
EXHIBIT P6

MIDDLETOWN TOWNSHIP ACT 537 PLAN

MIDDLETOWN TOWNSHIP

Delaware County, Pennsylvania

Where all trails lead



27 N. PENNELL ROAD
LIMA, PA 19037

RECEIVED

MAR 28 2017

SEWAGE FACILITIES PLAN

UNDER

PENNSYLVANIA ACT 537

DUTTON MILL INTERCEPTOR COMPONENT 3m MINOR ACT 537 PLAN UPDATE REVISION

February 2017

Prepared by:

Bradford Engineering Associates, Inc.

2710 Concord Road, Suite 3

Aston, PA 19014

610.497.6200

610.500.5677 fax

info@bea-inc.com

MIDDLETOWN TOWNSHIP
COMPONENT 3m MINOR ACT 537 PLAN
UPDATE REVISION

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

Code No.

SEWAGE FACILITIES PLANNING MODULE FOR MINOR ACT 537 UPDATE REVISION

Component 3m. Municipal or Authority Sponsored Minor Sewage Collection Project

(Return completed module package to appropriate municipality)

| DEP USE ONLY | | | | |
|--------------|-------------|-----------|----------|-----------|
| DEP CODE # | CLIENT ID # | SITE ID # | APS ID # | AUTH ID # |
| | | | | |

This document provides a simplified planning format for municipalities and municipal authorities proposing the construction of a sewer extension primarily serving existing development. Typically, this format would be used for projects involving the extension of sewer service to no more than 100 equivalent dwelling units (EDUs) and where the majority of the project serves existing development. For projects where more than 50 percent of the proposed customers will result from new land development, a Component 3 Sewage Facilities Planning Module would typically be used. For larger projects or if the project would involve the construction or modification of a wastewater treatment facility, then a general Act 537 Update Revision, meeting all of the requirements of Title 25 Pennsylvania Code, Chapter 71 § 71.21, is appropriate.

DEP staff will make a final determination as to the appropriate type of planning for a given project based on the review of a plan of study. Eligibility for a grant to offset the cost of planning will be determined by DEP staff based upon review of a *Task/Activity Report* (3800-FM-BPNPSM0005). The project sponsor submits both documents. **DO NOT** use this form without coordinating with your local DEP staff. Refer to the instructions.

This planning document, along with any other documents specified in the cover letter, must be completed and submitted to the municipality with jurisdiction over the project site for review and approval. All required documentation must be attached for the Sewage Facilities Planning Module to be complete. Refer to the instructions for help in completing this component.

A. PROJECT INFORMATION (See Section A of instructions)

1. Project Name

Dutton Mill Interceptor Force Mains Relocation

2. Brief Project Description

Relocate the multiple force mains connected to the Dutton Mill Interceptor to a properly sized Interceptor

B. CLIENT (MUNICIPALITY) INFORMATION (See Section B of instructions)

| | | | | |
|-----------------------------------|------------|--------------------------|--------------------------|-------------------------------------|
| Municipality Name | County | City | Boro | Twp |
| Middletown Township | Delaware | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Municipality Contact - Last Name | First Name | MI | Suffix | Title |
| Clark | Bruce | | | Township Manager |
| Additional Individual - Last Name | First Name | MI | Suffix | Title |

| | | | |
|-------------------------------------|------------------------|------------------|--|
| Municipality Mailing Address Line 1 | Mailing Address Line 2 | | |
| 27 N. Pennell Raod | | | |
| Address Last Line - City | State | ZIP+4 | |
| Lima | PA | 19063 | |
| Phone + Ext. | FAX (optional) | Email (optional) | |
| 610 566-2700 | | | |

C. SITE INFORMATION (See Section C of instructions)

Site Name

Dutton Mill Interceptor

Site Location Line 1

Dutton Mill Road and New Middletown Road

Site Location Line 2

Site Location Last Line - City

State

ZIP+4

Latitude

Longitude

Media

PA

19063

39d 52' 44.7"

75d 23' 52.3"

Detailed Written Directions to Site

From US Rt 1 and SR 35, take SR 352 east approximately 2.1 miles to the site.

Description of Site

Sewer Interceptor located in Dutton Mill Road

Site Contact - Last Name

First Name

MI

Suffix

Phone

Ext.

Ibach

John

6105663063

Site Contact Title

Site Contact Firm (if none, leave blank)

Manager

MTSA

FAX

Email

jibach@middletownship.org

Mailing Address Line 1

Mailing Address Line 2

27 N. Pennell Road

Mailing Address Last Line - City

State

ZIP+4

Lima

PA

19063

D. PROJECT CONSULTANT INFORMATION (See Section D of instructions)

Last Name

First Name

MI

Suffix

Fazler

Walter

Title

Consulting Firm Name

Engineer

Bradford Engineering

Mailing Address Line 1

Mailing Address Line 2

2710 Concord Road

Suite 3

Address Last Line - City

State

ZIP+4

Country

Aston

PA

19014

USA

Email

Phone

Ext.

FAX

wfazler@bea-inc.com

6104976200

111

6105005677

E. AVAILABILITY OF DRINKING WATER SUPPLY (See Section E of instructions)

The project will be provided with drinking water from the following source: (Check appropriate box)

☐ Individual wells or cisterns.

☐ A proposed public water supply.

☒ An existing public water supply.

If existing public water supply is to be used, provide the name of the water company and attach documentation from the water company stating that it will serve the project.

Name of water company: Aqua

F. PROJECT NARRATIVE (See Section F of instructions)

- ☒ A narrative has been prepared as described in Section E of the instructions and is attached.

The applicant may choose to include additional information beyond that required by Section E of the instructions.

☐ **G. SEWAGE DISPOSAL NEEDS IDENTIFICATION** (See Section G of instructions)

Conduct sanitary and water supply surveys per DEP's publication entitled *Sewage Disposal Needs Identification*. This is highly recommended for all projects. It is required if PENNVEST funding is to be sought for the project, or if required by DEP as indicated by the checked box opposite this item.

H. EXISTING WASTEWATER FACILITIES (See Section H of instructions)

1. COLLECTION SYSTEM

Provide requested information concerning the existing treatment facility.

