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File #: 190904

April 12, 2022

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) acquire certain public wastewater facilities from Franklin County General Authority and the Letterkenny Industrial Development Authority; and (2) begin to offer, render, furnish and supply wastewater service to the public in portions of Letterkenny, Greene, and Hamilton Townships, Franklin County, Pennsylvania
Docket No. A-2021-3029945

Dear Secretary Chiavetta:

Attached for filing is The York Water Company's ("York Water") Response to the Data Requests of the Pennsylvania Public Utility Commission's Bureau of Technical Services ("TUS") Set I, No. 9 as well as Attachment 1 to that Response in the above-referenced proceeding.

Respectfully submitted,

Devin Ryan

DR/kls
Enclosures

cc: Clinton McKinley (via email – *cmckinley@pa.gov*)

TUS Data Request Set 1
Application of The York Water Company - Wastewater for approval of the rights to: (1) acquire certain wastewater facilities from Franklin County General Authority and the Letterkenny Industrial Development Authority; and (2) begin to offer, render, furnish and supply wastewater service to the public in portions of Letterkenny, Greene, and Hamilton Townships, Franklin County, Pennsylvania, at Docket No. A-2021-3029945

DISCOVERY A-9

A-9 Please demonstrate and provide evidence the Application is consistent with the Department of Environmental Protection (DEP)-approved Act 537 Official Sewage Facilities Plan (Act 537 Plan) of each affected municipality. Please include copies of each municipality's DEP-approved Act 537 Plan and any relevant revisions or supplements and approval or exemption letters.

RESPONDENT:

Mark A Wheeler
Chief Operating Officer

RESPONSE:

York-WW made effort to obtain the requested Act 537 Plans from the referenced municipal entities: Letterkenny Township, Greene Township, and Hamilton Township.

Letterkenny Township – Please see **Attachments 1 and 2** for copies of the 2003 Act 537 Plan and 2019 Act 537 Plan Update, respectively. The Letterkenny Township Act 537 Plan and Update do not specifically address any sewerage needs associated with the Letterkenny Army Depot facility.

Greene Twp – Please see **Attachment 3** for a copy of the2013 Act 537 Plan Update. Greene Township officials were unable to provide York Water with a copy of any Act 537 Plan prior to the 2013 Act 537 Plan Update. The 2013 Act 537 Plan Update describes revisions that are needed to serve the existing customers within the established service area. There is no indication of serving any sewerage needs for the Letterkenny Army Depot.

Hamilton Township – Please see **Attachment 4** for a copy of the 2006 Act 537 Plan Update. Hamilton Township officials were unable to provide York Water with a copy of any Act 537 Plan prior to the 2006 Act 537 Plan Update. The 2006 Act 537 Plan Update describes the existing and anticipated sewerage needs for Hamilton Township residents. The Plan Update provides no indication of the need to serve the Letterkenny Army Depot. A review of the included plan maps indicates that the Letterkenny Army Depot is located outside of the Primary and Secondary Growth areas designated for the township.

File

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

3920-PM-WQ0002 Rev. 6/97

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 .

Discovery A-9 - Attachment 1

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).

Discovery A-9 - Attachment 1

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)

Discovery A-9 - Attachment 1

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).

Discovery A-9 - Attachment 1

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).

Discovery A-9 - Attachment 1

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.

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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)

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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.

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____	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

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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)

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		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.

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	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.

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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

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VI. Evaluation of Alternatives

A. Technically feasible alternatives
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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
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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
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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:
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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
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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.

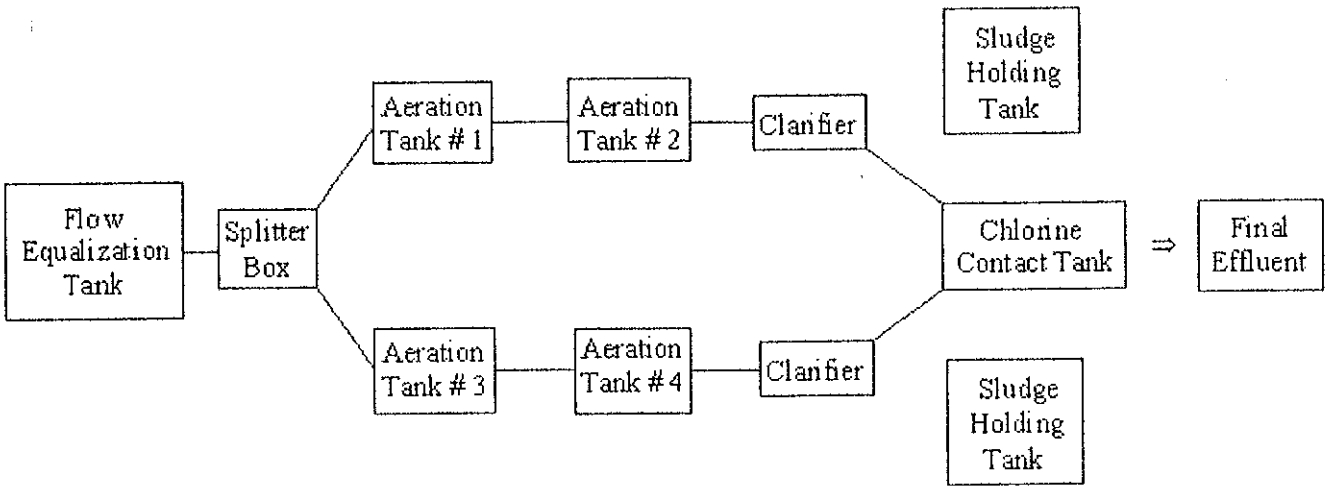
The U.S. Army currently maintains ownership of the treatment facilities, service lines, and rights-of-way in the Letterkenny Army Depot. However, operation of the facilities has been turned over to FCGA, and at some later date, ownership will also be turned over. Currently, there are two plants permitted 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

Upper Strasburg

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

Upper Strasburg

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

Upper Strasburg

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

Upper Strasburg

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

Upper Strasburg

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

Upper Strasburg

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

Upper Strasburg

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

Upper Strasburg

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

Upper Strasburg

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

Pleasant Hall

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

Pleasant Hall

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

Pleasant Hall

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

Pleasant Hall

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

Pleasant Hall

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

Pleasant Hall

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

Pleasant Hall

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

Pleasant Hall

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

Combination (1D + 2A)

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

Combination (1D + 2A)

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

Combination (1D + 2A)

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.

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

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.

Discovery A-9 - Attachment 1

SALZMANN, DEPAULIS & FISHMAN, P.C.

