's initial required pumping to conform to the general three (3) year frequency requirement.

3. The Township may allow septic tanks to be pumped out at less frequent intervals when the owner can demonstrate to the Township that the system can operate properly without the need for pump out for a period longer than three (3) years, but in no case shall such period extend beyond six (6) years. Such a request may be made at any time and must be in writing with all supporting documents attached. The Township, in making its determination, shall take into account the information submitted by the applicant, the sewerage permit issued by the Township S.E.O. upon installation or rehabilitation of the system and supporting documentation, reports of inspection and maintenance of the system, and other relevant information, and may conduct an on-site inspection. The applicant shall bear the cost of any inspection, surface or subsurface, and soil or wastes sampling conducted for the purposes of evaluating the request. The applicant shall receive a decision within sixty (60) days of accumulation of all necessary information by the Township.

4. The required pumping frequency may be increased at the discretion of the Authorized Agent if the septic tank is undersized, if solids buildup in the tank is above average, if the hydraulic load on the system increases significantly above average, if a garbage grinder is used in the building, if the system malfunctions or for other good cause shown.

5. Each time a septic tank or other subsurface waste disposal system tank is pumped out, the Township, its Authorized Agent, or a private septage Pumper/Hauler, whichever provides the service, shall provide to the owner of the sub-surface waste disposal system a signed Pumpers Report/Receipt containing at a minimum the following information:

    A. Date of pumping.
    B. Name and address of system owner.
    C. Address of tank's location, if different from owner's.
    D. Description and diagram of the location of the tank, including the location of any markers, risers, and access hatches and size of the tank.
    E. The date existing system was installed.
    F. Last date of pump out.
    G. List of other maintenance performed.
    H. Any indications of system malfunction observed.
    I. Amount of septage or other solid or semi-solid material removed.
    J. List of recommendations.
    K. Destination of the septage (name of the treatment facility).

6. Upon completion of each required pumping, the Township, its Authorized Agent, or a private septage waste hauler, shall fill out and submit a Pumper Report/Receipt, copies of which shall be provided by the Township to all licensed Pumpers/Haulers. The Township's Authorized Agent, or a private septage Pumper/Hauler shall provide one copy of the Pumper's Report/Receipt to the Owner and one copy to the Township. Copies must be received at the Township's business office within thirty (30) days of the date of pumping. The Pumper's Report/Receipt will include verification that the baffles in the septic tank have been inspected and found to be in good working order.

7. Any person owning a building served by an alternative system or on-lot sewage disposal system that contains an aerobic treatment tank shall follow the operation and maintenance recommendations of the equipment manufacturer. A copy of the manufacturer's recommendations and a copy of the service agreement shall be submitted to the Township within six (6) months of the effective date of this Ordinance. Thereafter, service receipts shall be submitted to the Township at the intervals specified by the manufacturer's recommendations. In no case may the service or pumping intervals exceed those for those required for septic tanks.

8. Any person owning a building served by a cesspool or dry well shall have that system pumped according to the schedule prescribed for septic tanks in §309.1.

9. The Township may require additional maintenance activity as needed including, but not necessarily limited to, cleaning and unclogging of piping, servicing and the repair of mechanical equipment, leveling of distribution boxes, tanks and lines, removal of obstructing roots or trees, the diversion of surface water away from the disposal area, etc. Repair permits issued by the certified S.E.O. must be secured for these activities.

Section 12. System Rehabilitation

1. No person shall operate and maintain an on-lot sewage disposal system in such a manner that it malfunctions. All liquid wastes, including kitchen and laundry wastes and water softener backwash, shall be discharged to a treatment tank. No sewage system shall discharge untreated or partially treated sewage to the surface of the ground or into the waters of the Commonwealth of Pennsylvania unless a permit to discharge has been obtained from the DEP.

2. The Township shall issue a written notice of violation to any person who is the owner of a property in the Township which is found to be served by a malfunctioning on-lot sewage disposal system or which is discharging raw or partially treated sewage without a permit.

3. Within seven (7) days of notification by the Township that a malfunction has been identified, the Owner shall make application to the Township's certified S.E.O. for a permit to repair or replace the malfunctioning system. Within thirty (30) days of initial notification by the Township, construction of the permitted repair or replacement shall commence. Within sixty (60) days of the original notification by the Township, the construction shall be completed

unless seasonal or unique conditions mandate a longer period, in which case the Township shall set an extended completion date.

4. The Township's certified S.E.O. shall have the authority to require the repair of any malfunction by the following methods: cleaning, repair or replacement of components of the existing system, adding capacity or otherwise altering or replacing the system's treatment tank, expanding the existing disposal area, replacing the existing disposal area, replacing a gravity distribution system with a pressurized system, replacing the system with a holding tank, other alternatives as appropriate for the specific site.

5. In lieu of, or in combination with, the remedies described in §310.4, the S.E.O. may require the installation of water conservation equipment and the institution of water conservation practices in structures served. Water using devices and appliances in the structure may be required to be retrofitted with water saving appurtenances or they may be required to be replaced by water conserving devices and appliances. Wastewater generation in the structure may also be reduced by requiring changes in water usage patterns in the structure served. The use of laundry facilities may be limited to one load per day or discontinued altogether, etc.

6. In the event that the rehabilitation measures in §310.1 through §310.5 are not feasible or do not prove effective, the Township may require the Owner to apply for a permit to construct a holding tank in accordance with Township ordinance. Upon receipt of said permit the Owner shall complete construction of the system within thirty (30) days.

7. Should none of the remedies described above prove totally effective in eliminating the malfunction of an existing on-lot sewage disposal system, the Owner is not absolved of responsibility for that malfunction. The Township may require whatever action is necessary to lessen or mitigate the malfunction to the extent that it feels necessary.

Section 13. Liens

The Township, upon written notice from the S.E.O. that an imminent health hazard exists due to failure of a property owner to maintain, repair or replace an on-lot sewage disposal system as provided under the terms of this Part, shall have the authority to perform or contract to have performed, the work required by the S.E.O. The Owner shall be charged for the work performed and, if necessary, a lien shall be entered therefore in accordance with law.

Section 14. Disposal of Septage

1. All septage Pumper/Haulers operating within the Township shall be licensed with the Township and shall comply with all reporting requirements established by the Township.

2. All septage originating within the municipal sewage management district shall be disposed of at sites or facilities approved by the DEP. Approved sites or facilities shall include the following: septage treatment facilities, wastewater treatment plants, composting sites, and approved farm lands.

3. Septage Pumper/Haulers operating within the Township shall operate in a manner consistent with the provisions of the Pennsylvania Solid Waste Management Act (Act 97 of 1980, 35 P. S. §6018.101-6018.1003). Any septage Pumper/Hauler who violates any of the provisions of this Part or regulations of West Hanover Township, the conditions of its State permit, or of any State or local law governing its operation, shall, upon conviction thereof, be sentenced to pay a fine not exceeding one thousand dollars ($1,000.00) and costs, and in default of payment thereof, shall be subject to imprisonment for a term not to exceed thirty (30) days. If any pumper/hauler shall have been convicted on two (2) occasions of any violation of this Part, or for violating the conditions of its State permit, or of any State or local law governing its operation, the Board shall have the power to suspend said pumper/hauler from operating within the Township for a period of not less than six (6) months or more than two (2) years for each violation, as determined by the Township. Each day the violation continues shall constitute a separate offense.

Section 15. Administration

1. The Township shall fully utilize those powers it possesses through enabling statutes and ordinances to effect the purposes of this Part.

2. The Township shall employ qualified individuals to carry out the provisions of this Part. Those employees shall include a certified S.E.O., a C.E.O., a secretary, administrator or other persons as required. The Township may also contract with private qualified persons or firms as necessary to carry out the provisions of this Part.

3. All permits, records, reports, files and other written material relating to the installation, operation and maintenance and malfunction of on-lot sewage disposal systems shall become the property of the Township. Existing and future records shall be available for public inspection during required business hours at the official municipal office. All records pertaining to sewage permits, building permits, occupancy permits and all other aspects of the Township's OLDS Management Program shall be made available, upon request, for inspection by representatives of the DEP.

4. The Board shall establish all administrative procedures necessary to properly carry out the provisions of this Part.

5. The Board may establish a fee schedule, and subsequently collect fees, to cover the cost to the Township of administering this program.

Section 16. Appeals

1. Appeals from decisions of the Township or its authorized agents under this Part shall be made to the Board in writing within forty-five (45) days from the date of the decision in question.

2. The appellant shall be entitled to a hearing before the Board at its next regularly scheduled meeting, if the appeal is received at least fourteen (14) days prior to that meeting. If the appeal is received within fourteen (14) days of the next regularly scheduled meeting, the appeal shall be heard at the subsequent meeting. The Township shall thereafter affirm, modify, or reverse the aforesaid decision. The hearing may be postponed for a good cause shown by the appellant or the Township. Additional evidence may be introduced at the hearing provided that it is submitted with the written notice of appeal.

3. A decision shall be rendered in writing within forty-five (45) days of the date of the hearing. If a decision is not rendered within forty-five (45) days, the release sought by the appellant shall be deemed granted.

Section 17. Penalties

Any person failing to comply with any provisions of this Part shall be subject to a fine of not less than one hundred dollars ($100) and costs, and not more than three hundred dollars ($300) and costs, or in default thereof shall be confined in the county jail for a period of not more than thirty (30) days. Each day of noncompliance shall a constitute a separate offense.

Section 18. Repealer

If any section or clause of this Part shall be adjudged invalid, such adjudication shall not affect the validity of the remaining provisions that shall be deemed severable therefrom.

BY THE LETTERKENNY TOWNSHIP
BOARD OF SUPERVISORS

ATTEST: _____
Secretary

By: _____
Chairman

_____

_____

Letterkenny Township
Septic Tank Pumper's Report

1. Date of Pumping ___/___/___ 2. System: ___Septic ___Aerobic ___Cesspool ___Dry Well

3. Property Owner's Name _____
Address _____
_____
City State Zip Code

4. Address of Tank Location _____
(if different than #2) _____
City State Zip Code

5. Description and diagram of the location of the tank (use box below), including the location of any markers, risers, and access hatches and size of the tank. Description _____
_____
_____

6. Date system was installed (if not known, approximate date) ___/___/___
7. Date of last pump out (if not known, approximate date) ___/___/___
8. List of other maintenance performed.
( ) Baffle Replacement
( ) Extensions (riser rings)
( ) inspection Ports
( ) Snaked the Line
( ) Other _____
9. Any indications of system malfunction observed.
( ) High Water Level in Tank
( ) We, Areas Near System or Site
( ) Noticeable Odors
( ) Sewer Backup into House
( ) Abundant Grass Growth Near System or Site
( ) Backflush of Water from Absorption Area to Tank
( ) Other _____
10. Amount of septage or other solid or semi-solid material removed.
( ) 5OO Gallon Tank ( ) 1750 Gallon Tank
( ) 750 Gallon Tank ( ) 2000 Gallon Tank
( ) 1000 Gallon Tank ( ) 2250 Gallon Tank
( ) 1250 Gallon Tank ( ) 2500 Gallon Tank
( ) 1500 Gallon Tank ( ) Other _____

Diagram

11. Recomrnendations _____
_____

12. Destination of the septage (name of treatment facility, include address if private property) _____
_____ DEP Permit #_____

Signature of Pumper _____ Company_____

A copy of this report is to be submitted to the property owner listed above and a copy mailed within thirty (30) days after pumping to:
Letterkenny Township, PA

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE LETTERKENNY TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

NOW, THEREFORE, BE IT ENACTED AND ORDAINED by the Board of Supervisors of Letterkenny Township, Franklin County, Pennsylvania, and it is hereby enacted and ordained by the authority of the same as follows:

That the Letterkenny Township Subdivision and Land Development Ordinance shall be amended as follows:

1.) The following new Section 905 shall be added to Article IX and shall replace the existing Section 905 in its entirety:

Section 905: Standards for Sewer and Water Systems

A planning revision module established by the Department of Environmental Protection shall be used as the format for the formal revision. No preliminary plan shall be approved until such revision is completed and filed in accordance with the Department of Environmental Protection's Rules and Regulations and approved by the Department of Environmental Protection.

If a public sanitary sewer system is available within five-hundred feet (500'0") of any part of the proposed subdivision, mobile home park or land development, the subdivider or developer shall design and install a system including laterals, which shall be connected to the public system and shall serve every property within the proposed project. All plans and installations shall be subject to the approval of Letterkenny Township Municipal Authority.

All proposed subdivisions within 1/4 mile of well test sites with known and documented nitrate/nitrogen sample results of 5 mg/L or greater will require a preliminary hydrogeologic study. No mini modules (component one) may be approved in these areas. The subdivider must identify a suitable replacement area for each lot.

ORDAINED AND ENACTED into an ordinance this _____ day of _____, 200_.

LETTERKENNY TOWNSHIP
SUPERVISORS

_____
Chairman

ATTEST:

_____

_____

_____

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

GRINDER PUMP AGREEMENT

THIS AGREEMENT, made and entered into this _____ day of _____, 200_, by and between:

The Township of Letterkenny, by its duly authorized Supervisors, (herein "Township"), and the Letterkenny Township Municipal Authority, (herein "Authority"), duly organized under the laws of the Commonwealth of Pennsylvania and charged with the maintenance of the Township sewage system, collectively hereinafter;

And

_____,
owner(s) of a lot as shown on a plan approved by the Township on _____, (herein "Owner").

WITNESSETH:

WHEREAS, Owner is the owner of improved property and desire, or are required, to be connected to the Letterkenny Township Municipal sewage system, but the property is so situated that sewage cannot flow into the municipal system by gravity.

NOW, THEREFORE, the parties hereto, intending to be legally bound do hereby agree that:

1. The Supervisors and the Authority, subject to the conditions herein contained, do hereby approve the installation by the owner of a grinder pump, described in Exhibit "A" hereunto attached, on-line and agree to permit owner to pump sewage by use of said pump into the Authority's line and system.

2. Owner, at Owner's sole expense, shall purchase and install said grinder pump and connect same to a pressure line in order to connect the Owner's property to the Township's Municipal Sewer System. Owner further agrees to pay all tapping, service, and inspection charges incidental to the installation of said pump and pressure line.

3. Owner agrees to permit the Authority and/or its agents to periodically inspect the said pump and pressure line at such times and upon such conditions as Authority deems appropriate.

4. If said grinder pump or pressure line shall require maintenance, repair or replacement, the entire cost of said maintenance, repair or replacement, and any subsequent inspections shall be borne entirely by the Owner.

5. The grinder pump and pressure line and any replacement to be installed shall be of a design and manufacture approved by the Authority prior to the installation by the Owner. All installations shall be in accordance with the Authority's regulations and requirements.

6. In the event Owner, Township, Authority, or any other person, firm, corporation or governmental entity shall become aware that as a result of a grinder pump malfunction or faulty installation or operation thereof, a health hazard, nuisance, or any danger to the Owner or adjacent Owner's person or property shall occur, Owner shall immediately, at Owner's sole expense, take all measures necessary to replace, repair, maintain, or correct any problems with the grinder pump and pressure line so as to immediately eliminate any nuisance or hazard. In the event Owner does not commence work to correct any such hazard or nuisance within a period of 48 hours after being notified by Township or Authority to do so, Authority may enter upon the premises of the Owner to inspect, replace, repair, install, maintain, or take any other measures as are necessary to abate the nuisance and eliminate the hazard. In the event Township or Authority is required to take such measures, Owner shall reimburse Authority and Township for all materials, costs, labor or other expenses, including court costs and attorney's fees, incident to the repair, replacement, maintenance, or any other measures taken to abate the nuisance or eliminate the hazard. Such costs may be entered against Owner as a municipal lien upon the Owner real estate if payment is not received by Authority within thirty (30) days after a bill therefore has been submitted to Owner, without notice and without suit.

IN WITNESS WHEREOF, and intending to be legally bound, the parties have fixed their hands and seals the day and year first above written.

LETTERKENNY TOWNSHIP
MUNICIPAL AUTHORITY

By: _____

Attest:

_____

LETTERKENNY TOWNSHIP BOARD OF
SUPERVISORS

By: _____

Attest:

_____

OWNER(S)

_____

_____

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PENNSYLVANIA

ORDINANCE NO. _____

PREEMPTION OF 10-ACRE PERMIT EXEMPTION

AN ORDINANCE PROVIDING FOR THE PERMITTING OF ALL ON-LOT SEWAGE DISPOSAL SYSTEMS PROPOSED TO BE INSTALLED ON ALL LOTS IN LETTERKENNY TOWNSHIP, REGARDLESS OF LOT SIZE, AND PROVIDING PENALTIES AND ENFORCEMENT REMEDIES.

WHEREAS, the General Assembly of the Commonwealth of Pennsylvania adopted, and the Governor of said Commonwealth approved, under date of January 24, 1996, P.L. 1535, NO. 537 (35 P.S. SS750.1-750.20), known as the Pennsylvania Sewage Facilities Act, which Act has been subsequently amended and is referred to hereinafter as the "Act";

WHEREAS, Section 4 of the Act of December 14, 1994 (P.L. ___, No. 149) contains an amendment to Section 7(a) of the Act which provides that, except where a local agency or municipality requires a permit by ordinance, certain owners of lots 10 acres or larger are exempt from the requirements of the Act to obtain a permit for the installation of an on-lot sewage disposal system on such person's lot;

WHEREAS, the Township of Letterkenny is a municipality as defined in Section 2 of the Act;

WHEREAS, Section 7(a)(1) of the Act, as amended by the Act of December 14, 1994, authorizes the Township to enact an ordinance requiring a permit for the installation of all on-lot sewage disposal systems within the Township, including those proposed to be installed on lots 10 acres or larger, irrespective of whether any such lot 10 acres or larger otherwise qualifies for an exemption from the permitting requirements of the Act; and

WHEREAS, the Township of Letterkenny desires that permits be required for the installation of on-lot sewage disposal systems on all lots 10 acres or larger which lots otherwise qualify for an exemption from the permitting requirements of the Act;

NOW, THEREFORE, BE IT ORDAINED by the Board of Supervisors of Letterkenny Township, Franklin County, Pennsylvania, as follows:

Section 1. Short Title

This ordinance shall be known as the "Letterkenny Township On-Lot Sewage Disposal System Permit Ordinance."

Section 2. Statutory Basis

This ordinance is adopted pursuant to Section 7(a) (1) of the Pennsylvania Sewage Facilities Act, as amended (35 P.S. S740.7 (a) (1)).

Section 3. Purpose

The purpose of this Ordinance is to provide for the permitting of all on-lot sewage disposal systems within the Township in accordance with the standards and regulations of 25 Pa. Code Chapters 72 and 73, including those systems otherwise eligible for an exemption from the permitting requirements of the Act, as authorized by Section 7(a)(1) of the Act.

Section 4. Permit Requirement

1. From and after the effective date of this ordinance, all persons proposing to install an on-lot sewage disposal system on any lot within the Township, including those persons proposing to install such a system on a lot 10 acres or larger and who are otherwise qualified for a permit exemption in accordance with the provisions of Section 7(a) (1) of the Act, shall apply to the Township for a permit for the installation of such system.

2. No person shall install or commence construction of any on-lot sewage disposal system for which a permit is required until such permit has been issued by a Sewage Enforcement Officer employed by or contracted to the Township.

Section 5. Enforcement

1. Any person violating any of the provisions of this ordinance shall be subject to the civil and criminal penalties authorized pursuant to Sections 13 and 13.1 of the Act, as amended.

2. In addition to the penalties for non-compliance set forth in subsection 1 above, it is further provided that all of the civil and equitable remedies set forth in Sections, 12, 14 and 15 of the Act (35 P.S. SS750.12, 750.14 and 750.15), as amended, shall be applicable to violations of this ordinance.

Section 6. Repealer

All Ordinances or parts of Ordinances inconsistent with the provisions of this Ordinance are hereby repealed to the extent of such inconsistency.

Section 7. Severability

If any section or clause of this Ordinance shall be adjudged invalid, such adjudication shall not affect the validity of the remaining provisions of this Ordinance which shall be deemed severable therefrom.

Section 8. Effective Date

This Ordinance shall be effective immediately upon enactment (or such time as desired by Township).

ORDAINED AND DATED this ____ day of _____ 200__.

LETTERKENNY TOWNSHIP SUPERVISORS

_____

_____

_____

APPENDIX D

EXISTING ORDINANCES THAT CONTROL DEVELOPMENT

Subdivision and Land Development Ordinance

Sewer Connection Ordinance

Sewer Inspection Ordinance

Holding Tank and Privy Ordinance

LETTERKENNY TOWNSHIP

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

As Amended April 26, 1988

TABLE OF CONTENTS

			Page.No.
ARTICLE I		**SHORT TITLE, AUTHORITY, PURPOSE AND INTENT, INTERPRETATIONS**	
Section	100:	Short Title	01
Section	101:	Authority	01
Section	102:	Purpose and Intent	01
Section	103:	Interpretation	01
ARTICLE II		**CONTROL OF SUBDIVISIONS**	
Section	200:	Control of Subdivisions & Land Development . . .	02
Section	201:	The Effect of Land Development	02
Section	202:	Recording of Final Plans	03
Section	203:	Timing of Governing Regulations.	03
ARTICLE III		**DEFINITIONS**	
Section	300:	Definitions.	05
ARTICLE IV		**PROCEDURES AND JURISDICTION**	
Section	400:	Plan Approving Agency.	11
Section	401:	Submittal of Plans	11
Section	402:	Review of Plans.	11
Section	403:	Approval of Plans.	11
Section	404:	Overall Master Plan Requirements	12
ARTICLE V		**PRE-APPLICATION CONSULTATION**	
Section	500:	Pre-Application Consultation	13
Section	501:	Sketch Plan Submission	13

ARTICLE VI **MINOR SUBDIVISIONS**

Section 600: Qualifications 14

Section 601: Plan Requirements. 14

ARTICLE VII **PRELIMINARY PLANS**

Section 700: Preliminary Plan Specifications. 16

Section 701: Preliminary Plan Procedure 17

ARTICLE VIII **FINAL RECORD PLANS**

Section 800: Plan Requirements. 19

Section 801: Review Procedure - Approval of Plans 20

Section 802: Completion of Improvements or Guarantee Thereof. Pre-Requisite to Final Plan Approval 22

ARTICLE IX **DESIGN STANDARDS**

Section 900: Application of Standards 24

Section 901: General Site Suitability 24

Section 902: Blocks and Lots. 24

Section 903: Streets. 30

Section 904: Street and Road Construction 31

Section 905: Standards for Sewer and Water Systems. 33

Section 906: Driveway Permit. 33

ARTICLE X **MOBILE HOME PARK REGULATIONS**

Section 1000: Procedure. 34

Section 1001: Plan Requirements. 34

Section 1002: Renewable Park Permit. 34

Section 1003: Lot Requirements 34

Section 1004: Yard and Set-Back Requirements 35

Section 1005: Park Street System 35

Section 1006: Required Off-Street Parking. 35
Section 1007: Utility Improvements 36
Section 1008: Usable Open Space. 37
Section 1009: Screening. 37
Section 1010: Walkways 37
Section 1011: Other Site Improvements. 37
Section 1012: Park Areas for Non-Residential Uses. 38
Section 1013: Existing Mobile Home Parks 38
Section 1014: Anchoring 38

ARTICLE XI LAND DEVELOPMENTS INVOLVING SANITARY LANDFILLS OR SURFACE MINING OPERATIONS

Section 1100: Landfills. 39

ARTICLE XII TOWNSHIP REVIEW FEE FOR SUBDIVISION & LAND DEVELOPMENT; TOWNSHIP ENGINEERING FEE

Section 1200: Township Review Fee for Subdivision and Land Development. 40
Section 1201: Township Engineering Fee 40
Section 1202: Franklin County Planning Commission Fee. 41

ARTICLE XIII STORM WATER MANAGEMENT

Section 1300: Purposes & Scope 42
Section 1301: Application Procedures & Requirements. 42
Section 1302: Preliminary Plan Requirements for Storm Water Management. 43
Section 1303: Final Plan Requirement 46
Section 1304: Review Fee 47
Section 1305: Waiver of Plan Requirements. 47

ARTICLE XIV ENFORCEMENT, PENALTIES, SEVERABILITY, AND ADOPTION

Section 1400: Enforcement. 48

Section 1401: Appeals to Court 48

Section 1402: Penalties. 48

Section 1403: Repealer 48

Section 1404: Severability 49

Section 1405: Ordinance Adoption 49

ARTICLE I

SHORT TITLE, AUTHORITY, PURPOSE AND INTENT, INTERPRETATION

SECTION 100: SHORT TITLE

This Ordinance shall be known as the Letterkenny Township Subdivision and Land Development Ordinance.

SECTION 101: AUTHORITY

This Ordinance is adopted pursuant to the provisions of the "Pennsylvania Municipalities Planning Code" (Act 247) effective January 1, 1969, as amended.

SECTION 102: PURPOSE AND INTENT

This Ordinance is enacted for the purpose of assuring sites suitable for building purposes and human habitation, and to provide proper accommodation of surface drainage over lots and accumulations on roads; to assure adequate and safe water and sewer services; to provide for proper access of emergency and fire fighting equipment; and to coordinate the operations of the Township and other agencies involved with land development; and for the general purpose of guiding and accomplishing coordinate and harmonious development within Letterkenny Township.

It is the intent of this Ordinance to accomplish these objectives in as practical a way as possible to promote the health, safety and general welfare of the present and future populations of Letterkenny Township and to expedite, not hinder, acceptable construction.

SECTION 103: INTERPRETATION

The provisions of this Ordinance shall be held to be minimum requirements to meet the above stated purposes; where the provisions of this Ordinance impose greater restrictions than those of any statute, other ordinance or regulation, the provision of this Ordinance shall prevail. When the provisions of any statute, other ordinance or regulation impose greater restrictions than those of this Ordinance, the provisions of such statute, ordinance or regulation shall prevail.

ARTICLE II

CONTROL OF SUBDIVISIONS AND LAND DEVELOPMENTS, RECORDING OF PLANS, DEDICATIONS OF PROPERTY AND IMPROVEMENTS

SECTION 200: CONTROL OF SUBDIVISIONS AND LAND DEVELOPMENT

From and after the effective date of This Ordinance, no subdivision or development of any lot, tract, or parcel of land within the Township shall be made, and no street, sanitary sewer, storm sewer, water main or other facility in connection therewith shall be laid out, constructed, opened or dedicated for public use of travel or for the common use of occupants of buildings abutting thereon, except in strict accordance with the provisions of This Ordinance. No lot in a subdivision or land development may be sold, no permit to erect, alter or repair any building upon land in a subdivision or land development may be issued, no building may be erected, and no changes may be made in the contour of the land, no grading, excavating, removal or destruction of the topsoil, trees or other vegetative cover of the land may be commenced in a subdivision or land development unless and until a plan for the subdivision on land development has been approved by the Board of Supervisors and recorded, and until the improvements required by the Board of Supervisors in connection therewith have either been constructed in strict accordance with the standards and specifications of the Township or guaranteed as provided in Sections 800, j., and 802 of This Ordinance. Said standards and specifications, particularly as presented in Article X of This Ordinance are declared to be a minimum guarantee that all streets shown on any proposed plan are of sufficient width and proper grade and so located as to accommodate the probable volume of traffic thereon, afford adequate light and air, facilitate fire protection, provide a coordinated system of streets conforming to the Township's Official Plan of streets; and further, that the land whereon buildings are to be constructed is of such character that it can be used for building purposes without danger to health or peril from fire, flood or other hazard and that all necessary or required erosion and sedimentation facilities be installed prior to or during the initial phase of construction of the subdivision or land development.

SECTION 201: THE EFFECT OF LAND DEVELOPMENT

If a tract or parcel of land is planned and designed for separate developments or uses, although said tract or parcel remains under single ownership, each such development or use shall contain the minimum lot area, setback, and yard requirements as stipulated in the Township Zoning Ordinance. In the event the ownership of a particular development or use is to be subdivided for transfer or sale, such subdivision shall contain the minimum area, setback, yard and all other requirements of the Township.

SECTION 202: RECORDING OF FINAL PLANS AND DEDICATION OF PROPERTY AND IMPROVEMENTS

Upon approval of a final subdivision or land development plan, the developer shall within ninety (90) days of such final approval record such plan in the office of the Recorder of Deeds of the County, and the streets, parks, erosion and sedimentation and water management control facilities and other public improvements shown thereon shall then be considered to be a part of the Official Plan of the Township. Offers of dedication of such public improvements to the Township shall be submitted on a written, recordable document setting forth by metes and bounds the offer; or the owner may note on the plan that such improvements have not been offered for dedication to the Township. Every street, park, erosion and sediment facility or other public improvements shown on a recorded subdivision or land development plan shall be deemed to be a private street, park, or improvement until such time as the same has been accepted by ordinance or resolution.

SECTION 203: TIMING OF GOVERNING REGULATIONS

From the time an application is made for approval, whether preliminary or final, is duly filed as provided in this Ordinance, and while the application is pending action, no change or amendment of zoning, subdivision and land development ordinance or comprehensive plan shall affect the decision on such application adversely and the applicant shall be entitled to the governing regulations at the time the application was filed. In addition, when preliminary application has been duly approved, the applicant shall be entitled to final approval in accordance with terms of the approved preliminary application for a period of five (5) years from the date of such preliminary approval. However, if an application is properly and finally denied, any subsequent application shall be subject to any intervening change in governing regulations. When an application is approved or approved subject to conditions acceptable to the applicant, no subsequent change or amendment in zoning, subdivision and land development ordinances or comprehensive plan shall be applied to affect any aspect of the approved plan for a 5-year period from such approval, which shall be counted from the date of preliminary approval, or in case of any doubt when the application for such approval was duly filed. Furthermore, where the applicant (owner/developer) has substantially completed the required improvements as depicted upon the plat plan within the 5-year limit, or any extension granted by the Township Board of Supervisors, no change or zoning, subdivision and land development ordinances or comprehensive plan enacted subsequent to the date of filing of the preliminary application shall modify or revoke any aspect of approved final plans pertaining to zoning district, density, lot, building, street or utility location.

In the case of preliminary plan requiring the installation of improvements beyond the five-year period, a schedule shall be filed by the applicant with the preliminary plat delineating all proposed sections as well as deadlines within which applications for final plat approval of each section are intended to be filed. Such schedule shall be updated annually by the applicant on or before the anniversary of the preliminary plat approval, until final plat approval of the final section has been granted and any modification in the aforesaid schedule shall be subject to approval of the Township Board of Supervisors in its discretion. Each section in any residential subdivision or land development, except for the last section, shall contain a minimum of 25 percent of the total number of dwelling units as depicted on the preliminary plan, unless a lesser percentage is approved by the Township Board of Supervisors in its discretion. Provided the applicant has not defaulted with regard to or violated any of the conditions of the preliminary plat approval, including

compliance with the aforesaid schedule of submission of final plats for the various sections, then the foregoing protections afforded by substantially completing the improvements shown upon the final plans within five years shall apply and for any section or sections, beyond the initial section, in which the required improvements have not been substantially completed within said five-year period these protections shall apply for an additional term or terms constituting three years from the date of final plan approval for each section. Failure of applicant to adhere to the aforesaid schedule of submission of final plats for the various sections shall subject any such section to any and all changes in zoning, subdivision and land development ordinances enacted by the Township subsequent to the date of the initial preliminary application.

ARTICLE III

DEFINITIONS

SECTION 300: DEFINITIONS

As used in This Ordinance words in the singular include the plural, and in the plural include the singular. The word "person" includes corporation, unincorporated association and partnership, as well as an individual. The word "building" includes the meaning of "structure" and shall be construed as if followed by the phrase "or part thereof." The following words as used in This Ordinance shall have the meanings indicated below:

1. Accelerated Erosion: The removal of surface materials by the action of natural elements caused by man's manipulation of the landscape.

2. Agricultural Purpose: The regular and continuous cultivation of the soil for general farm crop purpose, commercial truck growing, commercial orchards, or commercial nurseries, excluding the construction of buildings or residential structures, or streets on roadways.

3. Applicant: A land owner or developer, as hereinafter defined, who has filed an application for development including his heirs, successors and assigns.

4. Application For Development: Every application, whether preliminary or final, required to be filed and approved prior to start of construction or development; including but not limited to an application for a building permit or the approval of a subdivision plan or the approval of a development plan.

5. Block: An area bounded by streets or proposed streets.

6. Board: The Board of Supervisors of Letterkenny Township, Franklin County, Pennsylvania.

7. Building: Any structure having a roof supported by columns or walls and intended for the shelter, housing or enclosure of persons, animals, or chattels, and including covered porches or bay windows and chimneys.

8. Cartway: The portion of a street intended for vehicular use.

9. Central Sewerage: Any public sewerage system or a private sewerage system designed for the collection of sewage or industrial wastes of a liquid nature from two or more lots and the treatment and disposal of the sewage or industrial wastes; provided such private sewage system is approved by the Township Municipal Authority and the Department of Environmental Resources.

10. Clear-Sight Distance: A line of unobstructed vision from a point four and one-half feet (4-1/2') above the center line of a street to the farthest point on the top of an object four and one-half feet (4-1/2') high on the same center line.

11. Clear-Sight Triangle: An area of unobstructed vision at street intersections defined by lines of sight between points at a given distance from the intersection of street center lines.

12. County: Franklin County, Pennsylvania.

13. Cul-de-sac: A street with access closed at one end and with a vehicular turn-around at the closed end.

14. Detention Structure: A vegetated pond, swale, or other structure designed to drain completely after storing runoff only for a given storm event and release it at a predetermined rate. Also known as a dry pond.

15. Developer: Any landowner, agent of such landowner or tenant with the permission of such landowner, who makes or causes to be made a subdivision of land, land development, or mobile home park.

16. Drainage: The flow of water or liquid waste and the methods of directing such flow.

17. Driveway: Every entrance or exit used by vehicular traffic to or from residential or commercial properties and the existing or proposed public roadway.

18. Dwelling: A building designed for residential purposes and used as living quarters for one or more persons.

    A. Dwelling Unit: One or more rooms used for living and sleeping purposes and having a kitchen with fixed cooking facilities arranged for occupancy by one (1) family or a single person.

19. Earthmoving activity: Any construction or other activity which disturbs the surface of the land including but not limited to, grading, excavation, embankments, land development, subdivision development, mineral extraction and the moving, depositing, or storing of soil, rock or earth.

20. Easement: A right granted for the use of private land for certain public, quasi-public or private purposes, also the land to which such right pertains.

21. Energy Dissipator: A device used to slow the velocity of storm water, particularly at points of concentrated discharge such as pipe outlets.

22. Engineer: The Township Engineer or any consultant designated by the Board of Supervisors to review a subdivision or land development plan and perform the duties of engineer in behalf of the Township.

23. Engineer, Registered: A person duly registered as a professional engineer by the State of Pennsylvania.

24. Excavation: Any act by which earth, sand, gravel, rock or any other similar material is dug into, cut, quarried, uncovered, removed, displaced, relocated or bulldozed and shall include the conditions resulting therefrom.

25. Freeboard: The difference between the design flow elevation in the emergency spillway and the top of the settled embankment.

26. Fill:

    a. Any act by which earth, sand, gravel or rock or any other material is placed, pushed, dumped, pulled, transported or moved to a new location above the stripped surface and shall include the conditions resulting therefrom; and/or

    b. The difference in elevation between a point on the original ground and a designated point of higher elevation on the final grade; and/or

    c. The material used to make a fill.

27. Grassed Waterway: A natural or man-made drainage way of parabolic or trapezoidal cross-section shaped to required dimensions and vegetated for safe disposal of runoff. (Also known as a swale).

28. Holding Pond: A retention or detention pond.

29. Landowner: The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option of contract is subject to any condition), a lessee if he is authorized under the lease to exercise the rights of the landowner, or other person having a proprietary interest in land, shall be deemed to be a landowner for the purposes of this act.

30. Land Development: The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving: (a) erection of one (1) or more commercial structures, or buildings and/or a group of two (2) or more residential units, structures, buildings or mobile homes, (b) the division or allocation of land, buildings or space between or among two (2) or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features.

31. Lot: A tract or parcel of land intended for separate development, use, lease or transfer of ownership.

32. Mobile Home: A dwelling intended for use or occupancy; office or place of assembly; which is transportable and contained in one (1) unit or two (2) or more units designed to be joined into one integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, and constructed so that it may be used with or without a permanent foundation, excluding modular or pre-manufactured housing having a width of at least 24 feet.

33. Mobile Home Lot: A parcel of land in a mobile home park, improved with the necessary utility connections and other appurtenances necessary for the erections thereon of a single mobile home, which is leased by the park owner to the occupants of the mobile home erected on the lot.

34. Mobile Home Park: A parcel of land under single ownership which has been planned and improved for the placement of two (2) or more mobile homes for residential use at a density which is not in compliance with the applicable minimum lot size, yard area, and setback requirements for single family detached dwellings.

35. Municipal Authority: The Letterkenny Township Municipal Authority, or its successor.

36. Net Density: The number of dwelling units per net acre of land devoted to residential buildings and accessory uses on the same tract within the site but excluding land for streets, public parking, playgrounds, and non-residential uses.

37. Percolation Test: A procedure to determine the absorption rate of the soil in an area proposed as the installation site for an on-lot septic system, to be carried out according to the requirements of the Pennsylvania Department of Environmental Resources.

38. Planning Commission: The Planning Commission of Letterkenny Township.

39. Reserve Strip: A parcel of ground in separate ownership separating a street or road from adjacent properties or from another street.

40. Retention Structure: A pond, swale, or other structure containing a permanent pool of water designed to store runoff for a given storm event and release it at a predetermined rate.

41. Sanitary Sewer: A pipe for conveying sewage; excluding storm, surface and ground water.

42. Sanitary Sewer Facility: A public sanitary sewer system or a comparable common or package sanitary sewer facility approved by the appropriate governmental agencies.

43. Runoff: The surface water discharge or rate of discharge of a given watershed after a fall of rain or snow that does not enter the soil but runs off the surface of the land.

44. Runoff from a Fully Developed Area Upstream: The surface water runoff that can be reasonably anticipated upon maximum development of that area of the watershed located upstream from the subject tract, as permitted by prevailing zoning or the township comprehensive plan; if such exists.

45. Screening: A well maintained fence, wall, hedge, or vegetative material at least five feet (5') in height and of a density to conceal from the view of adjoining property owners the structures and uses on the premises on which the screening is required to be located.

46. Secretary: The Letterkenny Township Secretary.

47. Sedimentation: The process by which mineral or organic matter is accumulated or deposited by moving wind, water or gravity. Once this matter is deposited (or remains suspended in water), it is usually referred to as "sediment".

48. Sediment Basin: A temporary dam or barrier constructed across a waterway or at other suitable locations to intercept the runoff and to trap and retain the sediment.

49. Slope: Slopes are to be expressed in a percentage based upon vertical difference in feet per one-hundred feet (100') of horizontal distance.

50. Soils Analysis: A procedure to permit visual inspection of geological formations and water table level in an area proposed as the installation site for an on-lot septic system. Such tests will consist of a trench which shall be as a minimum two feet (2') wide and six feet (6') deep or four feet (4') below the proposed installation level of the septic field, whichever is deeper. Such tests may be referred to as a "Deep Probe" or inspection trench and shall be open for inspection by the Township and the Department of Environmental Resources.

51. Street: A strip of land which is intended primarily as a means of vehicular and pedestrian traffic, whether public or private, which may be used also as a space, when public, for sewers, public utilities, shade trees and sidewalks.

52. Storage Structure: A retention or detention structure.

53. Storm Sewer: A pipe, open ditch or drainage channel for conveying rain water, surface water, condensate, cooling water or similar liquid wastes; exclusive of sewage or industrial wastes; to a natural water course or other outlet.

54. Storm Water Management: The control of runoff to allow water falling on a given site to be absorbed or retained on site to the extent that after development the peak rate of discharge leaving the site is not significantly different than if the site had remained undeveloped.

55. Street, Public: A strip of land, including the entire right-of-way, intended to be dedicated for use as a means of vehicular and pedestrian circulation by the public at large.

56. Structure: Any combination of materials, other than a building which forms a construction, including but not limited to flagpoles, stadiums, platforms, towers, sheds, storage bins, fences exceeding four feet (4') in height, signs, sign posts, lights and light standards for other than residential use but excepting patios, driveways, walks, and parking area to yard grade.

57. Subdivider: The owner, developer or the authorized agent of the owner of a subdivision or land development.

58. Subdivision: The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future for lease, transfer of ownership, or building or lot development provided, however, that the subdivisions by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street, or easement of access, buildings or residential dwellings, shall be exempted.

59. Subdivision, Minor: Any division abutting an existing public street or road involving three (3) or less lots, parcels of land, or other division of land which does not require a new street, the installation of sanitary sewers, storm sewers, water mains or pipes, or other public improvements.

60. Surface Mining Operation: The removal of any substance from the earth for use as fuel, roadway material, manufacturing, or for re-sale, excepting shale, slate or soil excavation and removal operations.

61. Surveyor, Registered: A person duly registered as a professional surveyor by the State of Pennsylvania.

62. Swale: A low lying stretch of land which gathers or carries surface water runoff.

63. Topsoil: Fertile surface and subsurface soils rich in organic matter or humus debris.

64. Township: Letterkenny Township, Franklin County, Pennsylvania.

65. Water Course: A permanent stream, intermittent stream, river, brook, creek, channel or ditch for water, whether natural or man-made.

66. Usable Open Space: A parcel or parcels of land or an area of water, or a combination of land and water within a development site and designed and intended for the use or enjoyment of residents of the subdivision or mobile home park or other development, not including streets, off-street parking areas and areas set aside for public facilities.

67. Substantial Completion: Wherein the judgement of the Township Engineer at least 90 percent of those improvements required as a condition for final subdivision approval have been completed in accordance with an approved plan, so that the project will be able to be used, occupied or operated for its intended use. This shall be based on the cost of the required improvements for which financial security was posted pursuant to Section 802 of this Ordinance.

ARTICLE IV

PROCEDURES AND JURISDICTION

SECTION 400: PLAN APPROVING AGENCY

All Final Subdivision and Land Development Plans shall be subject to approval or rejection by the Board of Supervisors. In the event such a plan is disapproved, the reasons therefore shall be setforth in writing. All plans shall be referred to the Planning Commission for its review and recommendations.

SECTION 401: SUBMITTAL OF PLANS

The subdivider or land developer shall submit to the Township Secretary all plans and documents required in this Ordinance along with a completed and signed subdivision application form at least ten (10) calendar days prior to the next regular scheduled meeting of the Planning Commission. All plans, when first submitted, shall be considered Preliminary Plans, except Minor Subdivisions. If the subdivider or land developer makes substantial revisions in his plans after they have been approved in Preliminary form, such revised plans shall be treated as Preliminary Plans when re-submitted.

Upon approval of the Preliminary Plans, Final Plans shall be submitted by the subdivider or land developer in the same manner as Preliminary Plans and the Township Secretary shall distribute the required number of copies to the appropriate agencies concerned as provided for in this Ordinance.

SECTION 402: REVIEW OF PLANS

Subdivision and land development plans will usually be reviewed by Letterkenny Township Planning Commission at its first regular meeting following the date of submittal, providing that such plans are submitted at least ten (10) calendar days prior to that meeting. The subdivider, or his duly authorized representative, shall attend the meeting of the Planning Commission to discuss the subdivision plan unless excused by the Commission. The Planning Commission shall forward the Plans and the Commissions recommendation to the Board of Supervisors, for consideration.

SECTION 403: APPROVAL OF PLANS

Approval of Preliminary Plans by the Letterkenny Township Board of Supervisors shall be considered approval of the design of streets and lots and such other features as may be shown on the plans, subject to any conditional or specified changes to be incorporated in the Final Plans. No subdivision or land development plan shall be approved unless all specified items within this Ordinance have been included or addressed in a manner satisfactory to the Township Board of Supervisors.

The Board's approval of the Final Plans shall be given only after the requirements and conditions indicated on or in connection with Preliminary Plan approval have been met, and the said approval shall constitute a Revision in the Official Plan of the Township of which it is made a part thereof.

No subdivision or land development plans shall be approved unless: (1) All of the requirements of this Ordinance have been met, and (2) There has been an erosion and sedimentation control plan approved by the Board of Supervisors that provides for minimizing erosion and sedimentation, or (3) There has been a determination by the Board of Supervisors that a plan for minimizing erosion and sedimentation is not necessary. The Board's approval of the final plans shall be given only after the requirements and conditions indicated on or in connection with the preliminary plans have been met; and said approval shall constitute final Township approval for the purpose of recording the plans in the Office of the County Recorder of Deeds. Before acting on any plan, the Board of Supervisors may arrange for a public hearing thereon after giving such notice as it may deem necessary and desirable in each case.

SECTION 404: OVERALL MASTER PLAN REQUIREMENTS

A. When the total of all lots subdivided from a parcel or tract of land exceeds five (5) lots within the last 5 years, it shall be incumbent upon the subdivider to submit to the Township an Overall Master Plan parcel or tract of land before any further subdivision or land development plans may be approved by the Township. Such Overall Master Plan shall illustrate the following features in general terms without necessity of detailed engineering design.

1. The property lines of the host parcel and other lot previously subdivided.

2. Generalized lot layout with intended consideration for sewer, water, roadway, and storm drainage control.

3. Generalized location of major topographic features such as swales, water courses, rock outcroppings, and related characteristics.

4. Generalized indication of the use or uses of the property in terms of the uses permitted by the Township Zoning Ordinance.

5. The Overall Master Plan shall be submitted at a scale of not smaller than 1" = 200.

B. Effect of Overall Master Plan: The Overall Master Plan will be used by the Township to assist in evaluating further subdivision submittals of the applicant. When on the recommendation of the Planning Commission and action of the Board of Supervisors, it is deemed that further subdivisions depart substantially from the concepts presented in the Overall Master Plan, a revised Master Plan shall be required prior to approval of any future subdivision plans of the applicant.

ARTICLE V

PRE-APPLICATION CONSULTATION

SECTION 500: PRE-APPLICATION CONSULTATION

The pre-application consultation with the Township, is voluntary, and communications shall be kept as confidential as possible. The subdivider or developer, before going ahead with the Preliminary Plan procedure or with steps to acquire land or subdivide, should familiarize himself with the regulations and should consult with the Township about the following factors:

A. The suitability of the site for development.

B. The demand for a development, the type proposed, and the particular location proposed.

C. The accessibility of the site.

D. The availability of public facilities such as schools, parks, water, sanitary and storm sewers, etc., and the public services of police, fire, refuge disposal, etc.

E. The effect on the project of any contemplated improvements or the proposals of any comprehensive plan and these regulations.

F. Sewage facility requirements of the Department of Environmental Resources and the Township.

G. Erosion and sedimentation control plans and permits as required by the Department of Environmental Resources and as reviewed by the Franklin County Soil Conservation District.

H. Precautionary measures to preserve or protect environmental, historic and natural features.

I. Approvals by the applicable State and Federal agencies.

Section 501: SKETCH PLAN SUBMISSION

It is suggested that prior to the consultation with the Planning Commission, the subdivider prepare a sketch plan of his proposed development. It is suggested that the subdivider or developer submit sufficient data to the Planning Commission for purposes of generally illustrating and discussing the proposed project.

ARTICLE VI

MINOR SUBDIVISIONS

SECTION 600: QUALIFICATIONS

A Minor Subdivision, as defined, may be directly submitted for Final Plan approval in accordance with Section 800 of this Ordinance and the plans and data requirements set forth herein. However, with multiple Minor Subdivisions within any given tract; exceeding five (5) lots within the preceding five years, or adjacent or adjoining tracts having been or expected to be subdivided, or whenever other circumstances warrant, the Commission may deny the Minor Subdivision provision within this Ordinance and may require such additional data as included within the Preliminary and Final Plan requirements and procedures, of this Ordinance.

SECTION 601: PLAN REQUIREMENTS

The following materials and data shall be submitted with an applications for review and approval of the Minor Subdivision Plans:

A. Six copies of the subdivision or land development plans in the form of a map on sheet sizes either 8 1/2 inches by 14 inches; 18 inches by 24 inches; or 24 inches by 36 inches, and shown to a nominal scale not smaller than 100 feet to the inch and showing the following:

1. A location map showing the proposed project in relation to the adjacent properties and existing streets in the vicinity of the Township.

2. A tract map showing the boundaries of the entire tract to be subdivided, the new lot or lots to be formed, and the names of the adjoining property owners, as well as major significant physical features such as streams, roads, lanes, ponds, cemeteries, wooded areas and flood plains.

3. The limits and dimensions of the tract or tracts to be subdivided or developed and the proposed name or identifying title of the project.

4. The date, scale, and north point.

5. The location and dimensions where applicable of existing buildings, roads, easements, rights-of-way, public lanes, streams and any other monuments.

6. The location and dimensions of proposed easements or other rights-of-way and land reserved for public purposes, the dimensions of existing or proposed sanitary or storm sewers and water facilities.

7. Existing topographic contours at not more than ten (10) foot vertical intervals or at such intervals that the contours shall have a maximum horizontal spacing of not more than 100 feet.

   For any project not being connected to any public facilities within the Township, an assumed datum may be used for the topographic contours, but shall be stated on the plans as assumed datum.

Any project connecting or adjoining proposed public facilities within the Township shall be referenced to the Township Municipal Datum as supplied by the Township.

8. The name and address of the subdivider or developer.

9. The name, seal and signature of the Registered Engineer or Registered Surveyor who shall have prepared the plans.

10. The name and address of the owner of the tract, and the names of the owners of the adjoining tracts together with the deed references.

11. The building restriction lines, percolation test sites and the location and description of the survey monuments.

12. The bearing and dimensions of all proposed property lines, the acreage of all parcels including the residue of the parent tract, and lot numbers.

13. A plan supplement or revision sewage Planning Module to the Township's Official Liquid Wastes Plan complete with all necessary data.

14. An erosion and sedimentation control plan and narrative as required pursuant to the provisions of the Clean Streams Law.

ARTICLE VII

PRELIMINARY PLANS

SECTION 700: PRELIMINARY PLAN SPECIFICATIONS

The following materials and data shall be submitted with an application for review and approval of the Preliminary Plans:

A. Eight copies of the subdivision or land development plan in the form of a map or series of maps on sheet sizes either 8 1/2 inches by 14 inches; 18 inches by 24 inches; or 24 inches by 36 inches drawn to a scale not smaller than 100 feet to the inch and showing the following:

1. A location map showing the proposed project in relation to the adjacent properties and existing streets in the vicinity.

2. The layout of lots showing dimensions, lot numbers, and approximate areas of each lot, location of existing and proposed streets, including the name and widths of the rights-of-way and cart way.

3. The limits and dimensions of the tract or tracts being subdivided or developed and the proposed name or identifying title of the project.

4. The date, scale and north point.

5. The location and dimensions where applicable of existing buildings, roads, easements, rights-of-way, public lands, streams, and any other monuments.

6. The location and dimensions of proposed easements or rights-of-way and land reserved for public purposes, the dimensions of existing or proposed sanitary or storm sewers and water facilities.

7. Existing topographic contours at not more than ten feet (10'0") vertical intervals or at such horizontal intervals of not more than one hundred feet (100'0"). For any project which proposes ten or more lots or dwelling units, elevations shall be referenced to vertical controls established by an accepted Federal agency (N.O.S., U.S.C.G.S., U.S.G.S., or A.M.S.) and a suitable benchmark shall be established within the project and referenced on the plan. The Planning Commission may also require supplemental plans showing proposed final contour. For any project not being connected to any public facilities within the Township, an assumed datum may be used for the topographic contours but shall be stated on the plans as assumed datum.

   Any project connecting or adjoining proposed public facilities within the Township shall be referenced to the Township Municipal Datum as supplied by the Township.

8. The name and address of the subdivider or developer.

9. The name, seal and signature of the Registered Engineer or Registered Surveyor who shall have prepared the plans.

10. The name and address of the owner of the tract and the names of the owners of the adjoining tracts together with the deed references.

11. Building restriction lines, percolation test sites, and the location and description of the survey monuments.

B. Five copies of cross-section drawings of all proposed streets showing rights-of-way, cart way widths, location of sidewalks and planting strips.

C. Five copies of profile drawings of all proposed streets showing existing and proposed grades.

D. Five copies of plans and profiles of existing and/or proposed sanitary sewer and storm sewer systems, water distribution systems, and any other pertinent utilities. The plans shall include grades, pipe sizes, and location of valves and fire hydrants. All storm sewer plans shall indicate the point or points where surface water enters and leaves the project, contributing area of runoff and the estimated volume and method of determination.

E. When any subdivision or land development is subject to the rules and regulations of the Department of Environmental Resources with regard to the disposal of liquid wastes, the applicant shall submit a Supplemental Planning Module or Plan Revision Module to the Township's Official Liquid Wastes Plan for the subdivision or land development of which the subdivider shall prepare six copies of the form supplied by the Department of Environmental Resources for use of the Township.

F. In the event the plan proposes extension of utility service into the project by any Authority or Municipality other than Letterkenny Township or its agencies, a statement from that authority or municipality regarding the adequacy of such service extension shall be submitted.

G. Whenever the subdivision or land development is subject to the rules and regulations of the Department of Environmental Resources with regard to control of erosion and sedimentation control, the applicant shall file five (5) copies of an erosion and sedimentation control plan, provided, however, that in the case of the applications not requiring any erosion and sedimentation control permit, the Commission may require the applicant to submit his plan to the Franklin County Soil Conservation District office for review and comment. The design standards and specifications for said plan are contained in the"Erosion and Sedimentation Control" handbook which has been prepared and provided by the Franklin County Conservation District and is on file in the Township Office.

H. Five copies of the Storm Water Management Plan required by this Ordinance.

SECTION 701: PRELIMINARY PLAN PROCEDURE

A. The applicant, at least ten (10) days prior to the meeting of the Commission at which initial consideration is desired, shall file with the Township Secretary ten (10) copies of the Preliminary Plan and the accompanying documentation.

B. Copies of the Preliminary Plan and supporting data shall immediately be distributed by the Secretary to the following agencies, when applicable, for review and comment:

1. Three (3) copies to the Franklin County Planning Commission.

2. One (1) copy to the Township Engineer.

3. One (1) copy to the Township Municipal Authority as required.

4. One (1) copy to the Pennsylvania Department of Transportation if applicable.

5. One (1) copy to the Electric Power Company.

6. One (1) copy to the Township Sewage Enforcement Office.

7. One (1) copy to the Franklin County Conservation District.

8. The remaining copies to the Township Planning Commission.

9. Supplemental Sewage Planning Module and/or Plan Revision Module for Subdivision or Land Development to:

   a. Department of Environmental Resources, if applicable.

   b. Franklin County Planning Commission, if applicable.

   c. Township Municipal Authority.

   d. Remaining copies to the Township File.

C. The Township Planning Commission shall take official action on the Preliminary Plan within sixty (60) days of the Township's receipt of the plans and data. The Commission shall note it's action on three (3) copies of the plans. The three (3) noted copies of the plan then shall be forwarded to the Board of Supervisors along with recommendations concerning the Preliminary review.

D. Approval or Rejection of Plans:

1. The Board of Supervisors shall take official action on the Preliminary Plan after it has received the review of the Commission and within the time limits and in the manner provided in Section 801 (c.) of this Ordinance.

ARTICLE VIII

FINAL RECORD PLANS

SECTION 800: PLAN REQUIREMENTS

The Planning Commission may require that the following materials be submitted with an application for approval of a Final Plan. Final Plans shall conform in all important details with Preliminary Plans as previously approved and any conditions specified in the approval of the Preliminary Plans shall be incorporated in the Final Plans.

The Final Plan submission shall occur not more than five (5) years following the date of approval of the Preliminary Plan. Failure to submit the Final Plan within this time period shall make the approval of the Preliminary Plan null and void unless an extension of time is requested by the subdivider or land developer prior to the five (5) years time limit and an extension is granted by the Board of Supervisors. The applicant may constitute only that portion of the approved Preliminary Plan which the applicant proposes to record and develop at that time, provided that such portion conforms with all requirements of the approved Preliminary Plan and this Ordinance.

The Final Plan shall contain the following data:

A. Ten (10) copies of the plan in the form of a map or series of maps on sheet sizes either 8 1/2 inches by 14 inches; 18 inches by 24 inches; or 24 inches by 36 inches, drawn to a scale not smaller than 100 feet to an inch and showing the following:

   1. The items required to be shown in Preliminary Plans, as specified in Article VII, Section 700.

   2. Final topographic contours in those areas recommended by the Commission and approved by the Supervisors at not more than five foot vertical intervals.

   3. The location and method of proposed street lighting facilities and the location of street signs.

   4. The location of minimum building set-back lines.

   5. The complete metes and bounds description of each lot, tract or parcel with a minimum error of closure of one part in ten thousand.

   6. Lot and section numbers.

   7. Offer of Dedication to the Township or Township Authority wherever and whichever case is applicable of streets, rights-of-way, easements and sites for other public use.

B. Four copies of a utility map or maps showing the tract boundaries, existing and proposed streets, lot lines, sanitary sewer and storm sewer facilities, water lines, and, where applicable, curbs, sidewalks, fire hydrants and manholes.

C. Four copies of profile and cross-section maps or diagrams of streets showing proposed grades of curbs, sanitary and storm sewers, water lines, underground utilities, and storm water management facilities. Grades shall be shown at a minimum scale of fifty (50) feet horizontal and five (5) feet vertical.