- a. Name of existing collection system Dutton Mill Interceptor
Clean Streams Law Permit Number
- b. Name of interceptor Chester Creek Interceptor
Clean Streams Law Permit Number 2316402

2. WASTEWATER TREATMENT FACILITY

Provide requested information concerning the existing treatment facility.

Name of existing facility DELCORA Wester Regional Treatment Plant
NPDES Permit Number for existing facility 27103

I. PROPOSED WASTEWATER FACILITIES (See Section I of instructions)

1. Provide an estimate of the immediate and five year projected flow from the proposed sewer extension. Address the capacity for this flow in the existing conveyance and treatment facilities in terms of the most recent wasteload management annual report for these facilities.

2. PLOT PLAN

The following information is to be submitted on a plot plan or map of the proposed project that clearly reflects the relationship between the proposed facilities and the identified features.

- | | |
|--|--|
| a. Existing and proposed buildings. | h. Existing and proposed streets, roadways, access roads, etc. |
| b. Lot lines and lot sizes. | i. Any designated recreational or open space area |
| c. Adjacent lots. | j. Wetlands - from National Wetland Inventory Mapping and USGS Hydric Soils Mapping. |
| d. Existing and proposed sewerage facilities. | k. Flood plains or Floodprone area soils, floodways, watercourses, water bodies (from Federal Flood Insurance Mapping) |
| e. Show tap-in or sewer extension to the point of connection to existing collection system. | l. Prime Agricultural Land. |
| f. Existing and proposed water supplies and surface water (wells, springs, ponds, streams, etc.) | m. Any other facilities (pipelines, power lines, etc.) |
| g. Existing and proposed rights-of-way. | n. Orientation to north. |

I. PROPOSED WASTEWATER FACILITIES (continued)

3. WETLAND PROTECTION

YES NO

- a. ☐ ☒ Are there wetlands in the project area? If yes, indicate these areas on the plot plan as shown in the mapping or through on-site delineation.
- b. ☐ ☒ Are there any construction activities (encroachments, or obstructions) proposed in, along, or through the wetlands? If yes, identify any proposed encroachments on wetlands and identify whether a General Permit or a full encroachment permit will be required. If a full permit is required, address time and cost impacts on the project. Note that wetland encroachments should be avoided where feasible. Also note that a feasible alternative **MUST BE SELECTED** to an identified encroachment on an exceptional value wetland as defined in Chapter 105. Identify any project impacts on HQ or EV streams and address impacts of the permitting requirements of said encroachments on the project.

4. PRIMARY AGRICULTURAL LAND PROTECTION

- a. ☐ ☒ Will your project involve the disturbance of any prime agricultural lands? If "yes" indicate any alternatives to this disturbance that were considered and the reasons they were not deemed feasible. Identify any primary or secondary impacts of the project on the Commonwealth's prime agricultural lands. Evaluate alternatives to avoid or mitigate undesirable impacts. The selected sewage facilities plan must be consistent with local measures in place to protect prime agricultural lands.

5. STORMWATER MANAGEMENT IMPACTS:

- a. ☐ ☒ Will the project impact an area covered by a DEP approved County Stormwater Management Plan? If yes show that the proposed facilities are consistent with that plan.

6. PENNSYLVANIA NATURAL DIVERSITY INDEX (PNDI) CONSISTENCY:

Check one:

- ☒ The "Pennsylvania Natural Diversity Inventory (PNDI) Project Environmental Review Receipt" resulting from my search of the PNDI database and all supporting documentation from jurisdictional agencies (when necessary) is/are attached.
- ☐ A completed "Pennsylvania Natural Diversity Inventory (PNDI) Project Planning & Environmental Review Form," (PNDI Form) available at www.naturalheritage.state.pa.us, and all required supporting documentation is attached. I request DEP staff to complete the required PNDI search for my project. I realize that my planning module will be considered incomplete upon submission to the Department and that the DEP review will not begin, and that processing of my planning module will be delayed, until a "PNDI Project Environmental Review Receipt" and all supporting documentation from jurisdiction agencies (when necessary) is/are received by DEP.

Applicant or Consultant Initials _____

7. COMPREHENSIVE PLAN CONSISTENCY:

- ☒ A narrative and mapping to show that the proposed project is consistent with any comprehensive plan developed under the Pennsylvania Municipalities Planning Code (Act 247) is attached. Document that the proposed project is consistent with land use and all other requirements stated in the comprehensive plan.

8. COOPERATION WITH PA. HISTORICAL AND MUSEUM COMMISSION (PHMC):

- ☒ A copy of DEP's "Cultural Resource Notice" and map which were sent to the Commission and a copy of the Commission's response are attached. Note that the Commission may require archeological surveys if federal funds, including PENNVEST, will be used in the project. If PENNVEST funds are to be used, DEP cannot recommend the project to PENNVEST for consideration until any required surveys have been done and the project has been "cleared" by the Commission.

9. ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS:

- ☐ A copy of the additional information is attached. If PENNVEST funding is to be sought for the project, address these additional items in terms of any project impacts and measures to avoid or mitigate same.
- Cost Effectiveness
 - Air quality
 - Floodplains
 - Wild and scenic rivers
 - Coastal zone management
 - Socio-economic impacts
 - Water supplies
 - Other environmentally sensitive areas

J. ALTERNATIVE SEWAGE FACILITIES ANALYSIS (See Section J of instructions)

- ☒ An alternative sewage facilities analysis has been prepared as described in Section J of the instructions and is attached.

The applicant may choose to include additional information beyond that required by Section J of the instructions.

K. CHAPTER 94 CONSISTENCY DETERMINATION (See Section K of instructions)

- ☒ Projects that propose the use of existing municipal collection, conveyance or wastewater treatment facilities, or the construction of collection and conveyance facilities to be served by existing municipal wastewater treatment facilities must be consistent with the requirements of Chapter 94 of DEP's rules and regulations (relating to Municipal Wasteload Management). If more than one municipality or authority will be affected by the project, please obtain the information required in this section for each. Additional sheets may be attached for this purpose.