BRYAN SALZMANN, ESQ.
STEVEN 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:

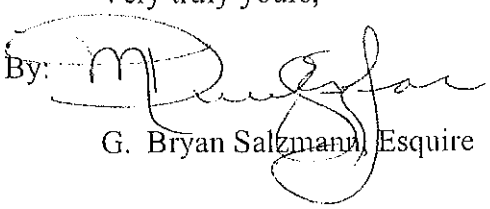
This correspondence is in response to the letter dated September 26, 2002 from Dennis E. Black Engineering, Inc. regarding the Authority's proposal to provide a sewer extension into Letterkenny Township to service the existing needs areas in the villages of Pleasant Hall and Upper Strasburg.

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

Discovery A-9 - Attachment 1

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.

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

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.

Discovery A-9 - Attachment 1

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

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LETTERKENNY TOWNSHIP
FRANKLIN COUNTY

Scale: 2000 1000 0 2000 4000

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

DETAIL "A"

DETAIL "B"

DETAIL "C"

DETAIL "A"
SCALE: 1" = 600'

DETAIL "B"
SCALE: 1" = 600'

DETAIL "C"
SCALE: 1" = 600'

KENSINGTON HEIGHTS and THE FOOTHILLS AT KENSINGTON

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

ROXBURY

Kay's Alterations

Ernie's American Express Parts

Garage

James Refrigeration

Timmon's Oil

Letterkenny Reservoir

R & A Bender

A & D Storage

Pleasant Hall Fire Department

Keffner's Camping Supplies

Township Building

Post Office

PLEASANT HALL

Mathnas Garage

Air Hill Storage

Air Hill (vacant)

DETAIL "A"

Letterkenny Elementary School

Ed Guyer Custom Butchery

L-L Storage Garage

UPPER STRASBURG

DETAIL "B"

Bear Valley Forest Authority Maintenance

STENGER

Horse Valley Gospel Mission

ROCKY SPRING

Church

DETAIL "C"

Upper Strasburg United Methodist Church

Emmanuel Luthern Church

Upper Strasburg Bible Church

Post Office

Full Gospel Mission Church of God

DETAIL "B"
SCALE: 1" = 600'

Pleasant Hall Fire Department

Post Office

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'

LEGEND

- Commercial
- Public/Quasi-Public Structures

PLATE 2

Discovery A-9 - Attachment 1

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
FREESTONE
ROCKY SPRING

Conodoguinet Creek
Letterkenny Reservoir
Cedar Lake
Dothan Run
Lehman 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 ROAD T-591
MT. ROCK ROAD T-588
CHURCH ROAD T-631
CREEK ROAD T-637
PARK ROAD T-635
ORRSTOWN S.R. 0533
LIMEKILN ROAD T-603
IRON BRIDGE ROAD T-598
ROTZ ROAD T-601
S.R. 0997
HIGHWAY
WYE ROAD T-592
NEWBURN ROAD
SANDY HILL ROAD
COMMUNITY ROAD T-478
S.R. 4004
VALLEY ROAD
HORSE SHOE ROAD T-556
LOWER ROAD
UPPER STRASBURG ROAD
STRASBURG ROAD
FOREST ROAD
SHANKSBROOK ROAD T-558
T-592
HORSE Creek ROAD
RUN S.R. 4001
BROAD FOREST ROAD
GILBERT ROAD T-553
CARRICK ROAD T-553
S.R. 4017
McKENDRICK DRIVE T-525
ROCKY SPRING ROAD
FUNK ROAD T-538
LAWYERS ROAD T-693
T-544
ROCKY BOUNDARY ROAD
KEEFER ROAD
539

N

Discovery A-9 - Attachment 1

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
SOIL LIMITATIONS

Scale:
2000 1000 0 2000 4000

N

LURGAN TOWNSHIP
ROXBURY
FANNETT TOWNSHIP
SOUTHAMPTON TOWNSHIP
GREENE TOWNSHIP
UPPER STRASBURG
METAL TOWNSHIP
LETTERKENNY ARMY DEPOT
HAMILTON TOWNSHIP
SAINT THOMAS TOWNSHIP

Conodoguinet Creek
Letterkenny Reservoir
Broad Run
Rocky Spring

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
ROXBURY
FANNETT TOWNSHIP
SOUTHAMPTON TOWNSHIP
GREENE TOWNSHIP
METAL TOWNSHIP
HAMILTON TOWNSHIP
SAINT THOMAS TOWNSHIP
LETTERKENNY ARMY DEPOT
PLEASANT HALL
UPPER STRASBURG
STENGER
ROCKY SPRING
FREESTONE

Conodoguinet Creek
Letterkenny Reservoir
Cedar Lake
Dothan Run
Lehman Run
Broad Run
Muddy Run
Rocky Spring

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-588
CREEK ROAD T-637
PARK ROAD T-635
CHURCH ROAD T-631
LIMEKILN ROAD T-603
IRON BRIDGE ROAD T-598
ROTZ ROAD T-601
McKENDRICK DRIVE T-525
LAWYERS ROAD T-537
KEEFER ROAD T-539
CLINK ROAD T-538
COMMUNITY ROAD T-718
GILBERT ROAD T-551
CARRICK ROAD T-553
SINKABOOK ROAD T-558
HORSE VALLEY ROAD T-556
LOWER VALLEY ROAD T-582
UPPER VALLEY ROAD
MOUNTAIN VIEW ROAD
FOREST ROAD
BROAD RUN ROAD
SANDY HOLLOW ROAD
CUMBERLAND HIGHWAY
CRESTOWN ROAD
S.R. 4004
S.R. 0997
S.R. 0533
S.R. 4001
S.R. 4017

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

DETAIL "A"

DETAIL "B"

DETAIL "C"

PLEASANT HALL

UPPER STRASBURG

STENGER

FREESTONE

ROCKY SPRING

Letterkenny Reservoir

Conodoguinet Creek

Dothan Run

Cedar Lake

Lehman Run

Broad Run

Muddy Run

Mud Run

Cedar Run

Spring Run

Rocky Spring Run

Sandy Run

Iron Run

Mountain Wye

Mockingbird Lane T-581

Cardinal Drive T-580

Blue Jay Circle T-582

Skyline Drive T-504

Short Road T-590

Tim Road T-693

Pine Road T-591

Church Road T-588

Creek Road T-637

Park Road T-633

Cumberland Highway

Orrstown S.R. 0533

Umeixlin Road T-603

Bridge Road T-596

Rotz Road T-601

S.R. 0997

Valley Road T-556

Horse Shoe Road T-555

Lower Strasburg Road

Upper Strasburg Road

Forest Road T-382

Shinnebrook Road T-382

Gilbert Road T-351

Carrick Road T-353

S.R. 4004

S.R. 4001

S.R. 4017

McKendrick Drive T-525

Rocky Spring Road T-538

Lawyers Road T-542

Keefer Road T-539

Boundary Road T-542

Funk Road T-542

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
ROXBURY
FANNETT TOWNSHIP
SOUTHAMPTON TOWNSHIP
GREENE TOWNSHIP
METAL TOWNSHIP
LETTERKENNY ARMY DEPOT
HAMILTON TOWNSHIP
SAINT THOMAS TOWNSHIP
STENGER
FREESTONE
PLEASANT HALL
ROCKY SPRING
UPPER STRASBURG
Letterkenny Reservoir
Conodoguinet Creek
Dogwood Run
Lehman Run
Dothan Run
Cedar Lane Creek
Broad Run
Brood Run