D. An erosion and sedimentation control plan, together with an earth-moving permit when required pursuant to the provisions of the Clean Streams Law.

E. Suitable documentation that the plans are in conformity with building, sanitation and other applicable Township Ordinances and regulations; and with the regulations governing the extension of the utility services into the Township. In any instance where such plans do not conform, evidence shall be presented that an exception has been officially authorized.

F. Such certificates, affidavits, endorsements or dedications as may be required by the Commission or the governing body of the Municipality in the enforcement of these regulations.

G. Evidence of the issuance of any driveway permit required by PennDot or Letterkenny Township.

H. A statement of the types of structures to be erected, and summary table of the number of structures and dwelling units proposed.

I. Suitable documentation that the plans are in conformity with building, sanitation and other applicable Township ordinances and regulations and with the regulations governing the extension of utility services into the Township. In any instance where such plans do not conform, evidence shall be presented that an exception has been officially authorized.

J. Evidence that the subdivider or developer has installed the necessary street and other improvements as required in Section 900 in accordance with Township standards and specifications, or that the subdivider has furnished the Township the guarantees required by Section 802.

SECTION 801: REVIEW PROCEDURE - APPROVAL OF PLANS

A. At least ten (10) days prior to the meeting of the Planning Commission at which initial consideration is desired, the subdivider or developer shall submit eight (8) copies of the Final Plan and accompanying documentation to the Township Secretary. The Final Plan submission shall occur not more than five (5) years following the date of approval of the Preliminary Plan. Failure to submit the Final Plan within the time period shall make the Preliminary Plan null and void unless an extension of time is requested by the subdivider or developer and granted in writing by the Board of Supervisors.

B. Copies of the Final Plan and supporting data shall be distributed by the Township Secretary to the following agencies where applicable:

1. Three (3) copies to the County Planning Commission for review and comment.

2. One (1) copy to the Township Engineer for review and preparation of cost estimates on improvement construction.

3. One (1) copy to the Township Municipal Authority if applicable.

4. One (1) copy to the Electric Power Company.

5. Remaining copies to the Township Planning Commission.

C. Approval or Rejection of Plans: All applications for approval of a plan, whether preliminary or final, shall be acted upon by the Board of Supervisors which shall render its decision and communicate it to the applicant not later than ninety (90) days following the date of the regular meeting of the Planning Commission next following the date the application is filed, provided that should the said next regular meeting occur more than thirty (30) days following the filing of the application, the said ninety (90) day period shall be measured from the thirtieth (30th) day following the day the application has been filed.

1. The decision of the Board of Supervisors shall be in writing and shall be communicated to the applicant personally or mailed to him at his last known address not later than 15 days following the decision.

2. When the application is not approved in terms as filed, the decision shall specify the defects found in the application and describe the requirements which have not been met and shall in each case, cite to the provision of the statute or ordinance relied upon.

D. Distribution of the copies of the plan as finally approved shall be as follows:

1. One (1) copy to the Engineer

2. One (1) copy to be retained in the Township Secretary's File.

3. One (1) copy to the Planning Commission.

4. Two (2) copies to the subdivider or developer.

E. Within ninety (90) days following approval by the Board of Supervisors, the Final Plan shall be recorded by the subdivider or developer at the County Recorder of Deeds Office. The subdivider or developer shall not present a plan for recording and the Recorder of Deeds shall not accept any plan for recording unless the plan has been officially approved and signed by the Board of Supervisors.

F. The Township Board of Supervisors shall not approve a Final Plan without a favorable report from the Department of Environmental Resources regarding the Official Plan Revision or Supplement where applicable. However, failure of the Department of Environmental Resources to report to the Township within the time prescribed by law from the date the last supplement was sent shall constitute approval. (As amended April 28, 1987)

SECTION 802: COMPLETION OF IMPROVEMENTS OR GUARANTEE THEREOF PRE-REQUISITE TO FINAL PLAN APPROVAL

No plan shall be finally approved unless the streets shown on such plan have been approved to a permanently passable condition, as specified in Article IX, Sections 903 and 904, and any walkways, curbs, gutters, street light, fire hydrants, shade trees, water mains, sanitary sewers, storm drains and any other improvements as may be required by the Letterkenny Township Subdivision and Land Development Ordinance, as amended, have been installed in accordance with such Ordinance.

In lieu of the completion of any improvements required as a condition for final approval, the developer shall deposit with Letterkenny Township, financial security in an amount sufficient to cover the cost of any improvements or common amenities, including, but not limited to, road, storm water detention and/or retention basins, other related drainage facilities, recreational facilities, open space improvements, or buffer or screen plantings, all improvements recited above, and all improvements as shown on the developers subdivision or development plan. The type of financial security to be posted with Letterkenny Township shall be in such form as may, from time to time, be approved by the Legislature of the Commonwealth of Pennsylvania, or such other form as may be deemed acceptable by the Letterkenny Township Board of Supervisors.

Such bond or other security shall provide for and secure to the public the completion of any improvements which may be required within one year of the date fixed in the subdivision plan for completion of such improvements. The amount of financial security shall be equal to 110% of the cost of the required improvements for which financial security is to be posted. The cost of improvements shall be established by submission to the Letterkenny Township Board of Supervisors or the Planning Commission of bona fide bid or bids from the contractor or contractors chosen by the party posting the financial security to complete the improvements, or in the absence of such bona fide bids, the cost shall be established by estimate prepared by the Letterkenny Township engineer. If the party posting the financial security requires more than one year from the date of posting the financial security to complete the required improvements, the amount of financial security shall be increased by an additional 10% for each one year beyond the first anniversary date from the posting of financial security, or to an amount not exceeding 110% of the cost of completing the required improvements as re-established on or about the expiration of the preceding one year period by using the above bidding procedure. In a case where development is projected over a period of years, the Letterkenny Township Board of Supervisors may authorize submission of final plans by sections or stages of development subject to requirements or guarantees as to improvements in future sections or states of development as it finds essential for the protection of any finally approved section of the development. As the work of installing the required improvements proceeds, the party posting the financial security may request the Letterkenny Township Board of Supervisors to release or authorize the release, from time to time of such portions of the financial security necessary for payment to the contractor or contractors performing the work. Any such requests shall be in writing addressed to the Letterkenny Township Board of Supervisors and the Board shall have 45 days from receipt of such request within which to allow the municipal engineer to certify, in writing, to the Board that such portion of the work upon the improvements has been completed in accordance with the approved plan. Upon such certification the governing body shall authorize the release by the bonding company or lending institution of an amount as estimated by the municipal engineer which fairly represents the value of the improvements completed or, if the Board of Supervisors

fails to act within said 45-day period, the Board shall be deemed to have approved the release of the funds as requested. The Board of Supervisors may, prior to final release at the time of completion and certification by its engineer, require retention of 10% of the estimated cost of the aforesaid improvements. Where the Board of Supervisors accepts dedication of all or some of the required improvements following completion, the Board may require the posting of financial security to secure structural integrity of said improvements as well as the functioning of said improvements in accordance with the designs and specifications as depicted on the final plan, for a term not to exceed 18 months from the date of acceptance of dedication. Said financial security shall be of the same type as otherwise required in this section and otherwise required by law, with regard to the installation of such improvements and the amount of the financial security shall not exceed 15% of the actual cost of installation of said improvements.

If water mains or sanitary sewer lines, or both, along with apparatus or facilities related thereto, are to be installed under the jurisdiction and pursuant to the rules and regulations of a public utility or a municipal authority separate and distinct from Letterkenny Township, financial security to assure proper completion and maintenance thereof shall be posted in accordance with the regulations of the controlling public utility or municipal authority and shall not be included within the financial security otherwise required by this section.

If financial security has been provided in lieu of the completion of improvements required as a condition for the final approval of a plan as set forth herein, the municipality shall not condition in issuance of building, grading or other permits relating to the erection of placement of improvements, including building upon the lot or land as depicted upon the final plan upon actual completion of the improvements depicted upon the final approved plan. Moreover, if said financial security has been provided, building or other permits shall not be withheld following the improvement of the streets providing access to and from existing public roads to such building or buildings to a mud-free or otherwise permanently passable condition as required in Article IX, Section 904 hereof, as well as the completion of all other improvements as depicted upon the approved plan, either upon the lot or lots or beyond the lot or lots in question if such improvements are necessary for the reasonable use and occupancy of the building or buildings. (Adopted April 28, 1981)

ARTICLE IX

DESIGN STANDARDS

SECTION 900: APPLICATION OF STANDARDS

In considering applications for subdivision of land and land development, the Planning Commission shall be guided by the standards set forth hereinafter. The said standards shall be considered to be minimum requirements and shall be waived by the Township Supervisors only under circumstances adjudged, in their opinion, that the literal application of these standards in certain cases would work undue hardship or would be plainly unreasonable; the Township Supervisors may grant such reasonable exceptions as will not be contrary to the public interest.

SECTION 901: GENERAL SITE SUITABILITY

No land shall be subdivided if such land is considered by the Commission to be unsuitable for the use proposed by reason of flooding or improper drainage, topography or other features harmful to the health, safety and general welfare of future residents and the community as a whole, unless the plans for the project shall provide adequate safeguards against such hazards.

All development shall be coordinated with the existing nearby neighborhoods so that the community as a whole may develop harmoniously.

SECTION 902: BLOCKS AND LOTS

A. BLOCK LENGTH: The design of blocks shall be not less than 600 feet nor more than 1200 feet long.

B. BLOCK WIDTH: Blocks shall be designed to a width of two tiers of lots and shall conform to the standards set forth herein.

C. GRADING: Blocks and lots shall be graded to sufficient elevation to secure drainage away from buildings and to prevent undesirable collection of storm water. Drainage shall be provided for according to recommendations of the Engineer or such other official as may be designated by the Board of Supervisors. Topsoil shall be preserved and redistributed as ground cover, consistent with the erosion and sedimentation control measures as shown in the Conservation Manual prepared by the Franklin County Conservation District.

Amended 10-25-88

D. RESIDENTIAL UNITS:

1. Single Family Residential Lots: (Minimum requirements):

	On-Lot Water and Sewer (1)	On-Lot Sewer/ Central Water(1)	On-Lot Water/ Central Sewer	Central Water and Sewer
Frontage	125 feet	125 feet	90 feet	80 feet
Lot Depth	175 feet	175 feet	150 feet	120 feet
Lot Area	25,000 sq.ft.	25,000 sq.ft.	15,000 sq.ft.	10,000 sq.ft.

2. Single Family Semi-Detached Dwelling Unit: (Minimum requirements for each dwelling unit)

	On-Lot Water and Sewer (1)	On-Lot Sewer/ Central Water(1)	On-Lot Water/ Central Sewer	Central Water and Sewer
Lot Size	30,000 sq.ft.	15,000 sq.ft.	10,000 sq.ft.	8,500 sq.ft.
Lot Width	125 feet	100 feet	75 feet	75 feet
Lot Depth	175 feet	175 feet	100 feet	100 feet

Set-Backs for Single Family and Semi-Detached Units:

Public or private street and front yard	35 ft. from R/W	35 ft. from R/W	35 ft. from R/W	30 ft. from R/W
Side yards(ea)	15 feet	15 feet	12 feet	12 feet
Rear yards	35 feet	35 feet	30 feet	30 feet
Height(max.)	35 feet	35 feet	35 feet	35 feet
Off-street parking (2) per dwelling	2 spaces	2 spaces	2 spaces	2 spaces

a. When on-lot sewer facilities are to be utilized, the minimum lot size may be increased by the Township's Sewage Enforcement Officer or the Department of Environmental Resources for factors related to health and sanitation.

b. Businesses conducted out of a residence shall provide adequate parking off-street for all business related clientele, plus two spaces for the residents.

c. Set backs for non-permanent storage buildings on not more than 120 square feet and 1 story shall be reduced to 5 feet on side and rear yards only.

3. Townhouses: Attached residences: (Minimum requirements)

a. For each attached residential dwelling project there shall be a minimum lot area of twenty-five thousand square feet (25,000 sq.ft.).

Per Dwelling Unit:

Lot Area.....	2,500 sq.ft.
Interior.....	18 feet
Public or Private Street and Front Yard.....	20 feet
Side Yard for End Units....	20 feet
Rear Yard.....	30 feet
Off-street Parking.....	2.0 spaces
Height.....	35 feet
Active Play Area.....	100 sq.ft.
Minimum Distance between Groups or Units.....	40 feet

b. No less than three (3) and no more than eight (8) dwellings shall be permitted in a unit or group.

c. Central water supply and sewerage shall be provided for developments containing more than three (3) dwelling units.

d. A recreation area shall be furnished in townhouse development projects containing more than eighteen (18) dwelling units. Such area shall not be less than ten thousand (10,000) square feet in land area, nor less than fifty (50) feet in its smallest dimension. For each dwelling unit above eighteen (18), an additional three hundred (300) square feet per dwelling unit shall be allocated to the total recreation area.

e. Where any townhouse project is proposed to be developed in conjunction with apartments, the recreation area requirements as provided in Section 4(a) shall be designed for and made accessible to the townhouse residents in addition to the requirements for multiple dwelling residents. The Board of Supervisors reserve the right to increase the active play area requirements upon recommendation of the Planning Commission when in its opinion additional area is necessary to accommodate the needs of the mixed use development in accordance with the spirit and objectives of the Ordinance.

4. Multiple Dwelling Residences - Garden Apartments. (Minimum requirements)

a. Each multiple dwelling residential project shall contain a minimum of forty thousand (40,000) square feet of lot area in accordance with the following standards.

Lot Width.....	150 feet
Lot Depth.....	150 feet
Each Side Yard (exterior)....	20 feet
Rear Yard.....	30 feet
Public or Private Street and Front Yard.....	30 feet
Off-street Parking per dwelling unit.....	2.0 spaces
Minimum Distance between Units.....	40 feet
Height (maximum).....	35 feet (2-1/2 stories)
Recreation Area (minimum)....	5,000 sq.ft.
Per Dwelling Unit:	
Efficiency.....	75 sq.ft.
1 Bedroom.....	100 sq.ft.
2 Bedroom.....	125 sq.ft.
3 or more Bedrooms....	150 sq.ft.

b. The maximum number of dwellings units permitted shall be determined on the basis of two thousand (2,000) square feet of lot area exclusive of public rights-of-way for each dwelling unit.

c. The length of any unit shall not exceed one hundred and fifty feet (150'0").

d. Central water supply and sewerage shall be provided.

e. There shall be one hundred foot (100'0") setback from the property line adjacent to any existing dwelling or residential district.

5. Homeowners Associations

a. Whenever a developer or owner proposes to provide land or structures for the benefit of only particular home owners of a project such as usable open space and active play areas, a Homeowners Association shall be established in accordance with the following provisions.

aa. The Homeowners Association shall be established as an incorporated, organization operating under recorded land agreements through which each lot owner (and any succeeding owner) is automatically a member, and each lot is automatically subject to a charge for a proportionate share of the expenses for the organization's activities. Additionally, specific provisions shall be established, which

define completely all membership requirements of all non-lot owners in the event rental units are included in the project.

bb. The Homeowners Association's Declaration of Covenants, Conditions, and Restrictions shall as a minimum establish the following:

aaa. Property Rights including the owner's easements of enjoyment and delegation of use.

bbb. Membership and Voting Rights including any distinction between membership classes.

ccc. Covenant for Maintenance Assessments including the creation of the lien and personal obligation of assessments, purpose of assessments, the maximum annual assessments, special assessments for capital improvements, uniform rate of assessment, due dates, effect of non-payment of assessments, and subordination of the lien to mortgages.

ddd. Architectural and Exterior Maintenance Control.

eee. General Provisions including enforcement, amendments, and property annexation procedures.

cc. The developer or owner shall assume all responsibilities for the Homeowners Association until seventy-five percent (75%) of the dwelling sites are sold or until such time as the Homeowner's formally assume such responsibility. Once the Homeowners Association is established, the developer or owner shall be responsible for payment of dues to the Homeowners Association for lots which he owns.

dd. Staged Developments: If the developer or owner proposes to construct the project over a period of separate stages, the Homeowners Association shall also be staged consistent with the development time schedule.

ee. Approval: The Township Supervisors shall retain the right to review and approve the articles of incorporation and all Declarations of Covenants, Conditions, and Restrictions of the Homeowners Association. (For the sake of consistency within the Township, it is recommended that the United States Department of Housing and Urban Development, Federal Housing Administration's Suggested Legal Documents for Planned Unit Developments, FHA Form 1400 and VA Form 26-8200 be consulted.)

E. COMMERCIAL LOTS: (Minimum requirements)

Minimum frontage - 200 feet
Minimum Depth - 200 feet
Minimum Area - 40,000 sq.ft.

Set-Backs:

Front Yard - 50 feet
Side Yard - 25 feet
Rear Yard - 50 feet

Maximum lot coverage by impervious area, including building and parking, will be 75%.

For lot area over 40,000 square feet, the general lot configuration shall not exceed two and one-half times the frontage for the depth as a maximum factor.

For all commercial and industrial business not conducted within a residence, the general standards above shall apply.

When on-lot sewer facilities are to be utilized, the minimum lot size may be increased by the Township Sewage Enforcement Officer or the Department of Environmental Resources for factors relating to health and sanitation.

F. SOIL ANALYSIS AND PERCOLATION TESTS: For each application, a soil analysis and percolation test shall be required by the Township on each proposed lot. From the results of these tests, the lot size shall be established large enough to provide for the specified minimum area required for the absorption field as prescribed in accordance with the requirements of the Pennsylvania Department of Environmental Resources; but in no case shall the lot size be less than that set forth in Section 902, Paragraph 5 and 6 of this Ordinance.

G. LOT DESIGN: Double fronting lots shall not be permitted. Lots shall be designed to have side-lines at approximately right angles or be radial to street lines so long as reasonably shaped lots result.

H. HOUSE NUMBERS: House numbers may be assigned to each lot by the Township in accordance with the approved Franklin County Plan.

SECTION 903: STREETS

A. STREET PATTERN: The arrangement, character, extent, width, grade and location of all streets shall conform to the Official Map and shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets.

When the streets are not shown on the Official Map, the following design standards shall be met for the arrangement of new streets: where reasonable and practical, new streets shall be laid out to continue existing streets at no reduction in width, or when adjoining areas are not subdivided, the arrangement of streets in a subdivision or land development shall make provisions for the proper projection of streets into such adjoining areas with considerations for drainage and extensions of public utilities.

B. STREET WIDTHS: Streets shall be designed with a minimum right-of-way of fifty (50) feet and a minimum paved cart way of twenty-two (22) feet in width; however, additional street width may be required as determined by the Township.

C. ALLEYS: No alleys will be permitted by the Township under this Ordinance.

D. STREET NAMES: Continuations of existing streets shall be known by the same name; but names of other streets shall not duplicate or closely resemble names for existing streets within the community and must be approved by the County Civil Defense Office.

E. DEAD END STREETS: Dead end streets are prohibited unless constructed as cul-de-sacs not exceeding 1200 feet in length, with a turn around having a diameter of 100 feet of which a minimum of 80 feet shall be paved.

F. CLEAR SIGHT DISTANCE: Clear sight distance along the centerline of streets shall be maintained at not less than 250 feet. For any streets intersecting existing major streets or highways, PennDOT's sight distance will prevail for the respective speed limit posted.

G. GRADES: There shall be a minimum centerline grade of 5/10th of one percent and a maximum of 10 percent.

H. HORIZONTAL CURVES: Changes in street direction by horizontal curves shall have a minimum radius of 200 feet, measured at the centerline. Shorter radii will be permitted on the recommendation of the Township Engineer.

I. CROWNS: The slope of the crown shall be between 1/8" and 1/3" per foot as directed by the Township Engineer.

J. VERTICAL CURVES: Changes in grade shall be joined by vertical curves; and the maximum rate of change of grade shall be seven percent per hundred feet of road, provided that the clear sight distances specified above are maintained at all points.

K. SIDE SLOPES: Streets cuts and fills shall be provided with side slopes no steeper than one vertical to three horizontal. Such slopes shall be suitably planted with perennial grasses or other vegetation to prevent gullying and erosion.

L. INTERSECTIONS: Street intersections shall be designed according to the following standards:

1. No more than two (2) streets shall cross at the same point. Street intersections shall be at right angles wherever possible, and intersections of less than sixty (60) degrees (measured at the centerlines of the streets) will not be permitted.

2. Intersecting streets shall not enter into the same side of collector or major streets at intervals of less than eight-hundred feet (800'0"). Minor streets entering another street from opposite sides should be directly opposite each other; or, if necessary, they may be separated by at least one-hundred fifty feet (150'0") between centerlines measured along the centerlines of the cross street. Greater off-set may be required by the Township Supervisors depending on the importance of the cross street.

3. Maximum grade within any intersection shall not exceed five percent in any direction, and approaches to any intersection shall follow a straight course within one-hundred feet (100'0") of the intersection.

4. Curb radii at intersections shall be according to the following schedule of minimum lengths: Fifteen feet (15'0") for intersections of alleys and all streets; twenty feet (20'0") for minor streets; and thirty feet (30'0") for major and collector streets. Where streets of different categories intersect, requirements for the larger radius shall hold. The minimum radius of intersecting rights-of-way lines shall be forty feet (40'0").

5. Except where buildings are permitted to front on property lines, a seventy-five foot (75'0") clear sight triangle shall be provided, in which no building or structure, wall, fence, hedge, tree, shrub or other growth over thirty inches (30") in height shall be placed except for utility poles, light standards, street signs and fire hydrants.

SECTION 904: STREET AND ROAD CONSTRUCTION

All streets and roads to be dedicated to the Township shall be paved with the use of a motor-paver and shall meet the following minimum standards:

1. Adequate surface and subsurface drainage shall be provided in accordance with approved plans.

2. All topsoil and unsuitable material shall be removed from the area to be paved.

A. SPECIFICATIONS FOR USING MOTOR-PAVER INSTALLING FB-1

1. There shall be installed a base to consist of six inches (6") of compacted stone, or as an alternate, four inches (4") of compacted shale and four inches (4") of compacted stone, under the paved surface of the cart way. A minimum of four inches (4") of compacted stone shall be installed in the shoulder of the road which shall extend four feet (4') on both sides of the pavement. All stone shall be 2-RC and 2-A modified. Supervisors shall approve base before FB-1 is applied.

2. The bituminous binder course shall be FB-1, a minimum compacted depth of three inches (3") using Number 57 PennDOT approved aggregate with a minimum of 5% by weight of E-5 emulsion for each ton of aggregate.

3. The bituminous wearing course shall be FB-1, a minimum compacted depth of one inch (1") using Number 8 PennDOT approved aggregate with a minimum of 6% by weight of E-5 emulsion for each ton of aggregate.

4. The binder and wearing course shall be tightly rolled with an 8 to 12 ton roller.

5. All road oil and aggregate used shall meet Pennsylvania Department of Transportation specifications as per (PUB No. 408, 1983).

6. Supervisors shall reserve the right to increase the percentage of Emulsion needed based on the condition of the aggregate used.

B. SPECIFICATIONS FOR USING MOTOR PAVING INSTALLING ID-2

1. There shall be installed a base to consist of six inches (6") of compacted stone or, an alternate, four inches (4") of compacted shale and four inches (4") of compacted stone under the paved surface of the cart way. A minimum of four inches (4") of compacted stone shall be installed in the shoulder of the road which shall extend four feet (4') on both sides of the pavement. All stone shall be 2-RC or 2-A modified. Supervisors shall approve base before ID-2 is applied.

2. The bituminous binder course shall meet ID-2, PennDOT standards as per Publication 408, Section 421. It shall be a minimum compacted depth of two inches (2").

3. The bituminous wearing course shall be ID-2, PennDOT standards per Publication 408, Section 420. It shall be a minimum compacted depth of one inch (1").

4. The binder and wearing course shall be tightly rolled with an 8 to 12 Ton Roller.

5. All Road Oil and Aggregate used shall meet Pennsylvania Department of Transportation specifications as per (Pub. No. 408, 1983).

6. Where curbs are required, the pavement shall extend from curb to curb and shall not be less than thirty-two feet (32') wide.

C. PRIVATE STREETS

When a private street or streets are proposed to serve not more than three (3) dwellings, there shall be installed a base to consist of 6" of compacted stone or as an alternate, eight inches (8") of compacted shale, a minimum of twenty feet (20') in width. Private streets serving more than three dwellings must be paved in accordance to specifications above.

SECTION 905: STANDARDS FOR SEWER AND WATER SYSTEMS

If a public sanitary sewer system in available (within five-hundred feet (500'0") of any part of the proposed subdivision, mobile home park or land development) the subdivider or developer shall design and install a system including laterals which shall be connected to the public system and which shall serve every property within the proposed project. All plans and installations shall be subject to the approval of Letterkenny Township Municipal Authority.

SECTION 906: DRIVEWAY PERMIT

No driveway shall be connected to any township road without first obtaining a driveway permit for an existing lot or subdivision approval for a new lot.

In the event the driveway connects to a State road, the applicant shall follow the procedures and comply with the requirements of PennDot.

In the event the drive connects to a Letterkenny Township road, the applicant shall present a drawing of the lot and the proposal and/or existing structure, the proposed drive in reference to the Township road on the form prescribed by the Township. The drawing shall be accompanied by the following information:

- posted speed limit;
- clear sight distance in either direction (which must comply with PennDot regulations, unless a lesser clear sight distance is approved by the Township Engineer);
- grade of the connecting roadway at intersection with proposed drive for a distance equal to the required clear sight distance;
- the driveway shall be marked on the site by use of a survey staple, with colored ribbon attached.

All applicants shall be reviewed and granted or denied by the Township Engineer.

The cost of each driveway permit shall be $35.00.

ARTICLE X

MOBILE HOME PARK REGULATIONS

SECTION 1000: PROCEDURE

No person, firm, or corporation shall construct, maintain, or operate a Mobile Home Park within the Township without obtaining a Mobile Home Park Permit from both Letterkenny Township and the Department of Environmental Resources. The procedures for reviewing mobile home park plans shall be the same as for subdivisions and land development plans in accordance with the provisions of this Ordinance. Unless specified in this Article, the design standards and improvement requirements for mobile home parks shall be the same as for subdivision and land development projects in accordance with the provisions of this Ordinance.

SECTION 1001: PLAN REQUIREMENTS

Prior to the issuance of a Mobile Home Park Permit, plans shall be submitted to and approved by the Township in accordance with the requirements and procedures of the Ordinance regarding pre-application consultation, Preliminary Plans, and Final Record Plans. In addition to the site plan information required elsewhere in this Ordinance, the following shall be provided on the plans:

A. The location and use of proposed buildings or structural improvements.

B. The location and design of all uses not requiring structures, such as, recreation areas and landscaping.

SECTION 1002: RENEWABLE PARK PERMIT

A. The Board of Supervisors may grant a Mobile Home Park Permit for a period not to exceed twelve (12) months from the date of approval of such permit which shall be renewable every twelve (12) months. The Board of Supervisors or its duly authorized representative shall inspect each Mobile Home Park prior to granting an annual permit for conformance with the provisions of this Ordinance and any other applicable regulations. The permit fee shall be established by the Board of Supervisors.

B. It shall be incumbent upon the proprietor of a Mobile Home Park to keep a register and to report therein the name of person or head of family occupying each said mobile home, showing the date of entry on said land, make and size of the mobile home, and the names of all persons living in said mobile home. Said register shall be subject to inspection periodically by the Board of Supervisors.

SECTION 1003: LOT REQUIREMENTS

A. Individual mobile home lots located in a mobile home park shall contain at least five thousand (5000) square feet of lot area and shall not be less than fifty (50) feet wide at the building set-back line; exclusive of easements or rights of way.

B. All mobile home lots shall be given street numbers and all park streets shall be given names.

SECTION 1004: YARD AND SET-BACK REQUIREMENTS

A. All mobile homes shall be located at least thirty-five (35) feet from any street right-of-way which abuts a mobile home park boundary and at least fifty (50) feet from any other boundary of the park.

B. There shall be a minimum distance of twenty-five (25) feet between individual mobile homes and adjoining pavement of a park street or common parking area or other areas.

C. No mobile home or patio on a mobile home lot shall be located closer than ten (10) feet to any internal lot line of the park.

SECTION 1005: PARK STREET SYSTEM

A. PARK ACCESS: Each mobile home park shall be provided with at least two (2) points of ingress and egress and a distance of at least one-hundred and fifty (150) feet shall be maintained between centerlines of access streets.

B. LOT ACCESS: All mobile home parks shall be provided with safe and convenient paved access streets to and from each and every mobile home lot. Alignment and gradient shall be properly adapted to topography.

C. STREETS: All streets within any mobile home park shall be designed with a minimum right-of-way of fifty (50) feet and a minimum cartway of twenty (20) feet with three (3) foot shoulder on each side and improved in accordance with Article IX, Sections 903 and 904.

D. INTERSECTIONS: Not more than two (2) streets shall intersect at any point and if not directly opposite from each other, a distance of at least one-hundred and fifty (150) feet shall be maintained between centerlines of offset intersecting streets.

SECTION 1006: REQUIRED OFF-STREET PARKING

A. Off-street parking areas shall be provided in all mobile home parks for the use of park occupants and guests. Such areas shall be furnished at the rate of at least two (2) vehicular spaces for each mobile home lot.

B. Each off-street parking space shall contain at least two-hundred (200) square feet and shall not exceed a distance of one hundred and fifty (150) feet from the mobile home lot that it is to serve.

SECTION 1007: UTILITY IMPROVEMENTS

A. SEWER AND WATER: All mobile homes shall be connected to sewer and water systems approved by the Department of Environmental Resources and the Township Municipal Authority.

B. ELECTRICAL DISTRIBUTION: All mobile home parks shall have underground electrical distribution systems which shall be installed and maintained in accordance with the local electric power company's specifications regulating such system.

C. NATURAL GAS SYSTEMS: Any natural gas system shall be installed and maintained in accordance with the regulations and specifications of the company supplying said natural gas.

D. LIQUIFIED PETROLEUM GAS SYSTEM: Liquified petroleum gas systems provided for mobile homes, service buildings or other structures shall include the following:

1. Systems shall be provided with safety devices to relieve excessive pressures and shall be arranged so that the discharge terminates at a safe location.

2. Systems shall have at least one (1) accessible means for shutting off gas. Such means shall be located outside the mobile home and shall be maintained in effective operating condition.

3. All LPG piping outside of the mobile homes shall be well supported and protected against mechanical injury. Undiluted liquified petroleum gas in liquid form shall not be conveyed through piping equipment and systems in mobile homes.

4. Any vessel containing liquified petroleum gas shall be securely but not permanently fastened to prevent accidental overturning.

5. No LPG vessel shall be stored or located inside or beneath any storage cabinet, carport, mobile home, or any other structure unless such installations are specifically approved by the Township.

E. FUEL OIL SUPPLY SYSTEMS: All fuel oil supply systems provided for mobile homes, service buildings and other structures shall be installed and maintained in conformity with the following regulations:

1. All piping from outside fuel storage tanks or cylinders to mobile homes shall be securely, but not permanently, fastened in place.

2. All fuel oil supply systems provided for mobile homes, service buildings and other structures shall have shutoff valves located within five (5) inches of storage tanks.

3. All fuel storage tanks or cylinders shall be securely placed and shall not be closer than ten (10) feet from any mobile home exit.

4. Storage tanks located in areas subject to traffic shall be protected against physical damage.

SECTION 1008: USABLE OPEN SPACE

A. All mobile home parks provide not less than ten (10) percent of the total land area for usable open space purposes. Usable open space shall be so located as to be free of traffic hazards and should, where the topography permits, be centrally located and easily accessible to all park residents.

B. Exposed ground surfaces in all parts of every park shall be paved or covered with stone screenings, and other solid material, or protected with a vegetation growth that is capable of preventing soil erosion and the emanation of dust during dry weather.

C. Park grounds shall be maintained free of vegetation growth which is poisonous or which may harbor rodents, insects, or other pests harmful to man.

SECTION 1009: SCREENING

Screening as defined herein shall be provided by the developer along all of the property and street boundary lines separating the park from adjacent uses, excepting the public street or road.

SECTION 1010: WALKWAYS

A common walk system shall be provided and maintained between locations where pedestrian traffic is concentrated. Such common walks shall have a width of four (4) feet.

SECTION 1011: OTHER SITE IMPROVEMENTS

A. One (1) fire alarm box or public telephone shall be provided for each mobile home park. A dry chemical fire extinguisher, not less than five (5) pounds in capacity, in working condition, shall also be provided in each mobile home.

B. Provision shall be made by the Park Operator to have garbage and waste collected at least once every week.

C. Each mobile home lot may be provided with a concrete slab which shall be at least four (4) inches thick on a stable surface no larger than ten (10) feet by thirty (30) feet in size for use as a patio and so located as to be adjoining and parallel to the mobile home. Such slab shall contain an electrical outlet to which the electrical system of the mobile home shall be connected.

D. Individual tenants at the mobile home park may construct attached enclosures or covered patios to individual mobile homes, provided that such enclosure does not exceed the slab area noted in Section 1011, Paragraph C above and is confined to same.

E. An enclosure of compatible design and material shall be erected around the entire base of each mobile home. Such enclosure shall provide sufficient ventilation to inhibit decay and deterioration of the structure.

F. All means of ingress, egress, walkways, streets and parking lots shall be adequately lighted.

SECTION 1012: PARK AREAS FOR NON-RESIDENTIAL USES

A. No part of any mobile home park shall be used for a non-residential purpose, except such uses that are required for the direct servicing and well being of park residents and for the management and maintenance of the park.

B. Nothing contained in this section shall be deemed as prohibiting the sale of a mobile home located on an individual lot and connected to the pertinent utilities.

SECTION 1013: EXISTING MOBILE HOME PARKS

The operators of existing mobile home parks shall have six (6) months from the date of enactment of this Ordinance to comply with the provisions of the Ordinance and to obtain a permit or to apply for an exception where such compliance would be undue hardship.

SECTION 1014: ANCHORING

A. Every mobile home shall be firmly anchored to withstand a lateral wind pressure of fifteen (15) pounds per square foot.

B. The dead load resisting moment of a mobile home shall not be less than one and one-half (1 1/2) times the overturning moment due to wind and other lateral forces. The foundation and superimposed earth loads may be included provided the anchorage is sufficient to develop these weights. The Township Engineer shall determine the sufficiency of the method of anchorage.

ARTICLE XI

LAND DEVELOPMENTS INVOLVING SANITARY LANDFILLS OR SURFACE MINING OPERATIONS

SECTION 1100:

All sanitary landfills and surface mining operations shall have minimum lot area of one-thousand (1000) acres. The area utilized for landfill operations shall have a minimum setback line of one-thousand (1000) feet from any street, road, vehicular or pedestrian right-of-way, adjacent property line or stream, creek, or other flowing body of water.

Fencing and Vegetative Screening:

All sanitary landfills and surface mining operations shall be enclosed by a high chain link fence and said fence shall be screened from view on all perimeters by vegetative screening. Vegetative screening shall consist of trees, a hedge, or vegetative material at least eight (8) feet in height and of a density to conceal from the view of adjacent property owners and the general public the fence enclosing the perimeter and the structure and uses on the premises.

Environmental Impact:

No subdivision or land development plan shall be approved for the operation of a sanitary landfill or surface mining operation in Letterkenny Township, Franklin County, Pennsylvania, if such subdivision or land development plan shall reveal that the operation of the landfill is either bordered by, or has passing through it, a creek, run, stream, or other moving body of water into which drainage, surface runoff, leachate, sediment, or effluent will be deposited.

Construction of Landfills:

All landfills shall be constructed so as to insure that no liquid or solid waste or product thereof shall escape from the area utilized for landfill operations for a period twenty (20) years from the time of deposit of the material on the site.

Change in Topography:

No landfill, surface mining operation or shale or slate excavating operation shall be permitted to permanently alter the natural grade or topography by more than +/- 12 feet.

Liability Insurance:

The owner and/or operator of any sanitary landfill or surface mining operation shall provide evidence of liability insurance in an amount of not less than one million dollars ($1,000,000) covering damage to property and personal injury which may be caused by the operation or maintenance of the facility.

ARTICLE XII

TOWNSHIP REVIEW FEE FOR SUBDIVISION AND LAND DEVELOPMENT; TOWNSHIP ENGINEERING FEE

SECTION 1200: TOWNSHIP REVIEW FEE FOR SUBDIVISION AND LAND DEVELOPMENT

At the time of application for subdivision approval or for approval of land development, by submission or a preliminary plan, or a final plan, for any tract of land located totally or partially within the boundaries of Letterkenny Township, the applicant shall pay to the Township, a fee, as listed below, for the cost to the Township for review of such plan and any relevant data pertaining thereto. The review fee is payable for township review and is not contingent in any way upon approval for disapproval of the plan submitted. The review fee shall cover both preliminary and final plans. The review fee shall be determined on the basis of the following schedule:

SUBDIVISION

First lot $10; each additional lot, $1.50 per lot.

LAND DEVELOPMENT

$3.00 per acre, 1 to 10 acres inclusive; plus
$1.50 per acre, 10 to 50 acres inclusive; plus
$1.00 per acre, 50 to 100 acres inclusive; plus
$ .50 per acre, over one hundred acres.

SECTION 1201: TOWNSHIP ENGINEERING FEE

Subsequent to submission of the preliminary plan, and in no event later than ten days prior to the time the township will consider the final plan for approval or disapproval, the township shall notify the applicant in writing that the applicant must file with the township a check, payable to the township, for an amount recommended by the township engineer, and approved by the township, which will be sufficient to cover the cost of: (1) Reviewing the plan's engineering details. (2) Inspecting the layout of the site for conformance to the plan. (3) Reviewing the results of perculation tests. (4) Preparing cost estimates of required improvements for bonds or other purposes. (5) Inspecting required improvements during installation. (6) Final inspection of the required improvements. (7) Review of storm water management facilities design.

In the event the applicant objects to or is dissatisfied with the amount of the township engineering fee as determined by the township, the applicant shall forward specific written objections to the township within ten days of receipt of demand from the township for the payment of the township engineering fee. The township Board of Supervisors shall review the written objections of the applicant, and forthwith, notify the applicant in writing of its determination.

In no event, shall the township engineering fee to be charged to the applicant exceed the fee set forth in the original notice to the applicant.

SECTION 1202: FRANKLIN COUNTY PLANNING COMMISSION FEE

Each application for subdivision or land development plan approval submitted to the township of Letterkenny shall also be accompanied by a check from the applicant made payable to the County Planning Commission in the amount of the fee which the commission may impose from time to time for review of plans and related documents.

ARTICLE XIII

STORM WATER MANAGEMENT

SECTION 1300: PURPOSES AND SCOPE

A. The specific purpose of these provisions is:

1. To plan and manage storm water runoff in each water shed consistent with the Franklin County's official storm water management plan, or as determined by the Township.

2. To regulate the subdivision, mobile home parks, and/or development of land within any designated watershed in a manner consistent with the Franklin County's official storm water management plan, or as determined by Letterkenny Township, as set forth herein.

3. To protect the life and property of homeowners located downstream and out of the designated flood zone.

4. To maintain and restore the flood carrying capacity of streams.

5. To protect and conserve groundwater and groundwater recharge area.

6. To protect the "Water of the Commonwealth" from excessive sedimentation resulting from development of land and earthmoving activities.

B. Scope:

A Storm Water Management Plan shall be required for each subdivision or land development plan at both the preliminary and final plan submittal stage. As an intergal part of the SWMP, Erosion and Sedimentation Control measures shall be included.

SECTION 1301: APPLICATION PROCEDURES AND REQUIREMENTS

Preapplication Procedures:

A. Prior to the preparation of any plans, the prospective developer or subdivider shall consult any applicable County storm water management plan in conjunction with the requirements set forth in this Ordinance.

B. Prospective subdivider or developers shall consult the County Conservation District representative to determine the most effective erosion and sedimentation control measures to be utilized on the development site.

SECTION 1302: PRELIMINARY PLAN REQUIREMENTS FOR STORM WATER MANAGEMENT

A. Content: The SWMP shall contain the following:

1. A general description of the proposal project.

2. Project location on a 7.5 minute USGS map or equivalent.

3. A map showing:

   a. The location of the proposed subdivision and/or land development, or mobile home park development.

   b. The one hundred (100) year flood elevation, or municipality's designated 100-year flood prone area.

   c. Streams, swales, and drainage patterns both existing and proposed.

   d. Project size and lot dimensions.

   e. Proposed storm water management plan.

   f. Areas subject to special deed restrictions affecting storm water management, and a copy of deed restrictions in form for recording.

   g. Scope.

   h. Contours of existing and proposed final development elevations at intervals of 1 foot. In areas containing steep slopes (greater than 15%), 5-foot contour intervals shall be used.

   i. Locations of all buildings, roads, utility lines, structures, and culverts (existing and proposed).

   j. Storm water management control devices, both existing and proposed.

   k. That part of the watershed up-slope of the subdivision.

   l. The area affected down-slope of the subdivision by storm water runoff.

4. Topographic features of the site and adjacent roads that are considered to impact upon the storm water management design.

5. Runoff calculations and related design computations of the total drainage basin necessary to substantiate the proposed temporary and permanent storm water management facilities.

6. Design and specifications of temporary and permanent storm water management facilities.

7. Staging or Implementation Schedule for constructing the proposed storm water control system.

8. Maintenance and Ownership provisions.

B. Design Standard Computations for determining storm water runoff and for the design of storm water management facilities shall be based upon the Soil-Cover-Complex method described in TR-55, Urban Hydrology for Small Watersheds and based upon the following standards:

1. All pre-development calculations shall be based upon existing land use features, excepting however that agricultural uses shall be categorized by the following descriptions: Cultivated Land with Conservation Treatment; Pasture, Good Condition; Meadow, Good Condition; Farmstead; Pre-development stormwater runoff shall be calculated for a ten year storm event.

2. Release rates from structures shall be based on the runoff from the ten year predevelopment storm event.

3. Storage structures shall be designed such that the post development ten year peak discharge will not exceed the predevelopment ten year peak discharge for the primary outlet structure.

4. All storage structures or facilities will be designed with emergency spillways sufficient to handle the 25-year post development storm event.

5. Culverts, pipes, and other water carrying structures shall be designed to handle the peak discharge from the ten-year post development storm event.

6. The SWMP shall include calculations indicating velocities of flow, grades, sizes, and capacities of water carrying structures, debris or sediment basins, and retention and detention ponds and sufficient design information to construct such facilities.

7. Storm water runoff shall be based on the following 24-hour storm events:

STORM FREQUENCY	INCHES OF RAINFALL
2 years	2.9 inches
5 years	3.8 inches
10 years	4.8 inches
25 years	5.1 inches
50 years	5.9 inches
100 years	6.4 inches

8. Maximum permitted velocities are as follows:

   a. Three (3) feet per second where only sparse vegetation can be established.

   b. Four (4) feet per second under normal condition where vegetation can be established by seeding.

   c. Five (5) feet per second where a dense vigorous sod can be quickly established or where water can be temporarely diverted during establishment of vegetation.

   d. Six (6) feet per second where well established sod is in existence.

e. For lined water carrying channels the following velocities are required:

aa. 6-inch rock rip-rap up to 4 feet per second
bb. 9-inch rock rip-rap up to 8 feet per second
cc. Asphalt up to 7 feet per second
dd. Durable Bedrock up to 8 feet per second
ee. 12-inch rock rip-rap up to 9 feet per second
ff. Concrete or steel up to 12 feet per second
gg. The normal maximum velocity of open channels flows-shall not exceed 10 feet per second.

9. Energy dissipators shall be placed at the outlets of all pipes where flow velocities exceed maximum permitted channel velocities.

10. Vertical pipes, inlets and other surface water receiving structures shall be installed with trash racks which can be easily maintained.

11. Storm water runoff channels shall be designed and installed to avoid trapping excess sediment.

12. The rate of runoff after development must not exceed the rate of runoff before development.

13. The storm water management plan must consider the management of all storm water runoff flowing over the development site.

14. All storm water runoff retention and detention controls shall be designed by an individual qualified and experienced in the design of storm water management structures.

15. Storm water roof drains and pipes may discharge water into cisterns, French drains, sheet drains or any other storm water runoff dispersion and absorption control devices, when not part of a storm water collection system.

C. Erosion and Sedimentation: Control measures shall be in accordance with the applicable standards and specifications set forth in the "Soil Erosion and Sedimentation Control" handbook as prepared by the Franklin County Soil Conservation District.

D. Ownership and Maintenance Program: Each SWMP shall contain provisions which clearly set forth the ownership and maintenance responsibility of all permanent storm water management facilities. Including:

1. Description of Maintenance Requirements.

2. Establishment of suitable easements for access to all facilities.

3. Identification of the responsible party or entity for ownership and maintenance of both temporary and permanent storm water management erosion control facilities. In meeting this requirements, the following priority is herein established.

   a. As a first priority, the facilities should be incorporated within individual lots so that the respective lot owners will own and be responsible for maintenance in accordance with recorded deed restrictions.

   b. As a second priority, in the event the first priority cannot be achieved, ownership and maintenance should be the responsibility of a Home Owners Association. The stated responsibilities of the Home Owners Association in terms of owning and maintaining the storm water management facilities shall be submitted with final plans for determination of their adequacy, and upon their approval shall be recorded with the approved subdivision plan among the deed records of Franklin County, Pennsylvania. In addition, the approved subdivision plan and any deed written from said plan for a lot or lots shown herein shall contain a condition that it shall be mandatory for the owner or owners of said lot to be members of said Home Owners Association.

   c. The Township, its agents, and employees shall have the right to enter all lands where storm water management and erosion and sedimentation control structures are located for the purpose of inspecting said facilities.

   d. Municipal Ownership. Where municipal ownership is requested by the applicant, the following shall be provided by the applicant:

      aa. Easements to all facilities.

      bb. A financial resource acceptable to the Township to defray 100% of the maintenance cost for a period of at least 10 years, as agreed to by the Township.

SECTION 1303: FINAL PLAN REQUIREMENT

The following information shall be required as part of the final plan:

A. All information required for the submission of the preliminary plan incorporating any changes required by this Ordinance or State Law, or made by the developer.

B. All required permits or letters stating such permits will be issued pending municipality approval from the Department of Environmental Resources, Pennsylvania Department of Transportation, Public Utility Commission, Department of Community Affairs, or other state agency, if so applicable.

C. The developer shall either have fully constructed the SWMP controls or provide a performance bond or financial guarantee for storm water management and erosion and sedimentation controls. The guarantee shall be sufficient to cover the cost of installing and repairing the controls and the secondary cost to the municipality. The financial guarantee shall be determined in accordance with Act No. 230 or 231 (as appropriate) of 1980.

D. All deed restrictions, easements and rights-of-way shall be included in the final recorded plan.

SECTION 1304: REVIEW FEE

The fee for review of the storm water management and the erosion and sedimentation control portions of the subdivision plan shall be governed by Article XII, Section 1201.

SECTION 1305: WAIVER OF PLAN REQUIREMENTS

No storm water management plan shall be required for residential subdivisions or land developments which consist of 2 lots or less on 2 acres or less. Subdivisions or land developments involving only single family dwellings which consist of less than 5 lots on less than 4 acres may apply to the township engineer for a waiver of any requirement in Article XIII. The determination of the township engineer shall be final.

ARTICLE XIV

ENFORCEMENT, PENALTIES, SEVERABILITY AND ADOPTION

SECTION 1400: ENFORCEMENT

It shall be the duty of the Building Inspector, Zoning Officer, or other such duly authorized representative of the Board of Supervisors to enforce the provisions of this Ordinance. Said enforcement officer shall require that the application for a building permit contain all information necessary to enable him to ascertain whether the proposed building, alteration or use is located in an approved subdivision or land development. No building permit shall be issued until the Enforcement Officer has certified that the site for the proposed building, alteration, or use complied with all of the provisions of this Ordinance and conforms to the site description as indicated on the approved and recorded Final Plat.

SECTION 1401: APPEALS TO COURT

The decisions of the Board of Supervisors or the Planning Commission with respect to the approval or disapproval of plans may be appealed in accordance with the law.

SECTION 1402: PENALTIES

Any person, partnership, or corporation who or which being the owner or agent of the owner of any lot, tract or parcel of land shall lay out, construct, open or dedicate any street, sanitary sewer, storm sewer, water main or other improvements for public use, travel or other purposes or for the common use of occupants of buildings abutting thereon, or who sells, transfers or agrees or enters into an agreement to sell any land in a subdivision or land development whether by reference to or by other use of a plat of such subdivision or land development or erect any building thereon, unless and until final plat has been prepared in full compliance with the provisions of this Ordinance and of the regulations adopted thereunder and has been recorded as provided herein, shall be guilty of a misdemeanor and, upon conviction thereof, such person or the members of such partnership or the officers of such corporation or the agent of any of them responsible for such violation pay a fine not exceeding one thousand dollars ($1000.00) per lot or parcel or per dwelling within each lot or parcel. All fines collected for such violations shall be paid over to the municipality. The description of metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the seller or transferer from such penalties or from the remedies herein provided.

SECTION 1403: REPEALER

All ordinances or parts of ordinances inconsistent herewith are hereby repealed. Nothing in this ordinance hereby adopted shall be construed to affect any suit or proceeding now pending in any court or any rights accrued or liability incurred or any cause or caused of action accrued or existing under any ordinance repealed by this Ordinance. Nor shall any right or remedy of any character be lost, impaired or affected by this Ordinance.

TOWNSHIP OF LETTERKENNY

Franklin County, Pennsylvania

ORDINANCE NO. 1980 - 1

AN ORDINANCE

OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF LETTERKENNY, FRANKLIN COUNTY, PENNSYLVANIA, REQUIRING ALL OWNERS OF IMPROVED PROPERTY LOCATED WITHIN THIS TOWNSHIP AND ACCESSIBLE TO AND WHOSE PRINCIPAL BUILDING IS WITHIN 150 FEET FROM THE SEWER SYSTEM TO BE ACQUIRED AND TO BE CONSTRUCTED BY LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY TO CONNECT SUCH IMPROVED PROPERTY WITH AND TO USE SUCH SEWER SYSTEM; REGULATING THE MANNER OF MAKING SUCH CONNECTIONS; AUTHORIZING THIS TOWNSHIP TO MAKE CONNECTIONS AT THE COST AND EXPENSE OF ANY OWNER OF IMPROVED PROPERTY FAILING TO MAKE SUCH CONNECTION; ADOPTING CERTAIN RULES AND REGULATIONS AND PROVIDING FOR ADOPTION OF ADDITIONAL RULES AND REGULATIONS; PROHIBITING THE CONNECTION OF PRIVY VAULTS, CESSPOOLS, SINKHOLES, SEPTIC TANKS AND SIMILAR RECEPTACLES TO ANY SEWER; PROHIBITING THE MAINTENANCE OF CERTAIN RECEPTACLES AND REQUIRING ABANDONMENT THEREOF WHERE A SEWER IS AVAILABLE; SETTING FORTH RELATED MATTERS; AND PRESCRIBING PENALTIES FOR VIOLATIONS.

The Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, enacts and ordains as follows:

ARTICLE I

DEFINITIONS

SECTION 1.01. Unless the context specifically and clearly indicates otherwise, the meaning of terms and phrases used in this Ordinance shall be as follows:

A. "Authority" shall mean Letterkenny Township Municipal Authority, a municipality authority of the Commonwealth.

B. "Building Sewer" shall mean the extension from the sewage drainage system of any structure to the Lateral of a Sewer and shall include any existing sewer line which shall continue as part of a Building Sewer.

C. "Commonwealth" shall mean the Commonwealth of Pennsylvania.

D. "Improved Property" shall mean any property within this Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Sanitary Sewage and/or Industrial Wastes shall be or may be discharged.

E. "Industrial Establishment" shall mean any Improved Property located within this Township and used or intended for use, wholly or in part, for the manufacturing, processing, cleaning, laundering or assembling of any product, commodity or article, or any other Improved Property located within this Township from which wastes, in addition to or other than Sanitary Sewage, shall be discharged.

F. "Industrial Wastes" shall mean any and all wastes discharged from an Industrial Establishment other than Sanitary Sewage.

G. "Lateral" shall mean that part of the Sewer System extending from a Sewer to the curb line or, if there shall be no curb line, to the property line or, if no such Lateral shall be provided, then "Lateral" shall mean that portion of, or place in, a Sewer which is provided for connection of any Building Sewer.

H. "Owner" shall mean any Person vested with ownership, legal or equitable, sole or partial, of any Improved Property.

I. "Person" shall mean any individual, partnership. company, association, society, trust, corporation or other group or entity.

J. "Sanitary Sewage" shall mean normal water-carried household and toilet wastes from any Improved Property, including such ground, surface or storm water as may be present.

K. "Sewer" shall mean any pipe or conduit constituting a part of the Sewer System used or usable for sewage collection purposes.

L. "Sewer System" shall mean all facilities, as of any particular time, for collecting, pumping, transporting, treating and disposing of Sanitary Sewage and/or Industrial Wastes situate in or adjacent to this Township and owned by the Authority.

M. "Street" shall mean and shall include any street, road, lane, court, cul-de-sac, alley, public way or public square.

N. "Township" shall mean the Township of Letterkenny, Franklin County, Pennsylvania, a municipal subdivision of the Commonwealth, acting by and through its Board of Supervisors or, in appropriate cases, acting by and through officials or employees empowered to so act by the Board of Supervisors.

ARTICLE II

USE OF PUBLIC SEWERS REQUIRED

SECTION 2.01. The Owner of any Improved Property accessible to and whose principal building is within 150 feet from the Sewer System acquired or constructed by the Authority shall connect such Improved Property with and shall use such Sewer System, in such manner as may be required, within 60 days after notice to such Owner from this Township to make such connection, for the purpose of discharge of all Sanitary Sewage and Industrial Wastes from such Improved Property; subject, however, to such limitations and restrictions as shall be established herein or otherwise shall be established by this Township from time to time.

SECTION 2.02. All Sanitary Sewage and Industrial Wastes from any Improved Property, after connection of such Improved Property with a Sewer, shall be required, under Section 2.01. to be conducted into a Sewer; subject, however, to such limitations and restrictions as shall be established herein or otherwise shall be established by this Township from time to time.

SECTION 2.03. No Person shall place, shall deposit or shall permit to be placed or to be deposited upon public or private property within this Township any Sanitary Sewage or Industrial Wastes in violation of Section 2.01.

No Person shall discharge or shall permit to be discharged to any natural outlet within this Township any Sanitary Sewage or Industrial Wastes in violation of Section 2.01, except where suitable treatment has been provided which is satisfactory to this Township and appropriate state and federal agencies.

SECTION 2.04. No privy vault, cesspool, sinkhole, septic tank or similar receptacle shall be used or shall be maintained at any time upon any Improved Property which has been connected to a Sewer or which shall be required under Section 2.01 to be connected to a Sewer.

Every such privy vault, cesspool, sinkhole, septic tank or similar receptacle in existence shall be abandoned and, at the discretion of this Township, shall be cleansed and shall be filled, at the expense of the Owner of such Improved Property, under the direction and supervision of this Township; and any such privy vault, cesspool, sinkhole, septic tank or similar receptacle not so abandoned and, if required by this Township, not cleansed and filled, shall constitute a nuisance, and such nuisance may be abated, as provided by law, at the expense of the Owner of such Improved Property.

SECTION 2.05. No privy vault, cesspool, sinkhole, septic tank or similar receptacle at any time shall be connected with a Sewer.

SECTION 2.06. The notice by this Township to make a connection to a Sewer, referred to in Section 2.01, shall consist of a copy of this Ordinance, including any amendments and/or supplements at the time in effect, or a summary of each Section hereof, and a written notification requiring the connection in accordance with the provisions of this Ordinance and specifying that such connection shall be made within 60 days after the date such notice is given or served. Such notice may be given or served at any time after a Sewer is in place which can receive and can convey Sanitary Sewage and Industrial Wastes for treatment and disposal from the particular Improved Property. Such notice shall be given or served upon the Owner in accordance with law.

ARTICLE III

BUILDING SEWERS AND CONNECTIONS

SECTION 3.01. No Person shall uncover, shall connect with, shall make any opening into or shall use, shall alter or shall disturb, in any manner, any sewer or any part of the Sewer System without first obtaining a permit from the Authority.

SECTION 3.02. All Building Sewers and connections shall conform to and be governed by the rules, regulations and specifications adopted by the Authority.

Section 3.03. Application for a permit required under Section 3.01 shall be made by the Owner of the Improved Property served or to be served or by the duly authorized agent of such Owner.

SECTION 3.04. No Person shall make or shall cause to be made a connection of any Improved Property with a Sewer until such Person shall have fulfilled each of the following conditions:

A. Such Person shall have notified the Authority of the desire and intention to connect such Improved Property to a Sewer.

B. Such Person shall have applied for and shall have obtained a permit as required by Section 3.01.

C. Such Person shall have given the Authority at least 24 hours notice of the time when such connection will be made so that the Authority may supervise and inspect the work of connection and necessary testing.

D. Such Person shall have furnished satisfactory evidence that any tapping (or connection) fee charged and imposed by the Authority against the Owner of each Improved Property who connects such Improved Property to a Sewer has been paid.