1. Project Flows 0 gpd

2. Total Sewage Flows to Facilities

- a. Enter average and peak sewage flows for each proposed or existing facility as designed or permitted.
- b. Enter the present average and peak sewage flows for the critical sections of existing facilities.
- c. Enter the average and peak sewage flows projected for 5 years through the critical sections of existing facilities which includes existing, proposed, or future projects.

To complete the table, refer to Section K of instructions.

| | a. Design and/or Permitted Capacity (gpd) | | b. Present Flows (gpd) | | c. Projected Flows in 5 years (gpd) | |
|--------------|---|-----------|------------------------|-----------|-------------------------------------|-----------|
| | Average | Peak | Average | Peak | Average | Peak |
| Conveyance 1 | 3112000 | 9336000 | 0 | 0 | 2208000 | 552000 |
| Conveyance 2 | 6.7 MGD | 16.7 MGD | 4.50 MGD | 10.00 MGD | 4.90 MGD | 10.80 MGD |
| Treatment | 50.0 MGD | 105.0 MGD | 37.72 MGD | 71.27 MGD | 37.29 MGD | 70.48 MGD |

3. Collection and Conveyance Facilities

The questions below are to be answered by the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities. These questions should be answered in coordination with the latest Chapter 94 annual report and the above table.

This project proposes sewer extensions or tap-ins. Will these actions create a hydraulic overload within five years on any existing collection or conveyance facilities that are part of the system? ☐ Yes ☒ No

a. If yes, this sewage facilities planning module will not be accepted for review by the municipality, delegated local agency and/or DEP until all inconsistencies with Chapter 94 are resolved or unless there is an approved plan and schedule granting an allocation for this project. A letter granting allocations to this project under the plan and schedule must be attached to the module package.

Dutton Mill Force Main will connect to SWDCMA Chester Creek Interceptor until MTSA Chester Creek Interceptor Phase 2 is constructed. No cert of cap was required from SWDCMA since

3800-FM-BPNPSM0353m 1/2013
Form

- b. If no, the sewer authority, municipality, or agency responsible for completing the Chapter 94 report for the collection and conveyance facilities must sign below to indicate that the collection and conveyance facilities have adequate capacity and are able to provide service to the proposed development in accordance with Chapter 94 requirements and that this proposal will not affect this status. ↓

- c. Conveyance System 1 MTSA CCI Phase 2

Name of Agency, Authority, Municipality Middletown Township Sewer Authority

Name of Responsible Agent BEA, Inc.

Agent Signature _____

Date 2/2/17

- d. Conveyance System 2 DELCORA - Chester Ridley Pump Station

Name of Agency, Authority, Municipality DELCORA

Name of Responsible Agent Robert Willert

Agent Signature Robert Willert

Date 2/16/17

K. CHAPTER 94 CONSISTENCY DETERMINATION (continued)

4. Treatment Facility

The questions below are to be answered by the facility permittee in coordination with the information in the table and the latest Chapter 94 report.

This project proposes the use of an existing wastewater treatment plant for the disposal of sewage. Will this action create a hydraulic or organic overload within 5 years at that facility? ☐ Yes ☒ No

- a. If yes, this planning module for sewage facilities will not be reviewed by the municipality, delegated local agency and/or DEP until this inconsistency with Chapter 94 is resolved or unless there is an approved plan and schedule granting an allocation for this project. A letter granting allocations to this project under the plan and schedule must be attached to the planning module.
- b. If no, the treatment facility permittee must sign below to indicate that this facility has adequate treatment capacity and is able to provide wastewater treatment services for the proposed development in accordance with Chapter 94 requirements and that this proposal will not impact this status

- c. Name of Agency, Authority, Municipality DELCORA

Name of Responsible Agent Robert Willert

Agent Signature Robert Willert

Date 2/16/17

L. INSTITUTIONAL EVALUATION (See Section L of instructions)

- ☒ An institutional evaluation is attached. Identify the entity which will design, obtain necessary permits, construct, own and operate the proposed facilities. If a low pressure vacuum or effluent sewer are proposed, discuss purchase, installation, operation and maintenance responsibilities for the individual pumping, valves, tanks, etc.

there is no ↑ in flow proposed as part of this plan nor any expansion of sewer service area.

Kellys

M. PROJECT COST AND FUNDING ANALYSIS (See Section M of instructions)

- ☒ A detailed cost estimate and present worth analysis for the project is attached. Provide a financing plan for the project, identifying the funding source(s) and identifying estimated tap fees and user rates. For projects proposing the use of PENNVEST funds, see Section I. 9. **ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS**. Complete the following table:

| | |
|---|------|
| Cost and Funding Information (Estimated) | |
| COST | |
| Construction cost | \$ |
| Administrative, legal, engineering cost | \$ |
| Total project cost | \$ |
| Annual O/M cost | \$ |
| FUNDING | |
| Tap-in fees (\$ per EDU X no. EDUs) | \$ |
| Proceeds from primary funding source | \$ |
| Proceeds from other funding sources | \$ |
| USER COSTS | |
| Initial user base | EDUs |
| Monthly debt service per EDU | \$ |
| Monthly O/M cost per EDU | \$ |
| Total estimated monthly user cost per EDU | \$ |

N. PROJECT IMPLEMENTATION SCHEDULE (See Section N of instructions)

- ☐ A project implementation schedule showing milestone dates for submission of DEP permit applications, initiation and completion of construction and any other milestones significant to this particular project is attached to this component

O. PUBLIC NOTIFICATION REQUIREMENT (See Section O of instructions)

- ☐ Attached is a copy of the public notice. All comments received as a result of the notice are attached.
- ☐ Municipal response to these comments is attached.
- ☒ No comments were received. A copy of the public notice is attached.

☐ **P. ADDITIONAL CHAPTER 71 PLANNING ELEMENTS** (See Section P of instructions)

a. Additional planning elements are required by DEP.

- _____
- _____
- _____
- _____
- _____

Q. PLANNING AGENCY REVIEW (See Section Q of instructions)

- ☒ Local Planning Commission comments or Component 4a are attached.
- ☒ County, Area, Or Region Planning Commission comments or Component 4b are attached.
- ☐ County or Joint County Health Department comments (if appropriate) or Component 4c are attached.