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

ROXBURY

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

SAINT THOMAS TOWNSHIP

HAMILTON TOWNSHIP

LETTERKENNY ARMY DEPOT

Scale: 2000 1000 0 2000 4000

DETAIL "A"

DETAIL "B"

DETAIL "C"

SCALE: 1" = 500'

LEGEND

NITRATE / NITROGEN CONTAMINATION

- < 5 ppm
- > 5 ppm
- 1/4 MI. RADIUS

PLATE 7B

Discovery A-9 - Attachment 1

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

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

Muddy Run

Broad Run

Furnace Run

Indian Run

Mt. Sandy Run

Rocky Spring Run

Spring Run

Iron Bridge Run

MOCKINGBIRD LANE T-581

CARDINAL DRIVE T-580

BLUE JAY CIRCLE T-582

SHORT ROAD T-590

SKYLINE DRIVE

TIM ROAD T-693

PINE ROAD T-591

CHURCH ROAD T-631

PARK ROAD T-635

CREEK ROAD T-637

LIMEKILN ROAD T-603

ROTZ ROAD T-601

IRON BRIDGE ROAD T-598

OBERTOWN ROAD

MT. SANDY ROAD T-588

WYE ROAD T-592

MOUNTAIN ROAD

VALLEY ROAD T-556

HORSE ROAD

LOWER STRASBURG ROAD

UPPER STRASBURG ROAD

FOREST ROAD T-552

SUNNYBROOK ROAD T-555

GILBERT ROAD T-551

CARRICK ROAD T-553

FOREST ROAD

BROAD ROAD

FOREST ROAD

RUN ROAD S.R. 4001

S.R. 4004

S.R. 0997

S.R. 0533

S.R. 4017

S.R. 533

McKENDRICK DRIVE T-525

SPRING ROAD

ROCKY SPRING ROAD

FUNK ROAD T-538

LAWYERS ROAD T-692

KEEFER ROAD T-539

BOUNDARY ROAD T-540

COMMUNITY ROAD T-478

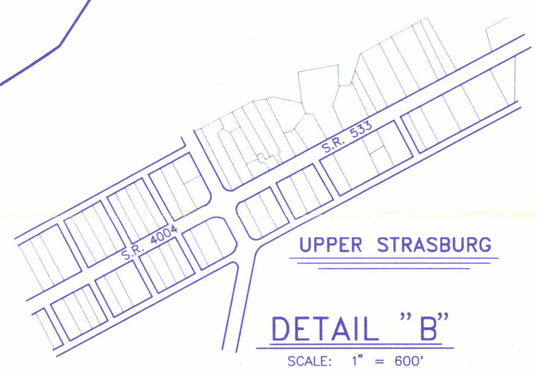
1 2 4 5 10 11 12 16 26 41 58 64 67 69 71 74 83 86 96 112 145

DETAIL "A"



SCALE: 1" = 600'

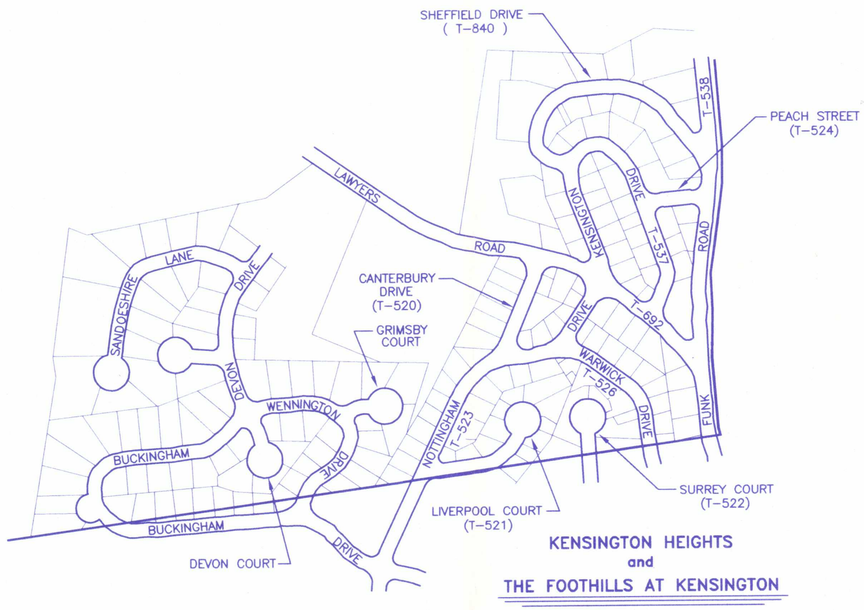
DETAIL "B"



UPPER STRASBURG

SCALE: 1" = 600'

DETAIL "C"



KENSINGTON HEIGHTS and THE FOOTHILLS AT KENSINGTON

SCALE: 1" = 600'

PLATE 8

TABLE 2

APPROVED SUBDIVISIONS SINCE 1972

(607.13.A)

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

Discovery A-9 - Attachment 1

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
GENERAL SOIL ASSOCIATIONS

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

Conodoguinet Creek
Letterkenny Reservoir
Dothan Run
Cedar Lake
Lehman Run
Muddy Run
Rocky Spring Run
Broad Run

MOCKINGBIRD LANE T-581
CARDINAL DRIVE T-580
BLUE JAY CIRCLE T-582
CUMBERLAND HIGHWAY
S.R. 0997
SKYLINE DRIVE T-554
SHORT ROAD T-590
TIM ROAD T-693
S.R. 4004
PINE ROAD T-591
MT. ROCK ROAD T-588
SANDY MOUNTAIN ROAD T-592
CHURCH ROAD T-631
CREEK ROAD T-637
PARK ROAD T-635
CUMBERLAND ROAD
ORRSTOWN S.R. 0533
IRON BRIDGE ROAD T-598
LIMEKILN ROAD T-603
ROTZ ROAD T-601
S.R. 0533
S.R. 0997
HIGHWAY
VALLEY ROAD T-556
HORSE SHOE ROAD
LOWER STRASBURG ROAD
UPPER STRASBURG ROAD
COMMUNITY ROAD T-478
S.R. 4004
STRASBURG ROAD
UPPER VALLEY ROAD
FOREST ROAD
SHINGLEBOX ROAD T-558
SHINGLEBOX T-552
FOREST ROAD
HORSE SHOE ROAD
GILBERT ROAD T-551
CARRICK ROAD T-553
UPPER BROAD RUN
BROAD RUN FOREST ROAD
S.R. 4001
S.R. 4017
McKENDRICK DRIVE T-525
ROCKY SPRING ROAD
FUNK ROAD T-538
LAWYERS ROAD T-697
ROCKY SPRING ROAD T-543
BOUNDARY
KEEFER ROAD T-539