SECTION 3.05. All costs and expenses of construction of a Building Sewer and all costs and expenses of connection of a Building Sewer to a Sewer shall be borne by the Owner of the Improved Property to be connected; and such Owner shall indemnify and shall save harmless this Township and the Authority from all loss or damage that may be occasioned, directly or indirectly, as a result of construction of a Building Sewer or of connection of a Building Sewer to a Sewer.

SECTION 3.06. A Building Sewer shall be connected to a Sewer at the place designated by the Authority.

SECTION 3.07. If the Owner of any Improved Property abutting on or adjoining any Street in which a Sewer constituting part of the Sewer System is located, after 60 days notice from this Township requiring the connection of such property to the Sewer System, shall fail to connect such Improved Property, as required, this Township may make such connection and may collect from such Owner the costs and expenses thereof by a municipal claim, an action in assumpsit or such other legal proceeding as may be permitted by law.

SECTION 3.08. Every Building Sewer hereafter constructed shall meet standards of construction and conditions imposed by the Authority, duly adopted and promulgated. No Building Sewer hereafter constructed or uncovered shall be covered until it has been inspected and approved by the Authority. If any part of a Building Sewer hereafter constructed or uncovered is covered before so being inspected or approved, it shall be uncovered for inspection, at the cost and expense of the Owner of the Improved Property to be connected to a Sewer.

SECTION 3.09. Every Building Sewer of any Improved Property shall be maintained in a sanitary and safe operating condition by the Owner of such Improved Property.

SECTION 3.10. Every excavation for a Building Sewer shall be guarded adequately with barricades and lights to protect all Persons from damage and injury. Any street, sidewalk and other public property disturbed in the course of installation of a Building Sewer shall be restored, at the cost and expense of the Owner of the Improved Property being connected, in a manner satisfactory to this Township.

ARTICLE IV

ENFORCEMENT

SECTION 4.01. Any Person who shall violate this Ordinance shall be liable, upon summary conviction for a first offense and upon summary conviction for each subsequent offense, to a fine of not less than $50.00 nor more than $100.00, together with costs of prosecution in each case. Each day that a violation shall continue shall be deemed and shall be taken to be a separate offense and shall be punishable as such.

SECTION 4.02. Fines and costs imposed under provisions of this Ordinance shall be enforceable and recoverable in the manner at the time provided by law.

ARTICLE V

EFFECTIVE DATE

SECTION 5.01. This Ordinance shall become effective in accordance with law.

ARTICLE VI

SEVERABILITY

SECTION 6.01. In the event any provision, section, sentence, clause or part of this Ordinance shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause or part of this Ordinance, it being the intent of this Township that such remainder shall be and shall remain in full force and effect.

ARTICLE VII

DECLARATION OF PURPOSE

SECTION 7.01. It is declared that enactment of this Ordinance is necessary for the protection, benefit and preservation of the health, safety and welfare of inhabitants of this Township.

ARTICLE VIII

REPEALER

SECTION 8.01. All ordinances or parts of ordinances and all resolutions or parts of resolutions which are inconsistent with this Ordinance shall be and the same expressly are repealed.

DULY ENACTED AND ORDAINED this 10th day of November, 1980, by the Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, in lawful session duly assembled.

ATTEST:

TOWNSHIP OF LETTERKENNY
Franklin County, Pennsylvania

Beverly J. Babb
Secretary

By: Ross E. Gault
Chairman of the
Board of Supervisors

(SEAL)

CERTIFICATE

I, the undersigned, Secretary of the Township of Letterkenny, Franklin County, Pennsylvania (the "Township"), certify that: the foregoing is a true and correct copy of an Ordinance which duly was enacted by the Board of Supervisors of the Township, in accordance with law, at a public meeting duly held on November 10, 1980; said Ordinance has been certified and recorded by me, as Secretary of the Township, in the book provided for the purpose of such recording; said Ordinance, upon enactment, as aforesaid, was assigned Ordinance No. 1980 - 1; said Ordinance has been advertised as required by law; and said Ordinance has not been amended, altered or repealed, as of the date of this Certificate.

IN WITNESS WHEREOF, I set my hand and affix the official seal of the Township this 10th day of November, 1980.

Beverly J. Babb

Beverly Babb
Township Secretary

(SEAL)

ORDINANCE NO. 1 - 1974

AN ORDINANCE ESTABLISHING PROCEDURES FOR THE USE AND MAINTENANCE OF HOLDING TANKS, IN LETTERKENNY TOWNSHIP, FRANKLIN COUNTY, PENNSYLVANIA; AND PROVIDING PENALTIES FOR THE VIOLATION THEREOF.

BE IT ORDAINED AND ENACTED by the Supervisors of Letterkenny Township, Franklin County Pennsylvania, and it is hereby ordained and enacted by authority of the same.

Section 1.

Purpose. The purpose of this Ordinance is to establish procedures for the use and maintenance of holding tanks designed to receive and retain sewage whether from residential or commercial uses and it is hereby declared that the enactment of this Ordinance is necessary for the protection, benefit and preservation of the health, safety and welfare of the inhabitants of this Township.

Section 2.

Definitions. Unless the context specifically and clearly indicates otherwise, the meaning of terms used in this Ordinance shall be as follows:

A. "Authority" shall mean Letterkenny Township Municipal Authority, a Pennsylvania municipal authority.

B. "Holding Tank" means a watertight receptacle which receives and retains sewage and is designed and constructed to facilitate ultimate disposal of the sewage at another site. Holding tanks include but are not limited to the following:

1. "Chemical Toilet" which is a toilet using chemicals that discharge to a holding tank.

2. "Retention Tank" which is a holding tank where sewage is conveyed to it by a water carrying system.

3. "Vault Pit Privy" which is a holding tank designed to receive sewage where water under pressure is not available.

C. "Improved Property" shall mean any property within the Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings and from which structure sewage shall or may be discharged.

D. "Owner" shall mean any person vested with ownership, legal or equital sole or partial, of any property located in the Township.

E. "Person" shall mean any individual, partnership, company, associatio corporation or other group or entity.

F. "Sewage" shall mean any substance that contains any of the waste products or excrement or other discharge from the bodies of human beings and any noxious or deleterious substance being harmful or inimical to the public health, or to animal or aquatic life or to the use of water for domestic water supply or for recreation.

G. "Township" shall mean Letterkenny Township, Franklin County, Pennsylvania.

Section 3.

Rights and privileges granted. That the Authority is hereby authorized and empowered to undertake within the Township the control and methods of holding tank sewage disposal and the collection and transportation thereof.

Section 4.

Rules and Regulations. That the Authority is hereby authorized and empowered to adopt such rules and regulations concerning sewage which it may deem necessary from time to time to effect the purposes herein.

Section 5.

Rules and Regulations to be in Conformity with Applicable Law. All such rules and regulations adopted by the Authority shall be in conformity with the provisions herein, all other Ordinances of the Township, and all applicable laws, and applicable rules and regulations of administrative agencies of the Commonwealth of Pennsylvania.

Section 6.

Rates and Charges. The Authority shall have the right and power to fix, alter, charge and collect rates, assessments, and other charges in the area served by its facilities at reasonable and uniform rates as authorized by applicable law.

Section 7.

Exclusiveness of Rights and Privileges. The collection and transportation of all sewage from any improved property utilizing a holding tank shall be done solely by or under the direction and control of the Authority, and the disposal thereof shall be made only at such site or sites as may be approved by the Department of Environmental Resources of the Commonwealth of Pennsylvania.

Section 8.

Duties of Improved Property Owner. The owner of an improved property that utilizes a holding tank shall:

A. Maintain the holding tank in conformance with this or any Ordinance of this Township, the provisions of any applicable law, and the rules and regulations of the Authority and any administrative agency of the Commonwealth of Pennsylvania.

B. Permit only the Authority or anyone acting under the direction of the Authority to collect, transport, and dispose of the contents therein.

Section 9.

Violations. Any person who violates any provisions of Section 8, shall, upon conviction thereof by summary proceedings, be sentenced to pay a fine of not more than Fifty ($50.00) Dollars and costs, and in default of said fine and costs to undergo imprisonment in the Franklin County Prison for a period not in excess of five (5) days.

Section 10.

Abatement of Nuisances. In addition to any other remedies provided in this Ordinance, any violation of Section 8 above shall constitute a nuisance and may be abated by the municipality or the Authority by either seeking appropriate equitable or legal relief from a court of competent jurisdiction.

Section 11.

Repeal. All Ordinances or resolutions or parts of Ordinances or resolutions, insofar as they are inconsistent herewith, be and the same are hereby repealed.

Section 12.

Severability. If any sentence, clause, section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts of this Ordinance. It is hereby declared as the intent of the Board of Supervisors of the Township, that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not be included therein.

Section 13.

Effective Date. This Ordinance shall become effective five (5) days after its adoption.

ORDAINED AND ENACTED into an Ordinance this 28 day of February, 1974.

Attest:

Ross Foust
Secretary

LETTERKENNY TOWNSHIP SUPERVISORS

By Kenneth Wright
Supervisor

Ross Foust
Supervisor

Edwin A. Rob
Supervisor

HOLDING TANK AND PRIVY ORDINANCE -1990-1

BE IT ENACTED AND ORDAINED by the Letterkenny Township Supervisors of Franklin County, Pennsylvania, and it is hereby enacted and ordained as follows:

Section 1. Purposes. The purpose of this Ordinance is to establish procedures for the use and maintenance of existing and new holding tanks and privies designed to receive and retain sewage whether from residential or commercial uses, and it is hereby declared that the enactment of this Ordinance is necessary for the protection, benefit and preservation of the health, safety and welfare of the inhabitants of this municipality.

Section 2. Definitions. Unless the context specifically and clearly indicates otherwise, the meaning of terms used in this Ordinance shall be as follows:

A. "Authority:" shall mean the Supervisors of Letterkenny Township, Franklin County, Pennsylvania.

B. "Holding Tank" means a watertight receptacle, whether permanent or temporary which receives and retains sewage conveyed by a water carrying system and is designed and constructed to facilitate the ultimate disposal of the sewage at another site.

C. "Privy" means a watertight receptacle, whether permanent or temporary, which receives and retains sewage where water under pressure or piped waste water is not available and is designed and constructed to facilitate the ultimate disposal of the sewage at another site.

D. "Improved Property" shall mean any property within the Township upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure sewage shall or may be discharged.

E. "Owner" shall mean any person vested with ownership, legal or equitable, sole or partial, of any property located in the Township.

F. "Person" shall mean any individual, partnership, company, association, corporation or other group or entity.

G. "Sewage" shall mean any substance that contains any of the waste products or excrement or other discharge from the bodies of human beings or animals and any noxious or deleterious substance being harmful or inimical to the public health, or to animal or aquatic life or to the use of water for domestic water supply or for recreation.

H. "Municipality" shall mean Letterkenny Township, Franklin County, Pennsylvania.

Section 3. Right and Privileges Granted. That the Authority is hereby authorized and empowered to undertake within the Township the control and methods of privy and holding tank use, sewage disposal and sewage collection and transportation thereof, and to issue permits therefore.

Section 4. Rules and Regulations. That the Authority is hereby authorized and empowered to adopt such rules and regulations concerning sewage which it may deem necessary from time to time to effect the purposes herein.

Section 5. Rules and Regulations to be in Conformity with Applicable Law. All such rules and regulations adopted by the Authority shall be in conformity with the provisions herein, all other Ordinances of the Township, and all applicable laws, and applicable rules and regulations of administrative agencies of the Commonwealth of Pennsylvania.

Section 6. Rates and Charges. The Authority shall have the right and power to fix, alter, charge and collect rates, assessments, and other charges in the area served by its facilities at reasonable and uniform rates as authorized by applicable law.

Section 7. Conditions for Holding Tank and Privy Use

A. The collection and transportation of all sewage from any improved property utilizing a holding tank shall be done solely by or under the direction and control of the Authority, and the disposal thereof shall be made only at such site or sites as may be approved by the Department of Environmental Resources of the Commonwealth of Pennsylvania.

B. The Authority will receive, review and retain pumping receipts from permitted holding tanks.

C. The Authority will complete and retain annual inspection reports for each permitted tank.

D. The property owner must show that site and soil suitability testing of the lot has been conducted by the Sewage Enforcement Officer and that the site meets the Title 25, Chapter 73 (Standards for Sewage Disposal Facilities) requirements for the ultimate sewage disposal by an approved on-lot system if water under pressure or piped waste water becomes available to the lot.

E. At such time that water under pressure becomes available, the property owner must remove the privy and replace the privy with an approved on-lot system.

F. The conditions of use described in D above do not apply:

1. to a privy to be used on an isolated lot used for occasional recreational purposes which is one acre or larger and is not nor will not be served by water in the future.

2. To temporary use of portable retention tanks where their use is proposed at construction sites or at the site of public gatherings and entertainment.

3. To a holding tank proposed as a repair to a malfunctioning existing, legally installed system, where the lot does not meet the requirements of Chapter 73, Title 25.

G. Specific conditions for use of privies shall be incorporated in the permit application and permit for the proposed use of a privy.

H. The Authority is provided the opportunity to inspect the privy for proper operation, maintenance and content disposal.

Section 8. Exclusiveness of Rights and Privileges. The collection and transportation of all sewage from any improved property utilizing a holding tank or privy shall be done solely by or under the direction and control of the Authority, and the disposal thereof shall be made only at such site or sites as may be approved by the Department of Environmental Resources of the Commonwealth of Pennsylvania.

Section 9. Duties of Improved Property Owner - Privies. The owner of an improved property that utilizes a privy shall:

A. Maintain the privy in conformance with this or any Ordinance of the Township, the provisions of any applicable law, and the rules and regulations of the Authority and any administrative agency of the Commonwealth of Pennsylvania.

B. Permit only a concern approved by the Township Sewage Enforcement Officer or the Authority to collect, transport, and dispose of the contents therein.

C. Abandon the privy consistent with applicable public health and environmental standards and obtain a permit for and install an approved on-lot system meeting Chapter 73 standards in the event that water under pressure or piped waste water becomes available to the property.

D. Permit the Authority to enter upon lands to inspect the privy for proper operation, maintenance and contents disposal.

Section 10. Duties of Improved Property Owner - Holding Tanks. The owner of an improved property that utilizes a holding tank shall:

A. Maintain the holding tank in conformance with this or any Ordinance of this Township, the provisions of any applicable law, and the rules and regulations of the Authority and any administrative agency of the Commonwealth of Pennsylvania.

B. Permit a concern approved by the Township Sewage Enforcement Officer or the Authority or its agent to inspect holding tanks on an annual basis.

C. Permit a concern approved by the Township Sewage Enforcement Officer or the Authority to collect, transport, and dispose of the contents therein.

Section 11. Violations. Any person who violates any provisions of Section 8, 9, or 10 shall, upon conviction thereof by summary proceedings, be sentenced to pay a fine of not less that One Hundred ($100.00) dollars and not more that Three Hundred ($300.00) dollars and cents, and in default of said fine and costs to undergo imprisonment in the County Prison for a period not in excess of thirty (30) days.

Section 12. Abatement of Nuisances. In addition to any other remedies provided in this Ordinance, any violation of Section 8 above shall constitute a nuisance and shall be abated by the municipality or the Authority by either seeking mitigation of the nuisance or appropriate equitable or legal relief from a court of competent jurisdiction.

Section 13. Repeal. All Ordinances or resolutions or parts of Ordinances or resolutions, insofar as they are inconsistent herewith, be and the same are hereby repealed.

Section 14. Severability. If any sentence, clause, section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections, or parts of this Ordinance. It is hereby declared as the intent of the Board of Supervisors of the Township, that this Ordinance would have been adopted had such constitutional, illegal or invalid sentence, clause, section or part thereof not been included therein.

Section 15. Effective Date. This Ordinance shall become effective five (5) days after its adoption.

ENACTED AND ORDAINED into an Ordinance this 31st day of July, 1990, by the Supervisors of Letterkenny Township, Franklin County in Lawful Session duly assembled.

Attest:

Joanne L. Knight
Secretary

Supervisors

Charles D. Myers

Robert R. Hilbish, Jr.

Dale M. K[illegible]

CERTIFICATION OF ADOPTION

I hereby certify the foregoing to be an exact copy of an Ordinance adopted by the Letterkenny Township Supervisors, Franklin County, Pennsylvania, at a regular meeting of the Board on July 31, 1990.

Joanne L. Knight Secretary

APPENDIX E

HAMILTON/LETTERKENNY SEWER SYSTEM TRANSFER AGREEMENT

TOWNSHIP OF LETTERKENNY,

Franklin County, Pennsylvania

ORDINANCE NO. 3-97

AN ORDINANCE

OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF LETTERKENNY, FRANKLIN COUNTY, PENNSYLVANIA, AUTHORIZING AND APPROVING THE TRANSFER AND CONVEYANCE BY LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY OF CERTAIN OF ITS SEWER SYSTEM FACILITIES TO HAMILTON TOWNSHIP MUNICIPAL AUTHORITY; APPROVING AN AGREEMENT, DATED AS OF JANUARY 1, 1997, BETWEEN LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY AND THIS TOWNSHIP, ON THE ONE HAND, AND HAMILTON TOWNSHIP MUNICIPAL AUTHORITY, ON THE OTHER HAND, WITH RESPECT TO SUCH SEWER SYSTEM FACILITIES, WHEREBY HAMILTON TOWNSHIP MUNICIPAL AUTHORITY WILL COVENANT TO ACQUIRE SUCH SEWER SYSTEM FACILITIES AND TO OWN AND TO OPERATE SUCH SEWER SYSTEM FACILITIES AND WHEREBY LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY AND THIS TOWNSHIP WILL MAKE CERTAIN COVENANTS AND AGREEMENTS WITH RESPECT TO SUCH SEWER SYSTEM FACILITIES TO BE OWNED AND OPERATED BY HAMILTON TOWNSHIP MUNICIPAL AUTHORITY, INCLUDING, *INTER ALIA*: (1) THE ENFORCING OF REQUIREMENTS FOR CONNECTION TO AND USE OF SUCH SEWER SYSTEM; (2) THE GRANTING OF CERTAIN EASEMENTS, RIGHTS OF WAY, RIGHTS AND PRIVILEGES TO HAMILTON TOWNSHIP MUNICIPAL AUTHORITY; AND (3) OTHER RELATED MATTERS; AUTHORIZING AND DIRECTING EXECUTION, ACKNOWLEDGEMENT AND DELIVERY OF SAID AGREEMENT IN BEHALF OF THIS TOWNSHIP; AND AUTHORIZING AND DIRECTING OTHER NECESSARY AND PROPER ACTION.

WHEREAS, Letterkenny Township Municipal Authority (the "Authority") presently owns and operates certain sanitary sewage collection, transmission and disposal system facilities required for rendering sanitary sewage service in and for a certain area of this Township, more specifically described in the Agreement (hereinafter mentioned) (the "Sewer Facilities"); and

WHEREAS, The Authority, pursuant to the request and consent of this Township, has determined to convey the Sewer Facilities to Hamilton Township Municipal Authority ("Hamilton Authority") on or about January 1, 1998, pursuant to an Agreement, dated as of January 1, 1997, between the Authority and this Township, on the one hand, and Hamilton Authority, on the other hand (the "Agreement"), and pending such conveyance to engage Hamilton Authority to operate and manage the Sewer Facilities on behalf of the Authority.

NOW, THEREFORE, BE IT ENACTED AND ORDAINED, and it is enacted and ordained, by the Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, as follows:

SECTION 1. This Township acknowledges that the Authority has reported its intention to transfer the Sewer Facilities to Hamilton Authority and has submitted the Agreement relating to such transfer to this Township for approval. This Township hereby expressly approves the Authority's transfer and conveyance of the Sewer Facilities and for such purpose the approval of this Section shall be deemed to meet all appropriate requirements of the Pennsylvania Municipality Authorities Act of 1945, as amended.

SECTION 2. This Township hereby approves the Agreement with the Authority and Hamilton Authority, whereby, *inter alia*, Hamilton Authority will covenant and agree to acquire the Sewer Facilities of the Authority, and to own and to operate said Sewer Facilities and this Township will make certain covenants and agreements with respect to the Sewer Facilities (and any related sewer facilities) acquired, owned and operated by Hamilton Authority within this Township, including, *inter alia*: (1) the enforcing of requirements for connection to and use of such sewer system; (2) the granting of certain

easements, rights of way, rights and privileges to Hamilton Authority; and (3) other related matters.

SECTION 3. A copy of the Agreement, in the form so presented to this meeting and so approved, shall be filed with the Secretary of this Township and shall be made available for inspection at reasonable times by interested persons requesting such inspection.

SECTION 4. The Chairman or Vice Chairman of the Board of Supervisors and Secretary or Assistant Secretary of this Township, as applicable, are authorized and directed to execute, attest, acknowledge and deliver the Agreement, in behalf of this Township, in the form so approved.

SECTION 5. Proper officers of this Township are authorized and directed to execute all documents and to do all other acts that may be necessary and proper to carry out this Ordinance and the undertakings of this Township in the Agreement.

SECTION 6. This Ordinance shall become effective as provided by law.

SECTION 7. In the event any provision, section, sentence, clause or part of this Ordinance shall be held to be invalid, such invalidity shall not affect or impair any remaining provision, section, sentence, clause or part of this Ordinance, it being the intent of this Township that such remainder of this Ordinance shall be and shall remain in full force and effect.

SECTION 8. It is declared that enactment of this Ordinance and the execution, acknowledgment and delivery of the Agreement is necessary for the protection, benefit and preservation of the health, safety and welfare of inhabitants of this Township.

SECTION 9. All ordinances and parts of ordinances inconsistent herewith shall be and the same expressly are repealed.

DULY ENACTED AND ORDAINED, this 18th day of November, 1997, by the Board of Supervisors of the Township of Letterkenny, Franklin County, Pennsylvania, in lawful session duly assembled.

TOWNSHIP OF LETTERKENNY,
Franklin County, Pennsylvania

By: Charles F. Myers
(Vice) Chairman of the Board of Supervisors

ATTEST:

Joann P. Wright
(Assistant) Secretary

(SEAL)

CERTIFICATE

I, the undersigned, (Assistant) Secretary of the TOWNSHIP OF LETTERKENNY, Franklin County, Pennsylvania (the "Township"), certify that: the foregoing is a true and correct copy of an Ordinance of the Board of Supervisors of the Township which duly was enacted by affirmative vote of a majority of the members of the Board of Supervisors of the Township at a meeting duly held on the 18th day of November, 1997; such Ordinance duly has been recorded in the ordinance book of the Township; such Ordinance duly has been published as required by law; such Ordinance, upon enactment, was assigned number 3-97; and such Ordinance remains in effect, unaltered and unamended, as of the date of this Certificate.

I further certify that the Board of Supervisors of the Township met the advance notice and public comment requirements of the Sunshine Act, Act No. 1986-84 of the General Assembly of the Commonwealth of Pennsylvania, approved July 3, 1986, as amended, by advertising the time and place of said meeting, by posting prominently a notice of said meeting at the public building in which said meeting was held, and by providing a reasonable opportunity for public comment.

IN WITNESS WHEREOF, I set my hand and affix the official seal of the Township, this 18th day of November, 1997.

Joann L. Wright
(Assistant) Secretary

(SEAL)

116077

APPENDIX F

NEEDS ANALYSIS SURVEY
WATER TEST RESULTS

WELL TEST RESULTS

PLEASANT HALL AREA

Pleasant Hall area

(#159-B/47113-pg2)

Needs Analysis Survey Form

Date 4 SEPT 96 Lot Number #1

Resident Home Y (N) Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: LETTERKENNY TOWNSHIP

Street: 4924 ORRSTOWN RD.

City: ORRSTOWN, PA. 17244 State: Zip:

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (Well) (dug, (drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9-4-96 Lot Number #2

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Cheryl Foust

Street: 6402 Orrstown Rd.

City: Pleasant Hall State: Pa, Zip: 17246

No. of residents 4 Adults #3 Children 1

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, ~~holding tank~~, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9-04-96 Lot Number 3

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: GRACE GAYMAN

Street: Box 21

City: PLEASANT HALL State: PA- Zip: 17246

No. of residents one Adults one Children 0

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. (6-10 yrs.) 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1994

Water Source: (Well) (dug/(drilled)) cistern, spring, stream, public water

If well: Depth ? Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 15' Property Line _____

Needs Analysis Survey Form

Date 9-4-96 Lot Number #4

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Ronald Hutchinson

Street: 6581 Orrstown Rd.

City: Pleasant Hall, PA State: Penna Zip: 17246

No. of residents 6 Adults 2 Children 4

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? N/A.

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 30 Ft. Property Line _____

Needs Analysis Survey Form

Date 9-4-96 Lot Number #5

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Thomas Archambeau

Street: 6309 Orrstown Rd.

City: Orrstown State: ~~PA~~ PA Zip: 17244

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) (20+ yrs.)

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? 1991

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 90-120ft. Cased (Y)/ N

If cased, to what depth ?

Water Treatment: Y /(N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: (Y)/ N Type: SFC, (Back-up) Green Grass, Grey Discharge, Other

Isolation Distance: Well 40ft. Property Line _____

Needs Analysis Survey Form

Date 9/4/96 Lot Number #6

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Ben. Wetzel

Street: 6241 Carrstown Rd.

City: Pleasant Hall State: PA Zip: 17246

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 50 ft. Property Line _____

Needs Analysis Survey Form

Date 9-4-96 Lot Number #7

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: CASEY E ROTZ & HOLLY K ROTZ

Street: PO Box 44 6205 Orrstown Rd

City: Pleasant Hall State: PA Zip: 17246

No. of residents 2 Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. (6-10 yrs.) 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 3 YR

Water Source: (Well) (dug/(drilled)) cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft,) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y/(N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 25 ft Property Line _____

Needs Analysis Survey Form

Date 9/4/96 Lot Number #8

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Donna & John Freitas

Street: 6187 Orrstown Rd

City: Pleasant Hall State: PA Zip: 17246

No. of residents 3 Adults 2 Children 1

Sewage:

System type: Cesspool, ~~septic tank~~, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20) yrs. 20+ yrs.

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? July 96

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y)/ N

If yes, CI, (UV), TF, ~~Soft~~, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9-4-96 Lot Number #9

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Jay Rosenberry

Street: Box 90 3079 Custer Rd.

City: Mount Holly State: Pa Zip: 17346

No. of residents 3 Adults 3 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? Spring April 1996

Water Source: Well (dug/drilled) cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF (Soft,) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/4/96 Lot Number #10

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Doris Sm. Foust

Street: 6057 - Orrstown Road

City: Orrstown, PA. 17244 State: Zip:

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.) 43 yrs

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? Jan 96

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 600 FT Property Line _____

Needs Analysis Survey Form

Date 9/04/96 Lot Number #11

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Dorothy G. Keltner

Street: Box 21 5770 Orrstown Rd

City: Pleasant Hall State: PA Zip: 17246

No. of residents one Adults X Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs) 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1995

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 60' Cased (Y) / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2 V

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 20' Property Line _____

Needs Analysis Survey Form

Date 9/4/96 Lot Number # 12

Resident Home (Y)/~~N~~ Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Nick McCullough

Street: 5206 Orrstown

City: Orrstown State: Pa Zip: 17244

No. of residents 5 Adults 2 Children 3

Sewage:

System type: Cesspool, (septic ~~tank~~), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y)/ N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 90 Ft Property Line _____

Needs Analysis Survey Form

Date 9/4/96 Lot Number #13

Resident Home (Y) / N Access Denied _____

Dairy Farm

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Charles Myers

Street: 8134 Cumberland Highway Chambersburg

City: State: PA Zip:

No. of residents 5 Adults 2 Children 3

Sewage:

System type: Cesspool, (septic tank), (inground tile field), elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1994

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 270 ft Cased (Y) / N

If cased, to what depth 30 ft

Water Treatment: (Y) / N

If yes, (Cl), UV, TF, Soft, Ion Ex.

Other: Charcoal filters

Sewage system size: ~~Less than 600 Ft²~~

(Greater than 600 Ft²)

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 200 ft Property Line 1000 ft

Needs Analysis Survey Form

Date 9-4-96 Lot Number #14

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: THORSON, RICHARD

Street: 9176 IRON BRIDGE RD

City: ORRSTOWN State: PA Zip: 17244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9-4-96 Lot Number #15

Resident Home ~~Y~~/(N) Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Clark Mathna's Garage

Street: 9292 Iron Bridge Rd.

City: Orrstown State: Pa. Zip: 17244

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? April 1996

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 55'-60' Cased Y / N

If cased, to what depth _____

Water Treatment: (Y)/ N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, (Green Grass,) Grey Discharge, Other

Isolation Distance: Well 30FT Property Line _____

Needs Analysis Survey Form

Date 9/4/96 Lot Number # 16

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Gail White

Street: 6595 Christown Rd.

City: Pleasant Hall State: Pa Zip: 17246

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 6 months

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/4/96 Lot Number #17

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Terry Etters

Street: PO Box 51

City: Pleasant Hall State: Pa Zip: 17246

No. of residents 6 Adults 2 Children 4

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 96 Aug Sep 24 Lot Number #18

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Bill P. Homan

Street: 6546 Orrstown Rd.

City: Pleasant Hall State: PA Zip: 17246

No. of residents 3 Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled) cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9-4-96 Lot Number #19

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: DALE F. KUHN

Street: 9425 - CUMBERLAND HWY.

City: PLEASANT HALL State: PA. Zip: 17246

No. of residents 3 Adults 3 Children 0

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth 120' Cased (Y) / N

If cased, to what depth 60'

Water Treatment: (Y) / N

If yes, CI, UV, TF, Soft, Ion Ex. OZONIATOR

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100' Property Line 100'

Needs Analysis Survey Form

Date 9/5/96 Lot Number #20

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Raymond I. Pugh

Street: 4855 Orrstown Road

City: Orrstown State: Pa Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1993

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 70 Cased (Y) / N

If cased, to what depth 20ft.

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: Chlorinator & Iron filter

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 60 Property Line 10 ft.

Needs Analysis Survey Form

Date 9/5/96 Lot Number #21

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Kenneth J. Reed

Street:

City: Pleasant Hall State: Pa Zip: 17246

No. of residents 2 Adults 2 Children 0

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? Aug, 1996

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 85 ft Cased (Y) / N

If cased, to what depth 30 - 40 ft

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 60 ft Property Line _____

Needs Analysis Survey Form

Date _____ Lot Number #22

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: CLIFFORD VAN SCYOC

Street: 9999 CUMBERLAND HIGHWAY

City: PLEASANT HALL State: PA Zip: 17246

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, (elevated sand mound), holding tank, privy

System Age: 0-5 yrs. (6-10 yrs.) 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1995

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 115 Cased (Y) N

If cased, to what depth 30

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100+ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number # 23

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Harold H. Ford

Street: Box 38

City: Pleasant Hall PA. State: Zip:

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, (elevated sand mound), holding tank, privy

System Age: 0-5 yrs. (6-10 yrs.) 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1994

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 63 Cased (Y) N

If cased, to what depth —

Water Treatment: (Y) N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: (Y) N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 24

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Richard K Beam

Street: 6370 Orrstown Rd

City: Pleasant Hall State: PA Zip: 17246

No. of residents 2 Adults 2 Children 0

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: (0-5 yrs.) 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: Iron

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100+ Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 25

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: NED J CLEAVER

Street: 1769 CARSTOWN RD

City: PLEASANT HALL State: PA Zip: 17246

No. of residents 2 Adults 2 Children 0

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 94

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 60 Cased (Y) N

If cased, to what depth ?

Water Treatment: (Y) / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: SALT

Sewage system size: Less than (600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 50 Property Line 20

Needs Analysis Survey Form

Date 2/5/96 Lot Number 26

Resident Home (Y) / N Access Denied WE GOT SAMPLE RESIDENT DECLINED TO FILL OUT FORM

TO BE FILLED IN BY THE RESIDENT:

Resident's Name:

Street:

City: State: Zip:

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 27

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: William A Gallinger

Street: 11250 Sandy Mount Rd.

City: Orrtanna State: Pa Zip: 17244

No. of residents 2 Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth ± 160' Cased (Y) / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100' Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 28

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Clarence E Pugh

Street: 10237 Cumberland Hwy

City: Boonstown State: Pa Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 69 Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 75 ft Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 29

Resident Home (Y) / N Access Denied ~~29~~

SAMPLE TAKEN THRU SOFTNER

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: CLYDE MILLHOUSE

Street:

City: PLEASANT HALL State: PA. Zip: 17246

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Gesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 30

Resident Home (Y)/ N Access Denied ~~30~~

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Delbert Sprenkle

Street: Box 66 Pleasant Hall, PA.

City: State: Zip:

No. of residents 3 Adults 3 Children 0

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs)

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? July 96

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 180' Cased Y / N

If cased, to what depth 35'

Water Treatment: (Y) N

If yes, CI, (UV) TF, (Soft) Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100' Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 37

Resident Home Y / (N) Access Denied 37

PLEASANT HALL FIRE CO.

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: PLEASANT HALL FIRE CO.

Street: 9682 CUMBERLAND HIGHWAY BOX 115

City: PLEASANT HALL State: PA. Zip: 17246

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date _____ Lot Number 32

Resident Home Y / N Access Denied ~~32~~

STREAM #1
UNDER 9.97
AT DALE / COFFINS DRIVEWAY

TO BE FILLED IN BY THE RESIDENT:

Resident's Name:

Street:

City: State: Zip:

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

WELL TEST RESULTS

ROXBURY AREA

Needs Analysis Survey Form

Date 9/3/16 Lot Number A 1

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: HANK BAKER JR

Street: 10307 WYE Rd

City: ORRSTOWN State: Pa Zip: 17244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? 3½ yrs.

Water Source: (Well) (dug/(drilled)) cistern, spring, stream, public water

If well: Depth _____ Cased (Y)/ N

If cased, to what depth _____

Water Treatment: Y /(N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y /(N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100' Property Line _____

Needs Analysis Survey Form

Date Sept. 5, 96 Lot Number 24

Resident Home Y / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Darrel R. Gayman

Street: 10238 Wye Road

City: Orrstown State: Pa Zip: 17244

No. of residents 7 Adults 2 Children 5

Sewage:

System type: Cesspool, ~~septic tank~~, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 16

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 90' Cased (Y) / N

If cased, to what depth ?

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 75' Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 3 A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Stephen Hess

Street: 9822 Wye Road

City: Ornstown State: PA Zip: 17244

No. of residents 7 Adults 2 Children 5

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 4A

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Michael Reed

Street: 10055 Pine Rd

City: Ortstown PA 17244 State: Zip:

No. of residents 5 Adults 4 Children 1

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 5A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Timothy W FORRESTER

Street: 11676 MTN RD

City: ORRSTOWN State: PA Zip: 17244

No. of residents 5 Adults 2 Children 3

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs) 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 3/96

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 + Property Line _____

Needs Analysis Survey Form

Date 9-5-16 Lot Number 6A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Richard A. Horn

Street: 11361 Mountain Rd

City: Orrstown State: Pa Zip: 17244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth ~~50~~ 60' Cased (Y) / N

If cased, to what depth 40'

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: (Y) / N Type: SFC, (Back-up), Green Grass, Grey Discharge, Other

Isolation Distance: Well 150 Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 7A

Resident Home X / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: PAUL Marpoe

Street: 10986 Mt Rd

City: Orrstown, Pa. 17244 State: Pa. Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+) yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 5 yrs

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 300 ft Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 8A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Glen W. Parker

Street: 10999 Mt. Rd.

City: Orrstown State: Pa. Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 50 to 60 Property Line _____

Needs Analysis Survey Form

Date 9-5-96 Lot Number 9A

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Kenneth W Stouffer

Street: 12159 RT Rd

City: Corstown State: Pa Zip: 12244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, ~~holding tank~~, privy

System Age: ~~0-5 yrs. 6-10 yrs.~~ 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? June

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased (Y)/ N

If cased, to what depth _____

Water Treatment: Y /(N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 50 yds Property Line _____

Needs Analysis Survey Form

Date 9/5/96 Lot Number 10A

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Matisi Douglas

Street: 12403 Mountain Rd

City: Orbtown State: PA Zip: 17244

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, (spring), stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 11A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Greg + Doretta Gratkowski

Street: 13430 Mockingbird Lane

City: Orrstown State: PA Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)) cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/95 Lot Number 12-A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Robin Kiahre 530-7772

Street: 13457 Mockingbird Ln.

City: Orrstown State: Pa. Zip: 17244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 13A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: MARY N. Brechbill

Street: 10056 Blue JAY Circle

City: Ohrstown State: Pa. Zip: 17244

No. of residents _____ Adults 3 Children 1

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 14A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Lindy Reed

Street: 13537 Mockingbird Lane

City: Orrstown State: PA Zip: 17244

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 15A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Marlin E. Deaven

Street: 13508 Camberland Hwy.

City: Orrstown State: Pa Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: Aerator

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 16A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: William & Rogers

Street: 13527 Cumberland Hy

City: ORRSTOWN State: PA Zip: 17244

No. of residents 2 Adults 2 Children —

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1994

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 70 Cased (Y) N

If cased, to what depth 35

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 60 Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 17A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Vickie Johnson

Street: 10231 Cardinal DR

City: ORRSTOWN State: PA Zip: 17244

No. of residents 1 Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 150 Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 18A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Charles E. Greene

Street: 10264 Cardinal Drive

City: Onstown, PA. 17244-9600 State: Zip:

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/6/96 Lot Number 19A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Terry & Lois Hess

Street: 10276 Cardinal Dr.

City: Orrstown State: PA Zip: 17244

No. of residents 3 Adults 2 Children 1

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, (UV), TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 20A

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: CALVIN JAYMES

Street: 12887 SANDY MOUNT RD

City: ORRSTOWN State: PA. Zip: 17244

No. of residents 3 Adults 3 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 2 YEARS 1994

Water Source: (Well (dug/drilled), cistern, spring, stream, public water

If well: Depth 80 Cased (Y) N

If cased, to what depth _____

Water Treatment: (Y)/ N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: CHLORINE CHARCOAL

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: (Y) (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100' Property Line 50'

Needs Analysis Survey Form

Date 9/10/96 Lot Number 21A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Gerry Mohler

Street: 12652 Sandy mt Rd

City: Orrstown State: PA Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, ~~septic tank~~, inground tile field, (elevated sand mound), holding tank, privy

System Age: (0-5 yrs.) 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased (Y) / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 80 ~ 100 FT Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 22A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Max S Knauss

Street: 12316 Sandy Mt Rd

City: Owenton State: Ky Zip:

No. of residents _____ Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: (0-5 yrs.) 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 70 Cased (Y) / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 23A

Resident Home Y / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Wanda Myers

Street: 12054 Sandy Mt Rd

City: Orrstown State: Pa Zip: 17244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, ~~septic tank~~, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? Every 3 months

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y)

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 24A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Robert Ehlert

Street: 1291 Sandy Mt Road

City: Westtown State: Zip:

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, ~~holding tank~~, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/~~drilled~~), cistern, spring, stream, public water

If well: Depth 71 Cased (Y) / N

If cased, to what depth 32

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 25A

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: John A. Witmer

Street: 8308 Creek Road

City: Orrstown State: PA Zip: 17244

No. of residents 7 Adults 2 Children 5

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1995

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased (Y) / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2 ✓

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 500' + Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 26A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Fred Stouffer, Jr.

Street: 10635 Tim RD

City: ORRSTOWN PA State: Zip: 17244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: (0-5 yrs.) 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 80 Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 27A

Resident Home (Y) / N Access Denied _____

Farm

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Linda Timmons

Street: 12687 Mt. Rd.

City: Orrstown State: PA Zip: 17244

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1994

Water Source: (Well) (dug/~~drilled~~), cistern, spring, stream, public water

If well: Depth 120 Cased (Y) N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 7/10/96 Lot Number 28A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Lewis E. Sites

Street: 10028 Skyline Dr.

City: Omstown State: Pa. Zip: 17249

No. of residents 5 Adults 2 Children 3

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1992

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 70 Cased (Y) N

If cased, to what depth ?

Water Treatment: Y / N

If yes, GI, UV, TF, (Soft), Ion Ex.

Other: Rust/Sulphur

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 29A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Rupert, Edgar & Dolores

Street: 11112 Skyline Dr.

City: Orrstown State: Pa. Zip: 17244

No. of residents 2 Adults _____ Children 0

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. (6-10 yrs.) 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1991

Water Source: (Well) (dug, (drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, (UV), TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 60-75 Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 30 A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Emery Horn

Street: 11375 Skyline Dr. Box 201

City: Orbisonia PA. State: Zip: 17243

No. of residents 1 Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1993

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 144 Cased (Y) N

If cased, to what depth 60

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 31A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Nancy Chesser

Street: 11506 Skyline Dr.

City: Orrstown, Pa. State: Zip: 17244

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1996 Spring

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well ~~100~~ 50' Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 32A

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Adam Locke

Street: 13099 Mountain Rd

City: Orrstown, State: PA Zip: 17244

No. of residents 3 Adults 2 Children 1

Sewage: Sewer Hookup

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/~~drilled~~), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 33A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Joanne Timmons

Street: 13000 Mt. Road

City: Orrstown State: Pa Zip: 17244

No. of residents _____ Adults 4 Children _____

Sewage: SEWERS Hooked up

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (~~dug~~/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 34A

Resident Home Y / N Access Denied _____

ROXBURY HOLNESS CAMP GROUNDS

TO BE FILLED IN BY THE RESIDENT:

Resident's Name:

Street:

City: State: Zip:

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 35A

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Fred Gallman

Street: 13025 Cumberland Hwy

City: Onstown State: Pa Zip:

No. of residents _____ Adults 3 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: ~~0-5 yrs.~~ ~~6-10 yrs.~~ 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 10 yrs Ago

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 300 Cased (Y) N

If cased, to what depth 7

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 70 FT Property Line _____

WELL TEST RESULTS

LOWER HORSE VALLEY

Needs Analysis Survey Form

Date 9/10/96 Lot Number 1 B

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: WALTER L TREAT

Street: 14660 L.H.C. RD.

City: ORRSTOWN PA. 17244 State: Zip:

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? 1993

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth 160? Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 150' Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 28

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Carol L Hepler

Street: Box 114

City: Roxbury State: Pa. Zip: 17251

No. of residents 3 Adults 3 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1995

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 300 Ft Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Ft Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 38

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: John Grove

Street: 12798 Lower Horse Valley Rd.

City: Dersytown State: PA Zip: 17201

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, (elevated sand mound), holding tank, privy

System Age: 0-5 yrs. (6-10 yrs.) 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1995

Water Source: (Well) (dug/~~drilled~~), cistern, spring, stream, public water

If well: Depth 140 Cased (Y) N

If cased, to what depth ?

Water Treatment: (Y) N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 200 Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 48

Resident Home Y / (N) Access Denied _____

LOWER HORSE VALLEY SPRING

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: JACK HOLMES

Street: 11824 LOWER HORSE VALLEY RD.

City: UPPER STRASBURG State: PA Zip: 17265

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, (spring), stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 5B

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: WALTER URBAN

Street: 11855 Lower Horse Valley RD

City: Upper Strasburg State: PA. Zip: 17265

No. of residents 1 Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1990

Water Source: ~~Well~~ (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased (Y) N

If cased, to what depth _____

Water Treatment: Y /(N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 FT Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 6B

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: JACK Holmes

Street: 11824 Lower Horse Valley RD

City: UPPER STRASBURG State: PA. Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? 1989

Water Source: (well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 186 Cased (Y)/ N

If cased, to what depth 169

Water Treatment: Y /(N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y /(N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 7B

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Ross Peterson

Street: 11757 Lower Horse Val Rd.

City: Upper Strasburg State: Pa Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, ~~holding tank~~, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1992

Water Source: (Well) (dug/~~drilled~~), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 8B

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Ross Peterson JR.

Street: 11765 Lower Horse Valley RD.

City: Upper Strasburg State: PA. Zip: 17265

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 FT. Property Line _____

Needs Analysis Survey Form

Date 9/10/96 Lot Number 98

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: William I. Walters

Street: 11743 Lower Horse Valley Rd.

City: Upper Strasburg State: Pa. Zip: 17265-9704

No. of residents 3 Adults 3 Children _____

Sewage:

System type: Gesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y)/ N

If yes, when was the last time? 1994

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 200 Cased (Y)/ N

If cased, to what depth 158

Water Treatment: Y /(N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: ~~Less than 600 Ft^2~~

Greater than 600 Ft^2

Malfunction: Y /(N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 FT. Property Line _____

Sewage system size: ~~Less than 600 Ft^2~~

Greater than 600 Ft^2

Malfunction: Y /(N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

WELL TEST RESULTS

UPPER HORSE VALLEY

Needs Analysis Survey Form

Date 9/10/96 Lot Number 1 C

Resident Home Y / N Access Denied _____

BEAR VALLEY SPRING

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: JACK Holmes

Street: 11824 LOWER HORSE VALLEY RD

City: UPPER STRASBURG State: PA. Zip: 17265

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, (spring), stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 20

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: MRS. GAIL GREYER

Street: 11000 UPPER HORSE VALLEY

City: UPPER STRASBURG, PA. State: Zip: 17265

No. of residents 1 Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1990

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 37 Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF (Soft), Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 3C

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: IVAN EHMAN

Street: 10327 UPPER HORSE VALLEY RD

City: UPPER STRASBURG, PA. State: Zip: 17265

No. of residents 8 Adults 4 Children 4

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1995

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 130 Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: CHLORINE

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 FT. Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 4 C

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Walter D. Crider, Jr.

Street: 9997 UPPER HORSE VALLEY RD.

City: UPPER STRASBURG, State: PA. Zip: 17265

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, (privy)

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 22 Cased (Y) / N

If cased, to what depth 22

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 125 FT Property Line _____

Needs Analysis Survey Form

Date 9/11/92 Lot Number 5C

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Wm J Henderson

Street: 9334 Yokum Hazel Valley Rd

City: Upper Strasburg State: PA Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1995

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 80 FT Cased (Y) N

If cased, to what depth 60

Water Treatment: (Y) N

If yes, CI, (UV), TF, Soft, Ion Ex.

Other: FILTER

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: (Y) N Type: SFC, Back-up, Green Grass, Grey Discharge, WATER ENTRY Other

Isolation Distance: Well 130 Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 6 C

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: WILBERT ~~[illegible]~~ TORNBAU

Street: 10197 STRAWBROOK RD

City: UPPER STRASBURG State: PA Zip: 17265

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank (privy)

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 260 Cased (Y) / N

If cased, to what depth 90

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/16/96 Lot Number 7C

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Jimmy L CARROLL

Street: 8455 UPPER HORSE VALLEY RD

City: UPPER STRASBURG State: PA Zip: 17265

No. of residents 5 Adults 2 Children 3

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1995 SUMMER

Water Source: Well ((dug)/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 8 C

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Sean M. Mackey

Street: 8078 Upper Horse Valley Rd

City: Upper Strasburg State: Pa. Zip: 17265

No. of residents 3 Adults 3 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs: (20+ yrs.)

Has the septic tank been pumped? (Y) N

If yes, when was the last time? 1992

Water Source: Well (dug/drilled), cistern, (spring,) stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: ~~Less than 600 Ft²~~ Greater than 600 Ft²

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 9C

Resident Home Y / N Access Denied _____

Farm

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: WALTER TREAT

Street: 1414/60 L. Horse Valley Rd.

City: Osborn State: PA Zip: 17264

No. of residents 2 Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 10 C

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Donna Souders

Street: 4441 McKenrick Drive

City: Chambersburg, PA 17201 State: Zip:

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. (6-10 yrs.) 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1996

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 190 Cased (Y) / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, (UV), TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 11C

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Heidi Funk

Street: 4446 McKenrick Drive

City: Chambersburg State: PA Zip: 17201

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 12 C

Resident Home (Y) / N Access Denied _____

LOWE'S TRAILER COURT

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: William Reese

Street: 4500 Rocky Spring Rd Lot 1A

City: Chambersburg State: PA Zip: 17201

No. of residents 3 Adults 2 Children 1

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 13<

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Wendy Hankins

Street: 3475 Keefer Rd

City: Chambersburg PA State: Zip:

No. of residents 3 Adults 2 Children 1

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: (Y) / N Type: SFC, (Back-up), Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 14C

Resident Home (Y) / N Access Denied _____

Farm

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Nancy Barkman

Street: 3106 Lawyers Rd.

City: Chamb. PA. 17201 State: Zip:

No. of residents 6 Adults 2 Children 4

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1996 5 Years

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 60 Cased Y / N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 15C

Resident Home (Y) / N Access Denied _____

STREAM TEST

TO BE FILLED IN BY THE RESIDENT:

Resident's Name:

Street:

City: State: Zip:

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

WELL TEST RESULTS

UPPER STRASBURG AREA

Needs Analysis Survey Form

Date 9/12/96 Lot Number 11

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: KATHY HURDEN

Street: 9674 UPR STRASBURG RD

City: UPR. STRASBURG, PA 17265 State: Zip:

No. of residents 6 Adults 2 Children 4

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1995

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: (Y) / N Type: SFC, (Back-up), Green Grass, Grey Discharge, Other

Isolation Distance: Well 15 FT Property Line _____

Needs Analysis Survey Form

Date 9/11/96 Lot Number 2D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Donald E. Hoover

Street: 9696 Upper Strasburg Road

City: Box 15 Upper Strasburg State: Pa. Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1992

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth ~44 Cased (Y) N

If cased, to what depth 24

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 30 Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 3D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Casey Mackey

Street: 10567 Mountain Rd.

City: Orrstown State: Pa. Zip: 17267

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1992

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 80' Cased (Y) / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than (600) Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 42

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Terri Hurst

Street: 9728 Upper Strasburg Rd.

City: Upper Strasburg State: Pa Zip: 17265

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, (holding tank), privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 5D

Resident Home (Y)/ N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Bennie D Lapp

Street: Box 19 Upper Strasburg

City: Pa 17265 State: Zip:

No. of residents _____ Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth 300 Cased (Y)/ N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: (Y)/ N Type: SFC (Back-up,) Green Grass, Grey Discharge, Other DURING RAIN

Isolation Distance: Well 200 Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 6D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Earl McCardell

Street: 9797 Upper Strasburg Rd PO Box 12

City: Upper Strasburg State: Pa Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1996 SPRING

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 100+ Cased (Y) / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 25 FT Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 7D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: MR. GLENN ALLEN

Street: BOX 20

City: UPPER STRASBURG State: Zip: 17265

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled) cistern, spring, stream, public water

If well: Depth ~~50~~ 79 Cased Y (N)

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 8D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Raymond J. Harrison

Street: BH-80

City: Upper Strasburg State: Pa Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, (spring), stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, (UV), TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 50 FT. Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 9D

Resident Home Y / N Access Denied _____

APARTMENT BUILDING

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: BRAD FULLMER

Street: PO BOX 188 UPPER STRASBURG, PA 17265

City: State: Zip:

No. of residents 9 Adults 9 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/~~drilled~~), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 10 D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: DONNA STOOP

Street: BOX 1

City: UPPER STRASBURG, PA. 17265 State: Zip:

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1996

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 11D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: KENNETH STROOP

Street: BOX 35 UPPER STRASBURG, PA. 17265

City: State: Zip:

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1994

Water Source: (Well) (dug/~~drilled~~), cistern, spring, stream, public water

If well: Depth 29 FT Cased Y / N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 FT. Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 12 D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Etta Lebenknight

Street: 11659 Mt Rd

City: Orrstown State: Pa Zip: 17244

No. of residents (2) Adults _____ Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

Hand

If well: Depth 30 Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 50 Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 13D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: David E. Wright

Street: P.O. Box 84, 10002 Upper Strasburg Rd

City: Upper Strasburg State: PA Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1993

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 70 Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft) Ion Ex.

Other: IRON

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: (Y) / N Type: SFC, (Back-up), Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 14D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Isabelle Wright

Street: 9988 Upper Strasburg Rd

City: Upper Strasburg State: Pa Zip: 17265

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft,) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 15D

Resident Home Y / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: DANA O. Ehrhart

Street: Box 43

City: Upper Strasburg State: Pa. Zip: 17265

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1991

Water Source: (Well) (dug/(drilled)) cistern, spring, stream, public water

If well: Depth 86' Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: (Less than 600 Ft^2)

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 75' Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 16D

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: JAMES T. HAFER

Street: 10516 UPPER STRASBURG RD

City: UPPER STRASBURG, State: PA Zip: 17265

No. of residents 3 Adults 3 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. (20+ yrs.)

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1994

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 200 Cased (Y) / N

If cased, to what depth 7

Water Treatment: (Y) / N

If yes, CI, UV, TF, (Soft), Ion Ex.

Other: IRON / MAG. / SULPHUR

Sewage system size: Less than 600 Ft^2

(Greater than 600 Ft^2)

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 17D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Stephanie Atherton

Street: 9761 Upper Strasburg Rd

City: Upper Strasburg State: PA Zip: 17265

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, (UV) TF, (Soft) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 18D

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: RICHARD YEOMANS

Street: 9655 STRASBURG RD.

City: UPPER STRASBURG, PA State: Zip: 17265

No. of residents 6 Adults 4 Children 2

Sewage:

System type: Cesspool, (septic tank,) inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? (Y) / N

If yes, when was the last time? 1995 FALL

Water Source: (Well) (dug/(drilled)) cistern, spring, stream, public water

If well: Depth 200+ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI (UV), TF, (Soft,) Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: (Y) / N Type: SFC, (Back-up), Green Grass, Grey Discharge, Other

Isolation Distance: Well 25 FT. Property Line _____

Needs Analysis Survey Form

Date 5/12/96 Lot Number 19D

Resident Home Y / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Christopher S. Black

Street: 9673 Oreatown Rd. 1

City: Upperstrasburg State: PA Zip:

No. of residents 1 Adults 1 Children _____

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, ~~holding tank~~, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 20D

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Jody Burdge

Street: 9883 Community Rd

City: Orrstown State: PA Zip: 17244

No. of residents 3 Adults 2 Children 1

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 21 D

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Mildred C. Stayman

Street: 9869 Community Rd.

City: Orbisonia, Pa, 17243 State: Zip:

No. of residents 2 Adults 2 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, (elevated sand mound), holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: (Y) / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: OZONE

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 22 D

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: RONALD WHITED

Street: P.O. Box 86

City: UPPER STRASBURG State: PA. Zip: 17265

No. of residents 3 Adults 3 Children _____

Sewage:

System type: Cesspool, septic tank, inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. 11-20 yrs. 20+ yrs.

Has the septic tank been pumped? Y / N

If yes, when was the last time? _____

Water Source: Well (dug/drilled), cistern, spring, stream, public water

If well: Depth _____ Cased Y / N

If cased, to what depth _____

Water Treatment: Y / N

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y / N Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well _____ Property Line _____

Needs Analysis Survey Form

Date 9/12/96 Lot Number 23D

Resident Home Y (N) Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Carson G. Goshorn

Street: 9260 Orrstown Rd.

City: Pleasant Hall State: PA. Zip: 17246

No. of residents 4 Adults 2 Children 2

Sewage:

System type: Cesspool, (septic tank), inground tile field, elevated sand mound, holding tank, privy

System Age: 0-5 yrs. 6-10 yrs. (11-20 yrs.) 20+ yrs.

Has the septic tank been pumped? Y (N)

If yes, when was the last time? _____

Water Source: (Well) (dug/(drilled)), cistern, spring, stream, public water

If well: Depth 45 Cased (Y) N

If cased, to what depth _____

Water Treatment: Y (N)

If yes, CI, UV, TF, Soft, Ion Ex.