R. RESOLUTION OF ADOPTION (See Section R of instructions)

- ☒ An original, signed, and sealed Resolution of Adoption is attached.
-

July 14, 2015

Mr. W. Bruce Clark, Manager
Middletown Township
P.O. Box 157
Lima, PA 19037

Mr. John Ibach, Manager
Middletown Township Sewer Authority
P.O. Box 9
Lima, PA 19037

Re: Act 537 Planning
Dutton's Mill Interceptor
Middletown Township
Delaware County

Dear Messrs. Clark and Ibach:

This letter is in response to correspondence the Department of Environmental Protection ("DEP") received from Mr. Walter Fazler of Bradford Engineering Associates, Inc. ("BEA"), dated June 26, 2015, concerning the Dutton's Mill Interceptor. The letter states that the interceptor, an asbestos concrete pipe, has areas of severe deterioration, which is believed to have caused sanitary sewer overflows.

BEA has evaluated several alternatives to address the deterioration of the interceptor. The construction of a parallel sewer line is not possible, as a portion of the existing interceptor is located under the Sweeney Landfill, in excess of 30 feet deep.

The chosen alternative includes the following:

1. A new 10-inch sewer line will be constructed along South Old Middletown Road from Rhoads Lane to Dutton's Mill Road and along Dutton's Mill Road between South Old Middletown Road and Chester Creek Road.
2. The new interceptor will connect to the existing Chester Creek Interceptor at a location south of the existing connection.
3. The new interceptor will be constructed entirely within the road and/or road right-of-way.
4. Sewage flows from the Knowlton Road Pump Station, the Knowlton Charter Pump Station, and the Meadowbrook Pump Station will be diverted to the new interceptor.

Mr. W. Bruce Clark, Manager
Mr. John Ibach, Manager

- 2 -

July 14, 2015

5. The Middletown Township Sewer Authority ("MTSA") has requested that DEP allow the construction and operation of the new interceptor prior to the approval of the Act 537 Plan Update and prior to the issuance of the Water Quality Management Part II permit for the interceptor, due to the severe deterioration of the existing sewer line.
6. An Act 537 Plan Update for the new interceptor will subsequently be adopted by Middletown Township and submitted to DEP for our review. In addition, a Water Quality Management Part II permit application will be provided to DEP.
7. The McCall Heights area is a residential neighborhood in the vicinity of Harrison Road, Preston Road, and Dutton's Mill Road. Sewage generated by dwellings in this area will continue to be conveyed to the existing interceptor. An Act 537 Plan Update will be submitted to address the connection of this area to the new interceptor.

The construction and operation of the new Dutton's Mill Interceptor requires the issuance of the Water Quality Management Part II permit. The Department may exercise enforcement discretion if there is any construction in advance of permit approval due to the imminent threat of pollution from the deteriorated sewer line.

DEP requests that the required sewage facilities planning be submitted to DEP as soon as possible in order to address the needs in this area.

The Water Quality Management Part II permit application may be submitted with the Act 537 Plan Update or following the approval of the required sewage facilities planning.

If you have any questions, please contact me at 484.250.5190.

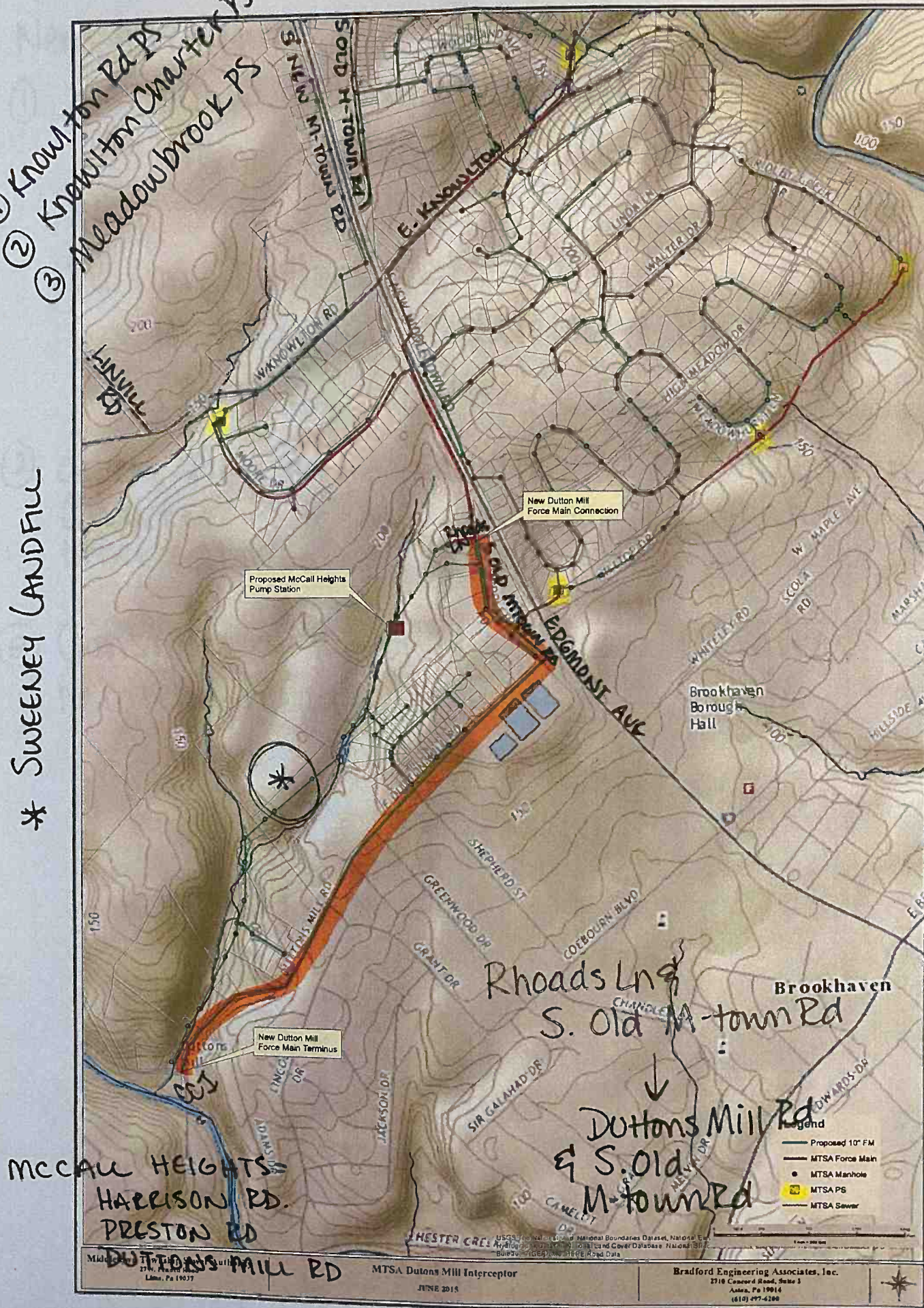
Sincerely,



Keith Dudley, P.E.
Environmental Engineer Manager
Municipal Planning and Finance Section
Clean Water