① ② ③

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

Discovery A-9 - Attachment 1

Discovery A-9 - Attachment 1

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
AGRICULTURAL SECURITY AREAS/ PRIME AGRICULTURAL SOILS

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
STENGER
UPPER STRASBURG
PLEASANT HALL
FREESTONE
ROCKY SPRING

DETAIL "A"
DETAIL "B"
DETAIL "C"

LEGEND
- AGRICULTURAL SECURITY AREAS
- PRIME AGRICULTURAL SOILS

KENSINGTON HEIGHTS and THE FOOTHILLS AT KENSINGTON

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

Discovery A-9 - Attachment 1

LETTERKENNY TOWNSHIP
FRANKLIN COUNTY
FLOODPLAINS

Scale:
2000 1000 0 2000 4000

N

LURGAN TOWNSHIP

ROXBURY

Conodoguinet Creek

Letterkenny Reservoir

FANNETT TOWNSHIP

SOUTHAMPTON TOWNSHIP

GREENE TOWNSHIP

METAL TOWNSHIP

HAMILTON TOWNSHIP

SAINT THOMAS TOWNSHIP

LETTERKENNY ARMY DEPOT

UPPER STRASBURG

STENGER

PLEASANT HALL

ROCKY SPRING

FREESTONE

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

ORRSTOWN ROAD S.R. 0533

IRON BRIDGE ROAD T-598

ROTZ ROAD T-601

VALLEY ROAD T-556

HORSE LOWER ROAD T-556

UPPER STRASBURG ROAD

S.R. 4004

S.R. 0997

S.R. 4017

McKENDRICK DRIVE T-525

SPRING ROCKY ROAD

FUNK ROAD T-538

LAWYERS ROAD T-637

KEEFER ROAD T-539

BOUNDARY ROAD T-543

SINKING VALLEY ROAD T-558

FOREST ROAD T-552

GARRICK ROAD T-563

BROAD RUN ROAD S.R. 4001

FOREST ROAD

Dothan Run

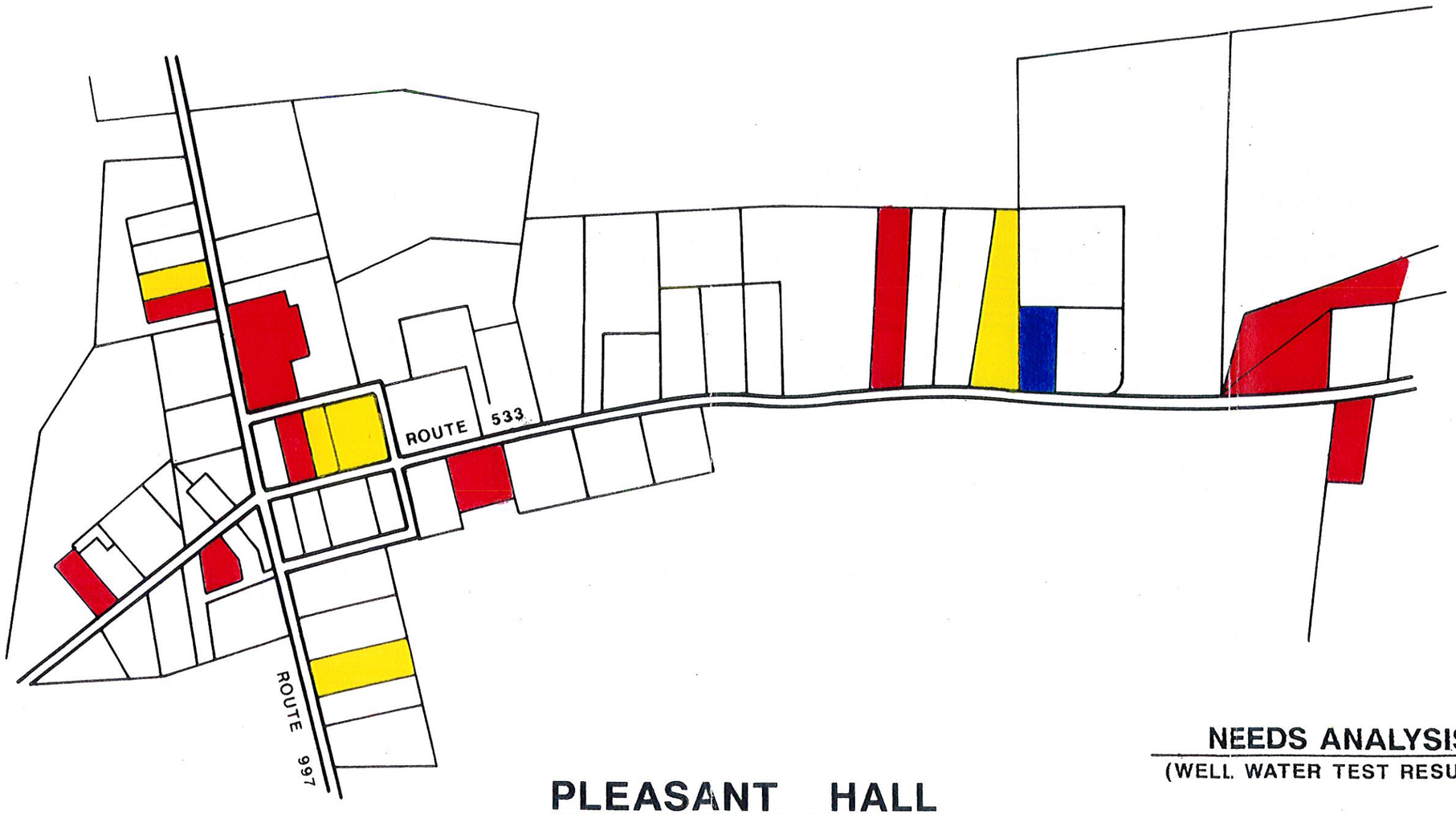
Lehman Run

Muddy Run

Broad Run

PLATE 14

PLATE 13A



PLEASANT HALL

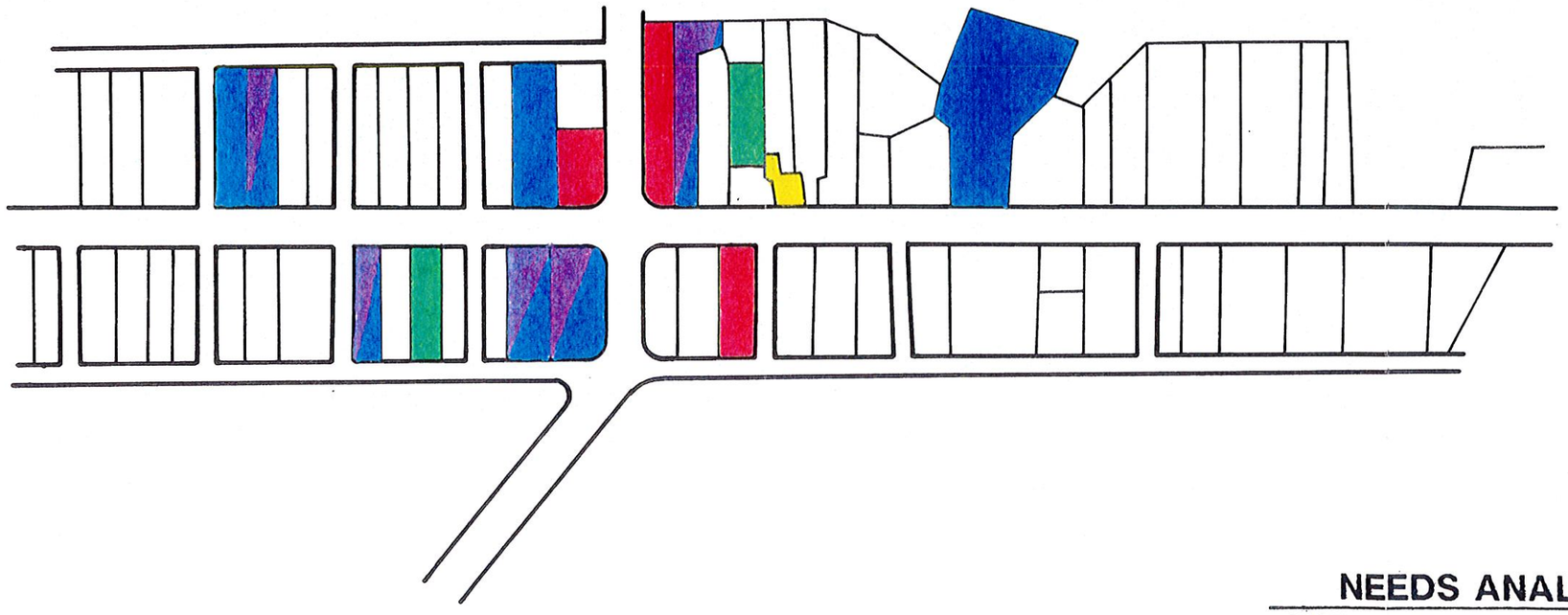
SCALE : 1" = 300´

NEEDS ANALYSIS
(WELL WATER TEST RESULTS)

- COLIFORM CONTAMINATON
- COLIFORM & E.COLI CONTAMINATION
- NITRATE CONTAMINATION
- NITRATE & COLIFORM CONTAMINATION
- NO CONTAMINATION

Discovery A-9 - Attachment 1

PLATE 13B



NEEDS ANALYSIS
(WELL WATER TEST RESULTS)