Other: _____

Sewage system size: Less than 600 Ft^2

Greater than 600 Ft^2

Malfunction: Y (N) Type: SFC, Back-up, Green Grass, Grey Discharge, Other

Isolation Distance: Well 100 Property Line _____

WELL SAMPLING RESULTS

(as#2/w60713)

Letterkenny Township

Well Sampling Analytical Results

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)
1	Twp. Bldg.	Present	Absent	<0.5
2	Foust	Present	Absent	<0.5
3	Gayman	Absent	Absent	<0.5
4	Hutchinson	Absent	Absent	<0.5
5	Archambeau	Present	Absent	<0.5
6	Wetzel	Present	Absent	<0.5
7	Rotz	Absent	Absent	<0.5
8	Frietas	Present	Present	<0.5
9	Rosenberry	Present	Absent	<0.5
10	Foust	Present	Absent	<0.5
11	Keltner	Present	Absent	<0.5
12	McCullough	Absent	Absent	<0.5
13	Myers	Present	Absent	7.23
14	Thorson	Present	Absent	<0.5
15	Mathna's	Absent	Absent	<0.5
16	White	Present	Absent	<0.5
17	Etters	Absent	Absent	0.602
18	Pittman	Present	Absent	0.605
19	Kuhn	Present	Absent	<0.5
20	Pugh	Present	Absent	<0.5
21	Reed	Present	Absent	<0.5
22	Vanscyoc	Absent	Absent	<0.5
23	Foust	Absent	Absent	<0.5
24	Beam	Present	Absent	<0.5
25	Clever	Absent	Absent	<0.5
26		Absent	Absent	<0.5
27	Zullinger	Present	Present	<0.5
28	Pugh	Present	Absent	<0.5
29	Millhouse	Present	Absent	<0.5
30	Sprenkle	Absent	Absent	<0.5
31	Fire Hall	Present	Absent	<0.91
32	Stream test	Present	Present	<0.88

Well Sampling Analytical Results

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)	Sewage System Age
1A	Baker, Jr.	Present	Absent	<0.5	
2A	Gayman	Present	Absent	<0.5	
3A	Hess	Absent	Absent	3.02	
4A	Reed	Present	Absent	<0.5	
5A	Forrester	Present	Absent	<0.5	
6A	Horn	Present	Absent	<0.5	
7A	Marpoe	Absent	Absent	<0.5	
8A	Farkes	Present	Absent	<0.5	
9A	Stouffer	Present	Absent	<0.5	
10A	Douglas	Absent	Absent	<0.5	
11A	Gratkowski	Present	Absent	<0.5	
12A	Klahre	Present	Absent	<0.5	
13A	Brechbill	Present	Absent	<0.5	
14A	Reed	Present	Absent	<0.5	
15A	Deaven	Absent	Absent	<0.5	
16A	Rogers	Present	Absent	<0.5	
17A	Johnson	Present	Absent	<0.5	
18A	Greene	Absent	Absent	<0.5	
19A	Hess	Absent	Absent	<0.5	
20A	Jaymes	Present	Absent	1.01	
21A	Mohler	Absent	Absent	<0.5	
22A	Knouse	Present	Present	<0.5	
23A	Myers	Absent	Absent	<0.5	
24A	Ehkert	Present	Absent	<0.5	
25A	Witmer	Present	Absent	<0.5	
26A	Stouffer, Jr.	Present	Absent	<0.5	
27A	Timmons	Present	Present	6.09	
28A	Sites	Present	Absent	0.90	
29A	Rupert	Absent	Absent	<0.5	
30A	Horn	Present	Present	<0.5	
31A	Chesser	Present	Present	<0.5	
32A	Locke	Present	Absent	<0.5	
33A	Timmons	Present	Absent	<0.5	
34A	Holiness Camp	Absent	Absent	<0.5	
35A	Alleman	Present	Absent	<0.5	

Well Sampling Analytical Results

Test #	Name Identification	Total Coliform (parts/100 ml)	Fecal Coliform (parts/100 ml)	Nitrate/Nitrogen (ml/l)
1B	Treat	Present	Present	<0.5
2B	Hepfer	Present	Present	<0.5
3B	Grove	Absent	Absent	<0.5
4B	Holmes (LHV Spring)	Present	Present	0.72
5B	Urban	Absent	Absent	<0.5
6B	Holmes	Present	Present	<0.5
7B	Peterson	Present	Absent	<0.5
8B	Peterson, Jr.	Present	Present	0.52
9B	Walters	Absent	Absent	<0.5
10B	Elliot	Present	Absent	<0.5
1C	Holmes (Bear Val Spr)	Present	Present	1.43
2C	Geyer	Absent	Absent	<0.5
3C	Ehman	Absent	Absent	2.09
4C	Crider, Jr.	Present	Present	<0.5
5C	Henderson	Present	Absent	0.98
6C	Tornbau	Absent	Absent	<0.5
7C	Carroll	Absent	Absent	<0.5
8C	Mackey	Present	Present	0.62
9C	Treat	Present	Absent	<0.5
10C	Souders	Present	Present	2.73
11C	Funk	Present	Present	4.01
12C	Reese	Present	Absent	1.86
13C	Hankins	Present	Present	0.57
14C	Barkman	Absent	Absent	<0.5
15C	Stream Test	Present	Present	3.16
1D	Hurden	Present	Present	6.78
2D	Hoover	Present	Present	5.68
3D	Mackey	Present	Present	0.86
4D	Hurst	Absent	Absent	6.81
5D	Lepp	Present	Present	4.61
6D	McCardell	Present	Present	3.68
7D	Allen	Present	Absent	2.50
8D	Harrison	Present	Present	1.87
9D	Fullmer	Absent	Absent	2.48
10D	Shoop	Absent	Absent	2.50
11D	Shoop	Present	Present	6.32

12D	Leberknight	Present	Absent	<0.5
13D	Wright	Absent	Absent	<0.5
14D	Wright	Absent	Absent	<0.5
15D	Ehnhart	Present	Absent	<0.5
16D	Hafer	Present	Absent	<0.5
17D	Atherton	Present	Present	5.52
18D	Yeomans	Present	Present	0.54
19D	Black	Present	Absent	2.84
20D	Burdge	Present	Present	3.11
21D	Stayman	Present	Present	<0.5
22D	Whited	Present	Present	2.26
23D	Goshorn	Absent	Absent	<0.5

APPENDIX G

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
FINANCIAL REPORT

LETTERKENNY TOWNSHIP AUDITORS

INDEPENDENT AUDITOR'S REPORT

To The Board of Directors
Letterkenny Township Municipal Authority
Orrstown, Pennsylvania

We have audited the statement of assets, liabilities, reserves, contributions, and retained earnings – modified cash basis of the Letterkenny Township Municipal Authority as of December 31, 2001, and the related statement of revenues and expenses – modified cash basis and statement of cash flow –modified cash basis for the year then ended. These financial statements are the responsibility of the Authority's management. Our responsibilities to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with general elected auditor's standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. The audit involved examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. The audit also included, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As described in Note 1, the Authority prepares its financial statements on a modified cash basis of accounting, which is a comprehensive basis of accounting other than generally accepted accounting principles.

In our opinion, the financial statements referred to above present fairly in all material respects the financial position of Letterkenny Township Municipal Authority as of December 31, 2001.

In accordance with general elected auditor's standards, we have also issued our report dated September 10, 2002 on our consideration of Letterkenny Township Municipal Authority's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants.

LETTERKENNY TOWNSHIP AUDITORS
JUDITH SMITH
SANDRA JOHANSON
JOAN MYERS

September 10, 2002

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

FRANKLIN COUNTY, PENNSYLVANIA

Statement of Assets, Liabilities, Reserves,
Contributions, and Retained Earnings - Modified Cash Basis

FOR THE YEAR ENDED DECEMBER 31, 2001

ASSETS

CURRENT ASSETS			
Cash in Bank			33,689.37
PROPERTY, PLANT AND EQUIPMENT (Note 1)			
Property, Plant and Equipment	514,602.76		
LESS: Accumulated Depreciation	71,499.35		
TOTAL PROPERTY, PLANT AND EQUIPMENT			443,103.41
TOTAL ASSETS			476,792.78

LIABILITIES, CONTRIBUTIONS, AND RETAINED EARNINGS

CURRENT LIABILITIES			
Note Payable – Bank (Due in One Year) (Note 2)			3,405.40
Note Payable – Other (Due in One Year) (Note 3)			5,400.00
TOTAL CURRENT LIABILITIES			8,805.40
LONG-TERM INDEBTEDNESS			
Note Payable – Bank (Note 2)	64,748.51		
LESS: Due in One Year	3,405.40	61,343.11	
Note Payable – Other (Note 3)	7,900.75		
LESS: Due in One Year	5,400.00	2,500.75	
TOTAL LONG-TERM INDEBTEDNESS			63,843.86
TOTAL LIABILITIES			72,649.26
CONTRIBUTED CAPITAL (Note 4)			375,244.33
RETAINED EARNINGS			28,899.19
TOTAL LIABILITIES, RESERVES, CONTRIBUTIONS AND RETAINED EARNINGS			476,792.78

SEE ACCOMPANINGNOTESAND AUDITOR'S REPORT

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

FRANKLIN COUNTY, PENNSYLVANIA

Statement of Revenue and Expenses –
Modified Cash Basis

FOR THE YEAR ENDED DECEMBER 31, 2001

REVENUES		
Sewer System Revenue		53,772.63
Hook-up and Inspection Fees		1,856.73
Administrative Fees		150.00
TOTAL REVENUES		55,779.36
OPERATING EXPENSES		
Sewage Transportation and Treatment	12,841.81	
Maintenance	3,689.89	
Postage and Office Supplies	596.75	
Office Wages	2,333.77	
Electric	4,706.71	
Professional Fees	1,881.99	
Miscellaneous Expenses	521.82	
Board Expenses	550.00	
Insurance	577.74	
Depreciation	14,064.79	
TOTAL OPERATING EXPENSES		41,765.27
NET INCOME FROM OPERATIONS		14,014.09
OTHER INCOME		
Interest Income		1,050.68
		15,064.77
OTHER EXPENSE		
Interest Expense		3,405.40
NET INCOME		11,659.37

SEE ACCOMPANYING NOTESAND AUTITOR'S REPORT

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

FRANKLIN COUNTY, PENNSYLVANIA

Statement of Cash Flows –
Modified Cash Basis

FOR THE YEAR ENDED DECEMBER 31, 2001

CASH FLOWS FROM OPERATING ACTIVITIES		
Net Income	11,659.37	
Adjustments to reconcile net incometo		
Net cash provided by operating activities:		
Depreciation	14,064.79	
NET CASH PROVIDED BY OPERATING ACTIVITIES		25,724.16
CASH FLOWS FROM FINANCING ACTIVITIES		
Payment of Principal on Note Payable - Bank	(7,740.00)	
Payment of Principal on Note Payable – Other	(5,400.00)	
NET CASH USED BY FINANCING ACTIVITIES		(13,140.00)
NET INCREASE IN CASH		12,584.16
CASH BALANCE, January 1, 2001		26,609.81
CASH BALANCE, December 31, 2001		39,193.97

SUPPLEMENTAL DISCLOSURES:
Cash Paid During the Year for:
Interest 4,334.60

SEE ACCOMPANYING NOTES AND AUDITOR'S REPORT

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

FRANKLIN COUNTY, PENNSYLVANIA

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2001

NOTE 1 – Summary of Significant Accounting Policies

Purpose of Authority

The authority has been incorporated under the provisions of the Municipal Authorities Act of 1945 for the purpose of constructing a sewer system to benefit the Township of Letterkenny, Franklin County.

Basis of Accounting

The Accompanying financial statements have been prepared on the modified cash basis of accounting. This basis differs from generally accepted accounting principles primarily because the Authority has not recognized accounts receivable, accounts payable and accrued items, except for depreciation.

Property, Plant and Equipment

This account includes engineering and mapping costs together with interim financing costs and administrative expenses of the Authority for the initial system as well as the cost of improvements since the system was originally constructed. These costs are being depreciated using the straight-line method overtheir estimated useful lives.

NOTE 2 – Note Payable – Bank

A note with Orrstown Bank is approved to a maximum of $90,000. Payments of $645 are due monthly including interest at 6-1/2% per annum, with final payment due February 2014. The balance of the note on December 31, 2001 was $64,748.51.

Maturities of the Note Payable – Bank for each of the next five years and thereafter are as follows:

YEAR ENDING DECEMBER, 31	AMOUNT
2002	3,405.40
2003	3,882.52
2004	4,142.52
2005	4,419.95
2006	4,707.27
Thereafter	44,190.85
	64,748.51

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY

FRANKLIN COUNTY, PENNSYLVANIA

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 2001

NOTE 3 – Notes Payable – Other

Agreement with Letterkenny Township to reimburse the $81,044.75 the Township paid to Hamilton Municipal Authority on behalf of Letterkenny Township Municipal Authority. The Authority is making monthly payments of $50, with final payment due June 2003. The balance of the note on December 31, 2000 was $7,900.75.

NOTE 4 – Contributed Capital

Contributed capital consists of the following:

Contribution from Letterkenny Township	20,767.00
Debt forgiven by Letterkenny Township	40,713.52
Contribution of Hillview Sewer Treatment Plant And Hillview Sewer Collection Lines	352,900.00
Debt forgiven by Hamilton Township Municipal Authority	8,000.00
	422,380.52
LESS: Transfer of Kensington Heights Sewer Collection Lines to Hamilton Township Municipal Authority	(47,136.19)
	375,244.33

APPENDIX H

CFJMA FEASIBILITY STUDY

DEC 18 2002

Barry E. Perry, Sr.
MANAGER

Lisa E. Suders
ASSISTANT MANAGER

Dwain W. Koser
FIELD SUPERINTENDENT

CUMBERLAND
FRANKLIN
JOINT
MUNICIPAL
AUTHORITY

725 Municipal Drive
Shippensburg, PA 17257
(717) 532-6949
FAX (717) 532-2880

December 16, 2002

Martin & Martin, Inc.
37 South Main Street
Chambersburg, PA 17201
Attn: Mr. Scott R. Shildt

Re: Extension of Sanitary Sewer
into Letterkenny Township

Dear Scott:

We are in receipt of your letter dated November 18, 2002 regarding your client's (Letterkenny Township) request for "acceptance" into the Cumberland-Franklin Joint Municipal Authority's (CFJMA) wastewater collection system.

This correspondence shall serve as official written approval of the concept of a sewer extension into Letterkenny Township to serve the villages of Pleasant Hall and Upper Strasburg.

As discussed at the regular CFJMA meeting of November 15, 2002, it would appear to be easier to accomplish this project initially by treating Letterkenny Township as a "customer", similar to the arrangement Letterkenny Township has with HTMA in the Kensington Heights area, rather than adding them as a member municipality. Amending the Authority Charter and the Intermunicipal Agreement with the Borough of Shippensburg to add Letterkenny Township to CFJMA as a member municipality may be best left to tackle at a later date since it could be a slow and cumbersome process and could delay the actual extension of the sewer system (see attached letter from G. Bryan Salzmann, Borough of Shippensburg Solicitor).

If Letterkenny Township desires to become a member immediately rather than possibly sometime in the future, please advise us of such. Please note, being a member or a customer will have no effect on projected monthly user rates or connection fees to Letterkenny Township residents.

This approval is subject to the following:

Based upon our review of the projected sewage generation rate for this project, and review of the latest Chapter 94 municipal wasteload reports submitted to the Pennsylvania Department of Environmental Protection (PA D.E.P.), capacity for the proposed project is available in the Cumberland-Franklin Joint Municipal Authority's collection and conveyance system and in the Borough of Shippensburg's Wastewater Treatment Plant (CFJMA's reserved portion). This project is not expected to cause a hydraulic or organic overload (or a five-year projected overload) in either the collection/conveyance system or the wastewater treatment system.

This determination of capacity is based upon five-year hydraulic and organic loading projections contained in the Chapter 94 reports.

This determination is not a guarantee nor a reservation of future capacity for the referenced project should the project not be completed within the five-year planning window or should actual or projected loadings change. To guarantee or reserve future capacity requires a connection permit with payment of applicable connection charges and/or tapping fees. Approval for such connection permits is granted on a first come, first serve basis, and will be based upon available hydraulic and organic capacity in the collection and treatment systems at the time of actual application for connection.

As discussed previously, to make this project feasible, CFJMA will be responsible to fund, design, permit, bid & build the system as well as maintain the system and bill customers upon completion. Letterkenny Township would be responsible to negotiate for and acquire easements per drawings provided by CFJMA; the reasonable costs of which will be provided for in the funding. Letterkenny Township would also need to adopt appropriate ordinances to establish requirements for mandatory connection, etc.

If you have any questions or require additional information, please contact the undersigned.

Very truly yours,
CUMBERLAND-FRANKLIN JOINT MUNICIPAL AUTHORITY

Barry E. Perry, Manager

c: Letterkenny Township Board of Supervisors
Ron Turo, Esquire
Lance S. Kegerreis, P.E., V.P., Dennis E. Black Engineering, Inc.

Encl.

SALZMANN, DEPAULIS & FISHMAN, P.C.

BRYAN SALZMANN, ESQ.
EVEN J. FISHMAN, ESQ.
ANN F. DEPAULIS, ESQ.
NORMA J. BARTKO, ESQ.*
WILLIAM W. THOMPSON, ESQ.*
MELISSA K. DIVELY, ESQ.

*Also Admitted to Maryland Bar

Paralegals
PAMELA R. KOEHLER
BARBARA J. MOSIOR
LAURIE J. PORTER
TRICIA L. BAILEY

REPLY TO:
455 PHOENIX DRIVE • SUITE A • CHAMBERSBURG, PA 17201
(717) 263-2121 FAX (717) 263-0663

95 ALEXANDER SPRING ROAD • SUITE 3 • CARLISLE, PA 17013
(717) 249-6333 FAX (717) 249-7334

105 NORTH FRONT STREET • SUITE 401 • HARRISBURG, PA 17101
(717) 232-9420 FAX (717) 232-1970

December 12, 2002

Cumberland –Franklin Joint Municipal Authority
ATTN: Barry Perry, Manager
725 Municipal Drive
Shippensburg, PA 17257

RE: CFJMA-Extension of Sanitary Sewer into Letterkenny Township

Dear Mr. Perry:

This correspondence is in response to the letter dated September 26, 2002 from Dennis E. Black Engineering, Inc. regarding the Authority's proposal to provide a sewer extension into Letterkenny Township to service the existing needs areas in the villages of Pleasant Hall and Upper Strasburg.

As per Paragraphs 12, 31 and 34j of the Joint Agreement, as amended, this correspondence shall serve as written approval by Borough Council to allow the extension to occur.

I have advised the Borough of my legal opinion that this extension will not serve to make the Township a member of the Authority. To become a member of CFJMA, the Township would have to be approved as a member by all current parties to the Joint Agreement and would actually become a party to the Agreement. A line extension is a much easier task

Please feel free to contact me if you have any questions.

Very truly yours,

By: _____

G. Bryan Salzmann, Esquire

GBS/lam

FEASIBILITY STUDY

for a

SANITARY SEWER EXTENSION PROJECT

to serve the

VILLAGES OF UPPER STRASBURG
and
PLEASANT HALL

situated in

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY, PA

for

CUMBERLAND-FRANKLIN JOINT MUNICIPAL AUTHORITY

AUGUST 2002

Prepared By

DENNIS E. BLACK ENGINEERING, INC.
2400 PHILADELPHIA AVENUE
CHAMBERSBURG, PA 17201
(717) 263-8794

TABLE OF CONTENTS

I. INTRODUCTION

II. COST OF CONSTRUCTION

III. USER FEE DETERMINATION

IV. SUMMARY

V. EXHIBITS

A. CFJMA 2001 PUMPING STATION DATA

B. USER FEE DETERMINATION FROM LETTERKENNY TOWNSHIP'S 537 PLAN

C. MAP OF PROJECT AREA

I. INTRODUCTION

The purpose of this Feasibility Study is to investigate the cost of construction and calculated User Fees resulting from the extension of CFJMA's sewage collection system to the Villages of Upper Strasburg and Pleasant Hall in Letterkenny Township.

Letterkenny Township, in its current Act 537 Plan, has identified these population centers as requiring public sewerage facilities. However, due to the need to construct, operate, and maintain a Wastewater Treatment Facility (WWTF), in addition to constructing the sewage collection system, the proposed project appears to be economically unfeasible. User Fees were estimated to be about $75.00 per month, with a 45% grant, to over $100.00 per month without any grant money.

CFJMA owns and operates an extensive sewage collection system which serves portions of Southampton Township and Shippensburg Township in Cumberland County, and Southampton Township and the Borough of Orrstown in Franklin County. Each of these municipalities appoint representatives who serve on the Board of Directors of CFJMA.

CFJMA's sewage collection and conveyance system transports its wastes to the WWTF owned and operated by the Borough of Shippensburg. CFJMA owns a portion of the capacity of the WWTF equaling 960,000 Gallons Per Day (GPD). During the last five (5) year period, CFJMA's total flow treated at the WWTF averaged 542,000 GPD and is projected to reach 712,000 GPD by 2006. This growth is calculated by multiplying the actual average EDU growth per year (130) times 265 GPD per EDU, which is CFJMA's standard estimated flow rate per EDU.

Because of the proximity of Pleasant Hall and Upper Strasburg to CFJMA's existing collection system in Orrstown, the Board of Directors of Letterkenny Township Municipal Authority (LTMA), the Supervisors of Letterkenny Township and the Board of Directors of CFJMA, all recognize the possibility of extending that collection system to serve these population centers.

The estimated 280 EDU's which comprise Upper Strasburg, Pleasant Hall, and the dwellings along Route 533 would generate an estimated flow of 74,200 GPD, based on CFJMA's standard rate of 265 GPD/EDU. CFJMA has sufficient reserve capacity at this time, as well as the five (5) year projection prescribed by its Chapter 94 Report, to absorb the proposed flow. Using information from CFJMA's 2001 Chapter 94 Report, CFJMA's projected flow in 2006 including

Letterkenny Township would be 786,200 GPD, or 82% of its reserved capacity. At the current projected rate of growth, with Letterkenny Township, CFJMA would reach its hydraulic reserved capacity in 2011.

Additionally, Pumping Station # 3, which would receive Letterkenny Township's flow, and Pumping Stations # 2 and # 4, which would transport the flow, all have sufficient reserve capacities to accommodate the additional flow (see Exhibit A).

The type of sewage collection system proposed for use in Letterkenny Township is Small Diameter, Variable Grade Sanitary Sewer (SDVGSS). This is the same type of system that is currently in use in Letterkenny Township, along Mountain Road, as part of the Hillview system which is owned and operated by LTMA. The SDVGSS utilizes a modified septic tank at each residence for solids retention and small diameter (usually 2"-4") PVC lines to transport the liquid wastes. The great advantage of a SDVGSS over a conventional system is the reduced construction cost. Because the SDVGSS does not need to maintain a constant positive gradient, as with conventional sewer, it can be installed to run with the terrain and usually requires trenching only 3'-4' deep. Because of its unique design, the SDVGSS will actually cause the wastewater to flow uphill, for limited distances, and may eliminate the need for costly pumping stations. In most instances, the cost of installing a SDVGSS is less than half of the cost of a conventional system. This cost savings can make the difference between a project being feasible or being cost prohibitive.

Prior to the actual engineering design of the SDVGSS, it is very difficult to determine precisely if one or more pumping stations would be required or not. This study shows all of the associated costs and fees with pumping stations usage and without.

II. COST OF CONSTRUCTION

The cost of construction of a public sewer system for this project will differ significantly from the construction costs described in Letterkenny Township's Act 537 Plan. The proposed public sewer will utilize a SDVGSS, instead of the more costly convention system, and will not require construction of a local WWTF.

In addition, CFJMA has the equipment and manpower to participate in the construction hereby further reducing overall costs.

The Estimated Cost of Construction shown on Table 1 shows the relationship between contractor (bid) and CFJMA participation.

The Total Estimated Costs of the project are shown on Table 2.

TABLE 1
LETTERKENNY TOWNSHIP
SEWER EXTENSION PROJECT

Construction – Bid

Description	Unit	Estimated Quantity	Unit Price	Total
4" PVC	L.F.	47,600	$ 1.80	$ 85,680
1-1/2" PVC	L.F.	6,100	.75	4,575
4"x 4"x1-1/2" Tee	Each	270	40.00	10,800
1-1/2" 45° Elbow	Each	180	15.00	2,700
4" 45° Elbow	Each	180	25.00	4,500
1-1/2" Cap	Each	270	.75	203
1-1/2" Check Valve	Each	270	70.00	18,900
Effluent pump	Each	11	500.00	5,500
Mainline trench excavating 2'-6'	L.F.	31,000	2.25	69,750
Precast 500 gal. concrete tank	Each	270	400.00	108,000
Precast cover	Each	270	28.00	7,560
Precast riser	Each	270	65.00	17,550
Stone aggregate	Ton	5,840	12.50	73,000
Paving restoration	S.Y.	1,260	33.00	41,580
Topsoil seed & mulch	S.Y.	58,800	1.25	73,500
Highway crossing	Each	12	5,000	60,000
			Total	$583,800

Construction – CFJMA

Backhoe w/operator:	$75.00/hr. x 8 hrs./day	=	$ 600/day	
Foreman:	30.00/hr. x 8 hrs./day	=	240/day}	
Laborers:	2 x 20.00/hr. x 8 hrs./day	=	320/day}	$960/day call $1,000
Dump truck w/driver:	50.00/hr. x 8 hrs./day	=	400/day}	
			$1,560/day	call $1,600

Mainline (trencher):	31,000 L.F. ÷ 750 L.F./day	x	$1,000 day	= $ 41,300
Mainline (backhoe:	16,600 L.F. ÷ 200 L.F./day	x	1,600/day	= 132,800
Laterals:	6,100 L.F. ÷ 100 L.F./day	x	1,600/day	= 97,600
Uniloader:	12 months @ $1,100/month			13,200
Driveway repair:	76 each @ $175/each			13,300
Tank pits:	270 each @ $125/each			33,750
				$331,950

TABLE 2
LETTERKENNY TOWNSHIP
SEWER EXTENSION PROJECT

Estimated Project Costs

SUMMARY

Construction		$ 915,800
Bid	$583,800	
CFJMA	332,000	
	$915,800	
Permitting, Engineering, Legal and Easements		512,800
Sub-Total		$1,428,600
Contingency (15%)		214,400
Total		**$1,643,000**

III. USER FEE DETERMINATION

After the total cost of a project has been estimated, an examination of the methods of financing needs to be made.

The various alternatives described in the Township's Act 537 Plan, estimate User Fees based on either receiving a 45% grant or not receiving it (see Exhibit B), and assume a 4.5% loan repaid over 20 years. All Act 537 alternatives use a $2000 per EDU Connection Fee.

This study has based its final estimated User Fees on the following assumptions:

A. No grant money would be received
B. The project would be financed at 4.5% for 20 years
C. Connection Fee of $2000

Table 3 shows the method of User Fee determination for the project. The $30 per month per EDU figure indicated, represents the rate which would result if no pumping stations would be necessary, and if no unusual or unforeseen situations are encountered.

Table 4 shows the same User Fee calculations, assuming that three (3) pumping stations would be required and that an additional 10% of project cost ($164,000) was necessary to address unusual or unforeseen situations. The calculated fee rate of $42.00 per month per EDU probably represents a worst-case scenario..

TABLE 3
USER FEE DETERMINATION

Actual EDU count from Act 537 Plan	259
Additional EDU's (Iron Bridge Road to P.S. # 3)	12
Institutional EDU's (Letterkenny Elementary School)	9
No additional EDU's assessed for fire department, post office, churches, etc.	0
Total EDU's	280

Total Project Cost	$1,643,000
Connection Fee @ $2000	(560,000)
Net Project Cost	**$1,083,000**
Financing @ 4.5% for 20 years	$ 82,220
Reserve (10% of financing)	8,222
O&M (33% tanks pumped each year @ $125 each)	11,258
Total Annual Cost	**$ 101,700**
Annual Fee Per EDU (To Nearest Dollar)	$ 363.00
Monthly Fee per EDU (To Nearest Dollar)	$ 30.00

TABLE 4
USER FEE DETERMINATION

(Assuming 3 pumping stations & unusual situations)

Total Project Cost (From Table 2)	$1,643,000
Three (3) Pumping Stations @ $100,000 (including engineering)	300,000
Unusual Situations @ 10% of Project Cost	164,000
Total Cost	$2,107,000
Connection Fee @ $2000	(560,000)
Net Project Cost	**$1,547,000**
Financing @ 4.5% for 20 Years	$ 117,460
Reserve (10% of Financing)	11,740
O&M (33% tanks pumped each year @ $125 each)	11,200
Total Annual Cost	**$ 140,400**
Annual Fee Per EDU (To Nearest Dollar)	$ 501.00
Monthly Fee Per EDU (To Nearest Dollar)	$ 42.00

IV. SUMMARY

A preliminary evaluation of the project area seems to indicate that the area could be serviced by SDVGSS..

Because of the proximity of the project area to existing CFJMA facilities, it appears that the SDVGSS could transport the wastes of the project area to those facilities.

CFJMA's existing facilities have sufficient capacity to accommodate the projected flow from the project area.

The projected flow from the project area will not cause CFJMA any hydraulic overloads within the next 5 years (as prescribed by Chapter 94).

The SDVGSS is significantly less expensive to install than a conventional sewerage system, and the use of CFJMA's facilities eliminates the need for an on-site WWTF. These reductions in cost result in a financially viable project.

CFJMA and Letterkenny Township will need to discuss such matters as relate to their inter-municipal cooperation.

2001 PUMPING STATION DATA
CUMBERLAND-FRANKLIN JOINT MUNICIPAL AUTHORITY

PUMPING STATION		PUMP CAPACITY (G.P.H.)	TIME RAN IN 2001 (HRS.)	PRESENT FLOW PER PUMP (G.P.H.)	PRESENT FLOW PER P.S. (G.P.D.)	FIVE YEAR PROJECTION (2)	AVAILABLE CAPACITY (1)
P.S. # 1	PUMP 1	7,140	115.4	2,257			
	PUMP 2	6,960	116.9	2,229	4,486	4,486	169,200
P.S. # 2	PUMP 1	28,080	195.9	15,071			
	PUMP 2	26,940	214.0	15,795	30,866	31,661	660,240
P.S. # 3	PUMP 1	10,560	50.6	1,464			
	PUMP 2	10,440	52.1	1,490	2,954	3,484	252,000
P.S. # 4	PUMP 1	44,160	409.2	49,508			
	PUMP 2	50,340	379.5	52,340	101,848	120,928	1,134,000
P.S. # 5	PUMP 1	12,900	659.4	23,305			
	PUMP 2	12,840	654.9	23,038	46,343	57,738	308,880
P.S. # 6	PUMP 1	8,760	399.8	9,595			
	PUMP 2	8,760	407.6	9,782	19,377	29,182	210,240
P.S. # 7	PUMP 1	8,460	697.2	16,160			
	PUMP 2	8,280	712.9	16,172	32,332	77,117	200,880
P.S. # 8	PUMP 1	36,360	170.0	16,935			
	PUMP 2	35,460	166.8	16,205	33,140	72,360	861,840
P.S. # 9A	PUMP 1	19,200	374.1	19,679			
	PUMP 2	21,060	478.5	27,609	47,288	47,288	483,120
P.S. # 10	PUMP 1	19,500	218.5	11,673			
	PUMP 2	21,060	219.8	12,682	24,355	36,280	486,720
P.S. # 11	PUMP 1	16,620	** -----	** ----	**		
	PUMP 2	14,820	** -----	** ----	19,875	19,875	377,280
P.S. # 12	PUMP 1	23,100	45.9	2,905			
	PUMP 2	23,100	55.1	3,487	6,392	6,372	554,400

** PRESENT FLOWS (GPD) = * 265 GPD/EDU

■ *NO TIMER ON P.S. # 11

● NOTES:

(1) AVAILABLE CAPACITY (G.P.D.) = AVERAGE PUMP CAPACITY (GPH) x 24 HRS.

(2) FIVE YEAR PROJECTION (G.P.D.) = DEVELOPER PROJECTIONS (G.P.D.) + PRESENT FLOW

M:\PROJECT TYPING\2956_05\EXHIBIT V - FEASIBILITY STUDY.doc

Assume 20 year loan at 2%

Amount to be financed	$ 4,441,653.13
Annual Cost to Township @ 2%	$ 269,635.00
Annual Operating and Maintenance Cost	$ 55,000.00
Total Annual Cost to Township	$ 324,635.00
Annual Cost per EDU	$ 1,347.03
Monthly Cost per EDU	$ 112.25

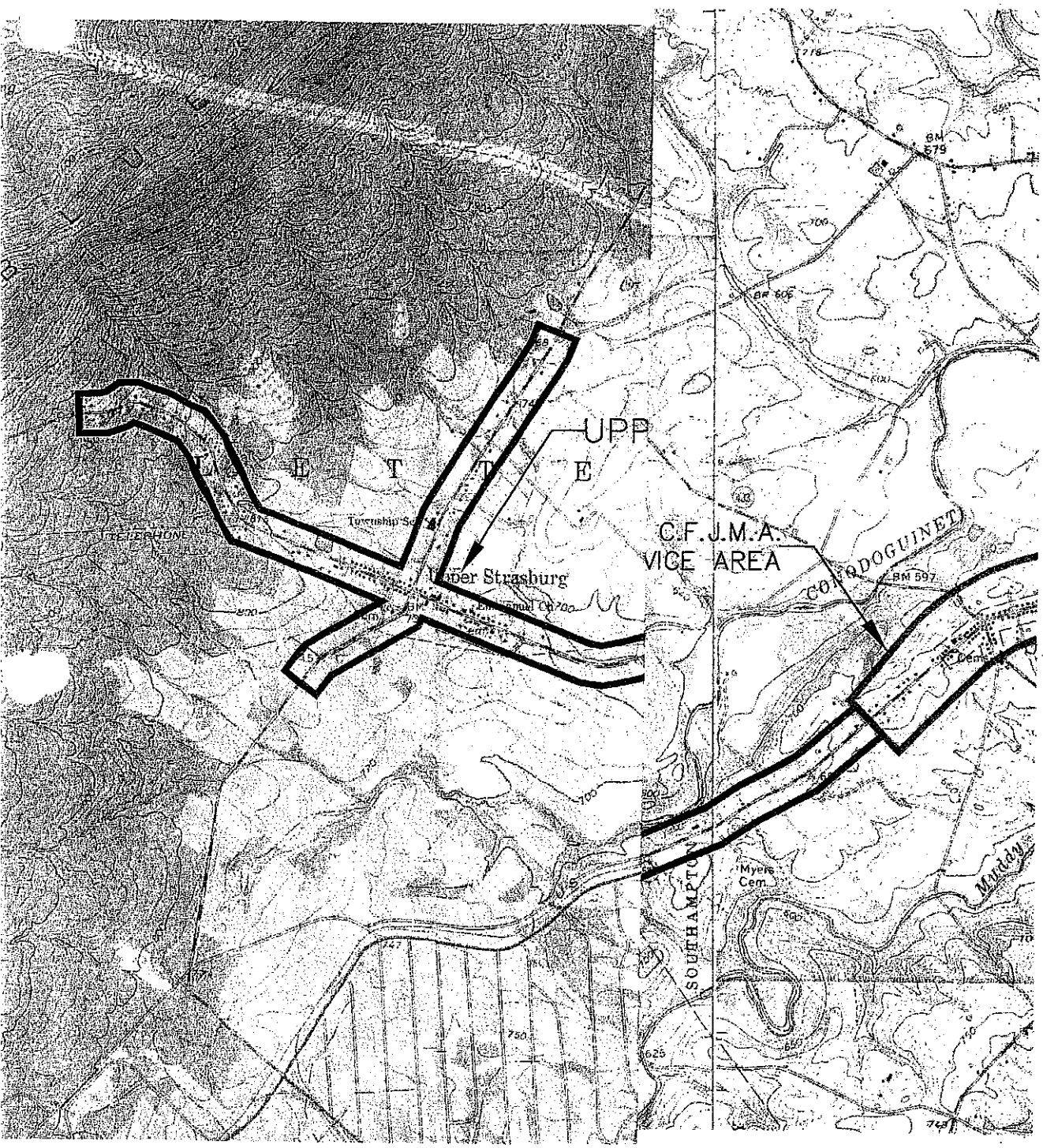
Assume 20 year loan at 4.5%

Amount to be financed	$ 4,441,653.13
Annual Cost to Township @ 4.5%	$ 337,200.00
Annual Operating and Maintenance Cost	$ 55,000.00
Total Annual Cost to Township	$ 392,200.00
Annual Cost per EDU	$ 1,627.39
Monthly Cost per EDU	$ 135.62

Assume 45% Grant with 20 year loan at 4.5%

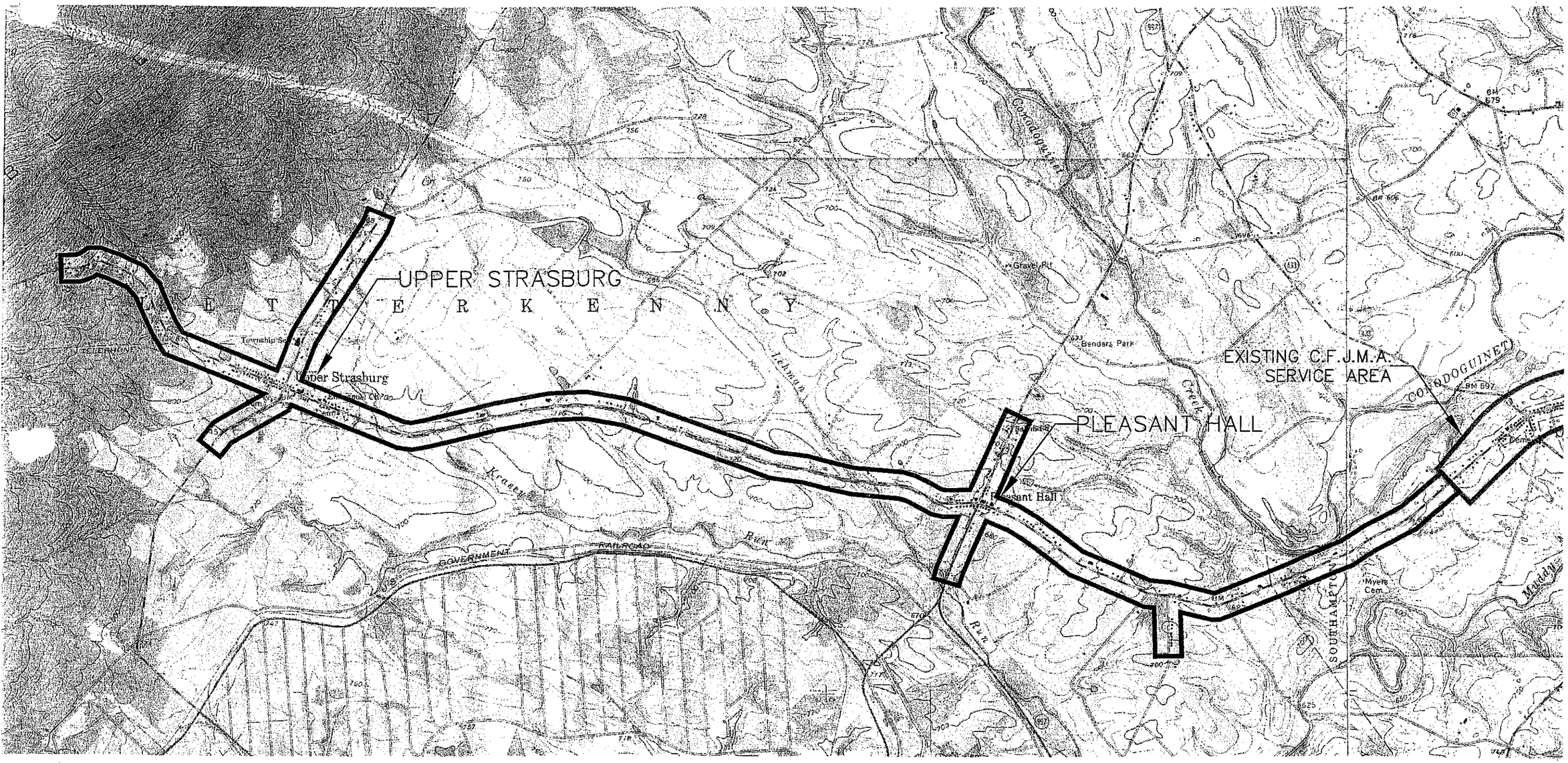
Amount to be financed	$ 4,441,653.13
Assuming 45% Grant	$ (1,998,743.91)
Amount to be financed after Grant	$ 2,442,909.22
Annual Cost to Township @ 4.5%	$ 185,461.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 215,461.00
Annual Cost per EDU	$ 894.03
Monthly Cost per EDU	$ 74.50

Exhibit B



EXTENSION PROJECT
SERVE
G AND PLEASANT HALL
CATED IN
NNY TOWNSHIP
FOR
JOINT MUNICIPAL AUTHORITY

NOT TO SCALE



SANITARY SEWER EXTENSION PROJECT
TO SERVE
UPPER STRASBURG AND PLEASANT HALL
LOCATED IN
LETTERKENNY TOWNSHIP
FOR
CUMBERLAND–FRANKLIN JOINT MUNICIPAL AUTHORITY

Exhibit “T-2”

December 9, 2019

Letterkenny Township Supervisors
c/o Township Secretary
4924 Orrstown Road
Orrstown, PA 17244

Re: Approval Letter – Special Study
Act 537 Planning
Letterkenny Township Act 537 Update Special Study
DEP CODE NO. B1-28910-ACT
APS ID No. 1006130; AUTH ID No. 1296156
Letterkenny Township, Franklin County

Dear Supervisors:

The Department of Environmental Protection (DEP) has reviewed the proposed Special Study submitted on November 6, 2019, prepared by Martin & martin, Inc., and entitled Act 537 Update Special Study. The proposal is located in Letterkenny Township and consists of the transfer in ownership of the collection, conveyance and treatment facilities from Letterkenny Township to York Water Company. The submission is consistent with the planning requirements in Chapter 71 of DEP's regulations.

The plan is approved with the following comment:

- All sewage permits (NPDES and WQM Part II) currently held by Letterkenny Township must be transferred to York Water Company.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457
Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the

appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at http://ehb.courtapps.com or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

If you have any questions or concerns, please call Michael McNulty at 717.705.4758, and refer to DEP Code No. B1-28910-ACT, Application No. 1006130 and Authorization No. 1296156.

Sincerely,

Maria D. Bebenek, P.E.
Program Manager

cc: York Water Company
Martin & Martin, Inc.
Franklin County Planning Commission

Act 537 Plan Update Special Study

Letterkenny Township

Franklin County, Pennsylvania

October 3, 2019

Table of Contents

DEP Transmittal Letter

Part 1 - General Information

Part 2 - Administrative Completeness Checklist

1. Table of Contents
2. Plan Summary
    A. Proposed Service Area and Municipal Facilities Being Acquired
    B. Institutional Arrangements Necessary to Implement Acquisition
    C. Estimated Cost of Implementing Acquisition
    D. Letterkenny Township and YWC Commitments
    E. Implementation Schedule
3. Municipal Adoption
4. Planning Review Documentation
5. Public Notification Documentation
6. Comments and Responses
7. Implementation Schedule

Part 3 - General Plan Content - Letterkenny Township Act 537 Plan Update Special Study

Appendices

martin and martin, incorporated

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)
www.martinandmartininc.com

November 7, 2019

Mr. Timothy Wagner
PA Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

Re: Letterkenny Township
Act 537 Plan Update Special Study

Dear Mr. Wagner:

Enclosed find three (3) copies of the Letterkenny Township Act 537 Plan Update Special Study dated October 3, 2019, prepared by our office. We appreciate your assistance with getting this processed through the Department.

On November 5, 2019, a public meeting was held at which time public comment was collected and Letterkenny Township reviewed the contents of the Act 537 Plan revision. The Township reviewed and adopted the resolution, which is attached. The plan is being submitted to the Department for review and approval.

Please contact me if you should have any questions, comments or require additional information.

Sincerely,

MARTIN AND MARTIN, INCORPORATED

Tim Cormany

Timothy C. Cormany, AICP

Part 2

Administrative Completeness Checklist

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

PART 1 GENERAL INFORMATION

A. Project Information

1. Project Name Letterkenny Township Act 537 Update Special Study

2. Brief Project Description Special study to evaluate the pending asset acquisition of the Letterkenny Township Wastewater System by the York Water Company

B. Client (Municipality) Information

Municipality Name	County	City	Boro	Twp
Letterkenny	Franklin	☐	☐	☒

Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
Myers	Charles			Chairman
Additional Individual Last Name	First Name	MI	Suffix	Title
Kibbe	Melissa			Secretary

Municipality Mailing Address Line 1	Mailing Address Line 2
4924 Orrstown Road	

Address Last Line -- City	State	ZIP+4
Orrstown	PA	17244

Phone + Ext.	FAX (optional)	Email (optional)
717-532-8716		

C. Site Information

Site (or Project) Name	
Letterkenny Township Wastewater System	(Municipal Name) Act 537 Plan

Site Location Line 1	Site Location Line 2

D. Project Consultant Information

Last Name	First Name	MI	Suffix
Cormany	Timothy	C	

Title	Consulting Firm Name
Vice President of Planning	Martin and Martin, Incorporated

Mailing Address Line 1	Mailing Address Line 2
37 South Main Street	Suite A

Address Last Line – City	State	ZIP+4	Country
Chambersburg	PA	17201	USA

Email	Phone + Ext.	FAX
tcormany@martinandmartininc.com	717-264-6759 + 107	717-264-7339

PART 2 ADMINISTRATIVE COMPLETENESS CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	In addition to the main body of the plan, the plan must include items one through eight listed below to be accepted for formal review by DEP. Incomplete plans may be ***denied*** unless the municipality is clearly requesting an advisory review.
_____	TOC	1. **Table of Contents**
		2. **Plan Summary**
_____	Part 2	A. Identify the proposed service areas and major problems evaluated in the plan. (Reference - 25 *Pa. Code* §71.21(a)(7)(i)).
_____	Part 2	B. Identify the alternative(s) chosen to solve the problems and serve the areas of need identified in the plan. Also, include any institutional arrangements necessary to implement the chosen alternative(s). (Reference - 25 *Pa. Code* §71.21(a)(7)(ii)).
_____	Part 2	C. Present the estimated cost of implementing the proposed alternative (including the user fees) and the proposed funding method to be used. (Reference - 25 *Pa. Code* §71.21(a)(7)(ii)).
_____	Part 2	D. Identify the municipal commitments necessary to implement the Plan. (Reference - 25 *Pa. Code* §71.21(a)(7)(iii)).
_____	Part 2	E. Provide a schedule of implementation for the project that identifies the ***major*** milestones with dates necessary to accomplish the project to the point of operational status. (Reference - 25 *Pa. Code* §71.21(a)(7)(iv)).
_____	Part 2	3. **Municipal Adoption:** ***Original***, signed and sealed Resolution of Adoption by the municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. (Reference - 25 *Pa. Code* §71.31(f)) Section V.F. of the Planning Guide.
_____	Part 2	4. **Planning Commission / County Health Department Comments**: Evidence that the municipality has requested, reviewed and considered comments by appropriate official planning agencies of the municipality, planning agencies of the county, planning agencies with area wide jurisdiction (where applicable), and any existing county or joint county departments of health. (Reference - 25 *Pa. Code* §71.31(b)) Section V.E.1 of the Planning Guide.
_____	Part 2	5. **Publication:** Proof of Public Notice which documents the proposed plan adoption, plan summary, and the establishment and conduct of a 30-day comment period. (Reference - 25 *Pa. Code* §71.31(c)) Section V.E.2 of the Planning Guide.
_____	Part 2	6. **Comments and Responses:** Copies of ***all*** written comments received and municipal response to ***each*** comment in relation to the proposed plan. (Reference - 25 *Pa. Code* §71.31(c)) Section V.E.2 of the Planning Guide.
_____	Part 2	7. **Implementation Schedule:** A complete project implementation schedule with milestone dates specific for each existing and future area of need. Other activities in the project implementation schedule should be indicated as occurring a finite number of days from a major milestone. (Reference - 25 *Pa. Code* §71.31(d)) Section V.F. of the Planning Guide. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference - 25 *Pa. Code* §71.21(c)).
_____	NA	8. **Consistency Documentation:** Documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements in 25 *Pa. Code* §71.21.(a)(5)(i-iii). (Reference - 25 *Pa. Code* §71.31(e)). Appendix B of the Planning Guide.

PART 3 GENERAL PLAN CONTENT CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan		Item Required
_____	Part 3	I.	**Previous Wastewater Planning**
			A. Identify, describe and briefly analyze all past wastewater planning for its impact on the current planning effort:
_____	Part 3		1. Previously undertaken under the Pennsylvania Sewage Facilities Act (Act). (Reference - Act 537, 35 P.S. §750.5(d)(1)).
_____	Part 3		2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(A-D)). Section V.F of the Planning Guide.
_____	Part 3		3. Is anticipated or planned by applicable sewer authorities or approved under a Chapter 94 Corrective Action Plan. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(A&B)). Section V.D. of the Planning Guide.
_____	Part 3		4. Through planning modules for new land development, planning "exemptions" and addenda. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(A)).
_____	Part 3	II.	**Physical and Demographic Analysis utilizing written description and mapping** (All items listed below require maps, and all maps should show all current lots and structures and be of appropriate scale to clearly show significant information).
_____	Part 3		A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference – 25 *Pa. Code* §71.21(a)(1)(i)).
_____	Part 3		B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference - 25 *Pa. Code* §71.21(a)(1)(ii)).
_____	NA		C. Soils - Analysis with description by soil type and soils mapping for areas not presently served by sanitary sewer service. Show areas suitable for in-ground onlot systems, elevated sand mounds, individual residential spray irrigation systems (IRSIS), and areas unsuitable for soil dependent systems. (Reference - 25 *Pa. Code* §71.21(a)(1)(iii)). Show Prime Agricultural Soils and any locally protected agricultural soils. (Reference - 25 *Pa. Code* §71.21(a)(1)(iii)).
_____	NA		D. Geologic Features - (1) Identification through analysis, (2) mapping and (3) their relation to existing or potential nitrate-nitrogen pollution and drinking water sources. Include areas where existing nitrate-nitrogen levels are in excess of 5 mg/L. (Reference - 25 *Pa. Code* §71.21(a)(1)(iii)).
_____	NA		E. Topography - Depict areas with slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds and slopes that are unsuitable for onlot systems. (Reference - 25 *Pa. Code* §71.21(a)(1)(ii)).
_____	NA		F. Potable Water Supplies - Identification through mapping, description and analysis. Include public water supply service areas and available public water supply capacity and aquifer yield for groundwater supplies. (Reference - 25 *Pa. Code* §71.21(a)(1)(vi)). Section V.C. of the Planning Guide.
_____	NA		G. Wetlands-Identify wetlands as defined in 25 *Pa. Code* Chapter 105 by description, analysis and mapping. Include National Wetland Inventory mapping and potential wetland areas per the United States Department of Agricultural (USDA) Natural Resources Conservation Service (NRCS) mapped hydric soils. Proposed collection, conveyance and treatment facilities and lines must be located and labeled, along with the identified wetlands, on the map. (Reference - 25 *Pa. Code* §71.21(a)(1)(v)). Appendix B, Section II.I of the Planning Guide.

____	Part 3	III.	**Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs**
		A.	Identify, map and describe municipal and non-municipal, individual and community sewerage systems in the planning area including:
____	Part 3	1.	Location, size and ownership of treatment facilities, main intercepting lines, pumping stations and force mains including their size, capacity, point of discharge. Also include the name of the receiving stream, drainage basin, and the facility's effluent discharge requirements. (Reference - 25 *Pa. Code* §71.21(a)(2)(i)(A)).
____	Part 3	2.	A narrative and schematic diagram of the facility's basic treatment processes including the facility's National Pollutant Discharge Elimination System (NPDES) permitted capacity, and the Clean Streams Law permit number. (Reference - 25 *Pa. Code* §71.21(a)(2)(i)(A)).
____	Part 3	3.	A description of problems with existing facilities (collection, conveyance and/or treatment), including existing or projected overload under 25 *Pa. Code* Chapter 94 (relating to municipal wasteload management) or violations of the NPDES permit, Clean Streams Law permit, or other permit, rule or regulation of DEP. (Reference - 25 *Pa. Code* §71.21(a)(2)(i)(B)).
____	Part 3	4.	Details of scheduled or in-progress upgrading or expansion of treatment facilities and the anticipated completion date of the improvements. Discuss any remaining reserve capacity and the policy concerning the allocation of reserve capacity. Also discuss the compatibility of the rate of growth to existing and proposed wastewater treatment facilities. (Reference - 25 *Pa. Code* §71.21(a)(4)(i & ii)).
____	NA	5.	A detailed description of the municipality's operation and maintenance (O & M) requirements for small flow treatment facility systems, including the status of past and present compliance with these requirements and any other requirements relating to sewage management programs (SMPs). (Reference – 25 *Pa. Code* §71.21(a)(2)(i)(C)).
____	Part 3	6.	Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference - 25 *Pa. Code* §71.21(a)(4)(i & ii)).
____	NA	B.	Using DEP's publication titled *Act 537 Sewage Disposal Needs Identification* (3800-BK-DEP1949), identify, map and describe areas that utilize individual and community onlot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:
____	NA	1.	The types of onlot systems in use. (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(A)).
____	NA	2.	A sanitary survey complete with description, map and tabulation of documented and potential public health, pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Act, the Clean Stream Law or regulations promulgated thereunder. (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(B)).
____	NA	3.	A comparison of the types of onlot sewage systems installed in an area with the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations sewage flows, and 25 *Pa. Code* Chapter 73 (relating to standards for sewage disposal facilities). (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(C)).
____	NA	4.	An individual water supply survey to identify possible contamination by malfunctioning onlot sewage disposal systems consistent with DEP's *Act 537 Sewage Disposal Needs Identification* publication. (Reference – 25 *Pa. Code* §71.21(a)(2)(ii)(B)).

NA 5. Detailed description of O & M requirements of the municipality for individual and small volume community onlot systems, including the status of past and present compliance with these requirements and any other requirements relating to SMPs. (Reference - 25 *Pa. Code* §71.21(a)(2)(i)(C)).

NA C. Identify wastewater sludge and septage generation, transport and disposal methods. Include this information in the sewage facilities alternative analysis including:

NA 1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference – 25 *Pa. Code* §71.71).

NA 2. Quantities of the types of sludges or septage generated. (Reference - 25 *Pa. Code* §71.71).

NA 3. Present disposal methods, locations, capacities and transportation methods. (Reference - 25 *Pa. Code* §71.71).

Part 3 **IV. Future Growth and Land Development**

A. Identify and briefly summarize all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:

NA 1. All land use plans and zoning maps that identify residential, commercial, industrial, agricultural, recreational and open space areas. (Reference - 25 *Pa. Code* §71.21(a)(3)(iv)).

NA 2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference – 25 *Pa. Code* §71.21(a)(3)(iv)).

NA 3. All limitations and plans related to floodplain and stormwater management and special protection (25 *Pa. Code* Chapter 93) areas. (Reference - 25 *Pa. Code* §71.21(a)(3)(iv)) Appendix B, Section II.F of the Planning Guide.

NA B. Delineate and describe the following through map, text and analysis.

NA 1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of equivalent dwelling units (EDUs) in development, total number of EDUs currently developed and total number of EDUs remaining to be developed (include time schedule for EDUs remaining to be developed). (Reference - 25 *Pa. Code* §71.21(a)(3)(i)).

NA 2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference - 25 *Pa. Code* §71.21(a)(3)(ii)). Include a comparison of proposed land use as allowed by zoning and existing sewage facility planning. (Reference - 25 *Pa. Code* §71.21(a)(3)(iv)).

NA 3. Future growth areas with population and EDU projections for these areas using historical, current and future population figures and projections of the municipality. Discuss and evaluate discrepancies between local, county, state and federal projections as they relate to sewage facilities. (Reference - 25 *Pa. Code* §71.21(a)(1)(iv) and (a)(3)(iii)).

NA 4. Zoning, and/or subdivision regulations; local, county or regional comprehensive plans; and existing plans of any other agency relating to the development, use and protection of land and water resources with special attention to: (Reference - 25 *Pa. Code* §71.21(a)(3)(iv)).

--public ground/surface water supplies
--recreational water use areas
--groundwater recharge areas
--industrial water use
--wetlands

NA 5. Sewage planning necessary to provide adequate wastewater treatment for 5 and 10-year future planning periods based on projected growth of existing and proposed wastewater collection and treatment facilities. (Reference - 25 *Pa. Code* §71.21(a)(3)(v)).

Part 3 **V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities**

A. Conventional collection, conveyance, treatment and discharge alternatives including:

NA 1. The potential for regional wastewater treatment. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 2. The potential for extension of existing municipal or non-municipal sewage facilities to areas in need of new or improved sewage facilities. (Reference - 25 *Pa. Code* §71.21(a)(4)(i)).

NA 3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following: (Reference - 25 *Pa. Code* §71.21(a)(4)(ii)).

NA a. Repair. (Reference - 25 *Pa. Code* §71.21(a)(4)(ii)(A)).

NA b. Upgrading. (Reference - 25 *Pa. Code* §71.21(a)(4)(ii)(B)).

NA c. Reduction of hydraulic or organic loading to existing facilities. (Reference - 25 *Pa. Code* §71.71).

NA d. Improved O & M. (Reference - 25 *Pa. Code* §71.21(a)(4)(ii)(C)).

NA e. Other applicable actions that will resolve or abate the identified problems. (Reference - 25 *Pa. Code* §71.21(a)(4)(ii)(D)).

NA 4. Repair or replacement of existing collection and conveyance system components. (Reference - 25 *Pa. Code* §71.21(a)(4)(ii)(A)).

NA 5. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference - 25 *Pa. Code* §71.21(a)(4)(iii)).

NA 6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities. (Reference - 25 *Pa. Code* §71.21(a)(4)(ii)(B)).

NA B. The use of individual sewage disposal systems including IRSIS systems based on:

NA 1. Soil and slope suitability. (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(C)).

NA 2. Preliminary hydrogeologic evaluation. (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(C)).

NA 3. The establishment of a SMP. (Reference - 25 *Pa. Code* §71.21(a)(4)(iv)). See also Part "F" below.

NA 4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for onlot disposal considering: (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA a. Existing technology and sizing requirements of 25 *Pa. Code* Chapter 73. (Reference - 25 *Pa. Code* §73.31-§73.72).

NA b. Use of expanded absorption areas or alternating absorption areas. (Reference - 25 *Pa. Code* §73.16).

NA c. Use of water conservation devices. (Reference - 25 *Pa. Code* §71.73(b)(2)(iii)).

NA C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes with consideration of: (Reference - 25 *Pa. Code* §71.64(d)).

NA 1. Treatment and discharge requirements. (Reference - 25 *Pa. Code* §71.64(d)).

NA 2. Soil suitability. (Reference - 25 *Pa. Code* §71.64(c)(1)).

NA 3. Preliminary hydrogeologic evaluation. (Reference - 25 *Pa. Code* §71.64(c)(2)).