cc: Delaware County Planning Department
Mr. Fazler – Bradford Engineering Associates, Inc.
Ms. Sweeney
Planning Section
Re 30 (GJE15CLW)190-8

* SWEENEY LANDFILL



New interceptor... 10" line

- ① SE on S. Old Middletown Rd
from Rhoads Lane to Duttons Mill Rd
then
SW on Duttons Mill Rd
from S. Old Middletown Rd to Chester
Creek Rd. (at the CCI)
- ② divert flow from Knowlton Rd PS, Knowlton
Charter PS + Meadowbrook PS to new
interceptor
- ③ Construct a PS for the McCall Heights
neighborhood

Bradford Engineering Associates, Inc.

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Tel: 610.497.6200
Fax: 610.500.5677

June 26, 2015

MEMO

TO: Kelly Sweeney, PaDEP
FROM: Walter Fazler, Bradford Engineering Associates
CC: MTSA
RE: Middletown Township, Delaware County, Sewer Authority
Dutton Mill Interceptor

Dear Ms. Sweeney,

I am writing to you concerning the replacement of the Middletown Township Sewer Authority (MTSA) Dutton Mill Interceptor (DMI). Back in October of 2014, MTSA received approval of the Plan of Study for the Dutton Mill Interceptor. For financial and scheduling reasons, MTSA decided to postpone completion of this work until after the Chester Creek Interceptor project was completed.

In February of 2015, MTSA discovered the DMI became blocked causing an SSO. After several attempts to free the blockage it was decided that excavation the line was required. Since this sewer is asbestos concrete pipe, MTSA elected to install a new parallel section of sewer. Further investigation of the cause of the blockage revealed that the sewer line collapsed due to severe hydrogen sulfide deterioration of the AC pipe.

As a precautionary measure, it was decided that the remaining portion of the Interceptor should be televised to ascertain its condition. This work was scheduled with Aqua Wastewater Management and started in May of 2015.

Bradford Engineering Associates, Inc.

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Once again, in June, another SSO was discovered very near the location of the previous one described above. Again, all attempts to free the blockage were futile. A new parallel sewer pipe was installed to restore service.

A review of the remaining portions of the AC sewer pipe revealed that severe deterioration of the AC pipe has occurred. There are no indications of imminent failure, however, as we have seen in the recent past, this is not a guarantee that the pipe will not collapse again. Further more, there is a section of the DMI that was installed under the Sweeney Landfill. This sewer is in excess of 30 feet deep in unknown landfill material. If the DMI collapses under the Landfill, there will be no alternative to restore service other than by-pass pumping.

Bradford Engineering (BEA) performed a feasibility study to replace the DMI. The alternative of choice is to install a new force main in Dutton Mill Road and abandon a major portion of the existing DMI. This will require construction of a new pump station and force main to convey sewage from the McCall Heights section of the Township. See attached.

As we have discussed with you and the Department, the relocation of the DMI and installation of a new pump station will require a revision to the Township's Act 537 Plan. Middletown Township has delegated this task to MTSA and work is just about complete. Upon completion of the required PNDI requests, it was discovered that a threatened species is located in the vicinity of the work area. A clearance letter from Fish and Boat Commission will be required prior to submission of the Plan to PaDEP. In talking with our Environmental Scientist, this will take a number of months to complete.

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Due to conditions of the pipe and the recent history of collapses of the interceptor, we are concerned that another failure may be looming. In order to mitigate severe environmental impacts and to protect the health, safety and welfare of the residents in the area, MTSA is requesting relief from the normal planning and permitting process with the Department.

The planning work for the Dutton Mill Service area was studied in detail during the Planning process of the Chester Creek Interceptor projects. Ultimate flow has already been established.

We propose the following order of events:

1. Immediately install a new Dutton Mill force main from the intersection of Old Middletown Road and Rhodes Lane to the terminus of the existing DMI on Chester Creek Road. This will be the majority of the flow in the DMI. The McCall Heights section of the Township will remain in the DMI until full planning is complete. The new force main installation will be entirely in paved areas therefore there will be no impact on any threatened species. See attached plan.
2. An E&S permit will be obtained from the Delaware County Conservation District prior to the start of work.
3. Due to the amount of potential environmental impact and number of new easements required for the McCall Heights Pump Station, it is proposed that the normal planning process be followed. A Special Study for the new pump station and Dutton Mill force main will be completed as soon as possible pending the environmental work and governmental agency reviews.
4. Concurrent submission of the Act 537 Special Study and WQM permit application will take place as soon as possible.

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Tel: 610.497.6200
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Given the current state of the DMI, we hope that the chain of events described above is acceptable to the Department. If you have any suggestions or additional requirements, please feel free to add them.

Thank you in advance for your prompt review of this matter and if there are any questions concerning this matter, please don't hesitate to contact me.



Walter A. Fazler, P.E.

Bradford Engineering Associates, Inc.

2710 Concord Road, Suite 3
Aston, PA 19014
info@bea-inc.com

Tel: 610.497.6200
Fax: 610.500.5677

June 26, 2015

Mr. John Ibach
Middletown Township Sewer Authority
P.O. Box 9
Lima, PA 19037-0009

Re: Dutton Mill Interceptor

PN 100-02i

Dear Mr. Ibach,

We have completed our study of the Dutton Mill Interceptor. As background, earlier in the year, Aqua Wastewater Management, Inc. (Aqua), at your request, began televising the Dutton's Mill Interceptor from its beginning on Old Middletown Road to its terminus at the SWDCMA CCI near Creek Road.