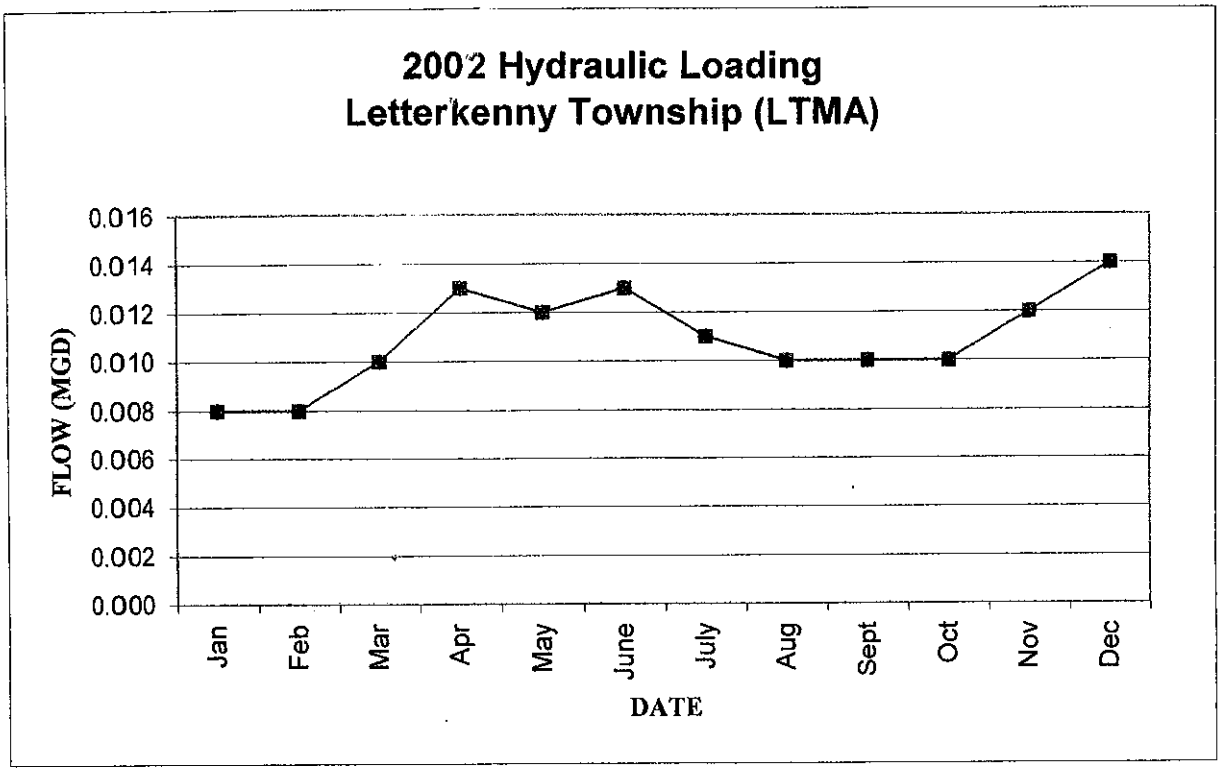
UPPER STRASBURG

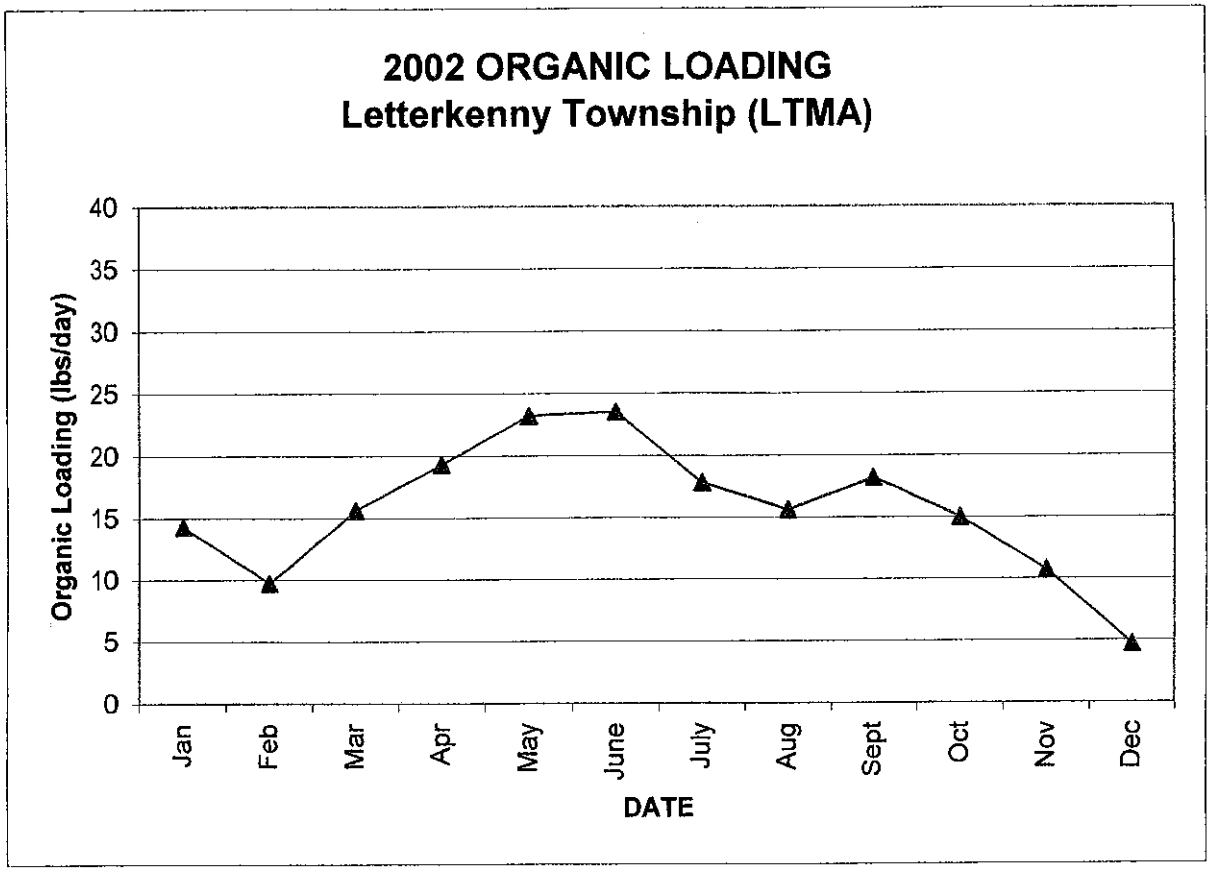
SCALE : 1' = 300´

- 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)
FLOW (MGD)
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Nov
Dec
DATE


2002 ORGANIC LOADING
Letterkenny Township (LTMA)
Organic Loading (lbs/day)
40
35
30
25
20
15
10
5
0
Jan
Feb
Mar
Apr
May
June
July
Aug
Sept
Oct
Nov
Dec
DATE

Discovery A-9 - Attachment 1

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 Hynes

TOWNSHIP SEAL

Discovery A-9 - Attachment 1

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.

Discovery A-9 - Attachment 1

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.

Discovery A-9 - Attachment 1

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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.
581

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

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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 areas within the 537 Plans 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. 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 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.
573

ANNOUNCEMENTS

NOTICES

NOTICE
Classified advertising is accepted, subject to rejection, provided satisfactory explanation and approval of then 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

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 552-8116. 352-9513, 352-2033

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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

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Atty. Reisman & Davis Pgh.
DIVORCE $185 TOTAL.
Uncontested. Free info.
No travel! 800-483-4070

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

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Quality custom built homes, additions, roofing, siding & remodeling. You name it we do it! Phone 376-2440.

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BUS TRIP
To See JOYCE MEYERS
June 3RD, Landover MD.
For more info. call Shelby at
(717)328-0709

MERCHANDISE

ABSOLUTELY FREE

KITTENS - Happy, Healthy. Litter Trained. Free to a good home. 263-0132

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free for hauling
(717)352-3403

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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.
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NEW/USED Refrig., freezers, washers, dryers, ranges, ect. 30 day guarantee. Will buy good used appl's Parts & Service. Keith Garber 375-2505

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WANTED:Jersey and Jersey cross bred Heifers, registered or grade, open or bred. (717) 349-2393 or 717-349-7732