NA 4. Municipal, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 *Pa. Code* §71.64(d)). See Part "F" below.

NA D. The use of community land disposal alternatives including:

NA 1. Soil and site suitability. (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(C)).

NA 2. Preliminary hydrogeologic evaluation. (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(C)).

NA 3. Municipality, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 *Pa. Code* §71.21(a)(2)(ii)(C)). See Part "F" below.

NA 4. The rehabilitation or replacement of existing malfunctioning community land disposal systems. (See Part "V", B, 4, a, b, c above). See also Part "F" below.

NA E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 1. Commercial, residential and industrial use. (Reference - 25 *Pa. Code* §71.63(e)).

NA 2 Designated conveyance facilities (pumper trucks). (Reference - 25 *Pa. Code* §71.63(b)(2)).

NA 3. Designated treatment facilities or disposal site. (Reference - 25 *Pa. Code* §71.63(b)(2)).

NA 4. Implementation of a retaining tank ordinance by the municipality. (Reference - 25 *Pa. Code* §71.63(c)(3)). See Part "F" below.

NA 5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure. (Reference - 25 *Pa. Code* §71.63(c)(2)).

NA F. SMPs to assure the future O & M of existing and proposed sewage facilities through:

NA 1. Municipal ownership or control over the O & M of individual onlot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference - 25 *Pa. Code* §71.21(a)(4)(iv)).

NA 2. Required inspection of sewage disposal systems on a schedule established by the municipality. (Reference - 25 *Pa. Code* §71.73(b)(1)).

NA 3. Required maintenance of sewage disposal systems including septic and aerobic treatment tanks and other system components on a schedule established by the municipality. (Reference - 25 *Pa. Code* §71.73(b)(2)).

NA 4. Repair, replacement or upgrading of malfunctioning onlot sewage systems. (Reference - 25 *Pa. Code* §71.21(a)(4)(iv) and §71.73(b)(5)) through:

NA a. Aggressive pro-active enforcement of ordinances that require O & M and prohibit malfunctioning systems. (Reference - 25 *Pa. Code* §71.73(b)(5)).

NA b. Public education programs to encourage proper O & M and repair of sewage disposal systems.

NA 5. Establishment of joint municipal SMPs. (Reference - 25 *Pa. Code*

§71.73(b)(8)).

NA 6. Requirements for bonding, escrow accounts, management agencies or associations to assure O & M for non-municipal facilities. (Reference - 25 *Pa. Code* §71.71).

NA G. Non-structural comprehensive planning alternatives that can be undertaken to assist in meeting existing and future sewage disposal needs including: (Reference - 25 *Pa. Code* §71.21(a)(4)).

1. Modification of existing comprehensive plans involving:

NA a. Land use designations. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA b. Densities. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA c. Municipal ordinances and regulations. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA d. Improved enforcement. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA e. Protection of drinking water sources. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal that consider lot sizes and protection of replacement areas. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA H. A no-action alternative which includes discussion of both short-term and long-term impacts on: (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 1. Water quality/public health. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 2. Growth potential (residential, commercial, industrial). (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 3. Community economic conditions. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 4. Recreational opportunities. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 5. Drinking water sources. (Reference - 25 *Pa. Code* §71.21(a)(4)).

NA 6. Other environmental concerns. (Reference - 25 *Pa. Code* §71.21(a)(4)).

Part 3 **VI. Evaluation of Alternatives**

A. Technically feasible alternatives identified in Section V of this checklist must be evaluated for consistency with respect to the following: (Reference - 25 *Pa. Code* §71.21(a)(5)(i)).

NA 1. Applicable plans developed and approved under **Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act** (33 U.S.C.A. 1288). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(A)). Appendix B, Section II.A of the Planning Guide.

NA 2. Municipal wasteload management **Corrective Action Plans or Annual Reports** developed under 25 *Pa. Code* Chapter 94. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(B)). The municipality's recent Wasteload Management (25 *Pa. Code* Chapter 94) Reports should be examined to determine if the proposed alternative is consistent with the recommendations and findings of the report. Appendix B, Section II.B of the Planning Guide.

NA 3. Plans developed under **Title II of the Clean Water Act** (33 U.S.C.A.

1281-1299) or **Titles II and VI of the Water Quality Act of 1987** (33 U.S.C.A 1251-1376). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(C)). Appendix B, Section II.E of the Planning Guide.

____ NA

4. **Comprehensive plans** developed under the Pennsylvania Municipalities Planning Code. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(D)). The municipality's comprehensive plan must be examined to assure that the proposed wastewater disposal alternative is consistent with land use and all other requirements stated in the comprehensive plan. Appendix B, Section II.D of the Planning Guide.

____ NA

5. **Antidegradation requirements** as contained in 25 *Pa. Code* Chapters 93, 95 and 102 (relating to water quality standards, wastewater treatment requirements and erosion control) and the Clean Water Act. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(E). Appendix B, Section II.F of the Planning Guide.

____ NA

6. **State Water Plans** developed under the Water Resources Planning Act (42 U.S.C.A. 1962-1962 d-18). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(F)). Appendix B, Section II.C of the Planning Guide.

____ NA

7. **Pennsylvania Prime Agricultural Land Policy** contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. Provide narrative on local municipal policy and an overlay map on prime agricultural soils. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(G)). Appendix B, Section II.G of the Planning Guide.

____ NA

8. **County Stormwater Management Plans** approved by DEP under the Storm Water Management Act (32 P.S. 680.1-680.17). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(H)). Conflicts created by the implementation of the proposed wastewater alternative and the existing recommendations for the management of stormwater in the county Stormwater Management Plan must be evaluated and mitigated. If no plan exists, no conflict exists. Appendix B, Section II.H of the Planning Guide.

____ NA

9. **Wetland Protection.** Using wetland mapping developed under Checklist Section II.G, identify and discuss mitigative measures including the need to obtain permits for any encroachments on wetlands from the construction or operation of any proposed wastewater facilities. (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(I)) Appendix B, Section II.I of the Planning Guide.

____ NA

10. **Protection of rare, endangered or threatened plant and animal species** as identified by the Pennsylvania Natural Diversity Inventory (PNDI). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(J)). Provide DEP with a copy of the completed *PNDI Manual Project Submission Form*. Also provide a copy of the response letters from the 4 jurisdictional agencies regarding the findings of the PNDI search. Appendix B, Section II.J of the Planning Guide.

____ NA

11. **Historical and archaeological resource protection** under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission (PHMC). (Reference - 25 *Pa. Code* §71.21(a)(5)(i)(K)). Provide DEP with a completed copy of a *Cultural Resource Notice* and a return receipt for its submission to PHMC. Provide a copy of the response letter or review stamp from the Bureau of Historic Preservation (BHP) indicating the project will have no effect on, or that there may be potential impacts on, known archaeological and historical sites and any avoidance and mitigation measures required. Appendix B, Section II.K of the Planning Guide.

NA B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting a letter from the appropriate agency stating that the agency has received, reviewed and concurred with the resolution of identified inconsistencies. (Reference - 25 *Pa. Code* §71.21(a)(5)(ii)). Appendix B of the Planning Guide.

Part 3 C. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical, legislative or legal requirements. (Reference - 25 *Pa. Code* §71.21(a)(5)(iii)).

Part 3 D. Provide cost estimates using present worth analysis for construction, financing, ongoing administration, O & M and user fees for alternatives identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of plan submission. (Reference - 25 *Pa. Code* §71.21(a)(5)(iv)).

Part 3 E. Provide an analysis of the funding methods available to finance the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of the plan submission. (Reference - 25 *Pa. Code* §71.21(a)(5)(v)).

Part 3 F. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference - 25 *Pa. Code* §71.21(a)(5)(vi)).

NA 1. A description of any activities necessary to abate critical public health hazards pending completion of sewage facilities or implementation of SMPs. (Reference - 25 *Pa. Code* §71.21(a)(5)(vi)(A)).

NA 2. A description of the advantages, if any, in phasing construction of the facilities or implementation of a SMP justifying time schedules for each phase. (Reference - 25 *Pa. Code* §71.21(a)(5)(vi)(B)).

Part 3 G. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - 25 *Pa. Code* §71.21(a)(5)(vi)(D)).

Part 3 **VII. Institutional Evaluation**

A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including:

NA 1. Financial and debt status. (Reference - 25 *Pa. Code* §71.61(d)(2)).

NA 2. Available staff and administrative resources. (Reference - 25 *Pa. Code* §71.61(d)(2))

NA 3. Existing legal authority to:

NA a. Implement wastewater planning recommendations. (Reference - 25 *Pa. Code* §71.61(d)(2)).

NA b. Implement system-wide O & M activities. (Reference - 25 *Pa. Code* §71.61(d)(2)).

NA c. Set user fees and take purchasing actions. (Reference - 25 *Pa. Code* §71.61(d)(2)).

NA d. Take enforcement actions against ordinance violators. (Reference - 25 *Pa. Code* §71.61(d)(2)).

NA e. Negotiate agreements with other parties. (Reference - 25 *Pa. Code* §71.61(d)(2)).

NA f. Raise capital for construction and O & M of facilities. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:

Part 3 1. Need for new municipal departments or municipal authorities. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 2. Functions of existing and proposed organizations (sewer authorities, onlot maintenance agencies, etc.). (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:

Part 3 1. Incorporation of authorities or agencies. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 2. Development of all required ordinances, regulations, standards and inter-municipal agreements. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 3. Description of activities to provide rights-of-way, easements and land transfers. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 4. Adoption of other municipal sewage facilities plans. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 5. Any other legal documents. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 6. Dates or timeframes for items 1-5 above on the project's implementation schedule.

Part 3 D. Identify the proposed institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference - 25 *Pa. Code* §71.61(d)(2)).

Part 3 **VIII. Implementation Schedule and Justification for Selected Technical & Institutional Alternatives**

A. Identify the technical wastewater disposal alternative which best meets the wastewater treatment needs of each study area of the municipality. Justify the choice by providing documentation which shows that it is the best alternative based on:

Part 3 1. Existing wastewater disposal needs. (Reference - 25 *Pa. Code* §71.21(a)(6)).

Part 3 2. Future wastewater disposal needs. (5 and 10 year growth areas). (Reference - 25 *Pa. Code* §71.21(a)(6)).

Part 3 3. O & M considerations. (Reference - 25 *Pa. Code* §71.21(a)(6)).

NA 4. Cost-effectiveness. (Reference - 25 *Pa. Code* §71.21(a)(6)).

Part 3 5. Available management and administrative systems. (Reference - 25 *Pa. Code* §71.21(a)(6)).

NA 6. Available financing methods. (Reference - 25 *Pa. Code* §71.21(a)(6)).

Part 3 7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference - 25 *Pa. Code* §71.21(a)(6)).

NA B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan. (Reference - 25 *Pa. Code* §71.21(a)(6))

Part 3 C. Designate and describe the implementation schedule for the recommended alternative, including justification for any proposed phasing of construction or implementation of a SMP. (Reference – 25 *Pa. Code* §71.31(d))

NA **IX. Environmental Report (ER) generated from the UER Process**

NA A. Complete an ER as required by the UER process and as described in the DEP Technical Guidance (381-5511-111). Include this document as "Appendix A" to the Act 537 Plan Update Revision. ***Note: An ER is required only for Wastewater projects proposing funding through any of the funding sources identified in the UER.***

PENNVEST I.D. No. _____

ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS

Municipalities that propose to implement their official sewage facilities plan updates with PENNVEST funds must meet 6 additional requirements to be eligible for such funds. See *A Guide for Preparing Act 537 Update Revisions* (362-0300-003), Appendix N for greater detail or contact the DEP regional office serving your county listed in Appendix J of the same publication.

DEP Use Only	Indicate Page #(s) in Plan	Item Required
____	NA	1. Environmental Impact Assessment. (Planning Phase) The UER replaces the Environmental Impact Assessment that was a previous requirement for PENNVEST projects.
____	NA	2. Cost Effectiveness (Planning Phase) The cost-effectiveness analysis should be a present-worth (or equivalent uniform annual) cost evaluation of the principle alternatives using the interest rate that is published annually by the Water Resources Council. Normally, for PENNVEST projects the applicant should select the most cost-effective alternative based upon the above analysis. Once the alternative has been selected the user fee estimates should be developed based upon interest rates and loan terms of the selected funding method.
____		3. Second Opinion Project Review. (Design Phase)
____		4. Minority Business Enterprise/Women's Business Enterprise (Construction Phase)
____		5. Civil Rights. (Construction Phase)
____		6. Initiation of Operation/Performance Certification. (Post-construction Phase)

PLAN SUMMARY

Letterkenny Township Minor Act 537 Update Special Study

The Pennsylvania Sewage Facilities Act ("Act 537") requires municipalities to prepare, adopt, periodically update and implement plans that address sewage-related needs and problems. In general, such plans must identify the methods for providing sewage services within areas of the municipality within a reasonable future period. A guide for preparing an Act 537 (Plan) points out three main objectives of establishing such a plan:

- To protect the health, safety and welfare of the citizens living in the municipality, by correcting malfunctioning on-lot systems, overloaded treatment plants and/or sewer lines.
- To prevent future sewage disposal problems from occurring.
- To provide protection for both the groundwater and surface water of the Commonwealth of Pennsylvania.

As required by law, the Letterkenny Township Act 537 Official Sewage Facilities Plan was adopted in 2003.

A. Proposed Service Area and Municipal Facilities Being Acquired

This Act 537 Plan Update Special Study was prepared pending the acquisition of Letterkenny Township Municipal Authority (LTMA) wastewater system by the York Water Company (YWC). As documented by this Act 537 Plan Update Special Study, the acquisition of the LTMA wastewater system by YWC, and the subsequent operation of that system by YWC, assures operation of the system and implementation of related Act 537 Plan provisions by a technically-competent and financially-sound entity, assuring that the Act 537 Plan objectives will continue to be met.

Figure 1 shows the approved Act 537 Planning Area and sewage facilities in the planning area. Municipal facilities being acquired by YWC include the gravity and Septic Tank Effluent Gravity (STEG) collection system, customer service laterals from the main to the limits of the rights-of-way or easement as applicable, and the wastewater treatment plant (WWTP).

B. Institutional Arrangements Necessary to Implement Acquisition

The LTMA wastewater system provides service to 185 customers. The customer base is primarily residential with three commercial customers.

This Special Study addresses the institutional arrangements for ownership and operation of the LTMA system. The proposed asset acquisition does not require new departments or municipal authorities. YWC will obtain the certificated franchise territory from the Pennsylvania Public Utility Commission (PUC). YWC will own and operate the wastewater collection system and WWTP. As owner and operator of the wastewater system, YWC will be responsible for the operation, maintenance, repair, replacement, and monitoring of all elements of the wastewater system. Legal actions required to implement the sale of LTMA wastewater system to YWC are comparable to similar asset acquisitions completed by YWC and will include items such as change in ownership of assets and transfer of permits, right-of-ways, easements, and property.

C. Estimated Cost of Implementing Acquisition

The purchase price for Letterkenny Township wastewater assets is $225,000. This purchase price is exclusively for the acquisition of the wastewater assets currently in place and owned and operated by LTMA. The cost of implementing the acquisition has yet to be determined, but would include all legal and associated costs with the Pennsylvania Public Utility Commission filing, title work, and

other transaction costs necessary to close the acquisition, which will occur after the PUC has issued an Order approving the application filing.

D. Letterkenny Township and YWC Commitments

As the purchasing entity, YWC commitments include all tasks and responsibilities required to own, operate, maintain, and upgrade the Letterkenny Township wastewater system. This includes compliance with applicable environmental regulations, investment in and maintenance of infrastructure, investigation of and response to any reports of sewer overflows, completion of reporting requirements such as Chapter 94 Wasteload Management Reports, review and approval of planning modules for new connections with respect to the available collection, conveyance and treatment capacity.

E. Implementation Schedule

The implementation schedule for the proposed asset acquisition is provided in Part 2, Section 7.

Part 2

Section 3

Municipal Adoption

TOWNSHIP OF LETTERKENNY

RESOLUTION NO. 2019-1
APPROVAL OF ACT 537 PLAN UPDATE SPECIAL STUDY

RESOLUTION OF THE SUPERVISORS OF LETTERKENNY TOWNSHIP, FRANKLIN COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an-Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, Martin and Martin, Incorporated has prepared an Act 537 Plan Update Special Study, dated October 3, 2019 on behalf of Letterkenny Township, which provides for sewage facilities in a portion of Letterkenny Township, and

The alternative of choice to be implemented is for the acquisition of the Letterkenny Township wastewater system by York Water Company. The public sewer service area shall remain the same as previously approved through the municipality and the Department. The key implementation activities/dates include the approval of the Act 537 Plan Update Special Study prior to the closing of the acquisition by December 31, 2019.

WHEREAS, Letterkenny Township finds that the Act 537 Plan Update Special Study described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of the Township of Letterkenny hereby adopt and submit to the Department of Environmental Protection for its approval as an update to the "Official Plan" of the municipality, the above referenced Act 537 Plan Update Special Study. The municipality hereby assures the Department of the complete and timely implementation of the said plan as required by law.

Resolved this 5th day of November, 2019.

LETTERKENNY TOWNSHIP
BOARD OF SUPERVISORS

Charles H. Myers

Charles H. Myers, Chairman

I, Melissa Kibbe, Township Secretary for the Letterkenny Township Board of Supervisors hereby state that the foregoing is a true copy of the Township's Resolution No. 2019-1 adopted November 5, 2019.

Melissa W. Kibbe

Melissa W. Kibbe, Secretary/Treasurer

Part 2

Section 3

Planning Review Documentation

martin and martin, incorporated

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)
www.martinandmartininc.com

October 3, 2019

Charles H. Myers, Chairman
Letterkenny Township
4924 Orrstown Road
Orrstown, PA 17244

RE Letterkenny Township
Act 537 Plan Update Special Study

Dear Mr. Myers:

Enclosed find three (3) copies of the Letterkenny Township Act 537 Plan Update Special Study dated October 2019, prepared by our office. We appreciate your assistance with getting this processed through the Township.

We delivered a copy to the Franklin County Planning Commission and the following statement was included on the transmittal letter:

"Should you have any questions, or require any additional information, please contact me. You are also welcome to submit any written comments to the undersigned and/or Charles H. Myers at Letterkenny Township, 4924 Orrstown Road, Orrstown, PA 17244."

If you do receive any comments please forward them to our office.

Sincerely,

MARTIN AND MARTIN, INCORPORATED

Timothy C. Cormany, AICP

martin and martin, incorporated

37 south main street • suite A • chambersburg, pennsylvania • 17201-2251

(717) 264-6759
(717) 264-7339 (fax)
www.martinandmartininc.com

October 3, 2019

Rochelle Barvinchack, Planner
Franklin County Planning Commission
340 N. 2nd St.
Chambersburg, PA 17201

RE: Letterkenny Township
Act 537 Plan Update Special Study

Dear Ms. Barvinchack:

On behalf of Letterkenny Township, please find enclosed a copy of the Letterkenny Township Act 537 Plan Update Special Study dated October 3, 2019, prepared by our office. The plan is a special study required for the acquisition of the Letterkenny Township Municipal Authority wastewater assets by the York Water Company. The intention of the plan is to cover the existing public sewer service area where Act 537 planning approvals have already been granted, with no proposed expansion. The plan will soon be advertised and available at the Township Building for the 30-day public review period.

Should you have any questions, or require any additional information, please contact our office at your earliest convenience. You are also welcome to submit any written comments to me and/or Charles H. Myers (Chairman) or Melissa W. Kibbe (Secretary/Treasurer) at Letterkenny Township, 4924 Orrstown Road, Orrstown, PA 17244. Comments would be appreciated prior to the public meeting scheduled for 9:00am, Tuesday, November 5.

Sincerely,

MARTIN AND MARTIN, INCORPORATED

Timothy C. Cormany, AICP

FRANKLIN COUNTY
PENNSYLVANIA

Franklin County Planning Department
218 North Second Street
Chambersburg, PA 17201
Phone: 717-261-3855
Fax: 717-264-8667
Email: planning@franklincountypa.gov

October 4, 2019

Melissa Kibbe, Secretary/Treasurer
Letterkenny Township
4924 Orrstown Road
Orrstown, PA 17244

RE: Letterkenny Township
Act 537 Plan Update Special Study

Dear Ms. Kibbe,

The Franklin County Planning Department has reviewed the PA Act 537 Special Study for the acquisition of the Letterkenny Township Municipal Authority wastewater assets by the York Water Company. The intention of the plan is to cover the existing public sewer service area where Act 537 planning approvals have already been granted, with no proposed expansion.

The PA Act 537 Special Study is consistent with local planning policies as identified in the comprehensive plan *Franklin County Forward.* The Special Study is recommended for approval.

Sincerely,

Rochelle Barvinchack
Planner

CC: Tim Cormany, AICP, Martin & Martin Engineering

LETTERKENNY TOWNSHIP
Board of Supervisors
4924 Orrstown Road
Orrstown, PA 17244

Phone: 717-532-8716 **Email: letterkenny@embarqmail.com** **Fax: 717-532-7134**

October 22, 2019

Tim Cormany, AICP
Martin and Martin, Incorporated
37 South Main Street
Suite A
Chambersburg, PA 17201

RE: Letterkenny Township
Act 537 Plan Update Special Study

Dear Mr. Cormany:

At the regularly schedule Letterkenny Township Planning Commission meeting on October 22, 2019, the Planning Commission reviewed the Letterkenny Township Act 537 Plan Update Special Study as prepared by the Martin and Martin, Incorporated. The Planning Commission approved the plan and recommended to the Letterkenny Township Board of Supervisors for approval.

Should you have any questions or require additional information, please contact me.

Sincerely,

Bill Fluke, Chairman
Letterkenny Township Planning Commission

Part 2

Section 5

Public Notification Documentation

PUBLIC NOTICE

In accordance with the requirements of Title 25, Chapter 71 of the Pennsylvania Code, Letterkenny Twp, Franklin Co, is accepting written comments over the next 30 days on an Act 537 Plan Update for the York Water Company's (YWC) proposed acquisition of the Letterkenny Township Municipal Authority's (LTMA) wastewater treatment system. The Plan Update incorporates the proposed acquisition of the LTMA system by the YWC, the subsequent operation of that system by YWC, and the dissolution of LTMA. It assures efficient operation of the system and implementation of related Act 537 provisions by a technically competent and financially sound entity. The Plan Update can be reviewed during normal business hours at the Township office located at 4924 Orrstown Road, Orrstown, PA. Written comments must be submitted to the Township by Nov. 4. Prior to formal adoption of the Plan Update and transmittal to the PA Dept of Environmental Protection for review and approval, the Letterkenny Township Board of Supervisors will hold a special public meeting at the Township office at 9:00 a.m. on Tuesday, November 5 to gather additional public comment, if any.

Melissa Kibbe, Manager
Letterkenny Township Board of Supervisors

Proof of Publication of Notice in

THE NEWS-CHRONICLE

LETTERKENNY TOWNSHIP

PUBLIC NOTICE – COMMENTS ON WASTEWATER SYSTEM

COMMONWEALTH OF PENNSYLVANIA

John Zimmerman, being duly sworn according to law, deposes and says that he is the General Manager of "The News-Chronicle," which is a bi-weekly newspaper of general circulation published in Shippensburg Borough, Cumberland County, Pennsylvania, by Latrobe Printing and Publishing Company, a corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania having its principal place of business at 512 West King Street (P.O. Box 100), Shippensburg, Pennsylvania; that he is authorized to and does make this affidavit on its behalf; that the printed notice, advertisement of publication attached hereto is the same as was printed in the regular editions and issues of "The News-Chronicle" on the following date(s)

OCTOBER 3, 10, 2019

Copy of Notice of
Publication Attached

Affiant further deposes that neither he nor "The News-Chronicle" and The Latrobe Printing and Publishing Company have any interest in the subject matters of the aforesaid notice or advertisement, and that the facts set forth in the foregoing affidavit are true and correct.

John Zimmerman

Sworn and subscribed before me this

31st Day of October, 2019

NOTARY PUBLIC

Commonwealth of Pennsylvania
Notarial Seal
HARRY JOHN HARTMAN, Notary Public
CUMBERLAND TWP, ADAMS COUNTY
My Commission Expires Aug 28, 2021

To: "The News-Chronicle"
Shippensburg, PA 17257
For publishing the notice attached hereto:

On the stated date(s)	$	150.00
Affidavit	$	5.00
	$	155.00

Chamber chatter

The "Chamber Chatter" column will appear bi-weekly in The News-Chronicle to keep the community informed of Shippensburg Area Chamber of Commerce developments. Prepared by chamber staff, the column is intended to heighten awareness of and interest in chamber events and initiatives to strengthen the community fabric.

Chamber welcomes new members

The chamber continues to grow and we are excited to welcome into membership the following businesses:

Korey Paff State Farm Agency, 40 Shippensburg Shopping Center; CFPM Insurance, 3 W. Main St. in Waynesboro; Aliff Counseling Services LLC, 20 E. Burd St., Suite 1; Sekula Enterprises LLC (Five Star Painting), 8250 Newburg Road; WellSpan Shippensburg Health Campus, 97 Progress Boulevard; and Castlerigg Wine Shop, 110 S. Hanover St. in Carlisle.

We thank these and all of our members for their support and investment with the chamber.

If you would like more information on our members, visit: www.shippensburg.org.

If your business would like to talk with the staff on how you can join the chamber and the many benefits and programs available, please contact us at: chamber@shippensburg.org. A staff member would be happy to answer any questions you may have.

CLASSIFIEDS

The Lakeside Printing & Publishing Company endeavors to publish only truthful advertising and would appreciate having its attention called to any advertising not conforming to the advertising of honesty. Readers are warned to investigate any type of offering, in which a purchase is required, before sending money or signing any contract. Although we do our best to screen all ads, please investigate before you make any cash transaction.

ANNOUNCEMENTS

LEGALS

ESTATE NOTICE

NOTICE is hereby given that in the estate of the decedent set forth below the Register of Wills has granted letters to the persons named. All persons having claims or demands against the said estate are requested to make known the same and all persons indebted to said estate are requested to make payment without delay to the executor, administrator, or estate attorney named below.

Estate of DOROTHY JANE CRESSLER, AKA DORITHY J. CRESSLER, deceased, late of the Borough of Shippensburg, Franklin County, Pennsylvania

Executrix: Nancy C. Thompson
24 Montgomery Avenue
Shippensburg, PA 17257

Attorney: RACHEL C. SCHRECK, ESQUIRE
ZELENSKI DEVENNEY P.C.
74 North Second Street
Chambersburg, PA 17201

LETTERS TESTAMENTARY

Notice is hereby given that Letters Testamentary in the Estate of Daniel L. Stine, late of Southampton Township, Cumberland County, Pennsylvania, have been granted to Kenneth L. Stine. All persons knowing themselves to be indebted to the said Estate will make payment immediately, and those having claims will present them for settlement to:

Kenneth L. Stine, Executor c/o Thomas P. Gleason, Esquire 825 West King Street, Suite E Shippensburg, PA 17257 (717) 532-3270

LETTERS TESTAMENTARY

Notice is hereby given that Letters Testamentary in the Estate of Gayden R. DeWalt, late of Lurgan Township, Franklin County, Pennsylvania, have been granted to Devon M. Highlands. All persons knowing themselves to be indebted to the said Estate will make payment immediately, and those having claims will present them for settlement to:

Devon M. Highlands, Executor c/o Thomas P. Gleason, Esquire 825 West King Street, Suite E Shippensburg, PA 17257 (717) 532-3270

NOTICE

Notice is hereby given that Letterkenny Township intends to offer for public sale a 1990 John Deere 544H Payloader, 3500 lb. of wooden snow fence, approx. 40 wood fence posts, and 3 tires w/wheels (1400X20/1100X20). Items will be offered for sale at Marion Auction Service, 5176 Horst Rd, Oley, PA, on Wed, Oct 16 and Thurs, Oct 17, 2019 beginning at 8:00 AM. For more information, contact Charles Myers at 717-372-4298 or visit www.marionauction.com. Auction#13719476.

Melissa W. Kibler, Manager Letterkenny Township

PUBLIC NOTICE

In accordance with the requirements of Title 25, Chapter 71 of the Pennsylvania Code, Letterkenny Twp., Franklin Co, is accepting written comments over the next 30 days on an Act 537 Plan Update for the York Water Company's (YWC) proposed acquisition of the Letterkenny Township Municipal Authority's (LTMA) wastewater treatment system. The Plan Update incorporates the proposed acquisition of the LTMA system by YWC, the subsequent operation of that system by YWC and the dissolution of LTMA. It assures efficient operation of the system and implementation of related Act 537 provisions by a technically competent and financially sound entity. The Plan Update can be reviewed during normal business hours at the Township office located at 4921 Orrstown Road, Orrstown, PA. Written comments must be submitted to the Township by Nov. 4. Prior to formal adoption of the Plan Update and transmittal to the PA Dept of Environmental Protection for review and approval, the Letterkenny Township Board of Supervisors will hold a special public meeting at 7:00 p.m. on Tuesday, November 5 to gather additional public comments. Tony.

Melissa Kibler, Manager/Letterkenny Township Board of Supervisors

Public Notice

The Board of Supervisors of Hopewell Township, Cumberland County, will be holding a special meeting on Wednesday, October 9, 2019 at 9:00AM for preparing a budget for the year 2020 and other business. The proposed budget can be reviewed after November 4th at the Township Municipal building. It can be examined at the Township during office hours (phone 423-6582).

Kimberly S. Myers, Township Secretary Board of Supervisors

YARD/GARAGE SALES

YARD SALE

LARGE GARAGE Sale, 10 Hoy Drive Shippensburg. October 3 & 4, 8am-5pm, October 5, 8am-1pm. Items for every room in the house, oak pedestal table with 2 extension boards and 4 chairs, 2 cots with mattresses, gas fireplace, mens sweaters L-XL, womens clothing 1-XL, kitchen items, and much more.

BUSINESS SERVICES

REPAIR REFRIGERATORS, freezers, ranges, washers, dryers, dishwashers, microwaves, water heaters, vacuum cleaners. Marvin's Repair. 717-530-1855.

STAKE'S FURNITURE
Cherry Street,
Newville.
New & quality used furniture & bedding.
776-9212.

MERCHANDISE

PETS & SUPPLIES

SIBERIAN HUSKY Puppies, several colors with blue eyes, very cute and friendly, vet checked and family raised. $450.00 cash. 301-331-2450

FARM & GARDEN

FIREWOOD & SUPPLIES

BALCO GALVANIZED 10 bale wall or floor mounting ventilated nest with double bolted hinged purchase to allow nest closing, almost new condition. Cleaned and ready to go. 717-532-9994.

RENTALS

APARTMENTS FOR RENT

FOR RENT in Shippensburg, quiet one bedroom, all utilities paid, no pets, background and credit check required. 717-532-9279

INVESTMENT PROPERTY FOR SALE IN NEWVILLE
in the Borough of Newville.
Nice size home & house, with apartment and parking available.
Call Bob Davies
703-922-6953
dre172412@embarqmail.com

Providing Clean, Consistent, High Quality Coal to the Cumberland Valley and surrounding areas.
Available in:
PRICE • PEA • NUT • STOVE
CLEARFIELD AND VALLEY COAL
(717) 530-0150

BUY SELL TRADE RENT HIRE

(ANTICIPATED) SCHOOL COUNSELOR

FANNETT-METAL SCHOOL DISTRICT

DESCRIPTION:

The Fannett-Metal School District is advertising for an Anticipated School Counselor opening. This is a full-time permanent position. Candidates must have good communication skills and a good working relationship with staff, students, and parents. Interested candidates will need to provide a signed cover letter, resume, certification/licenses, transcripts, signed PDE-6004 form (Act 24) as well as current Act 31, 34, 151, 168, FBI fingerprint clearance (current within one (1) year), and three current letters of recommendation all dated within the last year. Send completed application and all other required documentation to: Ms. Sandy Bloom, Administrative Secretary, Fannett-Metal School District, P.O. Box 91, 14823 Path Valley Road, Willow Hill, PA 17271. Applications will be received until position is filled. EOE

Find what you're looking for!

The News-Chronicle classifieds
in-print & on-line @ www.shipnc.com

BREAK time

FOR WEEK OF 10-1-19

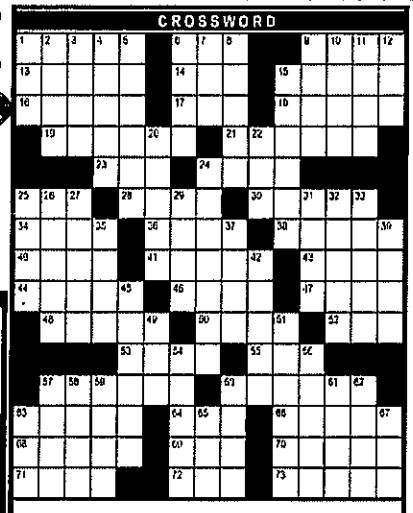
SUDOKU

The support you need to find quality
SENIOR LIVING SOLUTIONS
A Place for Mom has helped over one million families find senior living solutions that meet their unique needs.
There's no cost to you!
CALL (855) 439-6734
aPlaceforMom

		1	6					
	4			8	3	5		
3		9						
		3	4					1
		7	5		9	6		
2					7	8		
						4		9
		6	3	9			8	
					5	3		

Fill in the blank squares in the grid, making sure that every row, column and 3-by-3 box includes all digits 1 through 9.

CROSSWORD



THEME: SCARY MOVIES

ACROSS
1. Will alternative
6. Put into service
9. Balloon a string
13. Conversation starter
14. "Platoon" setting
15. "Four" prefix
16. Macaroni shape
17. Dunk value
18. "The Dark Knight" star
19. "Marion Crane stops at a motel
21. "Eccentric scientist teleports himself
23. Sonny and Cher, e.g.
24. "What "The Swarm" attackers do
25. Hot tub feature
28. Think, archaic
30. Kentucky Derby sound
34. "American Psycho" weapon, pl.
36. Andy's radio partner
38. Dished out
40. Drunkard
41. Type of turn, pl.
43. Spare in a trunk
44. Pore in a leaf
45. Straight out of bottle, as in whiskey
47. Port of Yemen
48. Angry growl
50. Whiskey grain, pl.
52. Is in Paris
53. "What a ____!"
55. Carnut
57. "Chris Washington meets his girlfriend's family
60. "Girl bullied at school
63. Type of renewable energy
64. Caviar
66. Abstains from food
68. Opposite of binary
69. Barley bristle
70. Web mag
71. Department store department
72. "Sematary resident
73. Saw again

DOWN
1. "____-Wolf of London"
2. Counseling, e.g.
3. Friendly vestments
4. Frank Wright's middle name
5. Showing cleavage
6. "Do ____ others..."
7. "Photographer and oncological trapped by Jigsaw
8. Bring character to life
9. Bone to pick
10. And others
11. Pretentiously artistic
12. Morse Code dash
15. Like Murder Mystery Party
20. Pertaining to hours
22. Type of farm house
24. Two for the price of one deals
25. "It terrorized Amity
28. Highway departures
27. Part of morrise joint
29. "Boy brings grief to adoptive parents, with The
31. 9th letter of Greek alphabet
32. Move like on ice
33. "Jack Torrance's catchphrase "____ Johnny!"
35. "Brave New World" drug
37. Don't go
39. Fender-bender damage
42. Funerary art form
45. Weapon storage
49. Romanian money
51. The Beach Boys' "____ Girl"
54. Seatbelt, e.g.
56. Feed in a meadow
57. "____ Girl"
58. Panache
59. Before feathers
60. One tenth of a dime
61. a.k.a. The Islamic State
62. Tallest volcano in Europe
63. Math class total
65. Be in the red
67. Do needlework

Your Family Deserves The BEST Technology—Value—Fun...
$59.99 for 190 Channels
Upgrade to the Hopper 3 SlingLNB Dish
Add High Speed Internet $14.95 per mo.
CALL TODAY! Save 20%!
1-888-416-7103
dish

ANSWER KEY FROM WEEK OF 9-24-19

4	9	3	7	2	8	5	6	1
5	7	6	9	1	4	8	3	2
1	2	8	3	5	6	9	7	4
3	8	4	5	7	2	6	1	9
7	1	2	6	8	9	3	4	5
6	5	9	4	3	1	2	8	7
2	6	7	8	4	5	1	9	3
8	4	1	2	9	3	7	5	6
9	3	5	1	6	7	4	2	8

OCTOBER 3	OCTOBER 4	OCTOBER 5	OCTOBER 6	OCTOBER 7
74° 58°	67° 40°	65° 53°	73° 62°	69° 49°

Letterkenny Township
Act 537 Plan Update Special Meeting
November 5, 2019

The Letterkenny Township Board of Supervisors held a special public meeting on Tuesday, November 5, 2019, for the purpose of presenting the Act 537 Plan Update Special Study. Tim Cormany, Planner from Martin and Martin, Inc., was the presenter.

The meeting was called to order at 9:00 a.m. No one from the public was in attendance and no public comment was received.

Charles H. Myers, Board Chairman, signed Resolution 2019-1 "Approval of Act 537 Plan Update Special Study," witnessed by Melissa W Kibbe. The plan will be forwarded to DEP.

The meeting adjourned at 9:20 p.m.

Respectfully submitted,

Melissa W Kibbe

Melissa W Kibbe
Manager/Secretary/Treasurer

Letterkenny Township
Regular Meeting
October 22, 2019

PRESENT WERE: Manager: Kibbe
Supervisors: Horn, Myers, Norton Solicitor: Rahauser

The regular monthly meeting of the Letterkenny Township Board of Supervisors was held on October 22, 2019, at the Letterkenny Township Building. The meeting was called to order at 7:00 p.m. by Chairman Myers who led the Pledge of Allegiance.

The September 24, 2019, Minutes were approved by the board following a motion by Horn, seconded by Norton. Paying the bills as listed was approved by the Board following a motion by Norton, seconded by Horn. The Treasurer's Report was approved by the board following a motion by Norton, seconded by Horn.

Subdivision Plans – None

Visitors
-One student attended to fulfill a Civics class requirement.
-Richard and Pamela Fogelsonger, 24 Warwick Dr, requested a waiver regarding Ordinance 2018-1 "Regulating Parking in Hillview Estates and Kensington Heights" so that Mr. Fogelsonger could continue to park his "work truck" along the street in front of his home. After lengthy discussion, a compromise was reached.
-Kibbe shared a written report from Eric Varner that provided information on the number and type of Fire and EMS calls for the PHFD in July, August, and September.

Information/Discussion Items
-The Manager updated the Board on the two remaining, ongoing citizen complaints. One has been resolved, and the other needs follow-up from the District Justice Office.
-Myers shared his proposal for a new lien to shed to be built beside the existing Storage Building. A cost estimate will be prepared and shared at the upcoming Budget Meeting.
-Myers requested approval for new LED lighting to replace the failing fluorescent lighting in the garage/shop. A cost estimate will be prepared and shared at the upcoming Budget Meeting.
-A special public meeting pertaining to the Act 537 Plan Update prepared by Martin and Martin has been scheduled and advertised for November 5, 2019, at 9:00 a.m.
-Board members were given a draft copy of the proposed 2020 Budget to be reviewed prior to the Budget Meeting on November 12, 2019.

Action Items
-Following a motion by Horn, seconded by Norton, the Board gave approval for Myers and Kibbe to sign Resolution 2019-1 "Approving the Act 537 Plan Update" after the November 5th meeting.

There being no further business, the meeting adjourned at 8:00 p.m. following a motion by Horn, seconded by Norton.

Respectfully submitted,

Melissa W Kibbe

Melissa W Kibbe
Manager

Part 2

Section 6

Comments and Responses

NO PUBLIC COMMENTS RECEIVED

Part 2

Section 7

Implementation Schedule

Activity	
Meeting with PaDEP	August 15, 2019
Update special study to DEP Guidance	August-October 2019
Prepare draft resolution and public notice	September 2019
Attend and explain special study to Letterkenny Township Planning Commission	September 24, 2019
Attend and explain special study to Letterkenny Township Supervisors	September 24, 2019
Submit special Study to Letterkenny Township and Franklin County Planning Commission	October 3, 2019
Advertise public notice in newspaper	October 3 and 11, 2019
Incorporate comments received from Letterkenny Township and Franklin County Planning Commission into the Plan	November 2019
Public Meeting / Letterkenny Township Resolution Adoption	November 5, 2019
Formal submission to PaDEP	November 7, 2019
PaDEP Approval of Act 537 Plan Special Study	December 31, 2019

Letterkenny Township

Act 537 Plan Update Special Study

Part 3 – General Plan Content

Table of Contents

Introduction 1

I. Previous Wastewater Planning 1

A. Past Wastewater Planning Impact on Current Planning Effort 1

1. Previous Act 537 Planning

2. Planning that Has Not Been Carried out According to Approved Plan Implementation Schedule 2

3. Anticipated or Planning by Sewer Authority or Approved Under Chapter 94 Corrective Action Plan 2

4. Planning Modules for New Land Development, Planning "Exemptions" and Addenda 2

II. Physical and Demographic Analysis 2

A. Planning Area and Wastewater Service Area 2

B. Physical Characteristics 3

III. Existing Sewage Facilities in the Planning Area 3

A. Identify, Map, and Describe Municipal Sewage Systems in the Planning Area 3

1. Location, Size and Ownership of Treatment Facilities, Interceptors, Pumping Stations, and Force Mains 3

2. Treatment Process Narrative and Schematic 3

3. Description of Problems with Existing Facilities 4

4. Scheduled Treatment Facility Upgrades 4

5. Disposal Areas 4

IV. Future Growth and Land Development 5

V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities 5

VI. Evaluation of Alternatives 5

A. Evaluation of Selected Alternative 5

B. Proposed Purchase Price and Costs of Implementing Proposed Acquisition 7

C. Analyze the Need for Immediate or Phased Implementation of the Proposed Alternative 7

D. Evaluate Administrative Organizations and Legal Authority Necessary for Plan Implementation 7

VII. Institutional Evaluation 9

A. Analysis and Description of Institutional Alternatives Necessary to Implement Proposed Alternatives 9

1. Need for New Municipal Departments or Municipal Authorities 9

2. Functions of Existing and Proposed Organizations 9

3. Cost of Administration and Capability of Authority/Agency to Reaction to Future Needs 9

B. Description of Administrative and Legal Activities 10

1. Incorporation of Authorities or Agencies 10

2. Ordinances, Regulations, Standards, Agreements, Inter-Municipal0 Agreements 10

3. Transfer of Rights-of-Way, Easements, and Land Transfer 11

4. Adoption of Other Municipal Sewage Facilities Plans 11

5. Other Legal Documents 11

6. Dates or Timeframes for Items 1 to 5 Above 11

C. Justification for Choosing Specific Institutional Alternative 11

VIII. Implementation Schedule and Justification for Selected Alternatives 14

A. Identify Technical Wastewater Disposal Alternative 14

1. Existing Wastewater Disposal Needs 14

2. Future Wastewater Disposal Needs 14

3. Operation and Maintenance Considerations 15

4. Available Management and Administrative Systems 15

5. Environmental Soundness and Compliance with Natural Resources Planning and Preservation Programs 15

B. Designate and Describe Implementation Schedule 15

List of Attachments

Figure 1 Planning and Wastewater Service Areas, and Collection System and Facilities

Appendix A Independent Auditor's Report of LTMA

Appendix B York Water Company SEC Filing

Introduction

This Act 537 Plan Update Special Study is being prepared pending the acquisition of the Letterkenny Township Municipal Authority (LTMA) wastewater system by the York Water Company (YWC). As documented by this Act 537 Plan Update Special Study, the contemplated acquisition of the Letterkenny Township system by YWC, and the subsequent operation of that system by YWC, assures operation of the system and implementation of related Act 537 Plan provisions by a technically-competent and financially-sound entity, assuring that the Act 537 Plan objectives will continue to be met. Figure 1 shows the Act 537 planning area, which matches the previously approved Act 537 Planning Area, and the location of existing Letterkenny Township wastewater facilities.

Upon closing of the proposed transaction, YWC would assume the operation and management of the existing wastewater collection and treatment facilities currently owned by Letterkenny Township. This Special Study addresses the institutional arrangements for ownership and operation of the Letterkenny Township system.

On June 25, 2019 Letterkenny Township executed an Asset Purchase Agreement with YWC. This Act 537 Plan Update Special Study (1) evaluates the administrative and financial capabilities of YWC and YWC's ability to successfully operate and maintain Letterkenny Township's sewage collection and treatment system, (2) sets forth the allocation of responsibilities and process for implementation of the Act 537 Plan's requirements, and (3) discusses "General Plan Content" items that are relevant to the scope and objective of this Act 537 Plan Update.

I. Previous Wastewater Planning

A. Past Wastewater Planning Impact on Current Planning Effort

1. Previous Act 537 Planning

Letterkenny Township Act 537 Plan - March 2003

Letterkenny Township prepared an Act 537 Official Sewage Facilities Plan in March 2003. The plan indicated three (3) areas requiring sewage facilities: Upper Strasburg, Pleasant Hall, and the Kensington Heights Area. Cumberland Franklin Joint Municipal Authority (CFJMA) extended their collection system in 2009 to serve the Upper Strasburg and Pleasant Hall areas. The Kensington Heights area is served by Hamilton Township Municipal Authority. The Roxbury Holiness Camp Area is served by its own private system.

At the time of the Act 537 Plan there were two (2) areas in the Township served by public sewer. The first area is the residential subdivision known as Hill View Estates near the Village of Roxbury. The collection system and treatment plant were installed in 1980 by the developer. The system was expanded and dedicated to LTMA in 1994. This system is the subject of this Act 537 Plan Update Special Study.

The second area is known as Old Kensington Heights. In the late 1970's when Hamilton Township Municipal Authority installed an expansive collection system, the new Kensington Heights system was connected to it. Letterkenny Township has since transferred ownership, maintenance, and revenue of the collection lines to Hamilton Township.

2. Planning that Has Not Been Carried out According to Approved Plan Implementation Schedule

   The areas identified in the 2003 Act 537 Plan as needing sewage collection and treatment have been addressed.

3. Anticipated or Planning by Sewer Authority or Approved Under Chapter 94 Corrective Action Plan

   Ultraviolet light disinfection equipment was installed at the WWTP and became operational in November 2018. It was determined that the WWTP outfall needs to be relocated, and is currently at the design/permit stage. The 2019 engineering evaluation concluded that the treatment facility tanks, processes, and appurtenances, including the aeration system, conform to the design guidelines of the Domestic Wastewater Facilities Manual. The report also noted that final-effluent aeration practices in the existing chlorine-contact tank must improve to consistently meet discharge-permit requirements for dissolved oxygen. These improvements require that operating staff optimize air flow (increase) to the existing final-effluent aeration system in the chlorine-contact tank. This practice requires relocation and reinstallation of the flow-meter downstream of the new ultraviolet light wastewater disinfection unit. Flow-meter relocation will resolve the problem of excessive diffused air interfering with the flow-metering weir.

4. Planning Modules for New Land Development, Planning "Exemptions" and Addenda

   The projected growth area for the LTMA service area is significantly limited at this time. The recent Skyline Drive extensions and the recently developed Dollar General retail store are the only system additions of note in recent years. Lurgan Township is currently updating its Act 537 Plan and is proposing connection to the LTMA system for the village of Roxbury and 90-100 associated EDUs. This would require a significant investment and expansion of the existing WWTP, if approved. YWC would be involved with any future agreements with Lurgan Township to coordinate such a service request.

II. Physical and Demographic Analysis

A. Planning Area and Wastewater Service Area

LTMA is a municipally owned wastewater system that serves a small portion of Letterkenny Township in Franklin County, Pennsylvania. Letterkenny Township is situated in the north-central section of Franklin County, Pennsylvania. The wastewater treatment plant (WWTP) and sanitary collection system provide service to 185 customers. The customer base is mainly residential with three commercial customers.

Figure 1 shows the area served by LTMA.

B. Physical Characteristics

Letterkenny Township is a rural township located in the north-central section of Franklin County, Pennsylvania, about 10 miles north of the Borough of Chambersburg. The Township consists of 42.6 square miles and is bounded by the Townships of Fannett, Metal, St. Thomas, Hamilton, Greene, Southampton, and Lurgan.

The approved 2003 Act 537 Official Sewage Plan contains more detailed background information regarding physical characteristics and related topics such as soils, geologic features, and topography.

III. Existing Sewage Facilities in the Planning Area

A. Identify, Map, and Describe Municipal Sewage Systems in the Planning Area

1. Location and Ownership of Interceptors and Force Mains

The Letterkenny Township wastewater system, which is shown in Figure 1, provides wastewater collection and treatment services to 185 customer connections. The Wastewater System's collection system consists of the following:

Sanitary Sewer Pipe

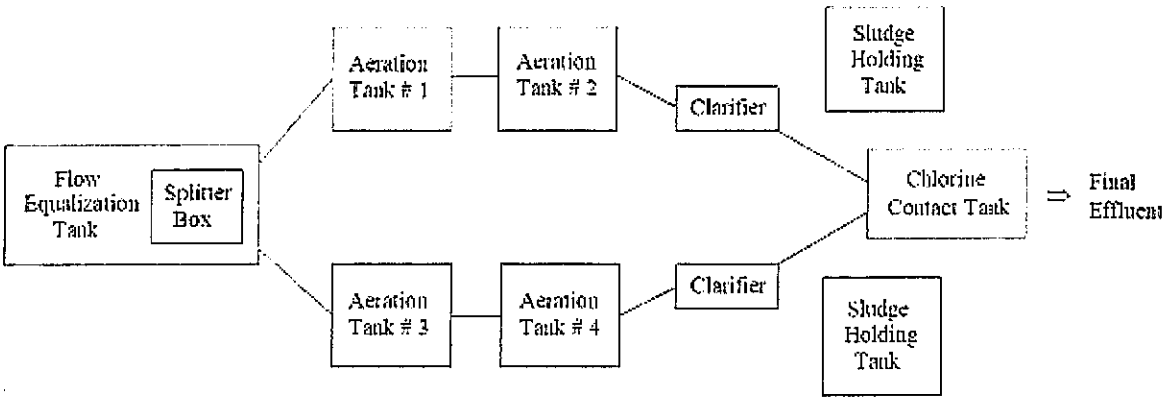
Diameter	Material	Footage	System
2"	PVC	585	Septic Tank Effluent Gravity (STEG)
2.5"	PVC	679	Septic Tank Effluent Gravity (STEG)
3"	PVC	116	Septic Tank Effluent Gravity (STEG)
4"	PVC	1,730	Septic Tank Effluent Gravity (STEG)
6"	PVC	8,247	Hillview Estates
8"	PVC	10,834	Interceptors, Cardinal Rd. (West), Skyline Dr.
Total		22,190	

The Septic Tank Effluent Gravity (STEG) component runs along Mountain Road (SR 4004) and is a combination system whereby solids are collected in septic tanks and liquids feed via gravity through small diameter pipes to Manhole LT9 and then continue to the WWTP via 8" PVC interceptors. Approximately 25 effluent pumps and septic tanks comprise the STEG system.

2. Treatment Process Narrative and Schematic

The Letterkenny Township Municipal Authority (LTMA) facilities operate a 0.042 MGD wastewater treatment plant. The treatment plant is an extended aeration, activated sludge type and was constructed by the developer of Hillview Estates in the late 1980's. The original design flow of the plant was 0.017 MGD and design organic removal was approximately 33.3 lbs/day. In 1995 the plant was upgraded to handle 0.042 MGD of flow and 82.2 lbs/day BOD removal. The purpose of the upgrade was to accommodate the remaining EDUs in Hillview Estates and allow connection of the Mountain Road residences and the Roxbury Holiness Camp Byers Conference Center and Legacy Retreat Center. In addition, collection capacity for Skyline Drive was made available. The Letterkenny Township WWTP schematic is shown in Figure 2.

Figure 2: Letterkenny Township Municipal Wastewater Treatment Plant Schematic



3. Description of Problems with Existing Facilities

LTMA entered into a Consent Order & Agreement (COA) on September 11, 2018, chiefly as a result of solids accumulation within the intermittent stream discharge point as well as DMR effluent violations that occurred between 2013 and 2018. The COA required several actions including an engineering evaluation of treatment plant operation and facilities, improvements to the disinfection system, and relocation of the outfall approximately 200' to discharge directly into the receiving stream. LTMA installed ultraviolet light disinfection equipment that became operational in November 2018. The outfall relocation remains at the design/permit stage. The engineering evaluation concluded in December 2018 and confirmed that the treatment facility tanks, processes, and appurtenances, including the aeration system, conform to the design guidelines of the Domestic Wastewater Facilities Manual.

However the report also noted that final-effluent aeration practices in the existing chlorine-contact tank must improve to consistently meet discharge-permit requirements for dissolved oxygen. These improvements require that operating staff optimize air flow (increase) to the existing final-effluent aeration system in the chlorine-contact tank. This practice requires relocation and reinstallation of the flow-meter downstream of the new ultraviolet light wastewater disinfection unit. Flow-meter relocation will resolve the problem of excessive diffused air interfering with the flow-metering weir.

4. Scheduled Treatment Facility Upgrades

YWC plans to continue operating the WWTP after the acquisition and make necessary capital improvements as warranted by the condition and performance of the various WWTP components.

5. Disposal Areas

Other than the outfall to the Conodoguinet Creek, the WWTP does not use any disposal areas for effluent.

IV. Future Growth and Land Development

Letterkenny Township is rural in nature and the population is scattered throughout the Township. Concentrations exist in Pleasant Hall, Upper Strasburg, Hill View Estates and the Kensington Heights area. The U.S. Census indicates the population for Letterkenny Township was 2,074 in the year 2000, and 2,318 in the year 2010. The population for 2017 was estimated to be 2,400 (2013-2017 American Community Survey 5-Year Estimates). Due to the Township's rural nature, minimal population growth is anticipated. The LTMA system currently serves 185 wastewater customers with no additional customers anticipated in 2019 and 4 additional customers anticipated in 2020.

V. Identify Alternatives to Provide New or Improved Wastewater Disposal Facilities

The Letterkenny Township wastewater system will require investment to continue to provide safe, reliable, and adequate wastewater conveyance and treatment services for Township residents. Letterkenny Township has determined that the sale of its wastewater assets is in the best long-term interest of its residents. The Township has reached an agreement with YWC to purchase the wastewater facilities.

Letterkenny Township is exiting the wastewater business primarily due to the lack of trained plant operators, increased regulations, and administrative burden on a small, rural township. YWC will be able to provide expertise and other benefits due to economies of scale.

VI. Evaluation of Alternatives

A. Evaluation of Selected Alternative

YWC has superior institutional and financial capabilities, and is well qualified to own, operate, improve and maintain the Letterkenny Township wastewater system in an efficient and effective manner. Proper management of the sewer facilities is a key element in the long-term performance of the wastewater system. Management includes ownership, operation, maintenance, repairs, replacement, and planned growth of the facilities. The Township has taken this into account while identifying potential buyers. The Township selected YWC because of the financial stability and proven experience in the operation and maintenance of wastewater systems.

The transaction will result in affirmative public benefits of a substantial nature. Reasons outlined below establish YWC's commitment and ability to address any currently unmet or future Letterkenny Township wastewater needs.

First, YWC has extensive experience in the operation of wastewater collection and treatment systems. YWC, as a large and long-established public utility, has the managerial, technical, and financial fitness to operate the System in a safe and efficient manner in compliance with the Pennsylvania Public Utility Code, the Pennsylvania Clean Streams Law, and all other applicable statutory and regulatory requirements.

Second, Letterkenny Township 's current customers will benefit in several ways from becoming YWC customers. YWC is a large, financially-sound company that has the capacity to finance necessary capital additions and improvements that will benefit its customers. In addition, given its size, its access to capital, and its recognized strengths in system planning, capital budgeting,

and construction management, YWC is well-positioned to ensure that high quality wastewater service meeting all applicable state and federal regulatory requirements is provided to Letterkenny Township's customers. Additionally, YWC is subject to the jurisdiction of the PA Public Utility Commission and must comply with its Code.

Third, Letterkenny Township's current customers will benefit from enhanced and proven customer service that YWC provides. These customer service enhancements include, but are not limited to, additional bill payment options, extended customer service and call center hours, enhanced customer information and education programs, and access to YWC's customer assistance program.

Finally, the transaction will benefit YWC's existing customers and Letterkenny Township's current customers in the long-term by expanding YWC's customer base. There will be no immediate rate impact on YWC's existing customers, and it is expected that the transaction will help YWC maintain reasonable rates for all its customers going forward. Customers who benefit from near-term improvements will one day help pay for improvements on behalf of other customers in other parts of the YWC system. Being able to spread the costs of investing in and maintaining public wastewater systems over a growing customer base, particularly in a time of increased environmental requirements, is essential to the continued success of wastewater systems and maintaining reasonable rates for customers. Indeed, the Pennsylvania General Assembly recognized, as a matter of public policy, the importance of consolidation and cost sharing in the passage of Act 11 of 2012. There is also a clear legislative intent associated with Section 1329 and its allowance of fair market valuation for ratemaking purposes. The General Assembly intended to facilitate the acquisition of municipal water and wastewater systems by investor-owned utilities for the benefit of municipal corporations and their customers.