The lower end of the interceptor is in a condition that would be expected on a 35+year-old interceptor. The section of the interceptor that traverses under the Sweeney landfill, did show deficiencies. Previous televising work showed an offset of the pipe under the landfill. Based on the current video, it appears that this offset may have worsened. The upper reaches of the interceptor showed significant damage due to sulfide attacks on the asbestos concrete (AC) pipe and concrete manholes. As you know, there was a section of the interceptor located near the Christian Academy property that collapsed. An emergency situation was declared and Aqua was engaged to do a full replacement of this section of the interceptor.

In addition to field inspection of the sewer system, we took the opportunity to verify capacity in the DMI. SewerCAD was used to model flow in the entire interceptor. Based upon this modeling, there are sections of the interceptor that have reached full flow capacity. This is also been confirmed in the field through observations. Based upon this information, the interceptor must be upgraded or flow must be removed.

There are several options available to the Authority to mitigate the problems in DMI:

Option one would be to parallel the existing interceptor with a new larger interceptor. A portion of the line would need to be routed around the Sweeney property in order to avoid excavation through the landfill.

Option two would be to divert all force main flow from the Knowlton Rd. pump station, the Knowlton charter pump station, and the Meadowbrook pump station. A new 10" force main would need to be installed along Old Middletown Road out to Dutton Mill Road to a connection point to the Chester Creek Interceptor. The existing DMI will need to be rehabilitated utilizing trenchless technology. Additionally a small pump station to convey the sewage from McCall Heights we need to be installed.

Option three involves pipe bursting the existing interceptor to enlarge it. In addition all of the manholes will need to be rehabilitated. Further investigation into the pipe bursting of AC pipe revealed that this option was not feasible since bursting will create a hazardous material. No further investigation into this option was completed.

Essentially two options are available to the Authority at this time. The following is a summary of the costs associated with both options:

Option 1 – New Gravity Interceptor - **\$1,850,000**

Option 2 – Relocate Force Main, New Pump Station - **\$1,680,000**

Following is a list of pros and cons for both options to aid Authority in making their decision:

Option 1 – Gravity

| Pros | Cons |
|--|---|
| Gravity flow generally has lower O&M costs | Additional easements may be difficult and expensive to obtain |
| Large amount of reserve capacity can be built into the new interceptor at minimal costs. | High environmental impacts. Installation is through heavily wooded areas. |
| Lower risk of SSO with gravity sewers | Location is in an area that is essentially hidden from the public so less people can notify the Authority of a problem. |

Option 2 – Relocate Force Main

| Pros | Cons |
|--|---|
| Lower initial capital costs | Slightly higher O&M costs due to the need for a pump station. |
| Sewer located mostly in the public right-of-way, which allows for closer monitoring. | Higher potential for damage by other utilities in public right-of-way |
| Less Easement acquisitions required | Higher SSO potential with mechanical equipment. |

Based upon discussions with the Authority Board, it was decided that Option 2 would be employed. We will begin work on obtaining all governmental permits required for the project along with preparation of plans and contract documents for bidding purposes. If there are any questions concerning this matter, please don't hesitate to contact me.

Very truly yours,



Walter A. Fazler, P.E.

MIDDLETOWN TOWNSHIP
DMI MINOR ACT 537 PLAN UPDATE REVISION
ATTACHMENTS TO COMPONENT 3M

SECTION F - PROJECT NARRATIVE

BACKGROUND

In early 2015, the Middletown Township Sewer Authority (MTSA) employed the services of Aqua Wastewater Management, Inc. (Aqua), to televise the Dutton's Mill Interceptor (DMI) from its beginning on Old Middletown Road to its terminus at the SWDCMA CCI near Creek Road. (See attached map)

The lower end of the interceptor was in a condition that would be expected on a 35+-year-old interceptor. The section of the interceptor that traverses under the Sweeney landfill, did show deficiencies. Previous televising work showed an offset of the pipe under the landfill. Based on the current video, it appears that this offset may have worsened. The upper reaches of the interceptor showed significant damage due to sulfide attacks on the asbestos concrete (AC) pipe and concrete manholes. There was a section of the interceptor located near the Christian Academy property that collapsed in 2014. An emergency situation was declared and Aqua was engaged to do a full replacement of this section of the interceptor.

what property is this?

In addition to field inspection of the sewer system, we took the opportunity to verify capacity in the DMI. SewerCAD was used to model flow in the entire interceptor. Based upon this modeling, there are sections of the interceptor that have reached full flow capacity. This is also been confirmed in the field through observations. Based upon this information, we concluded that the interceptor must be upgraded or flow must be removed.

Furthermore, Rose Valley Borough, through its agent, DELCORA, has inquired about sending a portion of the sewage flow to the MTSA system for conveyance to the DELCORA Western Regional Treatment Plant. Rose Valley has requested capacity for 100,000 gallons per day (gpd) average daily flow of sewage.

It should be noted that no additional flow from the Dutton Mill Service area in Middletown Township, other than the flow approved in the previous Township Act 537 Plan, is proposed. This work is strictly a change to the conveyance of sewage in the Dutton Mill Service Area.

IDENTIFICATION OF ALTERNATIVES

There are several options available to the Authority to mitigate the problems in DMI:

Option one would be to parallel the existing interceptor with a new larger interceptor. A portion of the line would need to be routed around the Sweeney property in order to avoid excavation through the landfill.

Option two would be to divert all force main flow from the Knowlton Rd. pump station, the Knowlton Charter pump station, and the Meadowbrook pump station. A new 10" force main would need to be installed along Old Middletown Road and Dutton Mill Road with a connection to the Chester Creek Interceptor. The existing DMI will need to be rehabilitated utilizing trenchless technology. Additionally a small pump station to convey the sewage from McCall Heights we need to be installed.

Option three involves pipe bursting the existing interceptor to enlarge it. In addition all of the manholes will need to be rehabilitated. Further investigation into the pipe bursting of AC pipe revealed that this option was not feasible since bursting will create a hazardous material. No further investigation into this option was completed.