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BAGS & MACHINES
717-328-3191

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Strawberries
at Covert's - You pick, We pick.
Hrs 7-7 Bring Containers 1/4mi South Fr. Co. Fairgrounds on Shimmelbridge Rd 369-4765

STRAWBERRIES
Pick Your Own
Starting May 25
Hrs. as picked
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 9-5; 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, w/ 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 Wrecker and Exit trucks Holds 128 $350 Bone trucks and Hess trucks (717)352-2944

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Complete family style, call for Inventory pricing 369-3004

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SPRING SALE ON BIG FAMILY SIZED POOLS
ID: 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

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The Beginning $25
Call 267-2398

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THIS OUT
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Looking for new students to teach. Call Rob 262-3145

USED SPINET PIANO
Priced to sell Shockey's 301-739-1211

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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/mix $250/frnl 485-0569

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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
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Kittens
$10/ea.
(717)709-0908

Kittens Playful, gray & black & white $5 ea.
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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

Have a BUNDLE
RUN YOUR AUTO AD FOR $1.50 PER DAY
(717) 264-6162
Call for details.

NOW HIRING
C N A's
• Pleasant Environment
Shippensburg
Health Care Center
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NEW AD TODAY
ADVERTISING SALES
For Franklin County. Flexible hours. Call 301-733-1835 or FAX resume to 301-701-7722

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. pref. but not nec. Send resume w/refer. to:
PERFECT 10 NAIL SALON
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No Phone Calls Please

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 retires 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
Hooker 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

DAIRY FARM HELP, FT, milking & feeding, some field work, 5-1/2 days/wk. 530-9488



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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. toys, little ones basket, bed, bike, fisher, tractor, toddler dollhouse bed, Beanie Baby & bundles, and more. Xmas tree decor, etc & more!