The proposed sale and transfer of the Letterkenny Township wastewater system to YWC serves the public interest for numerous reasons:

- YWC is a technically-competent, economically-strong operator with substantial and deep experience in wastewater system operations.
- YWC's larger base and breadth of operations allow for economies of scale across the spectrum of operations, including purchasing power for commodities, more efficient staffing and shared support, and application of the latest technological capabilities.
- By transferring the wastewater assets to YWC, the system and its customers will become part of an exponentially larger customer base, under regulatory arrangements (including Pennsylvania Act 11) that allow a spreading of system costs across that larger base, thereby reducing potential rate shock and burdens that are inherent in having a small system bear major capital and operating expenses.
- The transfer offers prospects for improved customer service and operations under YWC ownership of the System.
- YWC will have better and more varied access to capital to make required System expenditures and improvements and comply with applicable legal requirements, such as collection system and pump station improvements.
- The transaction will bring additional expert oversight of the System from the Public Utility Commission and other agencies that routinely monitor utility operations and

participate in utility proceedings.

- As a private entity, YWC will be a taxpayer that will be paying additional property taxes that will increase revenues to the Township.

B. Proposed Purchase Price and Costs of Implementing Proposed Acquisition

Per the June 25, 2019 Agreement of Wastewater Collection System Sale Agreement, the purchase price for the Assets is $225,000.

The estimated costs of operating the Letterkenny Township Wastewater System are shown in the Independent Auditor's Report in Appendix A.

C. Analyze the Need for Immediate or Phased Implementation of the Proposed Alternative

All changes related to the proposed sale of the Letterkenny Township Wastewater System to YWC will be in effect on the date the acquisition closes.

D. Evaluate Administrative Organizations and Legal Authority Necessary for Plan Implementation

The York Water Company (YWC) is the oldest investor-owned water utility in the United States and is duly organized under the laws of the Commonwealth of Pennsylvania. YWC has operated continuously since 1816. YWC owns and operates three wastewater collection systems and two wastewater treatment systems. YWC operates within its franchised water territory, which covers 39 municipalities within York County, Pennsylvania and nine municipalities within Adams County, Pennsylvania. YWC's wastewater operations include portions of four municipalities in York County, Pennsylvania. YWC is regulated by the Pennsylvania Public Utility Commission (PUC) for both water and wastewater in the areas of billing, payment procedures, dispute processing, terminations, service territory, debt and equity financing and rate setting. YWC must obtain PUC approval before changing any practices associated with the aforementioned areas.

YWC's business does not require large amounts of working capital and is not dependent on any single customer or a very few customers for a material portion of its business. Increases in revenues are generally dependent on YWC's ability to obtain rate increases from the PUC in a timely manner and in adequate amounts and to increase volumes of water sold through increased consumption and increases in the number of customers served. YWC continuously looks for water and wastewater acquisition and expansion opportunities both within and outside its current service territory as well as additional opportunities to enter into bulk water contracts with municipalities and other entities to supply water.

YWC has agreements with several municipalities to provide sewer billing and collection services. YWC also has a service line protection program on a targeted basis in order to further diversify its business. Under this optional program, customers pay a fixed monthly fee, and YWC will repair or replace damaged customer service lines, as needed, subject to an annual maximum dollar amount. YWC continues to review and consider opportunities to expand both initiatives.

As a regulated utility, YWC operates within an exclusive franchised territory that is substantially

free from direct competition with other public utilities, municipalities and other entities. Although YWC has been granted an exclusive franchise for each of its existing community water and wastewater systems, the ability of YWC to expand or acquire new service territories may be affected by currently unknown competitors obtaining franchises to surrounding systems by application or acquisition. These competitors may include other investor-owned utilities, nearby municipally-owned utilities and sometimes competition from strategic or financial purchasers seeking to enter or expand in the water and wastewater industry. The addition of new service territory and the acquisition of other utilities are generally subject to review and approval by the PUC.

Provisions of water and wastewater service are subject to regulation under the federal Safe Drinking Water Act, the Clean Water Act and related state laws, and under federal and state regulations issued under these laws. In addition, YWC is subject to federal and state laws and other regulations relating to solid waste disposal, dam safety and other aspects of its operations.

The Clean Water Act regulates discharges from water and wastewater treatment facilities into lakes, rivers, streams and groundwater. YWC complies with this Act by obtaining and maintaining all required permits and approvals for discharges from its water and wastewater facilities and by satisfying all conditions and regulatory requirements associated with the permits.

PADEP monitors the quality of wastewater discharge effluent under the provisions of the National Pollutant Discharge Elimination System, or NPDES. YWC submits monthly reports to the DEP showing the results of its daily effluent monitoring and removal of sludge and biosolids. YWC is not aware of any significant environmental remediation costs necessary from the handling and disposal of waste material from its wastewater operations.

YWC has a strong and ongoing commitment to investing in and maintaining infrastructure, and an established track record of successfully managing large capital investment projects in order to continually provide reliable service to the communities it serves. In general, YWC has a more positive future financial outlook than Letterkenny Township. In this regard, the contemplated transaction will provide a public benefit to Letterkenny Township system customers because they will join YWC's large customer base. Because of its size and expertise in wastewater management and the leveraging of economies of scale, YWC will be able to improve efficiencies and lower the costs that would otherwise be incurred to operate the Letterkenny Township system and fund necessary improvements to the system. These efficiencies will help keep rates lower for the Letterkenny Township system customers than they would be if not allowed to become part of YWC's customer base.

Capital expenditures and operating costs required as a result of water quality standards and environmental requirements have been traditionally recognized by state public utility commissions as appropriate for inclusion in establishing rates. The capital expenditures currently required as a result of water quality standards and environmental requirements have been budgeted in the Company's capital program and represent less than 10% of its expected total capital expenditures over the next five years. YWC is currently in compliance with wastewater environmental standards and does not anticipate any major capital expenditures for its current wastewater business.

VII. Institutional Evaluation

A. Analysis and Description of Institutional Alternatives Necessary to Implement Proposed Alternatives

1. Need for New Municipal Departments or Municipal Authorities

   Following the acquisition, the Letterkenny Township Sewer System will be owned and operated by YWC. Letterkenny Township Operations will become part of the existing YWC organizational structure, and no new departments or authorities will be created as part of this acquisition. LTMA will be legally dissolved and cease to exist. YWC will operate and maintain the Letterkenny Township Wastewater Treatment System utilizing a licensed operator supervised by existing staff from YWC. System staff will receive additional support from the YWC company-wide engineering, operations, human relations, legal and other service teams. Where necessary, operating staff will be supplemented with specialized services provided by both company-level and corporate parent and affiliate personnel, bringing specialized expertise and talents to bear to address particular issues and concerns.

2. Functions of Existing and Proposed Organizations

   Upon closing the acquisition of the Letterkenny Township sewer system, the existing Letterkenny Township sewer customers will become direct customers of YWC. As direct customers of YWC, the wastewater tariff as approved by the Pennsylvania Public Utilities Commission (PUC) will define the rates, rules and regulations governing the furnishing of wastewater collection and disposal service. After the acquisition is completed, YWC will own and maintain one (1) WWTP and all collection system mains including customer service laterals from the main to the limits of the rights-of-way or easement as applicable. Laterals beyond that point on private property are the responsibility of the owner for proper operation and maintenance.

   YWC would respond to and investigate and respond to any reports of sewer overflows. If the overflow is discovered within the YWC owned and maintained collection system, YWC will stabilize the situation and make corrective actions as necessary to eliminate the overflow. Blocked laterals within the right-of-way shall also be corrected by YWC. Blockage on the homeowner's side of the service is the responsibility of the homeowner..

3. Cost of Administration and Capability of Authority/Agency to Reaction to Future Needs

   The Independent Auditor's Report for the year ended December 31, 2018 for the Letterkenny Township Municipal Authority is included in Appendix A.

   YWC's Securities and Exchange Commission (SEC) Form 10-K Annual Report for the year ended December 31, 2018 is included in Appendix B.

   YWC anticipates that the operations expenses will be similar to that of Letterkenny Township during its first year of operation. YWC will not be assuming any of Letterkenny Township's debt. Instead, Letterkenny Township will address its debt prior to closing.

B. Description of Administrative and Legal Activities

1. Incorporation of Authorities or Agencies

   As owner and operator of the wastewater system, YWC will be responsible for the operation, maintenance, repair, replacement, and monitoring of all elements of the wastewater system within the former Letterkenny Township direct service territory, from the laterals at the point of the road right- of-way through the collection system piping.

2. Ordinances, Regulations, Standards, Agreements, Inter-Municipal Agreements

   The Agreement of Wastewater Collection System Sale between YWC and Letterkenny Township contains provisions related to rates. YWC must keep 2019 rate of $45 per month until a new rate is approved by the PUC. YWC anticipates applying for a new rate in 4 to 5 years after acquisition of the system. After acquisition, YWC will implement quarterly billing.

   Letterkenny Township has existing sewer ordinances that will remain in effect after the acquisition. Township supervisors are committed to the enforcement of all ordinances, codes and policies of the Township regarding planning, evaluation, design, construction, monitoring and maintenance of the wastewater facilities.

   Letterkenny Township will maintain authority to enforce plumbing code and on-lot residential and commercial ordinances, in cooperation with YWC, including grease trap, sump pump and lateral inspection.

   Letterkenny Township is expected to update/amend, maintain, and enforce ordinances (1) prohibiting or regulating the discharge into the sewage system of fats, oils, grease, acids and other prohibited substances consistent with the regulations governing the wastewater system (which are consolidated into the YWC IPP Regulations required by PaDEP); and (2) prohibiting the discharge into any sanitary sewer of surface or groundwater. YWC will work with Letterkenny Township if the ordinances need updating.

   Letterkenny Township will remain responsible for sewage facilities planning in accordance with Act 537. YWC will be responsible for the ownership, operation, maintenance, upgrade, expansion, permitting and compliance.

   YWC will be responsible for preparing the annual Chapter 94 Report as well as other wastewater system permits and notifications, including industrial discharge permitting and sanitary sewer overflow notifications. YWC will also be responsible for review and approval of planning modules for new connections with respect to the available collection, conveyance and treatment capacity.

   Complaints regarding the public sewer system will be directed to YWC with the ability to contact the Township if issues are not adequately handled to obtain assistance in resolving problems. Private sewer systems and on-lot systems will be the responsibility of the property owner.

   After the acquisition, agreements and inter-municipal agreements can be negotiated by YWC with other sewer authorities or municipalities. If new development or redevelopment is proposed, YWC will cooperate with Letterkenny Township in the review and approval of sewage facility planning modules for such projects. YWC will accept, convey, and treat all

domestic sewage flows from such development/redevelopment projects within the certificated franchise are. YWC will accept, convey and treat new or increased industrial wastewaters of quantities and physical/chemical characteristics consistent with YWC's IPP regulations, all applicable federal and state regulations and NPDES permit requirements, and the hydraulic and treatment capacity of the Letterkenny Township WWTP.

Letterkenny Township shall be the responsible party for any municipal separate storm sewer system (MS4). If any existing combined sewer systems, which there are none currently known, are separated into separate sanitary only systems and MS4 stormwater systems, the facilities and assets relating to the MS4 systems will be conveyed to and become the responsibility of the involved municipality or responsible party.

3. Transfer of Rights-of-Way, Easements, and Land Transfers

   Pursuant to the Agreement of Wastewater Collection System Sale, Letterkenny Township will convey to YWC all of Letterkenny Township's rights to all real and personal property comprising the wastewater system, including all property owned in fee, all easements, and all rights-of-way for the wastewater system's collection, pumping, and discharge facilities. As a PUC-regulated public utility, YWC has the right to obtain rights-of-way within municipal streets and highways for underground water and wastewater lines, and YWC anticipates cooperating with the involved municipalities in the siting and installation of such facilities. Where the acquisition of easements or other rights to private property are necessary, YWC endeavors to negotiate an amicable purchase of such rights on mutually acceptable terms where feasible. Where necessary, as a PUC-regulated facility, YWC may exercise the power of eminent domain to acquire easements or property under the provisions of the Eminent Domain Code.

4. Adoption of Other Municipal Sewage Facilities Plans

   Letterkenny Township would be responsible for any required adoption of other municipal sewage facilities plans that impact the sewage disposal needs of Letterkenny Township. YWC, as owner and operator of the Letterkenny Township wastewater system, would provide stakeholder input and be involved in the planning process of other municipal sewage facility plans that may affect the Letterkenny Township wastewater system.

5. Other Legal Documents

   Not Applicable

6. Dates or Timeframes for Items 1 to 5 Above

   Items 1 to 5 above would be in effect at the date of the closing.

C. Justification for Choosing Specific Institutional Alternative

YWC is the Nation's oldest investor-owned provider of water and wastewater services. As a leading water and wastewater provider in Pennsylvania, YWC brings significant expertise and has extensive technical experience in upgrading, operating, and maintaining sewer facilities. YWC provides well-maintained and reliable water and wastewater service and has extensive local knowledge due to our decades of experience providing services to numerous communities in nearby York and Adams Counties. Given YWC's existing

platform in relation to operation of water and wastewater systems in the region, YWC is best positioned to provide wastewater service to Letterkenny Township on a cost-effective basis.

YWC currently employs approximately 110 professionals with expertise in all areas of water and wastewater utility operations including engineering, regulatory compliance, water and WWTP operation and maintenance, distribution and collection system operation and maintenance, material management, risk management, human resources, legal, accounting, and customer service. YWC is well positioned to address the projected operating and capital expense requirements for the Letterkenny Township Municipal Authority sewer system area. YWC's current market valuation is approximately $400 million.

Additional information about reasons for public benefits provided by the proposed Letterkenny Township Municipal Authority wastewater system transfer to YWC is provided in Section VI(A).

As a PUC-regulated public utility, the rates charged by YWC for water and wastewater services are regulated by the PUC through a process, which provides clear and robust opportunities for involvement and participation by affected communities and consumers.

The PUC is composed of five commissioners, appointed by the Governor with the advice and consent of the Pennsylvania Senate. The commissioners serve terms of five years. The PUC is an independent commission, meaning that it is not under the direction of the Governor or any other political entity. It is charged with making regulatory decisions, including decisions relating to rates, based on the evidence and applicable law.

In order to provide economical and efficient service to a community, the state grants to water and wastewater companies the right to provide service within a specified geographic area, subject to regulation by the PUC of both the quality and terms of service and the rates charged for those services. The ratemaking and approval process involves multiple steps, and is subject to articulated criteria for assuring fair and reasonable rates.

The Rate Filing: When a regulated utility such as YWC seeks an increase or change in its base rates, it must file a request with the PUC that shows the proposed new rates and effective date, and must prove that the increase is needed. The utility also must notify customers at least 60 days in advance. The notice must include the amount of the proposed rate increase, the proposed effective date, and how much more the consumer can expect to pay.

YWC seeks rate increases only when warranted. Because rate proceedings are time-consuming and complex, as a general matter, YWC typically files rate proceedings on a 3 to 4 year cycle. As noted below, in these periodic rate proceedings, YWC has been seeking to utilize the authorities provided under Pennsylvania's Act 11 to more broadly spread costs over its larger customer base in order to moderate cost increases and mitigate to the extent possible major increases impacting localized systems, where major capital improvements are required to meet environmental or other regulatory mandates.

How the PUC Sets Rates: The PUC ratemaking process ensures the lowest reasonable rate for consumers while maintaining the financial stability of utilities. Under the Public Utility Code, a utility is entitled to recovery of its reasonably incurred expenses and a fair return on its investment. The PUC evaluates each utility's request for a rate increase based on those criteria.

In a rate proceeding, YWC is required to provide detailed information concerning its historic and

projected costs of operation (including predictive and preventive maintenance, repair and replacement) and its historic and projected program of capital improvements across all elements of its water and wastewater systems. Annualized costs are typically projected to a future "test" year, which is usually one year following the rate proceeding. The process of determining those costs, and allocating such costs among different classes of consumers (e.g., residential, commercial and industrial customers) involves a series of evaluations and cost-of-service studies. Only those costs determined to be "reasonable and prudent" may be recovered, and in rate proceedings, the PUC will examine whether costs claimed are appropriately justified and reasonable.

The PUC Review Process: The PUC rate review process is far more detailed and arduous than that followed by municipalities and municipal authorities. By operation of law, the rate request is suspended for up to seven months if the PUC does not act before the proposed effective date for the rate increase for water and wastewater companies. The PUC uses that time to investigate and determine what, if any, of the requested increase is justified.

The PUC's Bureau of Investigation and Enforcement {I&E) and public advocates, including the state's Office of Consumer Advocate (OCA) and Office of Small Business Advocate (OSBA), intervene and participate in that process. I&E reviews the company's records and their request and presents its view on what is in the public interest. Individual consumers may become formal parties by filling out a formal complaint form. OCA and OSBA represent consumers and small businesses respectively, and likewise examine in detail the background and materials submitted by the utility. Prior to hearings on the proposed rates, I&E, OCA, OSBA and others submit information requests to the utility and obtain responses to better understand and investigate the facts behind the proposed rates.

When the PUC investigates a rate increase, it is assigned to an Administrative Law Judge (ALJ), who is an attorney with experience in administrative law. The ALJ presides at formal hearings, which are open to the public and conducted like a formal court proceeding. At the formal hearing, the utility, I&E, OCA, OSBA and other parties present their cases and are subject to cross-examination. Consumers may speak for themselves, or an attorney may represent individual consumers or groups of consumers. Consumers also can have their say informally by writing or calling the PUC or completing the objection/ comment form. Consumers also may testify at public input hearings.

By providing testimony, consumers place their views in the official record on the case. Public input hearings are conducted by the ALJ in the utility's service territory. Consumer testimony becomes part of the record on which the PUC will base its decision.

Following the conclusion of hearings before the ALJ, the entire record of testimony, documents and other evidence is compiled. Proposed findings of fact and briefs may be submitted by the formal parties. After weighing the evidence and hearing the arguments, the ALJ writes a recommended decision addressing each issue in the case within the limits set by law. The recommended decision may approve, disapprove or modify the original request. The ALJ's report and recommended decision are presented to the PUC Commissioners. Parties to the rate case may file exceptions to the ALJ's report, and responses to objections presented by other parties.

Finally, the matter is brought before the PUC Commissioners for a vote and final decision. The Commissioners make the final decision, authorizing rates that: (1) permit revenues that allow the company to meet its reasonable expenses, pay interest on its debt and provide a fair return

to stockholders so it will continue to attract investment; and (2) assign the proper rate for residential, commercial and industrial customers that reflects the cost of service.

Together with the 60-day notice period, the PUC's administrative rate review and hearing process takes about nine months. Decisions made by the PUC may be appealable. Aggrieved parties may seek review of the PUC's determinations through an appeal to the Commonwealth Court. The Commonwealth Court's decisions, in turn, may be subject to review by the Supreme Court of Pennsylvania if that court grants a petition to allow appeal.

Collection System Improvement Charge Process: The paragraphs above describe the process for a base rate proceeding, which sets the basic water and wastewater rates for YWC's systems. In the period between periodic base rate cases, the Public Utility Code allows for wastewater companies to calculate and assess a Collection System Improvement Charge (CISC), which allows a limited surcharge on customer bills to accelerate the replacement of existing aging facilities that might otherwise be deferred until completion of a base rate case. Eligible projects involve principally replacement investments, not system expansions or extensions of facilities to serve new customers. System improvement charges are designed to provide ratepayers with improved service quality; greater rate stability; fewer main breaks; fewer service interruptions; and increased safety. The maximum amount of a CISC is a cumulative 5% above base rates. The CISC process involves an annual review by the PUC and reconciliation of recoverable costs and revenues associated with the charge, and an annual reconciliation hearing under Section 1307(e) of the Public Utility Code. The PUC conducts audits to assure that funds generated from a CISC surcharge are spent on CISC-eligible projects.

VIII. Implementation Schedule and Justification for Selected Alternatives

A. Identify Technical Wastewater Disposal Alternative

As indicated above, the selected alternative involves a sale of the Letterkenny Township Municipal Authority wastewater system to YWC, with YWC becoming the owner and operator of all wastewater system assets within the direct service territory. Responsibilities for implementation of elements of the Act 537 Plan would be assigned as described above.

The selected alternative is the best alternative based on the following considerations:

1. Existing Wastewater Disposal Needs

   The selected alternative assures that existing wastewater needs will be managed by a well-experienced, technically-competent, economically-sound public utility company with deeper resources, broader experience, and stronger access to capital than Letterkenny Township. YWC has a strong record of managing water and wastewater systems, for marshalling resources, planning and constructing capital projects, and managing systems on a sustainable basis using modern preventive and predictive maintenance methods and leading edge system management technologies. The depth of resources brought by YWC and its parent and affiliated companies, which supplement a sound staffing plan for the local system, assure proper long-term capability of meeting existing wastewater needs.

2. Future Wastewater Disposal Needs

   Likewise, the selected alternative provides a means of meeting future wastewater disposal

needs. System acquisition by YWC, which opens the door to broader access to capital together with the potential for spreading costs over a broader customer base via Act 11, promises improved capabilities to meet these current and future wastewater needs.

3. Operation and Maintenance Considerations

The selected alternative provides a foundation to sustain over the long-term and improve operational and maintenance practices. YWC's preventive and predictive maintenance programs, coupled with the engineering and operational experience of YWC engineering and operations management and staff, will bring more modern methods, practices and technologies to the Letterkenny Township wastewater system. YWC's platform offers the capability of supporting the system with shared services and expert staff, providing more cost-effective and efficient staffing. YWC's purchasing practices for key inputs, such as chemicals and commodities, offer market volume purchasing and negotiating advantages.

4. Available Management and Administrative Systems

YWC has been a leader in water and wastewater system-sustainable management. Under the selected alternative, YWC brings predictive/preventive maintenance programs, system automation and monitoring systems, a well-experienced engineering and operations management team, and well-developed programs for capital investment and system improvement.

5. Environmental Soundness and Compliance with Natural Resources Planning and Preservation Programs

Under the selected alternative, the Letterkenny Township wastewater system will be operated in a manner that best assures compliance with applicable environmental regulations, including the Pennsylvania Clean Streams Law and Clean Water Act. The basic wastewater system will remain as currently contemplated by the Act 537 Plan (and hence no significant changes are anticipated in relation to the system's consistency with natural resource planning or preservation programs). In short, YWC is bringing to the Letterkenny Township Municipal Authority wastewater system the expertise and resources necessary to address any water quality and environmental problems.

B. Designate and Describe Implementation Schedule

Meeting with PaDEP	August 15, 2019
Update special study to DEP Guidance	August-October 2019
Prepare draft resolution and public notice	September 2019
Attend and explain special study to Letterkenny Township Planning Commission	September 24, 2019
Attend and explain special study to Letterkenny Township Supervisors	September 24, 2019
Submit special Study to Letterkenny Township and Franklin County Planning Commission	October 3, 2019

Advertise public notice in newspaper	October 3 and 11, 2019
Incorporate comments received from Letterkenny Township and Franklin County Planning Commission into the Plan	November 2019
Public Meeting / Letterkenny Township Resolution Adoption	November 5, 2019
Formal submission to PaDEP	November 7, 2019
PaDEP Approval of Act 537 Plan Special Study	December 31, 2019

Appendix A

Independent Auditor's Report of LTMA

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Letterkenny Township
Municipal Authority
Orrstown, Pennsylvania

We have audited the accompanying statement of assets, liabilities, and net assets-modified accrual basis of Letterkenny Township Municipal Authority, a component unit, as of December 31, 2018, and the related statements of revenues, expenses, and change in net assets-modified accrual basis, and statement of cash flows for the year then ended. These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. Our audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in financial statements as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In conducting the Audit, we reviewed the following: minutes from the meetings, insurance policies, budget, permits, bank statements and deposits, invoices for expenses, list of overdue customers and found everything in order.

In our opinion, the financial statements referred to above present fairly in all material respects the financial position of Letterkenny Municipal Authority as of December 31, 2018.

In accordance with the general elected auditor's standards, we have also issued our report dated May 20, 2019 on our consideration of Letterkenny Township Municipal Authority's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants.

Letterkenny Township Elected Auditors

Mike Shaffer
Kathy Johnson
Debra Fluke

May 20, 2019

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
FRANKLIN COUNTY, PENNSYLVANIA
Statement of Revenue and Expenses
For the Year Ended December 31, 2018

Revenues	
Sewer System Revenue	$ 87,149
Grant Monies	50,090
Connection Fees	20,775
Interest Earnings	330
Miscellaneous	96
Inspection Fees	100
Total Revenues	$ 158,540
Operating Expenses	
Mileage Reimbursement	176
Engineer	8044
Collection (Non-Payment) DJ Fees	522
Hillview T.P.	
Chapter 94 Report	525
Telephone Charges	686
Chemical Supplies	1911
Daily Operations	12,898
Electric	9,431
Equipment	24,989
Lab Test/Oversite	4,180
Main Repairs/Supplies	6668
Main Repairs/Service	4,341
Sludge Removal	23,515
Permits	4,413
Total Hillview T.P.	$ 93,557
Clerk Bond	0
Mountain Road- Pump Tanks	370
Skyline Drive Project	64,202
Auditors	1,386
Board Expense	1,375
Insurance	666
Legal	4,000
Office Supplies	873
Secretarial/Admin Wages	3,460
Advertising	0
Misc	0
Total Expenses	$ 178,631
Net Ordinary Income	$ (- 20,091)
Net Income	$ (-20,091)

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
FRANKLIN COUNTY, PENNSYLVANIA

Statement of Assets, Liabilities, Reserves,

For the year ending December 31, 2018

Assets

Current Assets		
Cash in Bank		$ 62,913
Investments		0
Property, Plant and Equipment		
Property, Plant and Equipment	514,603	
Less: Accumulated Depreciation	- 317,627	
Total Property, Plant and Equipment		196,976
Total Assets		259,889

Liabilities

Current Liabilities	None
Total Current Liabilities	None
Long-Term Indebtedness	None
Total Liabilities and Reserves	$ 259,889

LETTERKENNY TOWNSHIP MUNCIPAL AUTHORITY
Statement of Cash Flows
FOR THE YEAR ENDED DECEMBER 31, 2018

CASH FLOWS FROM OPERATING ACTIVITIES	
Grant Monies received from State	$ 50,090
Cash received from customers	108,120
Cash paid to suppliers	178,631
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	(-20,421)
CASH FLOWS FROM INVESTING ACTIVITIES	
Interest received	330
NET CASH PROVIDED (USED) BY INVESTING ACTIVITIES	330
NET INCREASE (DECREASE) IN CASH	(-20,091)
CASH AT BEGINNING OF YEAR	83,005
CASH/INVESTMENTS AT END OF YEAR	$ 62,914
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	
Net operating income	$ (-20,091)
Adjustments to reconcile operating income to net cash Provided (used) by operating activities	
Depreciation	13,596
TOTAL ADJUSTMENTS	13,596
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	$ (-6,495)

LETTERKENNY TOWNSHIP MUNICIPAL AUTHORITY
FRANKLIN COUNTY, PENNSYLVANIA
Notes to Financial Statements
December 31, 2018

Summary of Significant Accounting Policies

Purpose of Authority

The authority has been incorporated under the provisions of the Municipal Authorities Act of 1945 for the purpose of constructing a sewer to benefit the Township of Letterkenny, Franklin County.

Basis of Accounting

These Accompanying financial statements have been prepared on the modified accrual basis of accounting.

Property, Plant and Equipment

This account includes engineering and mapping costs together with interim financing costs and administrative expenses of the Authority for the initial system as well as cost of improvements since the system was originally constructed. These costs are being depreciated using the straight-line method over their estimated useful lives.

Appendix B

York Water Company SEC Filing

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____to_____

Commission file number 001-34245

THE YORK WATER COMPANY
(Exact name of registrant as specified in its charter)

PENNSYLVANIA	23-1242500
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
130 EAST MARKET STREET, YORK, PENNSYLVANIA	17401
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code (717) 845-3601

Securities registered pursuant to Section 12(b) of the Act:	None (Title of Each Class)	The NASDAQ Global Select Market (Name of Each Exchange on Which Registered)
Securities registered pursuant to Section 12(g) of the Act:	COMMON STOCK, NO PAR VALUE (Title of Class)	

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
☐ YES ☒ NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
☐ YES ☒ NO

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
☒ YES ☐ NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
☒ YES ☐ NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐

Small reporting company ☒ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
☐ YES ☒ NO

The aggregate market value of the Common Stock, no par value, held by nonaffiliates of the registrant on June 30, 2018 was $410,673,686.

As of March 12, 2019 there were 12,945,790 shares of Common Stock, no par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Company's 2019 Annual Meeting of Shareholders are incorporated by reference into Part I and Part III.

TABLE OF CONTENTS

Forward-Looking Statements		3
PART I		
Item 1.	Business	4
Item 1A.	Risk Factors	8
Item 1B.	Unresolved Staff Comments	8
Item 2.	Properties	8
Item 3.	Legal Proceedings	9
Item 4.	Mine Safety Disclosures	9
PART II		
Item 5.	Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	10
Item 6.	Selected Financial Data	10
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operation	10
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	20
Item 8.	Financial Statements and Supplementary Data	20
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	52
Item 9A.	Controls and Procedures	52
Item 9B.	Other Information	53
PART III		
Item 10.	Directors, Executive Officers and Corporate Governance	54
Item 11.	Executive Compensation	54
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	55
Item 13.	Certain Relationships and Related Transactions, and Director Independence	55
Item 14.	Principal Accounting Fees and Services	55
PART IV		
Item 15.	Exhibits and Financial Statement Schedules	56
Item 16.	Form 10-K Summary	60
Signatures		62

FORWARD-LOOKING STATEMENTS

Certain statements contained in this annual report and in documents incorporated by reference constitute "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. Words such as "may," "should," "believe," "anticipate," "estimate," "expect," "intend," "plan" and similar expressions are intended to identify forward-looking statements. These forward-looking statements include certain information relating to the Company's business strategy and future prospects; including, but not limited to:

- the amount and timing of rate increases and other regulatory matters including the recovery of costs recorded as regulatory assets;
- expected profitability and results of operations;
- trends;
- goals, priorities and plans for, and cost of, growth and expansion;
- strategic initiatives;
- availability of water supply;
- water usage by customers; and
- the ability to pay dividends on common stock and the rate of those dividends.

The forward-looking statements in this Annual Report reflect what the Company currently anticipates will happen. What actually happens could differ materially from what it currently anticipates will happen. The Company does not intend to make a public announcement when forward-looking statements in this Annual Report are no longer accurate, whether as a result of new information, what actually happens in the future or for any other reason. Important matters that may affect what will actually happen include, but are not limited to:

- changes in weather, including drought conditions or extended periods of heavy rainfall;
- levels of rate relief granted;
- the level of commercial and industrial business activity within the Company's service territory;
- construction of new housing within the Company's service territory and increases in population;
- changes in government policies or regulations, including the tax code;
- the ability to obtain permits for expansion projects;
- material changes in demand from customers, including the impact of conservation efforts which may impact the demand of customers for water;
- changes in economic and business conditions, including interest rates, which are less favorable than expected;
- loss of customers;
- changes in, or unanticipated, capital requirements;
- the impact of acquisitions;
- changes in accounting pronouncements;
- changes in the Company's credit rating or the market price of its common stock; and
- the ability to obtain financing.

THE YORK WATER COMPANY

PART I

Item 1. Business.

The York Water Company (the "Company") is the oldest investor-owned water utility in the United States and is duly organized under the laws of the Commonwealth of Pennsylvania. The Company has operated continuously since 1816. The primary business of the Company is to impound, purify to meet or exceed safe drinking water standards and distribute water. The Company also owns and operates three wastewater collection systems and two wastewater treatment systems. The Company operates within its franchised water territory, which covers 39 municipalities within York County, Pennsylvania and nine municipalities within Adams County, Pennsylvania. The Company's wastewater operations include portions of four municipalities in York County, Pennsylvania. The Company is regulated by the Pennsylvania Public Utility Commission, or PPUC, for both water and wastewater in the areas of billing, payment procedures, dispute processing, terminations, service territory, debt and equity financing and rate setting. The Company must obtain PPUC approval before changing any practices associated with the aforementioned areas.

Water service is supplied through the Company's own distribution system. The Company obtains the bulk of its water supply from both the South Branch and East Branch of the Codorus Creek, which together have an average daily flow of 73.0 million gallons. This combined watershed area is approximately 117 square miles. The Company has two reservoirs, Lake Williams and Lake Redman, which together hold up to approximately 2.2 billion gallons of water. The Company supplements its reservoirs with a 15-mile pipeline from the Susquehanna River to Lake Redman which provides access to an additional supply of 12.0 million gallons of untreated water per day. The Company also owns seven wells which are capable of providing a safe yield of approximately 366,000 gallons per day to supply water to its customers in Carroll Valley Borough and Cumberland Township, Adams County. As of December 31, 2018, the Company's average daily availability was 35.4 million gallons, and average daily consumption was approximately 19.5 million gallons. The Company's service territory had an estimated population of 199,000 as of December 31, 2018. Industry within the Company's service territory is diversified, manufacturing such items as fixtures and furniture, electrical machinery, food products, paper, ordnance units, textile products, air conditioning systems, laundry detergent, barbells and motorcycles.

The Company's water business is somewhat dependent on weather conditions, particularly the amount and timing of rainfall. Revenues are particularly vulnerable to weather conditions in the summer months. Prolonged periods of hot and dry weather generally cause increased water usage for watering lawns, washing cars, and keeping golf courses and sports fields irrigated. Conversely, prolonged periods of dry weather could lead to drought restrictions from governmental authorities. Despite the Company's adequate water supply, customers may be required to cut back water usage under such drought restrictions which would negatively impact revenues. The Company has addressed some of this vulnerability by instituting minimum customer charges which are intended to cover fixed costs of operations under all likely weather conditions.

The Company's business does not require large amounts of working capital and is not dependent on any single customer or a very few customers for a material portion of its business. Increases in revenues are generally dependent on the Company's ability to obtain rate increases from the PPUC in a timely manner and in adequate amounts and to increase volumes of water sold through increased consumption and increases in the number of customers served. The Company continuously looks for water and wastewater acquisition and expansion opportunities both within and outside its current service territory as well as additional opportunities to enter into bulk water contracts with municipalities and other entities to supply water.

The Company has agreements with several municipalities to provide sewer billing and collection services. The Company also has a service line protection program on a targeted basis in order to further diversify its business. Under this optional program, customers pay a fixed monthly fee, and the Company will repair or replace damaged customer service lines, as needed, subject to an annual maximum dollar amount. The Company continues to review and consider opportunities to expand both initiatives.

Competition

As a regulated utility, the Company operates within an exclusive franchised territory that is substantially free from direct competition with other public utilities, municipalities and other entities. Although the Company has been granted an exclusive franchise for each of its existing community water and wastewater systems, the ability of the Company to expand or acquire new service territories may be affected by currently unknown competitors obtaining franchises to surrounding systems by application or acquisition. These competitors may include other investor-owned utilities, nearby municipally-owned utilities and sometimes competition from strategic or financial purchasers seeking to enter or expand in the water and wastewater industry. The addition of new service territory and the acquisition of other utilities are generally subject to review and approval by the PPUC.

Water and Wastewater Quality and Environmental Regulations

Provisions of water and wastewater service are subject to regulation under the federal Safe Drinking Water Act, the Clean Water Act and related state laws, and under federal and state regulations issued under these laws. In addition, the Company is subject to federal and state laws and other regulations relating to solid waste disposal, dam safety and other aspects of its operations.

The federal Safe Drinking Water Act establishes criteria and procedures for the U.S. Environmental Protection Agency, or EPA, to develop national quality standards. Regulations issued under the Act, and its amendments, set standards on the amount of certain contaminants allowable in drinking water. Current requirements are not expected to have a material impact on the Company's operations or financial condition as it already meets or exceeds standards. In the future, the Company may be required to change its method of treating drinking water and may incur additional capital investments if new regulations become effective.

Under the requirements of the Pennsylvania Safe Drinking Water Act, or SDWA, the Pennsylvania Department of Environmental Protection, or DEP, monitors the quality of the finished water supplied to customers. The DEP requires the Company to submit weekly reports showing the results of daily bacteriological and other chemical and physical analyses. As part of this requirement, the Company conducts over 70,000 laboratory tests annually. Management believes that the Company complies with the standards established by the agency under the SDWA. The DEP assists the Company by regulating discharges into the Company's watershed area to prevent and eliminate pollution.

The federal Groundwater Rule establishes rules for community water supplies serving between 100 and 500 customers. This rule requires additional testing of water from well sources, and under certain circumstances requires demonstration and maintenance of effective disinfection. The Company holds public water supply permits issued by the DEP, which establishes the groundwater source operating conditions for its wells, including demonstrated 4-log treatment of viruses. All of the satellite systems operated by the Company are in compliance with the federal Groundwater Rule.

The Clean Water Act regulates discharges from water and wastewater treatment facilities into lakes, rivers, streams and groundwater. The Company complies with this Act by obtaining and maintaining all required permits and approvals for discharges from its water and wastewater facilities and by satisfying all conditions and regulatory requirements associated with the permits.

The DEP monitors the quality of wastewater discharge effluent under the provisions of the National Pollutant Discharge Elimination System, or NPDES. The Company submits monthly reports to the DEP showing the results of its daily effluent monitoring and removal of sludge and biosolids. The Company is not aware of any significant environmental remediation costs necessary from the handling and disposal of waste material from its wastewater operations.

Lead and copper may enter drinking water primarily through plumbing materials. The Company is required to comply with the Lead and Copper Rule established by the EPA and administered by the DEP. The Company must monitor drinking water at customer taps for compliance with this rule. If lead concentrations exceed an action level, the Company must undertake a number of additional actions to control corrosion, inform the public about steps they should take to protect their health and may be required to replace lead service lines under its control. See "Management's Discussion and Analysis – Environmental Matters" for a discussion of the Company's compliance with the Lead and Copper rule.

The DEP and the Susquehanna River Basin Commission, or SRBC, regulate the amount of water withdrawn from streams in the watershed to assure that sufficient quantities are available to meet the needs of the Company and other regulated users. Through its Division of Dam Safety, the DEP regulates the operation and maintenance of the Company's impounding dams. The Company routinely inspects its dams and prepares annual reports of their condition as required by DEP regulations. The DEP reviews these reports and inspects the Company's dams. The DEP most recently inspected the Company's dams in 2017 and noted no significant violations.

Since 1980, the DEP has required any new dam to have a spillway that is capable of passing the design flood without overtopping the dam. The design flood is either the Probable Maximum Flood, or PMF, or some fraction of it, depending on the size and location of the dam. PMF is very conservative and is calculated using the most severe combination of meteorological and hydrologic conditions reasonably possible in the watershed area of a dam.

The Company engaged a professional engineer to analyze the spillway capacities at the Lake Williams and Lake Redman dams and validate the DEP's recommended flood design for the dams. Management presented the results of the study to the DEP in December 2004, and DEP then requested that the Company submit a proposed schedule for the actions to address the spillway capacities. Thereafter, the Company retained an engineering firm to prepare preliminary designs for increasing the spillway capacities to pass the PMF through armoring the dams with roller compacted concrete. Management has met with the DEP on a regular basis to review the preliminary design and discuss scheduling, permitting, and construction requirements. The Company is currently completing preliminary work on the dams as well as the final design and the permitting process. The Company expects to finalize its plans in 2019 and begin armoring one of the dams in 2020. The second dam is expected to be armored in a year or two following the first dam armoring. The cost to armor each dam is expected to be approximately $5.5 million.

Capital expenditures and operating costs required as a result of water quality standards and environmental requirements have been traditionally recognized by state public utility commissions as appropriate for inclusion in establishing rates. The capital expenditures currently required as a result of water quality standards and environmental requirements have been budgeted in the Company's capital program and represent less than 10% of its expected total capital expenditures over the next five years. The Company is currently in compliance with wastewater environmental standards and does not anticipate any major capital expenditures for its current wastewater business.

Growth

During the three year period ended December 31, 2018, the Company continued to grow the number of customers and its distribution facilities.

The following table sets forth certain of the Company's summary statistical information.

(In thousands of dollars)	For the Years Ended December 31,		
	2018	2017	2016
Revenues:			
Residential	$31,281	$31,257	$30,218
Commercial and industrial	13,578	13,729	13,760
Other	3,578	3,603	3,606
Total	$48,437	$48,589	$47,584
Average daily water consumption (gallons per day)	19,517,000	18,378,000	18,798,000
Miles of water mains at year-end	980	973	967
Miles of wastewater mains at year-end	19	19	8
Additional water distribution mains installed/acquired (ft.)	36,598	31,709	46,368
Wastewater collection mains acquired (ft.)	-	57,386	-
Number of customers at year-end	70,263	69,604	67,052
Population served at year-end	199,000	198,000	196,000

Executive Officers of the Registrant

The Company presently has 109 full time employees including the officers detailed in the information set forth under the caption "Executive Officers of the Company" of the 2019 Proxy Statement incorporated herein by reference.

Available Information

The Company makes available free of charge, on or through its website (www.yorkwater.com), its annual report on Form 10-K, its quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC. The SEC also maintains a website at www.sec.gov that contains reports, proxy statements, and other information about SEC registrants, including the Company.

Shareholders may request, without charge, copies of the Company's financial reports. Such requests, as well as other investor relations inquiries, should be addressed to:

Molly E. Norton	The York Water Company	(717) 718-2942
Investor Relations &	130 East Market Street	(800) 750-5561
Communications Administrator	York, PA 17401	mollyn@yorkwater.com

Item 1A. Risk Factors.

Not applicable.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Source of Water Supply

The Company owns two impounding dams located in York and Springfield Townships adjoining the Borough of Jacobus to the south. The lower dam, the Lake Williams Impounding Dam, creates a reservoir covering approximately 165 acres containing about 870 million gallons of water. The upper dam, the Lake Redman Impounding Dam, creates a reservoir covering approximately 290 acres containing about 1.3 billion gallons of water.

In addition to the two impounding dams, the Company owns a 15-mile pipeline from the Susquehanna River to Lake Redman that provides access to a supply of an additional 12.0 million gallons of water per day.

The Company also owns three satellite water systems in Adams County, Pennsylvania. The Carroll Valley Water System consists of two groundwater wells capable of providing a safe yield of approximately 100,000 gallons per day with a current average daily consumption of 16,000 gallons per day. The Western Cumberland Water System consists of three groundwater wells capable of providing a safe yield of 144,000 gallons per day with a current average daily consumption of 20,000 gallons per day. The Eastern Cumberland Water System consists of two groundwater wells capable of providing a safe yield of 122,000 gallons per day with a current average daily consumption of 29,000 gallons per day.

As of December 31, 2018, the Company's present average daily availability was 35.4 million gallons, and daily consumption was approximately 19.5 million gallons.

Pumping Stations

The Company's main pumping station is located in Spring Garden Township on the south branch of the Codorus Creek about four miles downstream from the Company's lower impounding dam. The pumping station presently houses pumping equipment consisting of three electrically driven centrifugal pumps and two diesel-engine driven centrifugal pumps with a combined pumping capacity of 68.0 million gallons per day. The pumping capacity is more than double peak requirements and is designed to provide an ample safety margin in the event of pump or power failure. A large diesel backup generator is installed to provide power to the pumps in the event of an emergency. The untreated water is pumped approximately two miles to the filtration plant through pipes owned by the Company.

The Susquehanna River Pumping Station is located on the western shore of the Susquehanna River several miles south of Wrightsville, PA. The pumping station is equipped with three Floway Vertical Turbine pumps rated at 6 million gallons per day each. The pumping station pumps water from the Susquehanna River approximately 15 miles through a combination of 30 inch and 36 inch ductile iron main to the Company's upper impounding dam, located at Lake Redman.

In 2018, the new Lake Redman Pumping Station, located in York Township adjacent to Lake Redman, was put into service. The pumping station is designed to provide a redundant source with the capacity to pump 20 million gallons per day of untreated water through a company-owned 36 inch force main approximately 3.5 miles to the filtration plant, meeting the Company's daily consumption needs.

Treatment Facilities

The Company's water filtration plant is located in Spring Garden Township about one-half mile south of the City of York. Water at this plant is filtered through twelve dual media filters having a rated capacity of 39.0 million gallons per day, or MGD, with a maximum supply of 42.0 MGD for short periods if necessary. Based on an average daily consumption in 2018 of approximately 19.5 million gallons, the Company believes the pumping and filtering facilities are adequate to meet present and anticipated demands.

The Company's sediment recycling facility is located adjacent to its water filtration plant. This state of the art facility employs cutting edge technology to remove fine, suspended solids from untreated water. The Company estimates that through this energy-efficient, environmentally friendly process, approximately 600 tons of sediment will be removed annually, thereby improving the quality of the Codorus Creek watershed.

The Company's two wastewater treatment facilities are located in East Manchester and Lower Windsor Townships. The two wastewater treatment plants are each small, packaged, extended aeration activated sludge facilities with a combined average daily flow capacity of 167,000 gallons. With a projected maximum daily demand of 77,000 gallons, the plants' flow paths offer both capacity and operational redundancy for maintenance, high flow events, and potential growth.

Distribution and Collection

The distribution system of the Company has approximately 980 miles of water main lines which range in diameter from 2 inches to 36 inches. The distribution system includes 31 booster stations and 34 standpipes and reservoirs capable of storing approximately 58.1 million gallons of potable water. All booster stations are equipped with at least two pumps for protection in case of mechanical failure. Following a deliberate study of customer demand and pumping capacity, the Company installed standby generators at all critical booster stations to provide an alternate energy source or emergency power in the event of an electric utility interruption.

The three wastewater collection systems of the Company have a combined approximate 95,000 feet of 6 inch and 8 inch gravity collection mains and 5,000 feet of 6 inch pressure force main along with three sewage pumping stations each rated at 80 gallons per minute.

Other Properties

The Company's distribution center and material and supplies warehouse are located in Springettsbury Township, and are composed of three one-story concrete block buildings aggregating 30,680 square feet.

The administrative and executive offices of the Company are located in one three-story and one two-story brick and masonry buildings, containing a total of approximately 21,861 square feet, in the City of York, Pennsylvania.

All of the Company's properties described above are held in fee by the Company. There are no material encumbrances on such properties.

In 1976, the Company entered into a Joint Use and Park Management Agreement with York County under which the Company licensed use of certain of its lands and waters for public park purposes for a period of 50 years. Under the agreement, York County has agreed not to erect a dam upstream on the East Branch of the Codorus Creek or otherwise obstruct the flow of the creek.

Item 3. Legal Proceedings.

There are no material legal proceedings involving the Company.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

The common stock of The York Water Company is traded on the NASDAQ Global Select Market under the symbol YORW.

Shareholders of record (excluding individual participants in securities positions listings) as of December 31, 2018 numbered approximately 1,999.

Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item with respect to securities authorized for issuance under equity compensation plans is set forth in Part III, Item 12 of this Annual Report.

Purchases of Equity Securities by the Company

The Company did not repurchase any of its securities during the fourth quarter of 2018.

Item 6. Selected Financial Data.

Not applicable.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(All dollar amounts are stated in thousands of dollars.)

Overview

The York Water Company (the "Company") is the oldest investor-owned water utility in the United States, operated continuously since 1816. The Company also operates three wastewater collection systems and two wastewater treatment systems. The Company is a purely regulated water and wastewater utility. Profitability is largely dependent on water revenues. Due to the size of the Company and the limited geographic diversity of its service territory, weather conditions, particularly rainfall, economic, and market conditions can have an adverse effect on revenues. While the economy in general continued to improve, market conditions were volatile. The Company experienced decreased revenues in 2018 compared to 2017 as a result of giving back to customers the benefit of tax reform and lower per capita consumption, which were partially offset by revenues from the distribution system improvement charge, or DSIC, an increase in the number of customers served, and the West York Borough wastewater acquisition.

The Company's business does not require large amounts of working capital and is not dependent on any single customer or a very few customers for a material portion of its business. In 2018, operating revenue was derived from the following sources and in the following percentages: residential, 65%; commercial and industrial, 28%; and other, 7% which is primarily from the provision for fire service, but includes other water and wastewater service-related income. The diverse customer mix helps to reduce volatility in consumption.

The Company seeks to grow revenues by increasing the volume of water sold through increases in the number of customers served, making timely and prudent investments in infrastructure replacements, expansion and improvements, and timely filing for rate increases. The Company continuously looks for acquisition and expansion opportunities both within and outside its current service territory as well as through contractual services and bulk water supply. The Company's wastewater business provides additional opportunities to expand.

The Company has entered into agreements with several municipalities to provide sewer billing and collection services. The Company also has a service line protection program on a targeted basis. The Company continues to review and consider opportunities to expand both initiatives to further diversify the business.

In addition to increasing revenue, the Company consistently focuses on minimizing costs without sacrificing water quality or customer service. Paperless billing, expanding online services, negotiation of favorable electric, banking and other costs, as well as taking advantage of the Tax Cuts and Jobs Act of 2017, or the 2017 Tax Act, and the IRS tangible property regulations, or TPR, are examples of the Company's recent efforts to minimize costs.

Performance Measures

Company management uses financial measures including operating revenues, net income, earnings per share and return on equity to evaluate its financial performance. Additional statistical measures including number of customers, customer complaint rate, annual customer rates and the efficiency ratio are used to evaluate performance quality. These measures are calculated on a regular basis and compared with historical information, budget and the other publicly-traded water and wastewater companies.

The Company's performance in 2018 was strong under the above measures. Although operating revenues declined slightly in 2018 compared to 2017, the cause of the decline was primarily due to reduced revenue to offset the benefit of the lower income tax rate pursuant to the 2017 Tax Act which will be returned to customers. This was partially offset by the collection of a DSIC and increases in the number of customers. Other net expenses were higher in 2018, primarily due to a decreased allowance for funds used during construction. The Company incurred lower income taxes primarily due to a higher volume of assets improvements eligible for the tax benefit under the IRS TPR and the full impact of the 2017 Tax Act. The overall effect was an increase in net income in 2018 over 2017 of 3.1% and a return on year end common equity of 10.6%, slightly lower than the 2017 result of 10.9% but consistent with the five-year historical average of 10.6%.

The efficiency ratio, which is calculated as net income divided by revenues, is used by management to evaluate its ability to control expenses. Over the five previous years, the Company's ratio averaged 25.2%. In 2018, the ratio was higher than the average at 27.6% due primarily to lower income taxes than are included in the historical average. Management is confident that its ratio will compare favorably to that of its peers. Management continues to look for ways to decrease expenses and increase efficiency as well as to file for rate increases promptly when needed.

2018 Compared with 2017

Net income for 2018 was $13,376, an increase of $402, or 3.1%, from net income of $12,974 for 2017. The primary contributing factors to the increase were lower income taxes, which were partially offset by increased operating expenses and a decreased allowance for funds used during construction.

Operating revenues for the year decreased $152, or 0.3%, from $48,589 for 2017 to $48,437 for 2018. The Company reduced revenue by $1,600 for the year by recording a regulatory liability for the benefit of the lower tax rate effective January 1, 2018 resulting from the enactment of the 2017 Tax Act, which it has agreed to give back to customers as part of its recently approved PPUC rate order, including the gross-up of revenue necessary to return the effect of the temporary tax difference. Total per capita consumption for 2018 was approximately 1.0% lower than 2017. The decreased revenues were partially offset by revenues from the DSIC of $1,072 and the 2017 West York Borough wastewater acquisition of $126. Growth in the water customer base also added to revenues. The average number of water customers served in 2018 increased as compared to 2017 by 671 customers, from 67,061 to 67,732 customers. The average number of wastewater customers served in 2018 increased as compared to 2017 period by 279 customers, from 2,012 to 2,291 customers, due to the acquisition. The Company expects revenues for 2019 to increase due to an increase in rates effective March 1, 2019, and the continued increase in the number of water and wastewater customers from acquisitions and growth within the Company's service territory. Other regulatory actions and weather patterns could impact results.

Operating expenses for 2018 increased $1,024, or 4.1%, from $24,896 for 2017 to $25,920 for 2018. The increase was primarily due to higher expenses of approximately $280 for distribution system maintenance, $241 for depreciation, and $217 for wages and employee benefits. Also adding to the increase were higher expenses of $82 for information technology, $77 for West York Borough wastewater operating expenses, $64 for purchased power, $56 for water treatment, and $48 for a consulting engagement. Other expenses increased by a net of $190. The increase was partially offset by lower expenses of approximately $142 for health insurance, $49 for legal expenses due to the absence of expenses for a tariff modification and lead disclosure, and $40 for bad debts. In 2019, the Company expects depreciation expense to continue to rise due to additional investment in utility plant, and other expenses to increase at a moderate rate as costs to treat water and to maintain and extend the distribution system continue to rise.

Interest on debt for 2018 increased $161, or 3.0%, from $5,348 for 2017 to $5,509 for 2018. The increase was primarily due to interest on line of credit borrowings. The average debt outstanding under the lines of credit was $7,206 for 2018 and $3,132 for 2017. The weighted average interest rate on the lines of credit was 3.20% for 2018 and 1.76% for 2017. Interest expense for 2019 is expected to be slightly lower due to the refinancing of 10.17% and 9.60% Senior Notes with 4.54% Senior Notes.

Allowance for funds used during construction decreased $635, from $864 for 2017 to $229 in 2018, due to a planned lower volume of eligible construction. Eligible 2017 construction expenditures included an investment in an additional raw water pumping station and force main project. Allowance for funds used during construction for 2019 is expected to increase based on a projected increase in the amount of eligible construction.

Other income (expenses), net for 2018 reflects decreased expenses of $387 as compared to 2017. Lower retirement expenses of approximately $184 due primarily to an increase in the discount rate, lower charitable contributions of $139, and higher earnings on life insurance policies of $37 were the primary reasons for the decrease. Other expenses decreased by a net of $27. For 2019, other income (expenses) will be largely determined by the change in market returns and discount rates for retirement programs and related assets.

Income taxes for 2018 decreased $2,052, or 45.2%, compared to 2017 due to the effects of the 2017 Tax Act, and a higher volume of asset improvements eligible for the tax benefit under the IRS TPR. The Company's effective tax rate was 15.7% for 2018 and 25.9% for 2017. The Company's effective tax rate for 2019 will largely be determined by the level of eligible asset improvements expensed for tax purposes that would have been capitalized for tax purposes prior to the implementation of the TPR.

Rate Matters

See Note 10 to the Company's financial statements included herein for a discussion of its rate matters.

Effective January 1, 2019 the Company's tariff included a DSIC on revenues of 4.82%. The DSIC reset to zero when new base rates took effect on March 1, 2019.

The benefit from the implementation of the IRS TPR impacts the rate matters of the Company. The most recent rate order took into account the lower income taxes which resulted from the implementation of the IRS TPR, as well as the lower income taxes from the 2017 Tax Act, effectively reducing the amount of revenue required and lowering the Company's rate increase.

Acquisitions and Growth

See Note 2 to the Company's financial statements included herein for a discussion of completed acquisitions included in financial results.

On October 8, 2013, the Company signed an agreement to purchase the wastewater collection and treatment assets of SYC WWTP, L.P. in Shrewsbury and Springfield Townships, York County, Pennsylvania. Completion of the acquisition is contingent upon receiving approval from all required regulatory authorities. Closing is expected in 2019, at which time the Company will add approximately 30 commercial and industrial wastewater customers.

On October 25, 2018, the Company signed an agreement to purchase the wastewater collection assets of the Jacobus Borough Sewer Authority in York County, Pennsylvania. Completion of the acquisition is contingent upon receiving approval from all required regulatory authorities. Closing is expected in the third quarter of 2019 at which time the Company will add approximately 700 wastewater customers. These wastewater customers are currently water customers of the Company.

On December 28, 2018, the Company signed an agreement to purchase the wastewater collection and treatment assets of Felton Borough in York County Pennsylvania. Completion of the acquisition is contingent upon receiving approval from all required regulatory authorities. Closing is expected in 2019 at which time the Company will add approximately 130 wastewater customers.

On March 4, 2019, the Company signed an agreement to purchase the wastewater collection assets of West Manheim Township in York County, Pennsylvania. Completion of the acquisition is contingent upon receiving approval from all required regulatory authorities. Closing is expected in the first quarter of 2020 at which time the Company will add approximately 1,800 wastewater customers. These wastewater customers are currently water customers of the Company.

In total, these acquisitions are expected to be immaterial to Company results. The Company is also pursuing other bulk water contracts and acquisitions in and around its service territory to help offset any further declines in per capita water consumption and to grow its business.

On May 10, 2017, the Company signed an emergency interconnect agreement with Dallastown-Yoe Water Authority. The effectiveness of this agreement is contingent upon receiving approval from all required regulatory authorities. Approval is expected to be granted in 2019 at which time the Company will begin construction of a water main extension to a single point of interconnection and either supply a minimum agreed upon amount of water to the authority, receive a payment in lieu of water, or provide water during an emergency, at current tariff rates.

Capital Expenditures

During 2018, the Company invested $16,882 in construction expenditures for routine items and the completion of a raw water pumping station, as well as various replacements and improvements to infrastructure including company-owned lead service lines as discussed in Note 8 to the financial statements included herein. The Company replaced or relined approximately 50,000 feet of main in 2018. The Company was able to fund construction expenditures using internally-generated funds, line of credit borrowings, proceeds from its stock purchase plans, and customer advances and contributions from developers, municipalities, customers or builders. See Notes 1, 4 and 5 to the Company's financial statements included herein.