EVALUATION OF ALTERNATIVES

Essentially two options are available to the Authority at this time. The following is a summary of the costs associated with both options:

| | |
|---|--------------------|
| Option 1 – New Gravity Interceptor | \$2,314,000 |
| Option 2 – Relocate Force Main, New Pump Station | \$2,251,900 |

Following is a list of pros and cons for both options:

Option 1 – Gravity

| Pros | Cons |
|--|---|
| Gravity flow generally has lower O&M costs | Additional easements may be difficult and expensive to obtain. |
| Large amount of reserve capacity can be built into the new interceptor at minimal costs. | High environmental impacts. Installation is through heavily wooded areas. |
| Lower risk of SSO with gravity sewers | Location is in an area that is essentially hidden from the public so less people can notify the Authority of a problem. |

Option 2 – Relocate Force Main

| Pros | Cons |
|--|---|
| Lower initial capital costs | Slightly higher O&M costs due to the need for a pump station. |
| Sewer located mostly in the public right-of-way, which allows for closer monitoring. | Higher potential for damage by other utilities in public right-of-way |
| Less Easement acquisitions required | Higher SSO potential with mechanical equipment. |

Capacity of the DMI – Option 2

The following is an evaluation of capacity required in the DMI Force Main– Option 2. In Middletown Township, no additional flow is planned in the DMI service area beyond what was in previous Act 537 plans. Essentially, there will be five pump station directly discharging to the DMI Force Main; four in Middletown Township (3 existing and 1 future) and the proposed Rose Valley Pump Station. All three existing pump stations in Middletown Township are operating well within permitted capacity. Flow to the stations are monitored through the Chapter 94 Reports. For purposes of this evaluation, data from the 2015 Chapter 94 report will be used.

A future pump station in Middletown township will be used in this evaluation. This will service the McCall Heights section of Middletown Township. McCall Heights currently flows by gravity to the existing DMI. See attached map. In order to prepare the necessary planning for this new pump station, there will be a number of environmental evaluations necessary due to the

presence of a stream and wetlands. In the interest of time, this Plan will be submitted as a separate special study in the near future.

| Pump Station | Pump capacity (gpm – gpd) | Average Daily Flow (gpd) | Peak Flow (gpd) |
|--------------------------|------------------------------|-----------------------------|--------------------|
| Knowlton Rd | 400 gpm 576,000 gpd | 82,215 | 205,536 |
| Knowlton Charter | 100 gpm 144,000 gpd | 8,868 | 22,169 |
| Meadowbrook | 175 gpm 252,000 gpd | 22,047 | 55,118 |
| McCall Heights (Future) | 100 gpm 144,000 gpd | 21,263 | 99,934 |
| Rose Valley Pump Station | 271 gpm 390,240 | 100,000 | 390,000 |
| Total Flow | 1,046 gpm 1,506,240 gpd | 234,393 | 772,757 |

According to the US EPA Wastewater Technology Fact Sheet, dated September 2000, the maximum recommended velocity through a force main is 10 ft/sec. For a 10” pipe this translates into a **maximum capacity of approximately 2,500 gpm**. The proposed maximum flow through the DMI will be 1,046 gpm, with ALL pumps running.

PLAN OF CHOICE

Based upon the above information, the Plan of Choice is Option 2, install a new 10” force main in the road way of Dutton Mill Road to convey flow to the proposed Chester Creek Interceptor.

SECTION G – SEWAGE DISPOSAL NEEDS IDENTIFICATION

Since no additional flow is proposed as part of this Plan a Sewage Disposal Needs Identification was not performed.

SECTION I – PROPOSED WASTEWATER FACILITIES

1. See the narrative for Section F for a discussion on projected flow.

2. See attached map for details on the location of the proposed DMI Force Main
3. The project is located entirely in the Road Bed of Old Middletown Road and Dutton Mill Road. No Wetlands will be encountered.
4. The project is located entirely in the Road Bed of Old Middletown Road and Dutton Mill Road. No Primary Agricultural Land will be encountered.
5. The project is located entirely in the Road Bed of Old Middletown Road and Dutton Mill Road. There will be no Stormwater Management Impacts.
6. A PNDI search was performed and is attached as an appendix. The project is located entirely in the Road Bed of Old Middletown Road and Dutton Mill Road therefore the avoidance measures as required by the Us Fish and Wildlife Service will be inherently implemented.

SECTION J – ALTERNATIVE SEWAGE FACILITIES ANALYSIS

See the narrative for Section F for a discussion on Alternatives reviewed.

SECTION L – INSTITUTIONAL EVALUATION

The Middletown Township Sewer Authority will be the entity, which will design, obtain necessary permits, construct, own and operate the proposed facilities. The Middletown Township Sewer Authority was established as a Lease-Back Authority to plan, design, construct and finance wastewater facilities in areas designated by the Middletown Township Council. Since its inception the Sewer Authority has been actively involved with the completion of all major construction projects leased to Middletown Township and has provided administration of operation and maintenance of the system under an operating agreement with Middletown Township Council.

The Middletown Township Sewer Authority is in a sound financial position at the present time. The continued growth in the Township has provided a customer base that has permitted the Sewer Authority to complete a number of projects without substantially increasing the annual sewer rentals. The latest annual audit is shown in the Appendix.

SECTION M – PROJECT COST AND FUNDING ANALYSIS

As stated in the narrative for Section F, the total project cost for the DMI project is approximately **\$2,251,900**. A detailed cost estimate is attached as an appendix. MTSA will fund the project with capital funds on hand. No borrowing will be necessary for the project. Accordingly, there will be no user rate increases as a result of the project

SECTION N – IMPLEMENTATION SCHEDULE

As described in the narrative for Section F, the existing DMI was in danger of failing due to sulfide attacks on the existing pipes. MTSA decided to proceed with installation of the new force main on an emergency basis. Since the pipe is built, upon approval of this plan, the project will be considered implemented.