GREENCASTLE
155 ADDISON AVE
JUNE 1, & 2,
8AM-4PM
JUNE 3, 8AM-3PM
RAIN or SHINE
VERY LARGE SALE
Furniture, luggage, antiques, collectibles, bedroom dressers, 3 porch rockers,

CALL THE EXPERTS!

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.

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Discovery A-9 - Attachment 1

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

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LEGALS

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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

Discovery A-9 - Attachment 1

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.

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

FC
PC

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

_____

_____

_____

Discovery A-9 - Attachment 1

APPENDIX D

EXISTING ORDINANCES THAT CONTROL DEVELOPMENT

Subdivision and Land Development Ordinance

Sewer Connection Ordinance

Sewer Inspection Ordinance

Holding Tank and Privy Ordinance

Discovery A-9 - Attachment 1

LETTERKENNY TOWNSHIP

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

As Amended April 26, 1988

Discovery A-9 - Attachment 1

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Discovery A-9 - Attachment 1

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.

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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.

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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.

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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.

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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.

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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.

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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.

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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)

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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.

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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.

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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.

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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.

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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.

Discovery A-9 - Attachment 1

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.

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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.

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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.

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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.

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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.

Discovery A-9 - Attachment 1

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:

Beverly J. Babb
Secretary

(SEAL)

TOWNSHIP OF LETTERKENNY
Franklin County, Pennsylvania

By: Ross E. Gault
Chairman of the
Board of Supervisors

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

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

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 J. Myers
(Vice) Chairman of the Board of Supervisors

ATTEST:

Joann L. 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

Discovery A-9 - Attachment 1

APPENDIX F

NEEDS ANALYSIS SURVEY
WATER TEST RESULTS

WELL TEST RESULTS

PLEASANT HALL AREA

Discovery A-9 - Attachment 1

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. State: 17244 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: 6407 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 _____

(#159-B/47113-pg2)

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 _____

(#159-B/47113-pg2)

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: SFG, (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 Carlstown 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 _____

(#159-B/47113-pg2)

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 _____

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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 Rosenberger

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 _____

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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, (CI), UV, TF, Soft, Ion Ex.

Other: Charcoal filters

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 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 _____

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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 _____

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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 _____

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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 _____

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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: 7769 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 _____

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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: Boiling Springs 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 _____

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

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 _____

(#159-B/47113-pg2)

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: Ottstown 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 _____

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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 _____

Discovery A-9 - Attachment 1

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: 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? 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: Mabel Douglas

Street: 12403 Mountain Rd

City: Orbisonia 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 _____

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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: Ohnstown 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 _____

Discovery A-9 - Attachment 1

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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: (N) 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: Orbisonia 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: Owingsville State: Md 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 _____

Discovery A-9 - Attachment 1

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: 1191 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 _____

Discovery A-9 - Attachment 1

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 _____

Discovery A-9 - Attachment 1

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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: Onstown 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: Orrstown PA. State: 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? 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

(#159-B/47113-pg2)

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: Dresstown 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 _____

(#159-B/47113-pg2)

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 _____

(#159-B/47113-pg2)

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 _____

(#159-B/47113-pg2)

Needs Analysis Survey Form

Date 9/10/96 Lot Number 7B

Resident Home (Y) / N Access Denied _____

TO BE FILLED IN BY THE RESIDENT: Ross Peterson

Resident's Name: 11757 Tower Horse Val Rd.

Street: 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? 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 _____

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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 Ft²~~

Greater than 600 Ft²

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 Ft²~~

Greater than 600 Ft²

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, State: PA. 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 72

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 9/11/96 Lot Number 5C

Resident Home (Y) N Access Denied _____

TO BE FILLED IN BY THE RESIDENT:

Resident's Name: Wm J Henderson

Street: 9334 Yokut Hazel Valley Rd

City: Wheatland State: CA Zip: 95965

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, Other WATER ENTRY

Isolation Distance: Well 130 Property Line _____

(#159-B/47113-pg2)

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 ~~TORNBAU~~ 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 _____

(#159-B/47113-pg2)

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: Obstown 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 _____ 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 _____

(#159-B/47113-pg2)

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, 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? 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 _____

Discovery A-9 - Attachment 1

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 _____

(#159-B/47113-pg2)

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 _____

(#159-B/47113-pg2)

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 _____

(#159-B/47113-pg2)

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 _____

Discovery A-9 - Attachment 1

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 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, 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

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 _____

Discovery A-9 - Attachment 1

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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 28 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 _____

Discovery A-9 - Attachment 1

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 Pa 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 _____

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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 _____

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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 _____

(#159-B/47113-pg2)

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

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

APPENDIX H

CFJMA FEASIBILITY STUDY

DEC 18 2002
Discovery A-9 - Attachment 1

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.

Discovery A-9 - Attachment 1

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

Discovery A-9 - Attachment 1

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

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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

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Discovery A-9 - Attachment 1