The Company anticipates construction and acquisition expenditures for 2019 and 2020 of approximately $21,479 and $21,209, respectively, exclusive of any acquisitions not yet approved. In addition to routine transmission and distribution projects, a portion of the anticipated 2019 and 2020 expenditures will be for additional main extensions, spillway improvements and the armoring of one of the dams, replacing a water storage tank, expansion of a wastewater treatment plant, and various replacements of infrastructure. The Company intends to use primarily internally-generated funds for its anticipated 2019 and 2020 construction and fund the remainder through line of credit borrowings, proceeds from its stock purchase plans and customer advances and contributions (see Note 1 to the Company's financial statements included herein). Customer advances and contributions are expected to account for between 5% and 10% of funding requirements in 2019 and 2020. Potential debt and equity offerings may be utilized if required. The Company believes it will have adequate credit facilities and access to the capital markets, if necessary, during 2019 and 2020, to fund anticipated construction and acquisition expenditures.

Liquidity and Capital Resources

Cash

The Company manages its cash through a cash management account that is directly connected to a line of credit. Excess cash generated automatically pays down outstanding borrowings under the line of credit arrangement. If there are no outstanding borrowings, the cash is used as an earnings credit to reduce banking fees. Likewise, if additional funds are needed beyond what is generated internally for payroll, to pay suppliers, or for debt service, funds are automatically borrowed under the line of credit. The Company fully utilized its cash on hand in 2017. As of December 31, 2018, the Company borrowed $9,508 under its lines of credit and incurred a cash overdraft on its cash management account of $1,070. The cash management facility and the other lines of credit are expected to provide the necessary liquidity and funding for the Company's operations, capital expenditures, acquisitions and potential buybacks of stock for the foreseeable future.

Accounts Receivable

The accounts receivable balance tends to follow the change in revenues but is also affected by the timeliness of payments by customers and the level of the reserve for doubtful accounts. In 2018, the accounts receivable – customers balance increased due to an increase in revenue from increased customer counts and the DSIC. Other receivables increased due to the timing of a large receivable to fund a capital project which was received in January 2019. A reserve is maintained at a level considered adequate to provide for losses that can be reasonably anticipated based on inactive accounts with outstanding balances. Management periodically evaluates the adequacy of the reserve based on past experience, agings of the receivables, adverse situations that may affect a customer's ability to pay, current economic conditions, and other relevant factors. If the status of these factors deteriorates, the Company may incur additional expenses for uncollectible accounts and experience a reduction in its internally-generated funds.

Internally-generated Funds

The amount of internally-generated funds available for operations and construction depends on the Company's ability to obtain timely and adequate rate relief, changes in regulations, customers' water usage, weather conditions, customer growth and controlled expenses. In 2018, the Company generated $18,372 internally as compared to $20,110 in 2017. The decrease from 2017 was primarily due to higher income taxes paid.

Credit Lines

Historically, the Company has borrowed $15,000 to $20,000 under its lines of credit before refinancing with long-term debt or equity capital. As of December 31, 2018, the Company maintained unsecured lines of credit aggregating $41,500 with four banks at interest rates ranging from LIBOR plus 1.15% to LIBOR plus 1.25%. The Company had $9,508 in outstanding borrowings under its lines of credit as of December 31, 2018. The weighted average interest rate on line of credit borrowings as of December 31, 2018 was 3.60%. The Company expects to renew these lines of credit as they mature under similar terms and conditions.

The Company has taken steps to manage the risk of reduced credit availability. It has maintained committed lines of credit that cannot be called on demand and obtained a 2-year revolving maturity on most of its facilities. One of the Company's banks recently reduced the interest rate on its line of credit and extended the maturity from one year to two years. There is no guarantee that the Company will be able to obtain sufficient lines of credit with favorable terms in the future. If the Company is unable to obtain sufficient lines of credit or to refinance its line of credit borrowings with long-term debt or equity when necessary, it may have to eliminate or postpone capital expenditures. Management believes the Company will have adequate capacity under its current lines of credit to meet financing needs throughout 2019.

Long-term Debt
The Company's loan agreements contain various covenants and restrictions. Management believes it is currently in compliance with all of these restrictions. See Note 6 to the Company's financial statements included herein for additional information regarding these restrictions.

The Pennsylvania Economic Development Financing Authority Series 2014 bonds contain special redemption provisions. Under these provisions, representatives of deceased beneficial owners have the right to request redemption prior to the stated maturity of all or part of their holding in the bonds. The Company is not obligated to redeem any individual holding exceeding $25, or aggregate holdings exceeding $300 in any annual period. In 2017 and 2018, no bonds were retired under these provisions. Currently, no additional bonds that meet the special provisions have been tendered for redemption.

The York County Industrial Development Authority Series 2006 bonds are subject to optional redemption provisions that allow the Company to redeem all or a portion of the bonds on or after October 1, 2016. The Company may refinance these bonds prior to maturity in 2036 to take advantage of lower interest rates.

On January 31, 2019, the Company entered into a note purchase agreement with certain institutional investors relating to the private placement of $20,000 aggregate principal amount of the Company's senior notes. The senior notes bear interest at 4.54% per annum payable semiannually and mature on January 31, 2049. The senior notes are unsecured and unsubordinated obligations of the Company. The Company received net proceeds, after deducting issuance costs, of approximately $19,820. The net proceeds were used to refinance the $11,000 aggregate principal amount of the Company's 10.17% Series A Senior Notes due February 1, 2019 and the 9.60% Series B Senior Notes due February 1, 2019, and to refinance line of credit borrowings incurred by the Company as interim financing for various capital projects of the Company.

The Company's total long-term debt as a percentage of the total capitalization, defined as total common stockholders' equity plus total long-term debt, was 43.2% as of December 31, 2018, compared with 43.7% as of December 31, 2017. The Company began using its lines of credit in 2017 due primarily to increased capital expenditures. The Company expects to allow the debt percentage to trend upward until it approaches fifty percent before considering additional equity. A debt to total capitalization ratio between forty-six and fifty percent has historically been acceptable to the PPUC in rate filings. Due to its recent ability to generate more cash internally, the Company has been able to keep its ratio below fifty percent. See Note 6 to the Company's financial statements included herein for the details of its long-term debt outstanding as of December 31, 2018.

Income Taxes, Deferred Income Taxes and Uncertain Tax Positions
The 2017 Tax Act, among other things, reduces the federal statutory corporate tax rate for tax years beginning in 2018 from 34% to 21%, eliminates certain deductions, and eliminates bonus depreciation on qualified water and wastewater property.

The Company filed for a change in accounting method under the IRS TPR effective in 2014. Under the change in accounting method, the Company is permitted to deduct the costs of certain asset improvements that were previously being capitalized and depreciated for tax purposes as an expense on its income tax return. As a result of the ongoing deduction, the net income tax benefits of $1,307 and $1,796 for the years ended December 31, 2018 and 2017, respectively, reduced income tax expense and flowed-through to net income. The ongoing deduction results in a reduction in the effective income tax rate, a net reduction in income tax expense, and a reduction in the amount of income taxes currently payable. It also results in increases to deferred tax liabilities and regulatory assets representing the appropriate book and tax basis difference on capital additions. The Company expects to continue to expense these asset improvements in the future.

The Company's effective tax rate will largely be determined by the level of eligible asset improvements expensed for tax purposes that would have been capitalized for tax purposes prior to the implementation of the TPR.

The Company has a substantial deferred income tax asset primarily due to the excess accumulated deferred income taxes on accelerated depreciation from the 2017 Tax Act and the differences between the book and tax balances of the pension and deferred compensation plans. The Company does not believe a valuation allowance is required due to the expected generation of future taxable income during the periods in which those temporary differences become deductible.

The Company has seen an increase in its deferred income tax liability amounts primarily as a result of the accelerated and bonus depreciation deduction available for federal tax purposes which creates differences between book and tax depreciation expense. The Company expects this trend to continue as it makes significant investments in capital expenditures subject to accelerated depreciation or TPR, but at a more modest rate due to the elimination of bonus depreciation on qualified water and wastewater property.

The Company has determined there are no uncertain tax positions that require recognition as of December 31, 2018. See Note 14 to the Company's financial statements included herein for additional details regarding income taxes.

Common Stock

Common stockholders' equity as a percent of the total capitalization was 56.8% as of December 31, 2018, compared with 56.3% as of December 31, 2017. The ratio increased slightly in 2018 due to the absence of share repurchases. The volume of share repurchases and higher debt from capital expenditures, among other things, could reduce this percentage in the future. It is the Company's intent to target a ratio between fifty and fifty-four percent.

Credit Rating

On February 9, 2018, Standard & Poor's affirmed the Company's credit rating at A-, with a stable outlook. The Company's ability to maintain its credit rating depends, among other things, on adequate and timely rate relief, which it has been successful in obtaining, its ability to fund capital expenditures in a balanced manner using both debt and equity and its ability to generate cash flow. In 2019, the Company's objectives are to continue to maximize its funds provided by operations and maintain a strong capital structure in order to be able to attract capital.

Physical and Cyber Security

The Company maintains security measures at its facilities, and collaborates with federal, state and local authorities and industry trade associations regarding information on possible threats and security measures for water and wastewater utility operations. The costs incurred are expected to be recoverable in water and wastewater rates and are not expected to have a material impact on its business, financial condition, or results of operations.

The Company relies on information technology systems in connection with the operation of the business, especially with respect to customer service, billing, accounting, and in some cases, the monitoring and operation of treatment, storage and pumping facilities. In addition, the Company relies on these systems to track utility assets and to manage maintenance and construction projects, materials and supplies, and human resource functions. The information technology systems may be vulnerable to damage or interruption from cyber security attacks or other cyber-related events, including, but not limited to, power loss, computer systems failures, internet, telecommunications or data network failures, physical and electronic loss of data, computer viruses, intentional security breaches, hacking, denial of service actions, misappropriation of data, and similar events. In some cases, administration of certain functions may be outsourced to third-party service providers that could also be targets of cyber security attacks. A loss of these systems, or major problems with the operation of these systems, could harm the business, financial condition, and results of operations of the Company through the loss or compromise of customer, financial, employee, or operational data, disruption of billing, collections or normal field service activities, disruption of electronic monitoring and control of operational systems, and delays in financial reporting and other normal management functions.

Possible impacts associated with a cyber security attack or other events may include remediation costs related to lost, stolen, or compromised data, repairs to data processing systems, increased cyber security protection costs, adverse effects on our compliance with regulatory and environmental laws and regulation, including standards for drinking water, litigation, and reputational damage.

The Company has implemented processes, procedures and controls to prevent or limit the effect of these possible events, and maintains insurance to help defray costs associated with cyber security attacks. The Company has not experienced a material impact on business or operations from these attacks. Although the Company does not believe its systems are at a materially greater risk of cyber security attacks than other similar organizations and despite the implementation of robust security measures, the Company cannot provide assurance that the insurance will fully cover the costs of a cyber security event, and its robust security measures do not guarantee that reputation and financial results will not be adversely affected by such an incident.

Environmental Matters

The Company entered into a consent order agreement with the Pennsylvania Department of Environmental Protection in December 2016 after the Company determined it exceeded the action level for lead as established by the Lead and Copper Rule, or LCR, issued by the U.S. Environmental Protection Agency. Under the agreement, the Company committed to exceed the LCR replacement schedule by replacing all of the remaining known company-owned lead service lines within four years from the agreement. The cost for these service line replacements was approximately $2,341 through December 31, 2018 and is included in utility plant. As of December 31, 2018, all known company-owned lead service lines have been replaced. Any additional company-owned lead service lines that are discovered will be replaced but are not expected to have a material impact on the financial position of the Company.

Due to its exceedance in 2016, the Company was required under the LCR to complete two rounds of compliance testing at the customer's tap in 2017. The water samples did not exceed the action level either time. As a result, the Company was able to reduce its monitoring to annual compliance tests beginning in 2018. The Company completed its compliance testing at the customer's tap in 2018 and the water samples did not exceed the action level. In addition, the Company performed in excess of the required actions under the LCR. Specifically, the Company provided the affected customers with a free water test and a 200 gallon per month credit to flush their line in order to reduce any lead content until their lead service line has been replaced. The cost of the water tests and flushing credits was $4 and $16 for the years ended December 31, 2018 and 2017, respectively. Additional amounts for water tests and flushing credits are not expected to have a material impact on the financial position of the Company.

The Company was granted approval by the PPUC to modify its tariff to include the cost of the replacement of lead customer-owned service lines that are discovered when the Company replaces its lead service lines, and to include the cost of the annual replacement of up to 400 lead customer-owned service lines whenever they are discovered, regardless of the material used for the company-owned service line over nine years from the agreement. The tariff modification allows the Company to replace customer-owned service lines at its own initial cost. The Company will record the costs as a regulatory asset to be recovered in future base rates to customers, over a four-year period. The cost for the customer-owned lead service line replacements under the four-year tariff modification was approximately $304 through December 31, 2018 and is included as a regulatory asset. All known customer-owned lead service lines that are connected to a company-owned lead service line have been replaced by December 31, 2018. Based on its experience, the Company estimates that lead customer-owned service lines replacements will cost $910 under the nine-year tariff modification. This estimate is subject to adjustment as more facts become available.

Dividends

During 2018, the Company's dividend payout ratios relative to net income and net cash provided by operating activities were 65.0% and 46.7%, respectively. During 2017, the Company's dividend payout ratios relative to net income and net cash provided by operating activities were 64.1% and 40.9%, respectively. During the fourth quarter of 2018, the Board of Directors increased the dividend by 4.02% from $0.1666 per share to $0.1733 per share per quarter.

The Company's Board of Directors declared a dividend in the amount of $0.1733 per share at its January 2019 meeting. The dividend is payable on April 15, 2019 to shareholders of record as of February 28, 2019. While the Company expects to maintain this dividend amount in 2019, future dividends will be dependent upon the Company's earnings, financial condition, capital demands and other factors and will be determined by the Company's Board of Directors. See Note 6 to the Company's financial statements included herein for restrictions on dividend payments.

Inflation

The Company is affected by inflation, most notably by the continually increasing costs incurred to maintain and expand its service capacity. The cumulative effect of inflation results in significantly higher facility replacement costs which must be recovered from future cash flows. The ability of the Company to recover this increased investment in facilities is dependent upon future rate increases, which are subject to approval by the PPUC. The Company can provide no assurances that its rate increases will be approved by the PPUC; and, if approved, the Company cannot guarantee that these rate increases will be granted in a timely or sufficient manner to cover the investments and expenses for which the rate increase was sought.

Critical Accounting Estimates

The methods, estimates, and judgments the Company used in applying its accounting policies have a significant impact on the results reported in its financial statements. The Company's accounting policies require management to make subjective judgments because of the need to make estimates of matters that are inherently uncertain. The Company's most critical accounting estimates include: regulatory assets and liabilities, revenue recognition, accounting for its pension plans, and income taxes.

Regulatory Assets and Liabilities

Generally accepted accounting principles define accounting standards for companies whose rates are established by or are subject to approval by an independent third-party regulator. In accordance with the accounting standards, the Company defers costs and credits on its balance sheet as regulatory assets and liabilities when it is probable that these costs and credits will be recognized in the rate-making process in a period different from when the costs and credits were incurred. These deferred amounts are then recognized in the statement of income in the period in which they are reflected in customer rates. If the Company later finds that these assets and liabilities cannot be included in rate-making, they are adjusted appropriately. See Note 1 for additional details regarding regulatory assets and liabilities.

Revenue Recognition

Operating revenues include amounts billed to metered water and certain wastewater customers on a cycle basis and unbilled amounts based on both actual and estimated usage from the latest meter reading to the end of the accounting period. Estimates are based on average daily usage for those particular customers. The unbilled revenue amount is recorded as a current asset on the balance sheet. Actual results could differ from these estimates and would result in operating revenues being adjusted in the period in which the actual usage is known. Based on historical experience, the Company believes its estimate of unbilled revenues is reasonable.

The Company adopted Accounting Standards Update No. 2014-09 beginning January 1, 2018. See Note 1 to the Company's financial statements included herein for details on the adoption of this standard.

Pension Accounting

Accounting for defined benefit pension plans requires estimates of future compensation increases, mortality, the discount rate, and expected return on plan assets as well as other variables. These variables are reviewed annually with the Company's pension actuary. The Company used compensation increases of 2.5% to 3.0% in 2017 and 2018.

The Company adopted a new mortality table in 2014, the RP-2014, using the white collar table for the administrative and general plan and the blue collar table for the union plan. Using the new mortality table increased the life expectancy of pension plan participants, resulting in a significant increase to the pension benefit obligation, and ultimately, a decline in the Company's funded status of the plans. In 2015, the Social Security Administration released new underlying data creating an Adjusted RP-2014 mortality table. A new mortality improvement scale was released in each subsequent year. The Company adopted each of the improvement scales in the years they were released. These changes partially offset the increase in the pension benefit obligation realized in 2014.

The Company selected its December 31, 2018 and 2017 discount rates based on the FTSE Pension Liability Index, formerly the Citi Pension Liability Index. This index uses spot rates for durations out to 30 years and matches them to expected disbursements from the plan over the long term. The Company believes this index most appropriately matches its pension obligations. The present values of the Company's future pension obligations were determined using a discount rate of 4.10% at December 31, 2018 and 3.5% at December 31, 2017.

Adopting a new mortality table that represents a change in life expectancy and choosing a different discount rate normally changes the amount of pension expense and the corresponding liability. In the case of the Company, these items change its liability, but do not have an impact on its pension expense. The PPUC, in a previous rate settlement, agreed to grant recovery of the Company's contribution to the pension plans in customer rates. As a result, under the accounting standards regarding rate-regulated activities, expense in excess of the Company's pension plan contribution can be deferred as a regulatory asset and expensed as contributions are made to the plans and are recovered in customer rates. Therefore, these changes affect regulatory assets rather than pension expense.

The Company's estimate of the expected return on plan assets is primarily based on the historic returns and projected future returns of the asset classes represented in its plans. The target allocation of pension assets is 50% to 70% equity securities, 30% to 50% fixed income securities, and 0% to 10% cash reserves. The Company used 6.75% as its expected rate of return in 2017 and 2018. A decrease in the expected pension return would normally cause an increase in pension expense; however due to the aforementioned rate settlement, the Company's expense would continue to be equal to its contributions to the plans. The change would instead be recorded in regulatory assets.

Lower discount rates and underperformance of assets could cause future required contributions and expense to increase substantially. If this were to happen, the Company would have to consider changes to its pension plan benefits and possibly request additional recovery of expenses through increased rates charged to customers. See Note 11 to the Company's financial statements included herein for additional details regarding the pension plans.

Income Taxes

The Company estimates the amount of income tax payable or refundable for the current year and the deferred income tax liabilities and assets that results from estimating temporary differences resulting from the treatment of certain items, such as depreciation, for tax and financial statement reporting. Generally, these differences result in the recognition of a deferred tax asset or liability on the balance sheet and require the Company to make judgments regarding the probability of the ultimate tax impact of the various transactions entered into. Based on these judgments, it may require tax reserves or valuation allowances on deferred tax assets to reflect the expected realization of future tax benefits. The Company believes its determination of what qualifies as a repair expense tax deduction versus a capital cost as it relates to the IRS TPR ongoing and catch-up deductions is consistent with the regulations. The Company also believes it has appropriately applied the provisions of the 2017 Tax Act including properly applying the accounting standards related to the 2017 Tax Act. Actual income taxes could vary from these estimates and changes in these estimates could increase income tax expense in the period that these changes in estimates occur.

Other critical accounting estimates are discussed in the Significant Accounting Policies Note to the Financial Statements

Off-Balance Sheet Transactions

The Company does not use off-balance sheet transactions, arrangements or obligations that may have a material current or future effect on financial condition, results of operations, liquidity, capital expenditures, capital resources or significant components of revenues or expenses. The Company does not use securitization of receivables or unconsolidated entities. For risk management purposes, the Company uses a derivative financial instrument, an interest rate swap agreement discussed in Note 7 to the financial statements included herein. The Company does not engage in trading or other risk management activities, does not use other derivative financial instruments for any purpose, has no material lease obligations, no guarantees and does not have material transactions involving related parties.

Impact of Recent Accounting Pronouncements

See Note 1 to the Company's financial statements included herein for a discussion on the effect of new accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Not applicable.

Item 8. Financial Statements.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of
The York Water Company

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying balance sheets of The York Water Company (the "Company") as of December 31, 2018 and 2017, the related statements of income, common stockholders' equity, and cash flows for the years then ended, and the related notes and financial statement schedule listed in Item 15(a)2 (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework: (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework: (2013)* issued by COSO.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/Baker Tilly Virchow Krause, LLP

We have served as the Company's auditor since 2003.

York, Pennsylvania
March 12, 2019

THE YORK WATER COMPANY

Balance Sheets
(In thousands of dollars, except per share amounts)

	Dec. 31, 2018	Dec. 31, 2017
ASSETS		
UTILITY PLANT, at original cost	$ 380,784	$ 365,767
Plant acquisition adjustments	(3,108)	(3,234)
Accumulated depreciation	(78,519)	(73,746)
Net utility plant	299,157	288,787
OTHER PHYSICAL PROPERTY, net of accumulated depreciation of $410 in 2018 and $387 in 2017	714	737
CURRENT ASSETS:		
Cash and cash equivalents	2	2
Accounts receivable, net of reserves of $305 in 2018 and 2017	4,811	4,547
Unbilled revenues	2,427	2,459
Materials and supplies inventories, at cost	876	906
Prepaid expenses	895	697
Total current assets	9,011	8,611
OTHER LONG-TERM ASSETS:		
Note receivable	255	255
Deferred regulatory assets	32,353	30,331
Other assets	3,650	3,309
Total other long-term assets	36,258	33,895
Total Assets	**$ 345,140**	**$ 332,030**

The accompanying notes are an integral part of these statements.

THE YORK WATER COMPANY

Balance Sheets
(In thousands of dollars, except per share amounts)

	Dec. 31, 2018	Dec. 31, 2017
STOCKHOLDERS' EQUITY AND LIABILITIES		
COMMON STOCKHOLDERS' EQUITY:		
Common stock, no par value, authorized 46,500,000 shares, issued and outstanding 12,943,536 shares in 2018 and 12,872,742 shares in 2017	$ 81,305	$ 79,201
Retained earnings	44,890	40,204
Total common stockholders' equity	126,195	119,405
PREFERRED STOCK, authorized 500,000 shares, no shares issued	-	-
LONG-TERM DEBT, excluding current portion	93,328	90,098
COMMITMENTS	-	-
CURRENT LIABILITIES:		
Short-term borrowings	1,000	1,000
Current portion of long-term debt	30	44
Accounts payable	3,030	3,136
Dividends payable	1,999	1,892
Accrued compensation and benefits	1,191	1,134
Accrued income taxes	150	531
Accrued interest	992	989
Deferred regulatory liabilities	2,104	123
Other accrued expenses	345	296
Total current liabilities	10,841	9,145
DEFERRED CREDITS:		
Customers' advances for construction	6,849	6,324
Deferred income taxes	36,962	34,754
Deferred employee benefits	4,715	7,075
Deferred regulatory liabilities	24,710	24,372
Other deferred credits	1,815	2,196
Total deferred credits	75,051	74,721
Contributions in aid of construction	39,725	38,661
Total Stockholders' Equity and Liabilities	**$ 345,140**	**$ 332,030**

The accompanying notes are an integral part of these statements.

THE YORK WATER COMPANY

Statements of Income
(In thousands of dollars, except per share amounts)

	Year Ended December 31	
	2018	**2017**
OPERATING REVENUES	$ 48,437	$ 48,589
OPERATING EXPENSES:		
Operation and maintenance	9,670	8,891
Administrative and general	8,095	8,103
Depreciation and amortization	7,010	6,769
Taxes other than income taxes	1,145	1,133
	25,920	24,896
Operating income	22,517	23,693
OTHER INCOME (EXPENSES):		
Interest on debt	(5,509)	(5,348)
Allowance for funds used during construction	229	864
Other pension costs	(1,285)	(1,220)
Other income (expenses), net	(85)	(472)
	(6,650)	(6,176)
Income before income taxes	15,867	17,517
Income taxes	2,491	4,543
Net Income	**$ 13,376**	**$ 12,974**
Basic Earnings Per Share	**$ 1.04**	**$ 1.01**
Diluted Earnings Per Share	**$ 1.04**	**$ 1.01**
Cash Dividends Declared Per Share	**$ 0.6731**	**$ 0.6472**

The accompanying notes are an integral part of these statements.

THE YORK WATER COMPANY

Statements of Common Stockholders' Equity
(In thousands of dollars, except per share amounts)
For the Years Ended December 31, 2018 and 2017

	Common Stock Shares	Common Stock Amount	Retained Earnings	Total
Balance, December 31, 2016	12,852,295	$ 78,513	$ 35,548	$ 114,061
Net income	-	-	12,974	12,974
Dividends	-	-	(8,318)	(8,318)
Retirement of common stock	(37,229)	(1,263)	-	(1,263)
Issuance of common stock under dividend reinvestment, direct stock and employee stock purchase plans	56,171	1,905	-	1,905
Stock-based compensation	1,505	46	-	46
Balance, December 31, 2017	12,872,742	79,201	40,204	119,405
Net income	-	-	13,376	13,376
Dividends	-	-	(8,690)	(8,690)
Issuance of common stock under dividend reinvestment, direct stock and employee stock purchase plans	67,051	2,024	-	2,024
Stock-based compensation	3,743	80	-	80
Balance, December 31, 2018	12,943,536	$ 81,305	$ 44,890	$ 126,195

The accompanying notes are an integral part of these statements.

THE YORK WATER COMPANY

Statements of Cash Flows
(In thousands of dollars, except per share amounts)

	Year Ended December 31	
	2018	**2017**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 13,376	$ 12,974
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	7,010	6,769
Stock-based compensation	80	46
Increase in deferred income taxes	58	2,484
Other	295	54
Changes in assets and liabilities:		
Increase in accounts receivable and unbilled revenues	(483)	(572)
Decrease in recoverable income taxes	-	282
Increase in materials and supplies, prepaid expenses, regulatory and other assets	(6,094)	(507)
Increase (decrease) in accounts payable, accrued compensation and benefits, accrued expenses, deferred employee benefits, regulatory liabilities, and other deferred credits	4,508	(2,018)
Increase (decrease) in accrued interest and taxes	(378)	599
Net cash provided by operating activities	18,372	20,111
CASH FLOWS FROM INVESTING ACTIVITIES:		
Utility plant additions, including debt portion of allowance for funds used during construction of $128 in 2018 and $483 in 2017	(16,882)	(24,602)
Acquisitions of water and wastewater systems	-	(472)
Cash received from surrender of life insurance policies	108	-
Net cash used in investing activities	(16,774)	(25,074)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Customers' advances for construction and contributions in aid of construction	1,998	1,642
Repayments of customer advances	(409)	(413)
Proceeds of long-term debt issues	28,762	22,878
Repayments of long-term debt	(25,691)	(17,533)
Borrowings under short-term line of credit agreements	-	1,000
Changes in cash overdraft position	301	769
Repurchase of common stock	-	(1,263)
Issuance of common stock	2,024	1,905
Dividends paid	(8,583)	(8,229)
Net cash provided by (used in) financing activities	(1,598)	756
Net change in cash and cash equivalents	-	(4,207)
Cash and cash equivalents at beginning of period	2	4,209
Cash and cash equivalents at end of period	$ 2	$ 2
Supplemental disclosures of cash flow information:		
Cash paid during the period for:		
Interest, net of amounts capitalized	$ 5,236	$ 4,652
Income taxes	2,901	758

Supplemental schedule of non-cash investing and financing activities:
Accounts payable includes $1,100 in 2018 and $1,498 in 2017 for the construction of utility plant.

The accompanying notes are an integral part of these statements.

Notes to Financial Statements

(In thousands of dollars, except per share amounts)

1. Significant Accounting Policies

The primary business of The York Water Company, or the Company, is to impound, purify and distribute water. The Company also operates three wastewater collection and two treatment systems. The Company operates within its franchised territory located in York and Adams Counties, Pennsylvania, and is subject to regulation by the Pennsylvania Public Utility Commission, or PPUC.

The following summarizes the significant accounting policies employed by The York Water Company.

Utility Plant and Depreciation
The cost of additions includes contracted cost, direct labor and fringe benefits, materials, overhead and, for certain utility plant, allowance for funds used during construction. In accordance with regulatory accounting requirements, water and wastewater systems acquired are recorded at estimated original cost of utility plant when first devoted to utility service and the applicable depreciation is recorded to accumulated depreciation. The difference between the estimated original cost less applicable accumulated depreciation, and the purchase price and acquisition costs, is recorded as an acquisition adjustment within utility plant as permitted by the PPUC. At December 31, 2018 and 2017, utility plant includes a net credit acquisition adjustment of $3,108 and $3,234, respectively. For those amounts approved by the PPUC, the net acquisition adjustment is being amortized over the remaining life of the respective assets. Certain amounts are still awaiting approval from the PPUC before amortization will commence. Amortization amounted to $58 in each of the two years in the period ended December 31, 2018.

Upon normal retirement of depreciable property, the estimated or actual cost of the asset is credited to the utility plant account, and such amounts, together with the cost of removal less salvage value, are charged to the reserve for depreciation. To the extent the Company recovers cost of removal or other retirement costs through rates after the retirement costs are incurred, a regulatory asset is reported. Gains or losses from abnormal retirements are reflected in income currently.

The straight-line remaining life method is used to compute depreciation on utility plant cost, exclusive of land and land rights. Annual provisions for depreciation of transportation and mechanical equipment included in utility plant are computed on a straight-line basis over the estimated service lives. Such provisions are charged to clearing accounts and apportioned therefrom to operating expenses and other accounts in accordance with the Uniform System of Accounts as prescribed by the PPUC.

The Company charges to maintenance expense the cost of repairs and replacements and renewals of minor items of property. Maintenance of transportation equipment is charged to clearing accounts and apportioned therefrom in a manner similar to depreciation. The cost of replacements, renewals and betterments of units of property is capitalized to the utility plant accounts.

The following remaining lives are used for financial reporting purposes:

Utility Plant Asset Category	December 31, 2018	2017	Approximate range of remaining lives
Mains and accessories	$190,679	$182,927	11 – 86 years
Services, meters and hydrants	74,178	71,183	18 – 52 years
Operations structures, reservoirs and water tanks	61,868	53,610	9 – 59 years
Pumping and treatment equipment	32,575	29,814	8 – 31 years
Office, transportation and operating equipment	13,531	12,787	3 – 24 years
Land and other non-depreciable assets	3,202	3,196	-
Utility plant in service	376,033	353,517	
Construction work in progress	4,751	12,250	-
Total Utility Plant	$380,784	$365,767	

The effective rate of depreciation was 2.21% in 2018 and 2.26% in 2017, on average utility plant, net of customers' advances and contributions. Larger depreciation provisions resulting from allowable accelerated methods are deducted for tax purposes.

Cash and Cash Equivalents
For the purposes of the statements of cash flows, the Company considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents except for those instruments earmarked to fund construction expenditures or repay long-term debt.

The Company periodically maintains cash balances in major financial institutions in excess of the federally insured limit by the Federal Deposit Insurance Corporation (FDIC). The Company has not experienced any losses and believes it is not exposed to any significant credit risk on cash and cash equivalents.

Accounts Receivable
Accounts receivable are stated at outstanding balances, less a reserve for doubtful accounts. The reserve for doubtful accounts is established through provisions charged against income. Accounts deemed to be uncollectible are charged against the reserve and subsequent recoveries, if any, are credited to the reserve. The reserve for doubtful accounts is maintained at a level considered adequate to provide for losses that can be reasonably anticipated. Management's periodic evaluation of the adequacy of the reserve is based on past experience, agings of the receivables, adverse situations that may affect a customer's ability to pay, current economic conditions, and other relevant factors. This evaluation is inherently subjective. Unpaid balances remaining after the stated payment terms are considered past due.

Materials and Supplies Inventories
Materials and supplies inventories are stated at cost. Costs are determined using the average cost method.

Note Receivable
Note receivable is recorded at cost and represent amounts due from a municipality for construction of water mains in their municipality. Management, considering current information and events regarding the borrowers' ability to repay their obligations, considers a note to be impaired when it is probable that the Company will be unable to collect all amounts due according to the contractual terms of the note agreement. When a note is considered to be impaired, the carrying value of the note is written down. The amount of the impairment is measured based on the present value of expected future cash flows discounted at the note's effective interest rate.

Regulatory Assets and Liabilities

The Company is subject to the provisions of generally accepted accounting principles regarding rate-regulated entities. The accounting standards provide for the recognition of regulatory assets and liabilities as allowed by regulators for costs or credits that are reflected in current customer rates or are considered probable of being included in future rates. The regulatory assets or liabilities are then relieved as the cost or credit is reflected in rates. Regulatory assets represent costs that are expected to be fully recovered from customers in future rates while regulatory liabilities represent amounts that are expected to be refunded to customers in future rates. These deferred costs have been excluded from the Company's rate base and, therefore, no return is being earned on the unamortized balances.

Regulatory assets and liabilities are comprised of the following:

	December 31,		Remaining Recovery
	2018	2017	Periods
Assets			
Income taxes	$21,432	$18,564	Various
Postretirement benefits	3,071	5,382	5 – 10 years
Unrealized swap losses	1,799	2,172	1 – 11 years
Utility plant retirement costs	4,841	3,994	5 years
Customer-owned lead service line replacements	304	191	4 years
Income taxes on customers' advances for construction and contributions in aid of construction	577	-	Various
Service life study expenses	18	23	4 years
Rate case filing expenses	311	5	3 years
	$32,353	$30,331	
Liabilities			
Excess accumulated deferred income taxes on accelerated depreciation	$14,184	$14,348	Various
Income taxes	6,979	6,260	Various
IRS TPR catch-up deduction	3,887	3,887	15 years
Revenue reduction for tax rate change	1,764	-	2 years
	$26,814	$24,495	

The regulatory asset for income taxes includes (a) deferred state income taxes related primarily to differences between book and tax depreciation expense, (b) deferred income taxes related to the differences that arise between specific asset improvement costs capitalized for book purposes and deducted as a repair expense for tax purposes, and (c) deferred income taxes associated with the gross-up of revenues related to the differences. These assets are recognized for ratemaking purposes on a cash or flow-through basis and will be recovered in rates as they reverse.

Postretirement benefits include the difference between contributions and deferred pension expense and the underfunded status of the pension plans. The underfunded status represents the difference between the projected benefit obligation and the fair market value of the assets. This asset is expected to be recovered in future years as additional contributions are made or markets continue to generate positive returns. The recovery period is dependent on contributions made to the plans, plan asset performance and the discount rate used to value the obligations. The period is estimated at between 5 and 10 years.

The Company uses regulatory accounting treatment to defer the mark-to-market unrealized gains and losses on its interest rate swap to reflect that the gain or loss is included in the ratemaking formula when the transaction actually settles. The value of the swap as of the balance sheet date is recorded as part of other deferred credits. Realized gains or losses on the swap will be recorded as interest expense in the statement of income over its remaining life of 11 years.

Utility plant retirement costs represents costs already incurred for the removal of assets, which are expected to be recovered over a five-year period in rates, through depreciation expense.

The Company was granted approval by the PPUC to modify its tariff to replace lead customer-owned service lines that are discovered when the Company replaces its lead service lines over the remaining three years, and to include the cost of the annual replacement of up to 400 lead customer-owned service lines whenever they are discovered, regardless of the material used for the company-owned service line over nine years. The tariff modification allows the Company to replace customer-owned service lines at its own initial cost and record the costs as a regulatory asset to be recovered in future base rates to customers. The recovery period was established in the most recent rate order at four years.

Service life study expenses are deferred and amortized over their remaining life of four years. Rate case filing expenses are deferred and amortized over their life of three years.

Pursuant to the Tax Cuts and Jobs Act of 2017, or 2017 Tax Act, customers' advances for construction and contributions in aid of construction are considered taxable income. The Company's tariff allows the Company to record these income taxes for inclusion in rate base. This asset is recognized for ratemaking purposes on a cash or flow-through basis and will be recovered in rates as it reverses.

Under normalization rules applicable to public utility property included in the 2017 Tax Act, the excess accumulated deferred income taxes on accelerated depreciation from lowering of the enacted federal statutory corporate tax rate is recorded as a regulatory liability. The benefit will be given back to customers in rates over the remaining regulatory life of the property.

The regulatory liability for income taxes includes deferred taxes related to excess accumulated deferred income taxes on accelerated depreciation, other postretirement benefits, customers' advances for construction and contributions in aid of construction, and bad debts, as well as deferred investment tax credits. These liabilities will be given back to customers in rates, as tax deductions occur over the next 1 to 50 years.

The regulatory liability for the Internal Revenue Service, or IRS, tangible property regulations, or TPR, catch-up deduction represents the tax benefits realized on the Company's 2014 income tax return for qualifying capital expenditures made prior to 2014. The Company received approval from the PPUC in its most recent rate order to amortize the catch-up deduction over 15 years beginning March 1, 2019.

Pursuant to a rate order approved by the PPUC, the Company has agreed to return the 2018 income tax savings pursuant to the 2017 Tax Act, the associated tax gross-up, and the excess accumulated deferred income taxes on accelerated depreciation to customers as a reconcilable negative surcharge on bills. The liability will be given back to customers as a negative surcharge on bills over one year beginning March 1, 2019.

Other Assets
Other assets consist mainly of the cash value of life insurance policies held as an investment by the Company for reimbursement of costs and benefits associated with its supplemental retirement and deferred compensation programs.

Deferred Debt Expense
Deferred debt expense is amortized on a straight-line basis over the term of the related debt and is presented on the balance sheet as a direct reduction from long-term debt.

Customers' Advances for Construction
Customer advances are cash payments from developers, municipalities, customers or builders for construction of utility plant, and are refundable upon completion of construction, as operating revenues are earned. If the Company loans funds for construction to the customer, the refund amount is credited to the note receivable rather than paid out in cash. After all refunds to which the customer is entitled are made, any remaining balance is transferred to contributions in aid of construction.

Contributions in Aid of Construction
Contributions in Aid of Construction is composed of (i) direct, non-refundable contributions from developers, customers or builders for construction of water infrastructure and (ii) customer advances that have become non-refundable. Contributions in aid of construction are deducted from the Company's rate base, and therefore, no return is earned on property financed with contributions. The PPUC requires that contributions received remain on the Company's balance sheets indefinitely as a long-term liability.

Interest Rate Swap Agreement
The Company is exposed to certain risks relating to its ongoing business operations. The primary risk managed by using derivative instruments is interest rate risk. The Company utilizes an interest rate swap agreement to convert its variable-rate debt to a fixed rate. Interest rate swaps are contracts in which a series of interest rate cash flows are exchanged over a prescribed period. The notional amount on which the interest payments are based is not exchanged. The Company has designated the interest rate swap agreement as a cash flow hedge, classified as a financial derivative used for non-trading activities.

The accounting standards regarding accounting for derivatives and hedging activities require companies to recognize all derivative instruments as either assets or liabilities at fair value on the balance sheets. In accordance with the standards, the interest rate swap is recorded on the balance sheets in other deferred credits at fair value.

The Company uses regulatory accounting treatment rather than hedge accounting to defer the unrealized gains and losses on its interest rate swap. Instead of the effective portion being recorded as other comprehensive income and the ineffective portion being recognized in earnings, the entire unrealized swap value is recorded as a regulatory asset. Based on current ratemaking treatment, the Company expects the gains and losses to be recognized in rates and in interest expense as the swap settlements occur. Swap settlements are recorded in the income statement with the hedged item as interest expense. Swap settlements resulted in the reclassification from regulatory assets to interest expense of $236 in 2018 and $301 in 2017. The overall swap result was a (gain) loss of $(137) in 2018 and $209 in 2017. During the twelve months ending December 31, 2019, the Company expects to reclassify $199 (before tax) from regulatory assets to interest expense.

The interest rate swap will expire on October 1, 2029.

Stock-Based Compensation
The Company records compensation expense in the financial statements for stock-based awards based on the grant date fair value of those awards. Stock-based compensation expense is recognized over the requisite service periods of the awards on a straight-line basis, which is generally commensurate with the vesting term. Forfeitures are recognized as they occur.

Income Taxes
Certain income and expense items are accounted for in different time periods for financial reporting than for income tax reporting purposes.

Deferred income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. To the extent such income taxes increase or decrease future rates, an offsetting regulatory asset or liability has been recorded.

Investment tax credits have been deferred and are being amortized to income over the average estimated service lives of the related assets. As of December 31, 2018 and 2017, deferred investment tax credits amounted to $578 and $618, respectively.

The Company filed for a change in accounting method under the IRS TPR effective in 2014. Under the change in accounting method, the Company is permitted to deduct the costs of certain asset improvements that were previously being capitalized and depreciated for tax purposes as an expense on its income tax return. The Company is permitted to make this deduction for prior years (the "catch-up deduction") and each year going forward, beginning with 2014 (the "ongoing deduction"). The ongoing deduction results in a reduction in the effective income tax rate, a net reduction in income tax expense, and a reduction in the amount of income taxes currently payable. The catch-up deduction resulted in a decrease in current income taxes payable and an increase to regulatory liabilities. The Company received approval from the PPUC in its most recent rate order to amortize the catch-up deduction, recorded as a regulatory liability, over 15 years beginning March 1, 2019. Both the ongoing and catch-up deductions resulted in increases to deferred tax liabilities and regulatory assets representing the appropriate book and tax basis difference on capital additions.

The 2017 Tax Act, among other things, reduces the federal statutory corporate tax rate for tax years beginning in 2018 from 34% to 21%, eliminates certain deductions, and eliminates bonus depreciation on qualified water and wastewater property. This resulted in the remeasurement of the federal portion of the Company's deferred taxes as of December 31, 2017 to the 21% rate. The effect was recognized in income for the year ended December 31, 2017 for all deferred tax assets and liabilities except accelerated depreciation. Under normalization rules applicable to public utility property included in the 2017 Tax Act, the excess accumulated deferred income taxes on accelerated depreciation is recorded as a regulatory liability. The regulatory liability is a temporary difference, so a deferred tax asset is recorded including the gross-up of revenue necessary to return, in rates, the effect of the temporary difference.

Allowance for Funds Used During Construction
Allowance for funds used during construction (AFUDC) represents the estimated cost of funds used for construction purposes during the period of construction. These costs are reflected as non-cash income during the construction period and as an addition to the cost of plant constructed. AFUDC includes the net cost of borrowed funds and a rate of return on other funds. The PPUC approved rate of 10.04% was applied for 2018 and 2017. AFUDC is recovered through water and wastewater rates as utility plant is depreciated.

Use of Estimates in the Preparation of Financial Statements
The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications
Certain 2017 amounts have been reclassified to conform to the 2018 presentation. Such reclassifications had no effect on the balance sheets, net income, the statements of common stockholders' equity, or the statements of cash flows.

Impact of Recent Accounting Pronouncements
In May 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2017-09, *Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting.* This ASU clarifies when a change to the terms or conditions of a share-based payment award must be accounted for as a modification. The guidance requires modification accounting if the fair value, vesting condition or the classification of the award is not the same immediately before and after a change to the terms and conditions of the award. The ASU is effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption available. The Company adopted the standard effective January 1, 2018. The adoption did not have an impact on its financial position, results of operations and cash flows.

In March 2017, the FASB issued ASU No. 2017-07, *Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post-Retirement Benefit Cost.* This ASU requires employers to report the service cost component in the same line item as other compensation costs arising from services rendered by employees during the reporting period. The other components of net benefit costs will be presented in the income statement separately from the service cost and outside of a subtotal of income from operations. In addition, only the service cost component may be eligible for capitalization where applicable. The ASU is effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption available. The Company adopted the standard on January 1, 2018. The adoption of this standard resulted in the reclassification on the statements of income of the components of net periodic pension cost other than service cost from operating expenses to other pension costs in other income (expenses) of $1,285 and $1,220 for the years ended December 31, 2018 and 2017, respectively.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 320): Classification of Certain Cash Receipts and Cash Payments.* This ASU clarifies how certain cash receipts and payments should be presented in the statement of cash flows. The ASU is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years, with early adoption available. The Company adopted the standard on January 1, 2018. The adoption did not have an impact on its financial position, results of operations and cash flows.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, which replaces the existing guidance in Accounting Standard Codification 840 – Leases. This ASU requires a dual approach for lessee accounting under which a lessee would account for leases as finance leases or operating leases. Both finance leases and operating leases will result in the lessee recognizing a right-of-use asset and a corresponding lease liability. For finance leases, the lessee would recognize interest expense and amortization of the right-of-use asset, and for operating leases, the lessee would recognize a straight-line total lease expense. This ASU is effective for fiscal years beginning after December 15, 2018, and for interim periods within those fiscal years. The Company will adopt the standard effective January 1, 2019. The Company did not identify any material leases under this standard and determined adoption will not have a material effect on its financial position, results of operations and cash flows.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers.* This ASU supersedes the revenue recognition requirements in Accounting Standards Codification 605—Revenue Recognition and most industry-specific guidance throughout the Codification. The standard requires that an entity recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, deferring the effective date of this amendment for public companies by one year to fiscal years beginning after December 15, 2017. Early adoption was permitted for fiscal years beginning after December 15, 2016, the original effective date. The standard permits the use of either a retrospective or cumulative effect transition method. The Company adopted the standard on January 1, 2018. The Company determined that the revenue recognized under the new standard is materially the same as it recognized under previous guidance. In addition, the Company determined the timing of when the revenue is recognized is materially the same as it recognized under previous guidance. As a result, there is no impact on its results of operations or cash flows. The Company has complied with the new disclosure requirements included in this standard which does have a significant impact on its disclosures. The Company selected the modified retrospective transition method but based on the determination that there was no change to its revenue recognition, no cumulative effect of the changes was required to be recorded.

2. Acquisitions

On January 6, 2017, the Company completed the acquisition of the water assets of Stockham's Village Mobile Home Park in Adams County, Pennsylvania. The Company began operating the existing system through an interconnection with its current distribution system on January 9, 2017. The acquisition resulted in the addition of approximately 80 new water customers with purchase price and acquisition costs of approximately $24, which is more than the depreciated original cost of the assets. The Company recorded an acquisition adjustment of approximately $17 and will seek approval from the PPUC to amortize the acquisition adjustment over the remaining life of the acquired assets.

On February 23, 2017, the Company completed the acquisition of the wastewater collection assets of West York Borough in York County, Pennsylvania. The Company began operating the existing collection facilities on February 27, 2017. The acquisition resulted in the addition of approximately 1,700 wastewater customers, representing more than 2,200 units, with purchase price and acquisition costs of approximately $448, which is more than the depreciated original cost of the assets. The Company recorded an acquisition adjustment of approximately $358 and will seek approval from the PPUC to amortize the acquisition adjustment over the remaining life of the acquired assets.

3. Accounts Receivable and Contract Assets

Accounts receivable and contract assets are summarized in the following table:

	As of Dec. 31, 2018	As of Dec. 31, 2017	Change
Accounts receivable – customers	$4,731	$4,661	$70
Other receivables	385	191	194
	5,116	4,852	264
Less: allowance for doubtful accounts	(305)	(305)	-
Accounts receivable, net	$4,811	$4,547	$264
Unbilled revenue	$2,427	$2,459	$(32)

Differences in timing of revenue recognition, billings, and cash collections result in receivables and contract assets. Generally, billing occurs subsequent to revenue recognition, resulting in a contract asset reported as unbilled revenue on the balance sheet. The Company does not receive advances or deposits from customers before revenue is recognized so no contract liabilities are reported. Accounts receivable are recorded when the right to consideration becomes unconditional and are presented separately on the balance sheet. The changes in accounts receivable – customers and in unbilled revenue were primarily due to normal timing difference between performance and the customer's payments.

4. Note Receivable and Customers' Advances for Construction

The Company entered into an agreement with a municipality to extend water service into a previously formed water district. The Company loaned funds to the municipality to cover the costs related to the project. The municipality concurrently advanced these funds back to the Company in the form of customers' advances for construction. The municipality is required by enacted ordinance to charge application fees and water revenue surcharges (fees) to customers connected to the system, which are remitted to the Company. The note principal and the related customer advance are reduced periodically as operating revenues are earned by the Company from customers connected to the system and refunds of the advance are made. There is no due date for the notes or expiration date for the advance.

The Company recorded interest income of $105 in 2018 and $98 in 2017. The interest rate on the note outstanding is 7.5%.

Included in the accompanying balance sheets at December 31, 2018 and 2017 were the following amounts related to this project.

	2018	2017
Note receivable, including interest	$255	$255
Customers' advances for construction	305	306

The Company has other customers' advances for construction totaling $6,544 and $6,018 at December 31, 2018 and 2017, respectively.

5. Common Stock and Earnings Per Share

Net income of $13,376 and $12,974 for the years ended December 31, 2018 and 2017, respectively, is used to calculate both basic and diluted earnings per share. Basic net income per share is based on the weighted average number of common shares outstanding. Diluted net income per share is based on the weighted average number of common shares outstanding plus potentially dilutive shares. The dilutive effect of employee stock-based compensation is included in the computation of diluted net income per share. The dilutive effect of stock-based compensation is calculated using the treasury stock method and expected proceeds upon exercise or issuance of the stock-based compensation.

The following table summarizes the shares used in computing basic and diluted net income per share:

	2018	2017
Weighted average common shares, basic	12,903,568	12,849,123
Effect of dilutive securities:		
Employee stock-based compensation	268	48
Weighted average common shares, diluted	12,903,836	12,849,171

Under the employee stock purchase plan, all full-time employees who have been employed at least ninety consecutive days may purchase shares of the Company's common stock limited to 10% of gross compensation. The purchase price is 95% of the fair market value (as defined). Shares issued during 2018 and 2017 were 5,187 and 4,770, respectively. As of December 31, 2018, 65,639 authorized shares remain unissued under the plan.

The Company has a Dividend Reinvestment and Direct Stock Purchase and Sale Plan ("the Plan"), which is available to both current shareholders and the general public. On October 3, 2016, the Company filed a Registration Statement on Form S-3 with the Securities and Exchange Commission (SEC) to authorize an additional 331,000 shares and rollover the unissued 170,240 shares authorized under the 2013 Form S-3, for issuance under the new Prospectus for the Plan. Under the optional dividend reinvestment portion of the Plan, holders of the Company's common stock may purchase additional shares instead of receiving cash dividends. The purchase price is 95% of the fair market value (as defined). Under the direct stock purchase portion of the Plan, purchases are made monthly at 100% of the stock's fair market value, as defined in the new Prospectus. The Registration Statement was declared effective by the SEC on November 16, 2016. Shares issued during 2018 and 2017 were 61,864 and 51,401, respectively. As of December 31, 2018, 379,374 authorized shares remain unissued under the plan.

On March 11, 2013, the Board of Directors, or the Board, authorized a share repurchase program granting the Company authority to repurchase up to 1,200,000 shares of the Company's common stock from time to time. The stock repurchase program has no specific end date and the Company may repurchase shares in the open market or through privately negotiated transactions. The Company may suspend or discontinue the repurchase program at any time. During 2018 and 2017, the Company repurchased and retired 0 and 37,229, shares, respectively. As of December 31, 2018, 618,004 shares remain available for repurchase.

6. Long-Term Debt and Short-Term Borrowings

Long-term debt as of December 31, 2018 and 2017 is summarized in the following table:

	2018	2017
10.17% Senior Notes, Series A, due 2019	6,000	6,000
9.60% Senior Notes, Series B, due 2019	5,000	5,000
1.00% Pennvest Note, due 2019	30	74
10.05% Senior Notes, Series C, due 2020	6,500	6,500
8.43% Senior Notes, Series D, due 2022	7,500	7,500
Variable Rate Pennsylvania Economic Development Financing Authority Exempt Facilities Revenue Bonds, Series 2008A, due 2029	12,000	12,000
4.75% York County Industrial Development Authority Revenue Bonds, Series 2006, due 2036	10,500	10,500
4.50% Pennsylvania Economic Development Financing Authority Exempt Facilities Revenue Refunding Bonds, Series 2014, due 2038	14,870	14,870
5.00% Monthly Senior Notes, Series 2010A, due 2040	15,000	15,000
4.00% - 4.50% York County Industrial Development Authority Exempt Facilities Revenue Bonds, Series 2015, due 2029 - 2045	10,000	10,000
Committed Line of Credit, due 2020	8,508	5,389
Total long-term debt	95,908	92,833
Less discount on issuance of long-term debt	(204)	(215)
Less unamortized debt issuance costs	(2,346)	(2,476)
Less current maturities	(30)	(44)
Long-term portion	$ 93,328	$ 90,098

Payments due by year as of December 31, 2018:

2019	2020	2021	2022	2023
$30	$27,008	$-	$7,500	$-

Payments due in 2020 include payback of the committed line of credit. The committed line of credit is reviewed annually, and upon favorable outcome, would likely be extended for another year. Payments due in 2020 also include potential payments of $12,000 on the variable rate bonds (due 2029) which would only be payable if all bonds were tendered and could not be remarketed, or in the event the Company was unable to, or chose not to, renew the letter of credit backing the bonds. There is currently no such indication of this happening.

The 10.17% Senior Notes, Series A and 9.60% Senior Notes, Series B are not included in current maturities as they have been refinanced with 4.54% Senior Notes, Series 2019 issued January 31, 2019. See Note 15 for additional information regarding this issue. As such, they are not included in payments due in 2019.

Fixed Rate Long-Term Debt

The Pennsylvania Economic Development Financing Authority, or PEDFA, Series 2014 Bonds contain both optional and special redemption provisions. Under the optional provisions, the Company can redeem all or a portion of the bonds on or after May 1, 2019. Under the special provisions, representatives of deceased beneficial owners of the bonds have the right to request redemption prior to the stated maturity of all or part of their interest in the bonds beginning on or after May 1, 2014. The Company is not obligated to redeem any individual interest exceeding $25, or aggregate interest exceeding $300, in any annual period. In 2018 and 2017, no bonds were retired under these provisions. Currently, no additional bonds that meet the special provisions have been tendered for redemption.

Variable Rate Long-Term Debt

On May 7, 2008, the PEDFA issued $12,000 aggregate principal amount of PEDFA Exempt Facilities Revenue Refunding Bonds, Series A of 2008 (the "Series A Bonds") for the Company's benefit pursuant to the terms of a trust indenture, dated as of May 1, 2008, between the PEDFA and Manufacturers and Traders Trust Company, as trustee. The PEDFA then loaned the proceeds of the offering of the Series A Bonds to the Company pursuant to a loan agreement, dated as of May 1, 2008, between the Company and the PEDFA. The loan agreement provides for a $12,000 loan with a maturity date of October 1, 2029. Amounts outstanding under the loan agreement are the Company's direct general obligations. The proceeds of the loan were used to redeem the PEDFA Exempt Facilities Revenue Bonds, Series B of 2004 (the "2004 Series B Bonds"). The 2004 Series B Bonds were redeemed because the bonds were tendered and could not be remarketed due to the downgrade of the bond insurer's credit rating.

Borrowings under the loan agreement bear interest at a variable rate as determined by PNC Capital Markets, as remarketing agent, on a periodic basis elected by the Company, which has currently elected that the interest rate be determined on a weekly basis. The remarketing agent determines the interest rate based on the current market conditions in order to determine the lowest interest rate which would cause the Series A Bonds to have a market value equal to the principal amount thereof plus accrued interest thereon. The variable interest rate under the loan agreement averaged 1.46% in 2018 and 0.88% in 2017. As of December 31, 2018 and 2017, the interest rate was 1.75% and 1.78%, respectively.

The holders of the $12,000 Series A Bonds may tender their bonds at any time. When the bonds are tendered, they are subject to an annual remarketing agreement, pursuant to which a remarketing agent attempts to remarket the tendered bonds according to the terms of the indenture. In order to keep variable interest rates down and to enhance the marketability of the Series A Bonds, the Company entered into a Reimbursement, Credit and Security Agreement with PNC Bank, National Association ("the Bank") dated as of May 1, 2008. This agreement provides for a direct pay letter of credit issued by the Bank to the trustee for the Series A Bonds. The Bank is responsible for providing the trustee with funds for the timely payment of the principal and interest on the Series A Bonds and for the purchase price of the Series A Bonds that have been tendered or deemed tendered for purchase and have not been remarketed. The Company's responsibility is to reimburse the Bank the same day as regular interest payments are made, and within fourteen months for the purchase price of tendered bonds that have not been remarketed. The reimbursement period for the principal is immediate at maturity, upon default by the Company, or if the Bank does not renew the Letter of Credit. The current expiration date of the Letter of Credit is June 30, 2020. It is reviewed annually for a potential extension of the expiration date.

The Company may elect to have the Series A Bonds redeemed, in whole or in part, on any date that interest is payable for a redemption price equal to the principal amount thereof plus accrued interest to the date of redemption. The Series A Bonds are also subject to mandatory redemption for the same redemption price in the event that the IRS determines that the interest payable on the Series A Bonds is includable in gross income of the holders of the bonds for federal tax purposes.

Interest Rate Swap Agreement

In connection with the issuance of the PEDFA 2004 Series B Bonds, the Company entered into an interest rate swap agreement with a counterparty, in the notional principal amount of $12,000. The Company elected to retain the swap agreement for the 2008 Series A Bonds. Interest rate swap agreements derive their value from underlying interest rates. These transactions involve both credit and market risk. The notional amounts are amounts on which calculations, payments, and the value of the derivative are based. Notional amounts do not represent direct credit exposure. Direct credit exposure is limited to the net difference between the calculated amounts to be received and paid, if any. Such difference, which represents the fair value of the swap, is reflected on the Company's balance sheets. See Note 7 for additional information regarding the fair value of the swap.

The interest rate swap will terminate on the maturity date of the 2008 Series A Bonds (which is the same date as the maturity date of the loan under the loan agreement), unless sooner terminated pursuant to its terms. In the event the interest rate swap terminates prior to the maturity date of the 2008 Series A Bonds, either the Company or the swap counterparty may be required to make a termination payment to the other based on market conditions at such time. The Company is exposed to credit-related losses in the event of nonperformance by the counterparty. The Company controls the credit risk of its financial contracts through credit approvals, limits and monitoring procedures, and does not expect the counterparty to default on its obligations. Notwithstanding the terms of the swap agreement, the Company is ultimately obligated for all amounts due and payable under the loan agreement.

The interest rate swap agreement contains provisions that require the Company to maintain a credit rating of at least BBB- with Standard & Poor's. On February 9, 2018, Standard & Poor's affirmed the Company's credit rating at A-, with a stable outlook and adequate liquidity. If the Company's rating were to fall below this rating, it would be in violation of these provisions, and the counterparty to the derivative could request immediate payment if the derivative was in a liability position. The Company's interest rate swap was in a liability position as of December 31, 2018. If a violation was triggered on December 31, 2018, the Company would have been required to pay the counterparty approximately $1,852.

The Company's interest rate swap agreement provides that it pays the counterparty a fixed interest rate of 3.16% on the notional amount of $12,000. In exchange, the counterparty pays the Company a floating interest rate (based on 59% of the U.S. Dollar one-month LIBOR rate) on the notional amount. The floating interest rate paid to the Company is intended, over the term of the swap, to approximate the variable interest rate on the loan agreement and the interest rate paid to bondholders, thereby managing its exposure to fluctuations in prevailing interest rates. The Company's net payment rate on the swap averaged 1.97% in 2018 and 2.50% in 2017.

As of December 31, 2018, there was a spread of 31 basis points between the variable rate paid to bondholders and the variable rate received from the swap counterparty, which equated to an overall effective rate of 3.47% (including variable interest and swap payments). As of December 31, 2017, there was a spread of 91 basis points which equated to an overall effective rate of 4.07% (including variable interest and swap payments).

Line of Credit Borrowings

As of December 31, 2018, the Company maintained unsecured lines of credit aggregating $41,500 with four banks. The first line of credit, in the amount of $13,000, is a committed line of credit with a revolving 2-year maturity (currently May 2020) and carries an interest rate of LIBOR plus 1.20%. The Company had $6,508 and $5,389 outstanding under this line of credit as of December 31, 2018 and 2017, respectively. The second line of credit, in the amount of $11,000, is a committed line of credit, which matures in May 2020 and carries an interest rate of LIBOR plus 1.25%. The third line of credit, in the amount of $7,500, is a committed line of credit, which matures in June 2020 and carries an interest rate of LIBOR plus 1.15%. The Company had $2,000 outstanding under this line of credit as of December 31, 2018. The fourth line of credit, in the amount of $10,000, is a committed line of credit, which matures in September 2019 and carries an interest rate of LIBOR plus 1.20%. The Company had $1,000 outstanding under this line of credit as of December 31, 2018 and 2017. Average borrowings outstanding under the lines of credit were $7,206 in 2018 and $3,132 in 2017. The average cost of borrowings under the lines of credit was 3.20% during 2018 and 1.76% during 2017. The weighted average interest rate on the line of credit borrowings was 3.60% as of December 31, 2018 and 2.65% as of December 31, 2017.

Debt Covenants and Restrictions

The terms of the debt agreements carry certain covenants and limit in some cases the Company's ability to borrow additional funds, to prepay its borrowings and include certain restrictions with respect to declaration and payment of cash dividends and the Company's acquisition of its stock. Under the terms of the most restrictive agreements, the Company cannot borrow in excess of 60% of its utility plant, and cumulative payments for dividends and acquisition of stock since December 31, 1982 may not exceed $1,500 plus net income since that date. As of December 31, 2018, none of the earnings retained in the business are restricted under these provisions. The Company's Pennvest Loan, which will mature in 2019, is secured by $800 of receivables. Other than this loan, the Company's debt is unsecured.

The Company's lines of credit require it to maintain a minimum equity to total capitalization ratio (defined as the sum of equity plus funded debt) and a minimum interest coverage ratio (defined as net income plus interest expense plus income tax expense divided by interest expense). As of December 31, 2018, the Company was in compliance with these covenants.

7. Fair Value of Financial Instruments

The accounting standards regarding fair value measurements establish a fair value hierarchy which indicates the extent to which inputs used in measuring fair value are observable in the market. Level 1 inputs include quoted prices for identical instruments and are the most observable. Level 2 inputs include quoted prices for similar assets and observable inputs such as interest rates, commodity rates and yield curves. Level 3 inputs are not observable in the market and include management's own judgments about the assumptions market participants would use in pricing the asset or liability.

The Company has recorded its interest rate swap liability at fair value in accordance with the standards. The liability is recorded under the caption "Other deferred credits" on the balance sheets. The table below illustrates the fair value of the interest rate swap as of the end of the reporting period.

Description	December 31, 2018	Fair Value Measurements at Reporting Date Using Significant Other Observable Inputs (Level 2)
Interest Rate Swap	$1,815	$1,815

Fair values are measured as the present value of all expected future cash flows based on the LIBOR-based swap yield curve as of the date of the valuation. These inputs to this calculation are deemed to be Level 2 inputs. The balance sheet carrying value reflects the Company's credit quality as of December 31, 2018. The rate used in discounting all prospective cash flows anticipated to be made under this swap reflects a representation of the yield to maturity for 30-year debt on utilities rated A- as of December 31, 2018. The use of the Company's credit quality resulted in a reduction in the swap liability of $37 as of December 31, 2018. The fair value of the swap reflecting the Company's credit quality as of December 31, 2017 is shown in the table below.

Description	December 31, 2017	Fair Value Measurements at Reporting Date Using Significant Other Observable Inputs (Level 2)
Interest Rate Swap	$2,196	$2,196

The carrying amount of current assets and liabilities that are considered financial instruments approximates fair value as of the dates presented. The Company's total long-term debt, with a carrying value of $95,908 at December 31, 2018, and $92,833 at December 31, 2017, had an estimated fair value of approximately $105,000 and $108,000, respectively. The estimated fair value of debt was calculated using a discounted cash flow technique that incorporates a market interest yield curve with adjustments for duration and risk profile. These inputs to this calculation are deemed to be Level 2 inputs. The Company recognized its credit rating in determining the yield curve and did not factor in third party credit enhancements including bond insurance on the 2006 York County Industrial Development Authority issue and the letter of credit on the 2008 PEDFA Series A issue.

Customers' advances for construction and note receivable have carrying values at December 31, 2018 of $6,849 and $255, respectively. At December 31, 2017, customers' advances for construction and note receivable had carrying values of $6,324 and $255, respectively. The relative fair values of these amounts cannot be accurately estimated since the timing of future payment streams is dependent upon several factors, including new customer connections, customer consumption levels and future rate increases.

8. Commitments

Based on its capital budget, the Company anticipates construction and acquisition expenditures for 2019 and 2020 of approximately $21,479 and $21,209, respectively, exclusive of any acquisitions not yet approved. The Company plans to finance ongoing capital expenditures with internally-generated funds, borrowings against the Company's lines of credit, proceeds from the issuance of common stock under its dividend reinvestment and direct stock purchase and sale plan and ESPP, potential common stock or debt issues and customer advances and contributions.

The Company entered into a consent order agreement with the Pennsylvania Department of Environmental Protection in December 2016 after the Company determined it exceeded the action level for lead as established by the Lead and Copper Rule, or LCR, issued by the U.S. Environmental Protection Agency. Under the agreement, the Company committed to exceed the LCR replacement schedule by replacing all of the remaining known company-owned lead service lines within four years from the agreement. The cost for these service line replacements was approximately $2,341 through December 31, 2018 and is included in utility plant. As of December 31, 2018, all known company-owned lead service lines have been replaced. Any additional company-owned lead service lines that are discovered will be replaced but are not expected to have a material impact on the financial position of the Company.

Due to its exceedance in 2016, the Company was required under the LCR to complete two rounds of compliance testing at the customer's tap in 2017. The water samples did not exceed the action level either time. As a result, the Company was able to reduce its monitoring to annual compliance tests beginning in 2018. The Company completed its compliance testing at the customer's tap in 2018 and the water samples did not exceed the action level. In addition, the Company performed in excess of the required actions under the LCR. Specifically, the Company provided the affected customers with a free water test and a 200 gallon per month credit to flush their line in order to reduce any lead content until their lead service line has been replaced. The cost of the water tests and flushing credits was $4 and $16 for the years ended December 31, 2018 and 2017, respectively. Additional amounts for water tests and flushing credits are not expected to have a material impact on the financial position of the Company.

The Company was granted approval by the PPUC to modify its tariff to include the cost of the replacement of lead customer-owned service lines that are discovered when the Company replaces its lead service lines, and to include the cost of the annual replacement of up to 400 lead customer-owned service lines whenever they are discovered, regardless of the material used for the company-owned service line over nine years from the agreement. The tariff modification allows the Company to replace customer-owned service lines at its own initial cost. The Company will record the costs as a regulatory asset to be recovered in future base rates to customers, over a four-year period. The cost for the customer-owned lead service line replacements under the four-year tariff modification was approximately $304 through December 31, 2018 and is included as a regulatory asset. All known customer-owned lead service lines that are connected to a company-owned lead service line have been replaced by December 31, 2018. Based on its experience, the Company estimates that lead customer-owned service lines replacements will cost $910 under the nine-year tariff modification. This estimate is subject to adjustment as more facts become available.

As of December 31, 2018, approximately 35% of the Company's full-time employees are under union contract. The current contract was ratified in December 2017 and expires on April 30, 2020.

The Company is involved in certain legal and administrative proceedings before various courts and governmental agencies concerning water service and other matters. The Company expects that the ultimate disposition of these proceedings will not have a material effect on the Company's financial position, results of operations and cash flows.

9. Revenue

The following table shows the Company's revenues disaggregated by service and customer type.

	2018	2017
Water utility service:		
Residential	$30,348	$30,417
Commercial and industrial	13,351	13,538
Fire protection	2,931	2,968
Wastewater utility service:		
Residential	933	840
Commercial and industrial	227	191
Billing and revenue collection services	64	63
Collection services	54	62
Other revenue	22	38
Total Revenue from Contracts with Customers	47,930	48,117
Rents from regulated property	507	472
Total Operating Revenue	$48,437	$48,589

Utility Service

The Company provides utility service as a distinct and single performance obligation to each of its water and wastewater customers. The transaction price is detailed in the tariff pursuant to an order by the PPUC and made publicly available. There is no variable consideration and no free service, special rates, or subnormal charges to any customer. Due to the fact that the contract includes a single performance obligation, no judgment is required to allocate the transaction price. The performance obligation is satisfied over time through the continuous provision of utility service through a stand-ready obligation to perform and the transfer of water or the collection of wastewater through a series of distinct transactions that are identical in nature and have the same pattern of transfer to the customer. The Company uses an output method to recognize the utility service revenue over time. The stand-ready obligation is recognized through the passage of time in the form of a fixed charge and the transfer of water or the collection of wastewater is recognized at a per unit rate based on the actual or estimated flow through the meter. Each customer is invoiced every month and the invoice is due within twenty days. The utility service has no returns or warranties associated with it. No revenue is recognized from performance obligations satisfied in prior periods and no performance obligations remain unsatisfied as of the end of the reporting period. A contract asset for unbilled revenue is recognized for the passage of time and the actual or estimated usage from the latest meter reading to the end of the accounting period. The methodology is standardized and consistently applied to reduce bias and the need for judgment.

Billing and Revenue Collection Service

The Company provides billing and revenue collection service as distinct performance obligations to four municipalities within the service territory of the Company. The municipalities provide wastewater service to their residents and the Company acts as the billing and revenue collection agent for the municipalities. The transaction price is a fixed amount per bill prepared as established in the contract. There is no variable consideration. Due to the fact that both the billing performance obligation and the revenue collection performance obligation are materially complete by the end of the reporting period, the Company does not allocate the transaction price between the two performance obligations. The performance obligations are satisfied at a point in time when the bills are sent as the municipalities receive all the benefits and bears all of the risk of non-collection at that time. Each municipality is invoiced when the bills are complete and the invoice is due within thirty days. The billing and revenue collection service has no returns or warranties associated with it. No revenue is recognized from performance obligations satisfied in prior periods and no performance obligations remain unsatisfied as of the end of the reporting period.

Collection Service

The Company provides collection service as a distinct and single performance obligation to several municipalities within the service territory of the Company. The municipalities provide wastewater service to their residents. If those residents are delinquent in paying for their wastewater service, the municipalities request that the Company post for and shut off the supply of water to the premises of those residents. When the resident is no longer delinquent, the Company will restore water service to the premises. The transaction price for each posting, each shut off, and each restoration is a fixed amount as established in the contract. There is no variable consideration. Due to the fact that the contract includes a single performance obligation, no judgment is required to allocate the transaction price. The performance obligation is satisfied at a point in time when the posting, shut off, or restoration is completed as the municipalities receive all the benefits in the form of payment or no longer providing wastewater service. Each municipality is invoiced periodically for the posting, shut offs, and restorations that have been completed since the last billing and the invoice is due within thirty days. The collection service has no returns or warranties associated with it. No revenue is recognized from performance obligations satisfied in prior periods and no performance obligations remain unsatisfied as of the end of the reporting period. A contract asset for unbilled revenue is recognized for postings, shut offs, and restorations that have been completed from the last billing to the end of the accounting period.

Service Line Protection Plan

The Company provides service line protection as a distinct and single performance obligation to current water customers that choose to participate. The transaction price is detailed in the plan's terms and conditions and made publicly available. There is no variable consideration. Due to the fact that the contract includes a single performance obligation, no judgment is required to allocate the transaction price. The performance obligation is satisfied over time through the continuous provision of service line protection through a stand-ready obligation to perform. The Company uses an output method to recognize the service line protection revenue over time. The stand-ready obligation is recognized through the passage of time. A customer has a choice to prepay for an entire year or to pay in advance each month. The service line protection plan has no returns or extended warranties associated with it. No revenue is recognized from performance obligations satisfied in prior periods and no material performance obligations remain unsatisfied as of the end of the reporting period.

10. Rate Matters

From time to time, the Company files applications for rate increases with the PPUC and is granted rate relief as a result of such requests. The most recent rate request was filed by the Company on May 30, 2018 and sought an annual increase in water rates of $6,399 and an annual increase in wastewater rates of $289. Effective March 1, 2019, the PPUC authorized an increase in water rates designed to produce approximately $3,361 in additional annual revenues and an increase in wastewater rates designed to produce approximately $289 in additional annual revenues.

The PPUC permits water utilities to collect a distribution system improvement charge, or DSIC. The DSIC allows the Company to add a charge to customers' bills for qualified replacement costs of certain infrastructure without submitting a rate filing. This surcharge mechanism typically adjusts periodically based on additional qualified capital expenditures completed or anticipated in a future period. The DSIC is capped at 5% of base rates, and is reset to zero when new base rates that reflect the costs of those additions become effective or when a utility's earnings exceed a regulatory benchmark. The DSIC reset to zero when the new base rates took effect March 1, 2019. The DSIC provided revenues of $1,971 in 2018 and $899 in 2017. The DSIC is subject to audit by the PPUC.

On May 17, 2018, the PPUC, in conjunction with its review of the effects of the 2017 Tax Act, issued an order which directed utilities with pending rate cases, including the Company, to address the issues related to the 2017 Tax Act in the context of an overall review of the Company's rates and rate structure in lieu of any immediate action. The PPUC expected the Company and the other interested parties to address the effect of the federal tax rate reduction on the rates charged during the rate case review, including whether a retroactive surcharge or other measure is necessary to account for the tax rate change that became effective January 1, 2018. As part of a rate order approved by the PPUC, the Company has agreed to return $2,117 to customers as a reconcilable negative surcharge on their bills generated from March 2019 through February 2020. Based on this agreement, the Company recorded a regulatory liability of $1,764 as of December 31, 2018 by reducing revenue by $1,600 for the year ended December 31, 2018 and recording the gross-up of revenue necessary to return, in rates, the effect of this temporary tax difference, and reclassified $164 from excess accumulated deferred income taxes on accelerated depreciation recorded at December 31, 2017.

11. Employee Benefit Plans

Pensions

The Company maintains a general and administrative and a union-represented defined benefit pension plan covering all of its employees hired prior to May 1, 2010. Employees hired after May 1, 2010 are eligible for an enhanced 401(k) plan rather than a defined benefit plan. The benefits under the defined benefit plans are based upon years of service and compensation near retirement. The Company amended its defined benefit pension plans in 2014, generally limiting the years of eligible service under the plans to 30 years. The Company's funding policy is to contribute annually the amount permitted by the PPUC to be collected from customers in rates, but in no case less than the minimum Employee Retirement Income Security Act (ERISA) required contribution.

The following table sets forth the plans' funded status as of December 31, 2018 and 2017. The measurement of assets and obligations of the plans is as of December 31, 2018 and 2017.

Obligations and Funded Status **At December 31**	**2018**	**2017**
Change in Benefit Obligation		
Pension benefit obligation beginning of year	$44,636	$40.754
Service cost	1,015	1,080
Interest cost	1,515	1,592
Actuarial (gain) loss	(4,140)	2,645
Benefit payments	(1,515)	(1,435)
Pension benefit obligation end of year	41,511	44,636
Change in Plan Assets		
Fair value of plan assets beginning of year	41,439	35,467
Actual return on plan assets	(1,600)	5,107
Employer contributions	2,300	2,300
Benefits paid	(1,515)	(1,435)
Fair value of plan assets end of year	40,624	41,439
Funded Status of Plans at End of Year	$(887)	$(3,197)

The accounting standards require that the funded status of defined benefit pension plans be fully recognized on the balance sheets. They also call for the unrecognized actuarial gain or loss, the unrecognized prior service cost and the unrecognized transition costs to be adjustments to shareholders' equity (accumulated other comprehensive income). Due to a rate order granted by the PPUC, the Company is permitted under the accounting standards to defer the charges otherwise recorded in accumulated other comprehensive income as a regulatory asset. Management believes these costs will be recovered in future rates charged to customers. The liability for the funded status of the Company's pension plans is recorded in "Deferred employee benefits" on its balance sheets.

In 2018, the plans recognized a significant actuarial gain. The Company adopted the new mortality improvement scale (MP-2018) but recognized a 60 basis point increase in the discount rate. In 2017, the plans recognized a significant actuarial loss. The Company adopted the new mortality improvement scale (MP-2017) and recognized a 50 basis point decrease in the discount rate. The Company uses the corridor method to amortize actuarial gains and losses. Gains and losses over 10% of the greater of pension benefit obligation or the market value of assets are amortized over the average future service of plan participants expected to receive benefits.

Changes in plan assets and benefit obligations recognized in regulatory assets are as follows:

	2018	2017
Net gain (loss) arising during the period	$252	$(66)
Recognized net actuarial loss	(406)	(493)
Recognized prior service credit	13	13
Total changes in regulatory asset during the year	$(141)	$(546)

Amounts recognized in regulatory assets that have not yet been recognized as components of net periodic benefit cost consist of the following at December 31:

	2018	2017
Net loss	$8,742	$8,895
Prior service credit	(89)	(101)
Regulatory asset	$8,653	$8,794

Components of net periodic benefit cost are as follows:

	2018	2017
Service cost	$1,015	$1,080
Interest cost	1,515	1,592
Expected return on plan assets	(2,793)	(2,395)
Amortization of loss	406	493
Amortization of prior service credit	(13)	(13)
Rate-regulated adjustment	2,170	1,543
Net periodic benefit cost	$2,300	$2,300

Pension service cost is recorded in operating expenses. All other components of net periodic pension cost are recorded as other pension costs in other income (expenses).

The rate-regulated adjustment set forth above is required in order to reflect pension expense for the Company in accordance with the method used in establishing water rates. The Company is permitted by rate order of the PPUC to expense pension costs to the extent of contributions and defer the remaining expense to regulatory assets to be collected in rates at a later date as additional contributions are made. During 2018, the deferral decreased by $2,170.

The estimated costs for the defined benefit pension plans relating to the December 31, 2018 balance sheet that will be amortized from regulatory assets into net periodic benefit cost over the next fiscal year are as follows:

Net loss	$508
Net prior service credit	(13)
	$495

The Company plans to contribute $2,300 to the plans in 2019.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid in each of the next five years and the subsequent five years in the aggregate:

2019	2020	2021	2022	2023	2024-2028
$1,855	$1,865	$1,929	$2,006	$2,177	$12,017

The following tables show the projected benefit obligation, the accumulated benefit obligation and the fair value of plan assets as of December 31:

	2018	2017
Projected benefit obligation	$41,511	$44,636
Fair value of plan assets	40,624	41,439

	2018	2017
Accumulated benefit obligation	$39,100	$41,390
Fair value of plan assets	40,624	41,439

Weighted-average assumptions used to determine benefit obligations at December 31:

	2018	2017
Discount rate	4.10%	3.50%
Rate of compensation increase	2.50% - 3.00%	2.50% - 3.00%

Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31:

	2018	2017
Discount rate	3.50%	4.00%
Expected long-term return on plan assets	6.75%	6.75%
Rate of compensation increase	2.50% - 3.00%	2.50% - 3.00%

The selected long-term rate of return on plan assets was primarily based on the asset allocation of each of the plan's assets (approximately 50% to 70% equity securities and 30% to 50% fixed income securities). Analysis of the historic returns of these asset classes and projections of expected future returns were considered in setting the long-term rate of return.

The investment objective of the Company's defined benefit pension plans is that of Growth and Income. The weighted-average target asset allocations are 50% to 70% equity securities, 30% to 50% fixed income securities, and 0% to 10% reserves (cash and cash equivalents). Within the equity category, the Company's target allocation is approximately 60-95% large cap, 0-25% mid cap, 0-10% small cap, 0-25% International Developed Nations, and 0-10% International Emerging Nations. Within the fixed income category, its target allocation is approximately 15-55% U.S. Treasuries, 0-22% Federal Agency securities, 0-40% corporate bonds, 15-55% mortgage-backed securities, 0-20% international, and 0-20% high yield bonds. The Company's investment performance objectives over a three to five year period are to exceed the annual rate of inflation as measured by the Consumer Price Index by 3%, and to exceed the annualized total return of specified benchmarks applicable to the funds within the asset categories.

Further guidelines within equity securities include: (1) holdings in any one company cannot exceed 5% of the portfolio; (2) a minimum of 20 individual stocks must be included in the domestic stock portfolio; (3) a minimum of 30 individual stocks must be included in the international stock portfolio; (4) equity holdings in any one industry cannot exceed 20-25% of the portfolio; and (5) only U.S.-denominated currency securities are permitted.

Further guidelines for fixed income securities include: (1) fixed income holdings in a single issuer are limited to 5% of the portfolio; (2) acceptable investments include money market securities, U.S. Government and its agencies and sponsored entities' securities, mortgage-backed and asset-backed securities, corporate securities and mutual funds offering high yield bond portfolios; (3) purchases must be limited to investment grade or higher; (4) non-U.S. dollar denominated securities are not permissible; and (5) high risk derivatives are prohibited.

The fair values of the Company's pension plan assets at December 31, 2018 and 2017 by asset category and fair value hierarchy level are as follows. The majority of the valuations are based on quoted prices on active markets (Level 1), with the remaining valuations based on broker/dealer quotes, active market makers, models, and yield curves (Level 2).

	Total Fair Value		Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)	
Asset Category	2018	2017	2018	2017	2018	2017
Cash and Money Market Funds (a)	$1,498	$1,968	$1,498	$1,968	$-	$-
Equity Securities:						
Common Equity Securities (b)	512	2,606	512	2,606	-	-
Equity Mutual Funds (c)	23,637	23,416	23,637	23,416	-	-
Fixed Income Securities:						
U.S. Treasury Obligations	591	1,106	-	-	591	1,106
Corporate and Foreign Bonds (d)	5,315	5,153	-	-	5,315	5,153
Fixed Income Mutual Funds (e)	9,071	7,190	9,071	7,190	-	-
Total Plan Assets	$40,624	$41,439	$34,718	$35,180	$5,906	$6,259

(a) The portfolios are designed to keep up to one year of distributions in immediately available funds. The Company was more heavily-weighted in cash as of December 31, 2017 due to the timing of employer contributions.

(b) This category includes investments in U.S. common stocks and foreign stocks trading in the U.S. widely distributed among consumer discretionary, consumer staples, healthcare, information technology, financial services, telecommunications, industrials, real estate, and energy. The individual stocks are primarily large cap stocks which track with the S&P 500.

(c) This category currently includes a majority of investments in closed-end mutual funds as well as domestic equity mutual funds and international mutual funds which give the portfolio exposure to mid and large cap index funds as well as international diversified index funds.

(d) This category currently includes only U.S. corporate bonds and notes widely distributed among consumer discretionary, consumer staples, healthcare, information technology and financial services.

(e) This category includes fixed income investments in mutual funds which include government, corporate and mortgage securities of both the U.S. and other countries. The mortgage-backed securities and non-U.S. corporate and sovereign investments add further diversity to the fixed income portion of the portfolio.

Defined Contribution Plan

The Company has a savings plan pursuant to the provisions of section 401(k) of the Internal Revenue Code. For employees hired before May 1, 2010, this plan provides for elective employee contributions of up to 15% of compensation and Company matching contributions of 100% of the participant's contribution, up to a maximum annual Company contribution of $2.8 for each employee.

Employees hired after May 1, 2010 are entitled to an enhanced feature of the plan. This feature provides for elective employee contributions of up to 15% of compensation and Company matching contributions of 100% of the participant's contribution, up to a maximum of 4% of the employee's compensation. In addition, the Company will make an annual contribution of $1.2 to each employee's account whether or not they defer their own compensation. Employees eligible for this enhanced 401(k) plan feature are not eligible for the defined benefit plans. As of December 31, 2018, 43 employees were participating in the enhanced feature of the plan. The Company's contributions to both portions of the plan amounted to $287 in 2018 and $266 in 2017.

Deferred Compensation

The Company has non-qualified deferred compensation and supplemental retirement agreements with certain members of management. The future commitments under these arrangements are offset by corporate-owned life insurance policies. At December 31, 2018 and 2017, the present value of the future obligations was approximately $3,955 and $3,981, respectively. The insurance policies included in other assets had a total cash value of approximately $3,402 and $3,152 at December 31, 2018 and 2017, respectively. The Company's net expenses under the plans amounted to $32 in 2018 and $252 in 2017.

Other

The Company has a retiree life insurance program which pays the beneficiary of a retiree $2 upon the retiree's death. At December 31, 2018 and 2017, the present value of the future obligations was approximately $107 and $120, respectively. There is no trust or insurance covering this future liability, instead the Company will pay these benefits out of its general assets. The Company's net (income) expenses under the plan amounted to $(10) in 2018 and $19 in 2017.

12. Stock-Based Compensation

On May 2, 2016, the Company's stockholders approved The York Water Company Long-Term Incentive Plan, or LTIP. The LTIP was adopted to provide the incentive of long-term stock-based awards to officers, directors and key employees. The LTIP provides for the granting of nonqualified stock options, incentive stock options, stock appreciation rights, performance restricted stock grants and units, restricted stock grants and units, and unrestricted stock grants. A maximum of 100,000 shares of common stock may be issued under the LTIP over the ten-year life of the plan. The maximum number of shares of common stock subject to awards that may be granted to any participant in any one calendar year is 2,000. Shares of common stock issued under the LTIP may be treasury shares or authorized but unissued shares. The LTIP is administered by the Compensation Committee of the Board, or the full Board, provided that the full Board administers the LTIP as it relates to awards to non-employee directors of the Company. The Company filed a registration statement with the SEC on May 11, 2016 covering the offering of stock under the LTIP. The LTIP was effective on July 1, 2016.

On November 21, 2016, the Board awarded stock to non-employee directors effective November 28, 2016. This stock award vested immediately. On the same date, the Compensation Committee awarded restricted stock to officers and key employees effective November 28, 2016. This restricted stock award vests ratably over three years beginning November 28, 2016.

On April 26, 2017, the Board awarded stock to non-employee directors effective May 1, 2017. This stock award vested immediately. On April 26, 2017, the Compensation Committee awarded restricted stock to officers and key employees effective May 1, 2017. This restricted stock award vests ratably over three years beginning May 1, 2017. In addition, the Board of Directors accelerated the vesting period for restricted stock granted in 2016 to two retiring officers from three years to their 2017 retirement dates, both of which have been fully recognized as of December 31, 2017.

On May 7, 2018, the Board awarded stock to non-employee directors effective May 7, 2018. This stock award vested immediately. On May 7, 2018, the Compensation Committee awarded restricted stock to officers and key employees effective May 7, 2018. This restricted stock award vests ratably over three years beginning May 7, 2018.

On November 20, 2018, the Board accelerated the vesting period for restricted stock granted in 2016, 2017, and 2018 to one retiring officer from three years to that officer's 2019 retirement date.

The restricted stock awards provide the grantee with the rights of a shareholder, including the right to receive dividends and to vote such shares, but not the right to sell or otherwise transfer the shares during the restriction period. As a result, the awards are included in common shares outstanding on the balance sheet. Restricted stock awards result in compensation expense valued at the fair market value of the stock on the date of the grant and are amortized ratably over the restriction period.

The following table summarizes the stock grant amounts and activity for the years ended December 31, 2017 and 2018.

	Number of Shares	Grant Date Weighted Average Fair Value
Nonvested at beginning of the year 2017	660	$37.20
Granted	1,505	$38.00
Vested	(1,038)	$37.75
Forfeited	-	-
Nonvested at end of the year 2017	1,127	$37.76
Granted	3,743	$32.70
Vested	(1,790)	$33.90
Forfeited	-	-
Nonvested at end of the year 2018	3,080	$33.85

For the years ended December 31, 2018 and 2017, the statement of income includes $80 and $46 of stock-based compensation and related recognized tax benefits of $23 and $18, respectively. The total fair value of the shares vested in the years ended December 31, 2018 and 2017 was $61 and $39, respectively. Total stock-based compensation related to nonvested awards not yet recognized is $104 at December 31, 2018 which will be recognized over the remaining three-year vesting period.

13. Taxes Other than Income Taxes

The following table provides the components of taxes other than income taxes:

	2018	2017
Regulatory Assessment	$261	$231
Property	345	344
Payroll, net of amounts capitalized	538	539
Other	1	19
Total taxes other than income taxes	$1,145	$1,133

14. Income Taxes

The provisions for income taxes consist of:

	2018	2017
Federal current	$1,715	$1,213
State current	718	846
Federal deferred	216	2,514
State deferred	(119)	9
Federal investment tax credit, net of current utilization	(39)	(39)
Total income taxes	$2,491	$4,543

A reconciliation of the statutory Federal tax provision to the total provision follows:

	2018	2017
Statutory Federal tax provision	$3,332	$5,956
State income taxes, net of Federal benefit	471	563
IRS TPR ongoing deduction	(1,307)	(1,796)
Tax-exempt interest	(22)	(33)
Amortization of investment tax credit	(39)	(39)
Cash value of life insurance	(13)	(9)
Domestic production deduction	-	(177)
Change in enacted federal tax rate	-	134
Other, net	69	(56)
Total income taxes	$2,491	$4,543

The Company filed for a change in accounting method under the IRS TPR effective in 2014. Under the change in accounting method, the Company is permitted to deduct the costs of certain asset improvements that were previously being capitalized and depreciated for tax purposes as an expense on its income tax return. The Company was permitted to make this deduction for prior years (the "catch-up deduction") and for each year going forward (the "ongoing deduction"). As a result of the catch-up deduction, income tax benefits of $3,887 were deferred as a regulatory liability. The Company received approval from the PPUC in its most recent rate order to amortize the catch-up deduction, recorded as a regulatory liability, over 15 years beginning March 1, 2019. As a result of the ongoing deduction, the net income tax benefits of $1,307 and $1,796 for the years ended December 31, 2018 and 2017, respectively, reduced income tax expense and flowed-through to net income. The ongoing deduction results in a reduction in the effective income tax rate, a net reduction in income tax expense, and a reduction in the amount of income taxes currently payable. Both the ongoing and catch-up deductions result in increases to deferred tax liabilities and regulatory assets representing the appropriate book and tax basis difference on capital additions.

The 2017 Tax Act, among other things, reduces the federal statutory corporate tax rate for tax years beginning in 2018 from 34% to 21%, eliminates certain deductions, and eliminates bonus depreciation on qualified water and wastewater property. This resulted in the remeasurement of the federal portion of the Company's deferred taxes as of December 31, 2017 to the 21% rate. The effect was recognized in income for the year ended December 31, 2017 for all deferred tax assets and liabilities except accelerated depreciation. Under normalization rules applicable to public utility property included in the 2017 Tax Act, the excess accumulated deferred income taxes on accelerated depreciation is recorded as a regulatory liability. The regulatory liability is a temporary difference, so a deferred tax asset is recorded including the gross-up of revenue necessary to return, in rates, the effect of the temporary difference.

The tax effects of temporary differences between book and tax balances that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of December 31, 2018 and 2017 are summarized in the following table:

	2018	2017
Deferred tax assets:		
Reserve for doubtful accounts	$88	$88
Compensated absences	147	147
Deferred compensation	1,143	1,150
Excess accumulated deferred income taxes on accelerated depreciation	4,098	4,145
Deferred taxes associated with the gross-up of revenues necessary to return, in rates, the effect of temporary differences	2,077	1,736
Customers' advances for construction and contributions in aid of construction	577	-
Revenue reduction for tax rate change	333	-
Pensions	256	924
Other costs deducted for book, not for tax	40	42
Total deferred tax assets	8,759	8,232
Deferred tax liabilities:		
Accelerated depreciation	28,479	27,785
Basis differences from IRS TPR	9,367	7,579
Investment tax credit	411	439
Deferred taxes associated with the gross-up of revenues necessary to recover, in rates, the effect of temporary differences	6,124	5,291
Tax effect of pension regulatory asset	887	1,555
Other costs deducted for tax, not for book	453	337
Total deferred tax liabilities	45,721	42,986
Net deferred tax liability	$36,962	$34,754

In accordance with accounting standards, the net deferred tax liability is classified as a noncurrent deferred income tax liability on the balance sheets.

No valuation allowance was required for deferred tax assets as of December 31, 2018 and 2017. In assessing the value of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. Based upon expected future taxable income and the current regulatory environment, management believes it is more likely than not that the Company will realize the benefits of these deductible differences.

The Company determined that there were no uncertain tax positions meeting the recognition and measurement test of the accounting standards recorded in the years that remain open for review by taxing authorities, which are 2015 through 2017 for both federal and state income tax returns. The Company has not yet filed tax returns for 2018. The Company believes that it has fully complied with any changes pursuant to the 2017 Tax Act and has not taken any new positions in its 2018 income tax provision, apart from compliance with the 2017 Tax Act.

The Company's policy is to recognize interest and penalties related to income tax matters in other expenses. The Company paid interest and penalties of $1 and $0 for the years ended December 31, 2018 and 2017, respectively.

15. Subsequent Events

On January 31, 2019, the Company entered into a note purchase agreement with certain institutional investors relating to the private placement of $20,000 aggregate principal amount of the Company's senior notes. The senior notes bear interest at 4.54% per annum payable semiannually and mature on January 31, 2049. The senior notes are unsecured and unsubordinated obligations of the Company. The Company received net proceeds, after deducting issuance costs, of approximately $19,820. The net proceeds were used to refinance the $11,000 aggregate principal amount of the Company's 10.17% Series A Senior Notes due February 1, 2019 and the 9.60% Series B Senior Notes due February 1, 2019, and to refinance line of credit borrowings incurred by the Company as interim financing for various capital projects of the Company.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's President and Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based upon this evaluation, the Company's President and Chief Executive Officer along with the Chief Financial Officer concluded that the Company's disclosure controls and procedures as of the end of the period covered by this report are effective such that the information required to be disclosed by the Company in reports filed under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to the Company's management, including the President and Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding disclosure. A controls system cannot provide absolute assurance, however, that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

No change in the Company's internal control over financial reporting occurred during the Company's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management evaluated the Company's internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework (2013 framework)*. As a result of this assessment and based on the criteria in the COSO framework, management has concluded that, as of December 31, 2018, the Company's internal control over financial reporting was effective.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Directors of the Registrant

The information set forth under the caption "Election of Directors" of the 2019 Proxy Statement is incorporated herein by reference.

Executive Officers of the Registrant

The information set forth under the caption "Executive Officers of the Company" of the 2019 Proxy Statement is incorporated herein by reference.

Compliance with Section 16(a) of the Exchange Act

The information set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" of the 2019 Proxy Statement is incorporated herein by reference.

Code of Ethics

The information set forth under the caption "Code of Ethics" of the 2019 Proxy Statement is incorporated herein by reference.

Audit Committee

The information set forth under the caption "Board Committees and Functions" of the 2019 Proxy Statement is incorporated herein by reference.

Item 11. Executive Compensation.

The information set forth under the caption "Compensation of Directors and Executive Officers" of the 2019 Proxy Statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information for the equity compensation plan of the Company as of December 31, 2018:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders*	-	-	93,521
Equity compensation plans not approved by security holders	-	-	0

*Amounts are subject to adjustment to reflect stock dividends, stock splits, or other relevant changes in capitalization.

In addition, the Company has an employee stock purchase plan that allows employees to purchase stock at a 5% discount up to a maximum of 10% of their gross compensation. Under this plan, 65,639 authorized shares remain unissued as of December 31, 2018.

The information set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" of the 2019 Proxy Statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information set forth under the caption "Director Independence" of the 2019 Proxy Statement is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

The information set forth under the caption "Principal Accountant's Fees and Services" of the 2019 Proxy Statement is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) Certain documents filed as part of the Form 10-K.

1. The financial statements set forth under Item 8 of this Form 10-K.

Report of Independent Registered Public Accounting Firm
Balance Sheets as of December 31, 2018 and 2017
Statements of Income for Years Ended December 31, 2018 and 2017
Statements of Common Stockholders' Equity for Years Ended December 31, 2018 and 2017
Statements of Cash Flows for Years Ended December 31, 2018 and 2017
Notes to Financial Statements

2. Financial Statement schedules.

Schedule Number	Schedule Description	Page Number
II	Valuation and Qualifying Accounts for the years ended December 31, 2018 and 2017	61

The report of the Company's independent registered public accounting firm with respect to the financial statement schedule appears on page 21.

All other financial statements and schedules not listed have been omitted since the required information is included in the financial statements or the notes thereto, or is not applicable or required.

3. Exhibits required by Item 601 of Regulation S-K.

Exhibit Number	Exhibit Description	Page Number of Incorporation By Reference
3	Amended and Restated Articles of Incorporation	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 3.1 to Form 8-K dated May 4, 2010.
3.1	Amended and Restated By-Laws	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 3.1 to Form 8-K dated January 26, 2012.

Exhibit Number	Exhibit Description	Page Number of Incorporation By Reference
4.1	Dividend Reinvestment and Direct Stock Purchase and Sale Plan	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission on Form S-3 dated October 3, 2016 (File No. 333-213942).
4.2	Indenture, dated as of October 1, 2010, by and between The York Water Company and Manufacturers and Traders Trust Company, as trustee, relative to the $15,000,000 5.0% Monthly Senior Notes	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 4.1 to the Company's October 8, 2010 Form 8-K.
4.3	First Supplemental Indenture, dated as of October 1, 2010, by and between The York Water Company and Manufacturers and Traders Trust Company, as trustee (which includes the form of Note)	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 4.2 to the Company's October 8, 2010 Form 8-K.
10.1	Articles of Agreement Between The York Water Company and Springettsbury Township relative to Extension of Water Mains dated April 17, 1985	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.1 to the Company's 1989 Form 10-K.
10.2	Note Agreement relative to the $6,000,000 10.17% Senior Notes, Series A and $5,000,000 9.60% Senior Notes, Series B dated January 2, 1989	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 4.5 to the Company's 1989 Form 10-K.
10.3	Note Agreement relative to the $6,500,000 10.05% Senior Notes, Series C dated August 15, 1990	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 4.6 to the Company's 1990 Form 10-K.
10.4	Note Agreement relative to the $7,500,000 8.43% Senior Notes, Series D dated December 15, 1992	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 4.7 to the Company's 1992 Form 10-K.
10.5	Promissory Note between The York Water Company and the Pennsylvania Infrastructure Investment Authority for $800,000 at 1.00% dated August 24, 1999	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 4.2 to the Company's 2000 Form 10-K.

Exhibit Number	Exhibit Description	Page Number of Incorporation By Reference
10.6	Loan Agreement between The York Water Company and York County Industrial Development Authority, dated as of October 1, 2006 relative to the $10,500,000 4.75% Exempt Facilities Revenue Bonds	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.3 to the Company's September 15, 2009 Form 8-K.
10.7	Trust Indenture dated October 1, 2006 between the York County Industrial Development Authority and Manufacturers and Traders Trust Company, as trustee	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.4 to the Company's September 15, 2009 Form 8-K.
10.8	Variable Rate Loan Agreement between The York Water Company and Pennsylvania Economic Development Financing Authority, dated as of May 1, 2008 relative to the $12,000,000 Exempt Facilities Revenue Bonds	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.1 to the Company's May 12, 2008 Form 8-K.
10.9	Trust Indenture dated as of May 1, 2008 between Pennsylvania Economic Development Financing Authority and Manufacturers and Traders Trust Company, as trustee	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.5 to the Company's September 15, 2009 Form 8-K.
10.10	Reimbursement, Credit and Security Agreement, dated as of May 1, 2008 between The York Water Company and PNC Bank, National Association	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.3 to the Company's May 12, 2008 Form 8-K.
10.11	Loan Agreement between The York Water Company and Pennsylvania Economic Development Financing Authority, entered into April 25, 2014 and dated as of April 1, 2014 relative to the $14,880,000 4.50% Exempt Facilities Revenue Refunding Bonds	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.1 to the Company's April 28, 2014 Form 8-K.
10.12	Trust Indenture entered into April 25, 2014 and dated as of April 1, 2014 between Pennsylvania Economic Development Financing Authority and Manufacturers and Traders Trust Company, as trustee	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.2 to the Company's April 28, 2014 Form 8-K.
10.13	Loan Agreement between The York Water Company and York County Industrial Development Authority, entered into July 23, 2015 and dated as of July 1, 2015 relative to the $10,000,000 4.00% - 4.50% Exempt Facilities Revenue Bonds.	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.1 to the Company's July 24, 2015 Form 8-K.

Exhibit Number	Exhibit Description	Page Number of Incorporation By Reference
10.14	Trust Indenture entered into July 23, 2015 and dated as of July 1, 2015 between York County Industrial Development Authority and Manufacturers and Traders Trust Company, as trustee	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.2 to the Company's July 24, 2015 Form 8-K.
10.15*	Cash Incentive Plan	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.1 to the Company's January 28, 2005 Form 8-K.
10.16*	Form of Amended and Restated Change in Control Agreement made as of November 5, 2008 between The York Water Company and each of the individuals listed on a schedule attached thereto, which plans are identical in all material respects except as indicated in Schedule 10.16	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.16 to the Company's March 6, 2018 Form 10-K.
10.17*	Form of Amended and Restated Supplemental Retirement Plan made as of January 1, 2009 between The York Water Company and each of the individuals listed on a schedule attached thereto, which plans are identical in all material respects except as indicated in Schedule 10.17	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.17 to the Company's March 6, 2018 Form 10-K.
10.18*	Form of Amended and Restated Deferred Compensation Plan made as of July 1, 2015 between The York Water Company and each of the individuals listed on a schedule attached thereto, which plans are identical in all material respects except as indicated in Schedule 10.18	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.18 to the Company's March 6, 2018 Form 10-K.
10.19*	Form of Amended and Restated Deferred Compensation Plan made as of January 1, 2009 between The York Water Company and each of the individuals listed on a schedule attached thereto, which plans are identical in all material respects except as indicated in Schedule 10.19	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.19 to the Company's March 8, 2011 Form 10-K.
10.20*	Long-Term Incentive Plan	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission on Form S-8 dated May 11, 2016 (File No. 333-211287).

Exhibit Number	Exhibit Description	Page Number of Incorporation By Reference
10.21*	Employee Stock Purchase Plan	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.21 to the Company's March 7, 2017 Form 10-K.
10.22	Note Agreement relative to the $20,000,000 4.54% Senior Notes, dated January 31, 2019	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 10.1 to the Company's February 5, 2019 Form 8-K.
14	Company Code of Conduct	Incorporated herein by reference. Filed previously with the Securities and Exchange Commission as Exhibit 14 to the Company's August 6, 2014 Form 10-Q.
23	Consent of Baker Tilly Virchow Krause, LLP, Independent Registered Public Accounting Firm	Filed herewith.
31.1	Certification pursuant to Rule 13a-15(f) and 15d-15(f)	Filed herewith.
31.2	Certification pursuant to Rule 13a-15(f) and 15d-15(f)	Filed herewith.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Filed herewith.
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Filed herewith.
101.INS	XBRL Instance Document	Filed herewith.
101.SCH	XBRL Taxonomy Extension Schema	Filed herewith.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase	Filed herewith.
101.DEF	XBRL Taxonomy Extension Definition Linkbase	Filed herewith.
101.LAB	XBRL Taxonomy Extension Label Linkbase	Filed herewith.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase	Filed herewith.

* Management contracts and compensatory plans or arrangements required to be filed as exhibits pursuant to Item 15(a)(3) of this Annual Report.

Item 16. Form 10-K Summary.

None.

THE YORK WATER COMPANY

SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS

FOR THE TWO YEARS ENDED DECEMBER 31, 2018

Description	Balance at Beginning of Year	Additions: Charged to Cost and Expenses	Additions: Recoveries	Deductions	Balance at End of Year
FOR THE YEAR ENDED DECEMBER 31, 2018					
Reserve for uncollectible accounts	$305,000	$250,884	$57,633	$308,517	$305,000
FOR THE YEAR ENDED DECEMBER 31, 2017					
Reserve for uncollectible accounts	$305,000	$290,897	$25,900	$316,797	$305,000

The Deductions column above represents write-offs of accounts receivable during the applicable year.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

THE YORK WATER COMPANY
(Registrant)

Dated: March 11, 2019

By: /s/Jeffrey R. Hines
Jeffrey R. Hines
President and CEO

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/Jeffrey R. Hines
Jeffrey R. Hines
(Principal Executive Officer
and Director)

Dated: March 11, 2019

By: /s/Matthew E. Poff
Matthew E. Poff
(Principal Accounting Officer
and Chief Financial Officer)

Dated: March 11, 2019

Directors:	Date:
By: /s/James H. Cawley James H. Cawley	March 11, 2019
By: /s/Cynthia A. Dotzel Cynthia A. Dotzel	March 11, 2019
By: /s/Michael W. Gang Michael W. Gang	March 11, 2019
By: /s/Jeffrey R. Hines Jeffrey R. Hines	March 11, 2019
By: /s/George W. Hodges George W. Hodges	March 11, 2019
By: /s/George Hay Kain, III George Hay Kain, III	March 11, 2019
By: /s/Jody L. Keller Jody L. Keller	March 11, 2019
By: /s/Erin C. McGlaughlin Erin C. McGlaughlin	March 11, 2019
By: /s/Robert P. Newcomer Robert P. Newcomer	March 11, 2019
By: /s/Steven R. Rasmussen Steven R. Rasmussen	March 11, 2019
By: /s/Ernest J. Waters Ernest J. Waters	March 11, 2019

EXHIBIT 23

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements on Form S 3 (File No. 333 213942) and Forms S-8 (File Nos. 333 191497 and 333 211287) of The York Water Company of our report dated March 12, 2019, relating to the financial statements, the financial statement schedule and the effectiveness of internal control over financial reporting, which appear in this Form 10-K.

/s/Baker Tilly Virchow Krause, LLP
York, Pennsylvania
March 12, 2019

EXHIBIT 31.1
CERTIFICATIONS

I, Jeffrey R. Hines, certify that:

1. I have reviewed this report on Form 10-K of The York Water Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 11, 2019

/s/Jeffrey R. Hines
Jeffrey R. Hines
President and CEO

EXHIBIT 31.2
CERTIFICATIONS

I, Matthew E. Poff, certify that:

1. I have reviewed this report on Form 10-K of The York Water Company;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 11, 2019

/s/Matthew E. Poff
Matthew E. Poff
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of The York Water Company on Form 10-K for the period ending December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jeffrey R. Hines, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

THE YORK WATER COMPANY

/s/Jeffrey R. Hines
Jeffrey R. Hines
Chief Executive Officer

Date: March 11, 2019

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of The York Water Company on Form 10-K for the period ending December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Matthew E. Poff, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

THE YORK WATER COMPANY

/s/Matthew E. Poff
Matthew E. Poff
Chief Financial Officer

Date: March 11, 2019

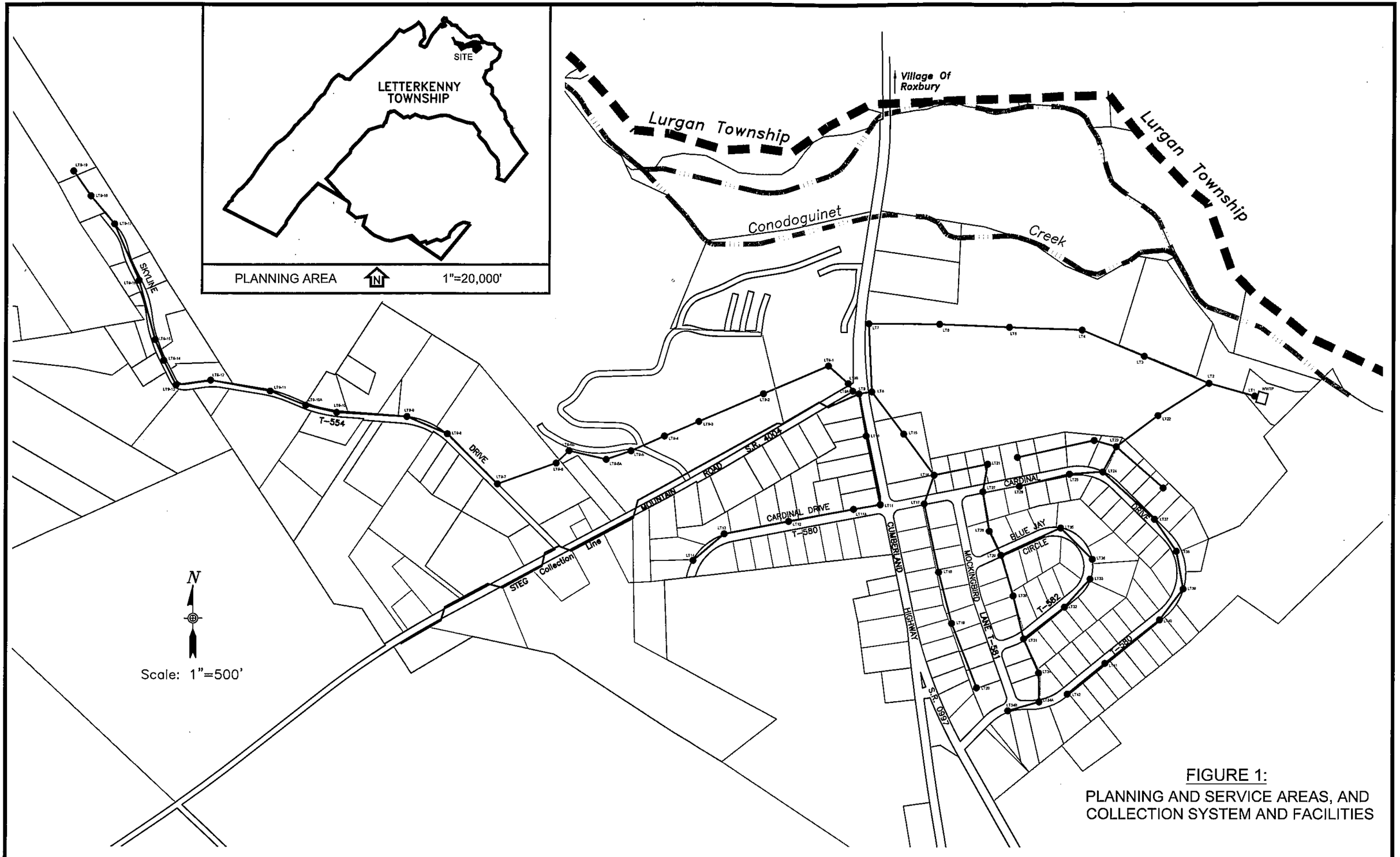
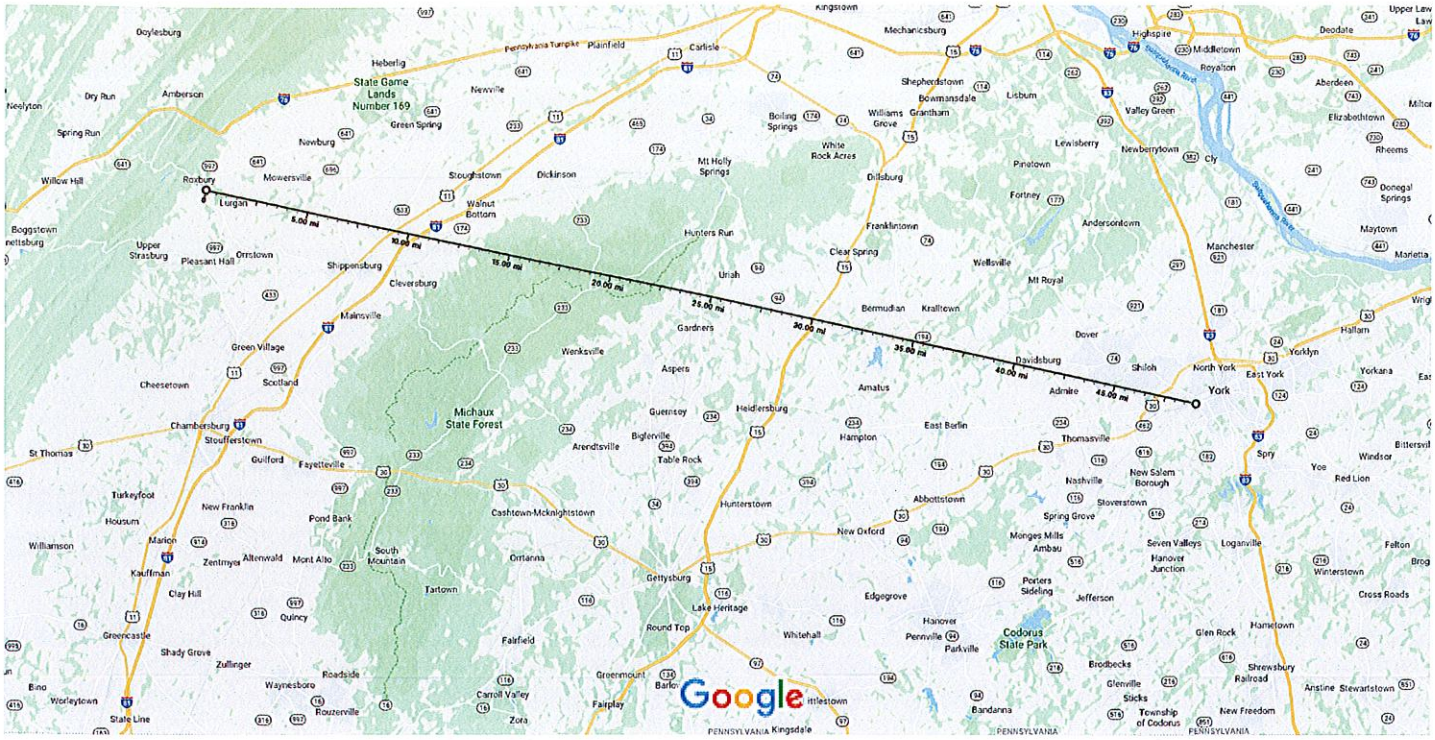


FIGURE 1:
PLANNING AND SERVICE AREAS, AND
COLLECTION SYSTEM AND FACILITIES

Exhibit “W”

Google Maps



Map data ©2020 2 mi

Measure distance

Total distance: 49.06 mi (78.95 km)

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA :
: SS.
COUNTY OF YORK :

JOSEPH T. HAND, being duly sworn according to law, deposes and states that he is President and Chief Executive Officer of THE YORK WATER COMPANY; that he is authorized to and does make this affidavit for it; and that the facts set forth herein are true and correct to the best of his knowledge, information and belief; and that he expects THE YORK WATER COMPANY to be able to prove the same at any hearing hereof.

Joseph T. Hand

SWORN TO AND SUBSCRIBED

before me this _30th___ day

of ___March _____, 2020.

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Natalee Colon, Notary Public
City of York, York County
My Commission Expires March 30, 2021
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Notary Public

My Commission Expires: 3/30/2021