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

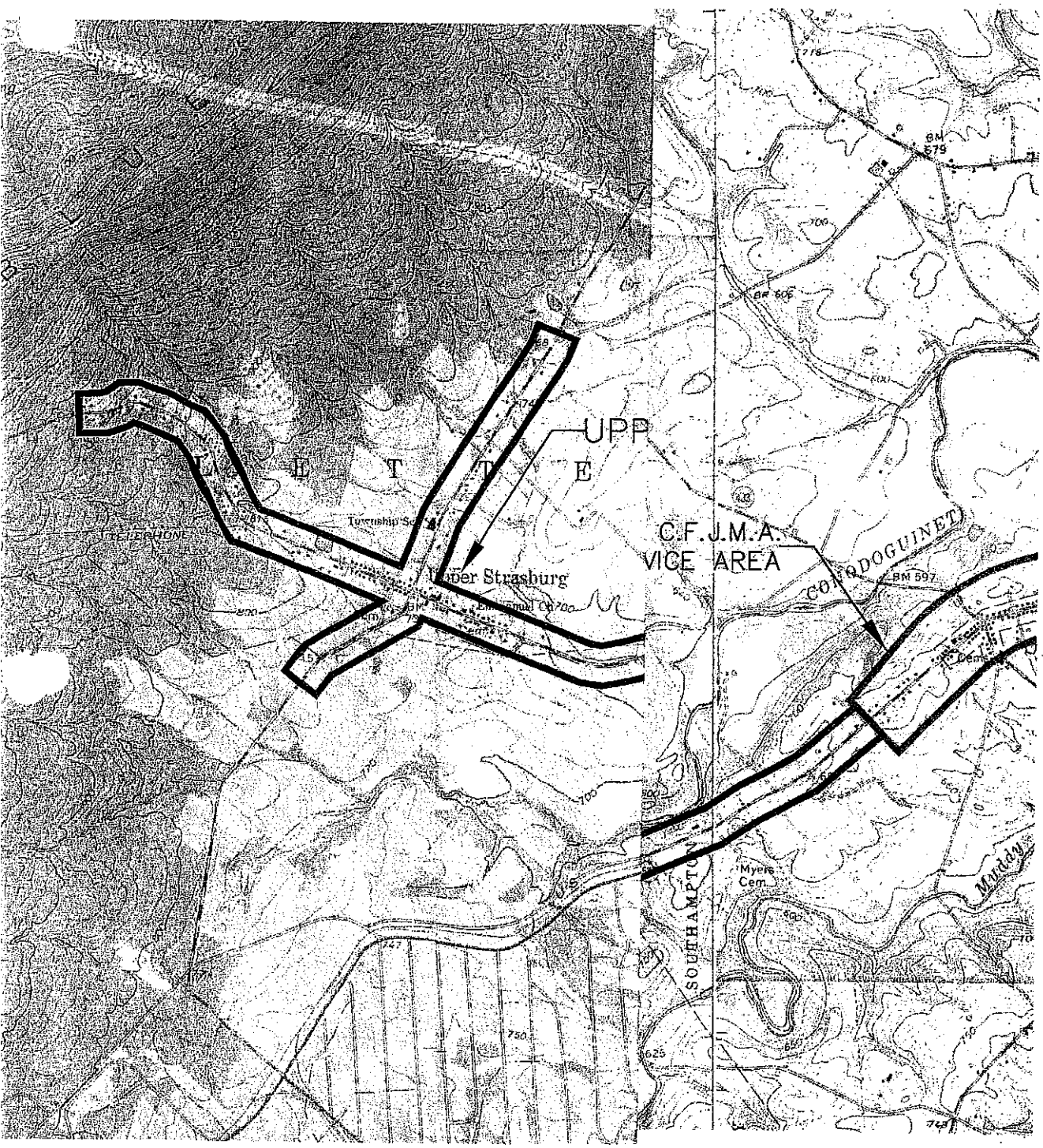
Assume 20 year loan at 4.5%

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%

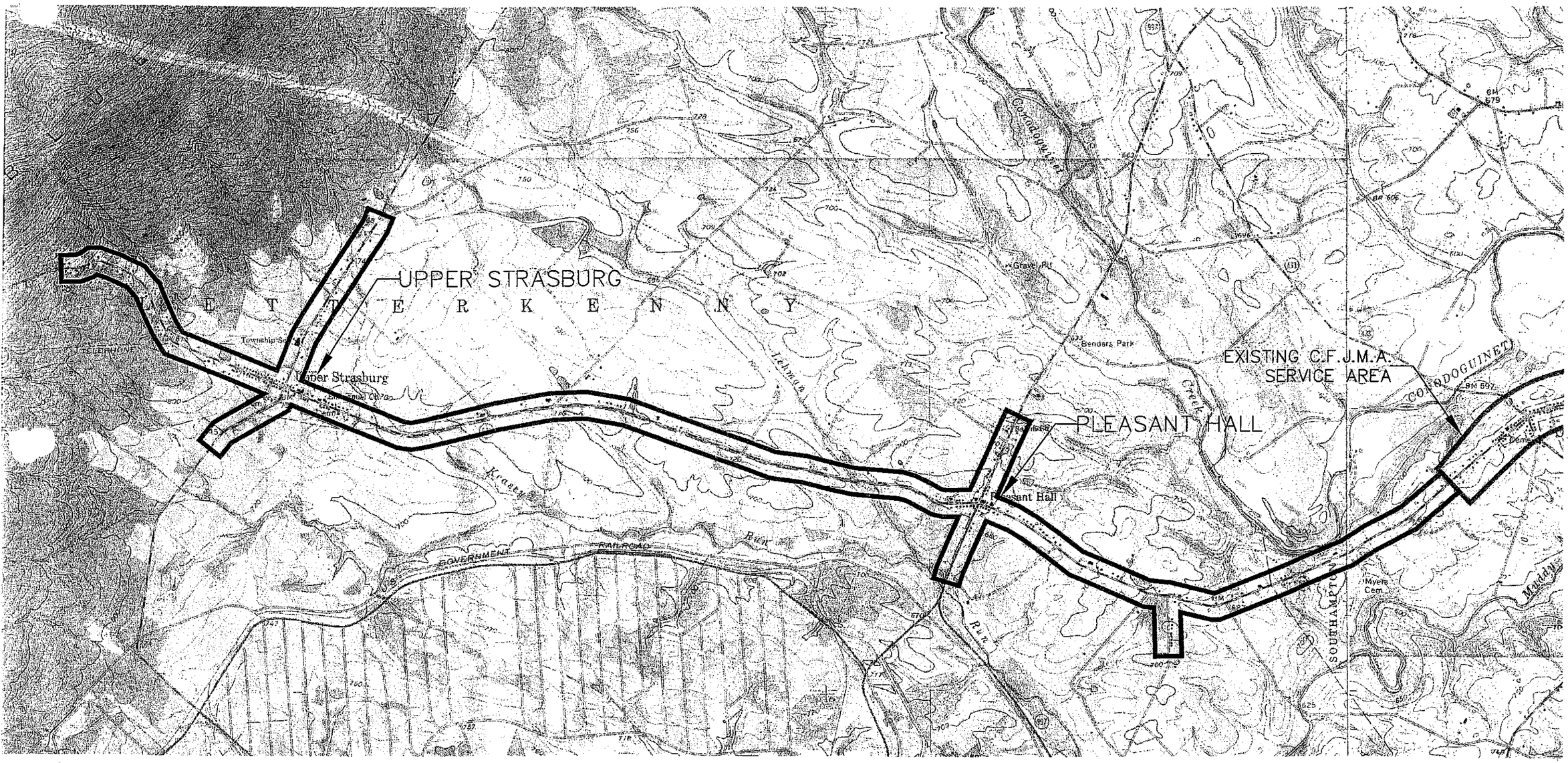
Amount to be financed	$ 4,441,653.13
Assuming 45% Grant	$ (1,998,743.91)
Amount to be financed after Grant	$ 2,442,909.22
Annual Cost to Township @ 4.5%	$ 185,461.00
Annual Operating and Maintenance Cost	$ 30,000.00
Total Annual Cost to Township	$ 215,461.00
Annual Cost per EDU	$ 894.03
Monthly Cost 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

VERIFICATION

I, Mark A. Wheeler, being Chief Operating Officer at The York Water Company, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter.

I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: April 12, 2022

Mark A. Wheeler