1. PROJECT INFORMATION

Project Name: **Dutton Mill Force Main**

Date of review: **6/26/2015 12:55:23 PM**

Project Category: **Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewer line (new - construction in new location)**

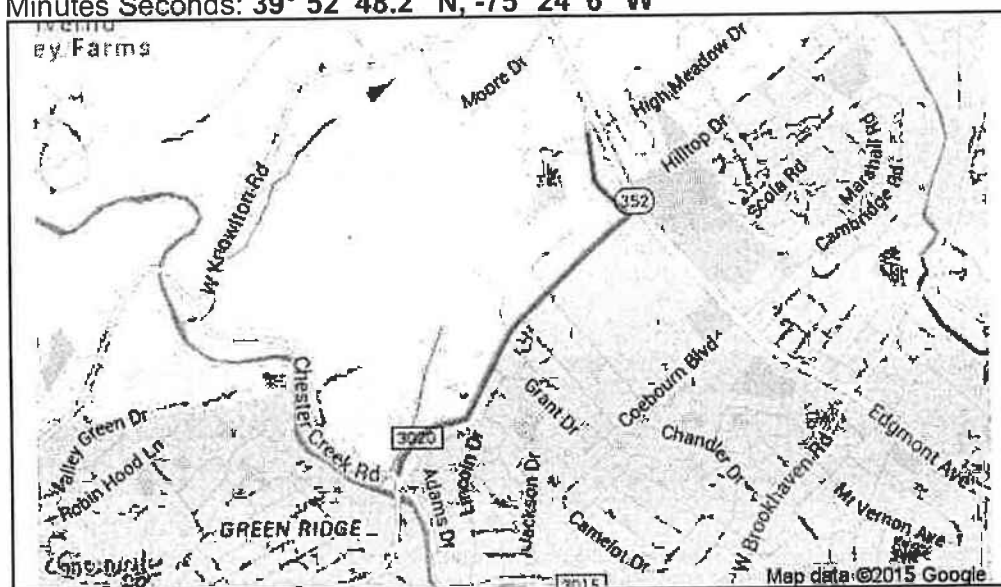
Project Length: **5737.4 feet**

County: **Delaware Township/Municipality: Middletown, Brookhaven**

Quadrangle Name: **MEDIA ~ ZIP Code: 19015, 19063**

Decimal Degrees: **39.880060 N, -75.401657 W**

Degrees Minutes Seconds: **39° 52' 48.2" N, -75° 24' 6" W**



2. SEARCH RESULTS

| Agency | Results | Response |
|---|------------------|--|
| PA Game Commission | No Known Impact | No Further Review Required |
| PA Department of Conservation and Natural Resources | No Known Impact | No Further Review Required |
| PA Fish and Boat Commission | Potential Impact | FURTHER REVIEW IS REQUIRED, See Agency Response |
| U.S. Fish and Wildlife Service | No Known Impact | No Further Review Required |

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

RESPONSE TO QUESTION(S) ASKED

Q1: Accurately describe what is known about wetland presence in the project area or on the land parcel.

"Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: **1. The entire project will occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, or railroad bed.**

Q2: Aquatic habitat (stream, river, lake, pond, etc.) is located on or adjacent to the subject property and project activities (including discharge) may occur within 300 feet of these habitats

Your answer is: **2. No**

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: Further review of this project is necessary to resolve the potential impacts(s). Please send

project information to this agency for review (see WHAT TO SEND).

PFBC Species: (Note: The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name: Sensitive Species**

Common Name:

Current Status: Threatened

U.S. Fish and Wildlife Service

RESPONSE: No impacts to federally listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, send the following information to the agency(s) seeking this information (see AGENCY CONTACT INFORMATION).

Check-list of *Minimum Materials to be submitted:*

- ____ **SIGNED** copy of this Project Environmental Review Receipt
- ____ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
- ____ Project location information (name of USGS Quadrangle, Township/Municipality, and County)
- ____ USGS 7.5-minute Quadrangle with project boundary clearly indicated, and quad name on the map

The inclusion of the following information may expedite the review process.

- ____ A basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
- ____ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
- ____ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a **preliminary** screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA.
17105-8552
Fax:(717) 772-0271

U.S. Fish and Wildlife Service

Pennsylvania Field Office
110 Radnor Rd; Suite 101, State College, PA 16801
NO Faxes Please.

PA Fish and Boat Commission

Division of Environmental Services
450 Robinson Lane, Bellefonte, PA. 16823-7437
NO Faxes Please

PA Game Commission

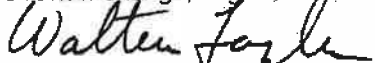
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: Walter Fazler
Company/Business Name: BEA, Inc.
Address: 2710 Concord Rd, Suite 3
City, State, Zip: Aston, Pa 19014
Phone: (610) 497-6200 Fax: ()
Email: wfazler@bea-inc.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.



applicant/project proponent signature

6-26-15

date

1. PROJECT INFORMATION

Project Name: **Dutton Mill Interceptor**

Date of Review: **2/2/2017 09:38:48 AM**

Project Category: **Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewage module/Act 537 plan**

Project Area: **8.56 acres**

County(s): **Delaware**

Township/Municipality(s): **BROOKHAVEN; MIDDLETOWN**

ZIP Code: **19015; 19063**

Quadrangle Name(s): **MARCUS HOOK; MEDIA**

Watersheds HUC 8: **Lower Delaware**

Watersheds HUC 12: **Chester Creek; Ridley Creek**

Decimal Degrees: **39.875745, -75.402634**

Degrees Minutes Seconds: **39° 52' 32.6833" N, 75° 24' 9.4815" W**

2. SEARCH RESULTS

| Agency | Results | Response |
|---|--------------------------|----------------------------|
| PA Game Commission | No Known Impact | No Further Review Required |
| PA Department of Conservation and Natural Resources | No Known Impact | No Further Review Required |
| PA Fish and Boat Commission | No Known Impact | No Further Review Required |
| U.S. Fish and Wildlife Service | Avoidance Measure | See Agency Response |

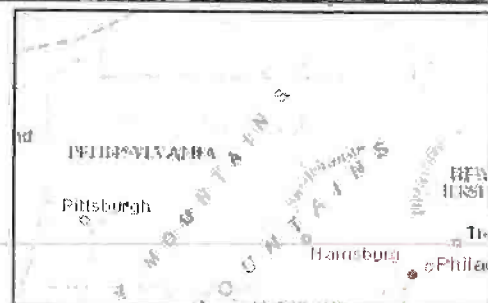
As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

Dutton Mill Interceptor

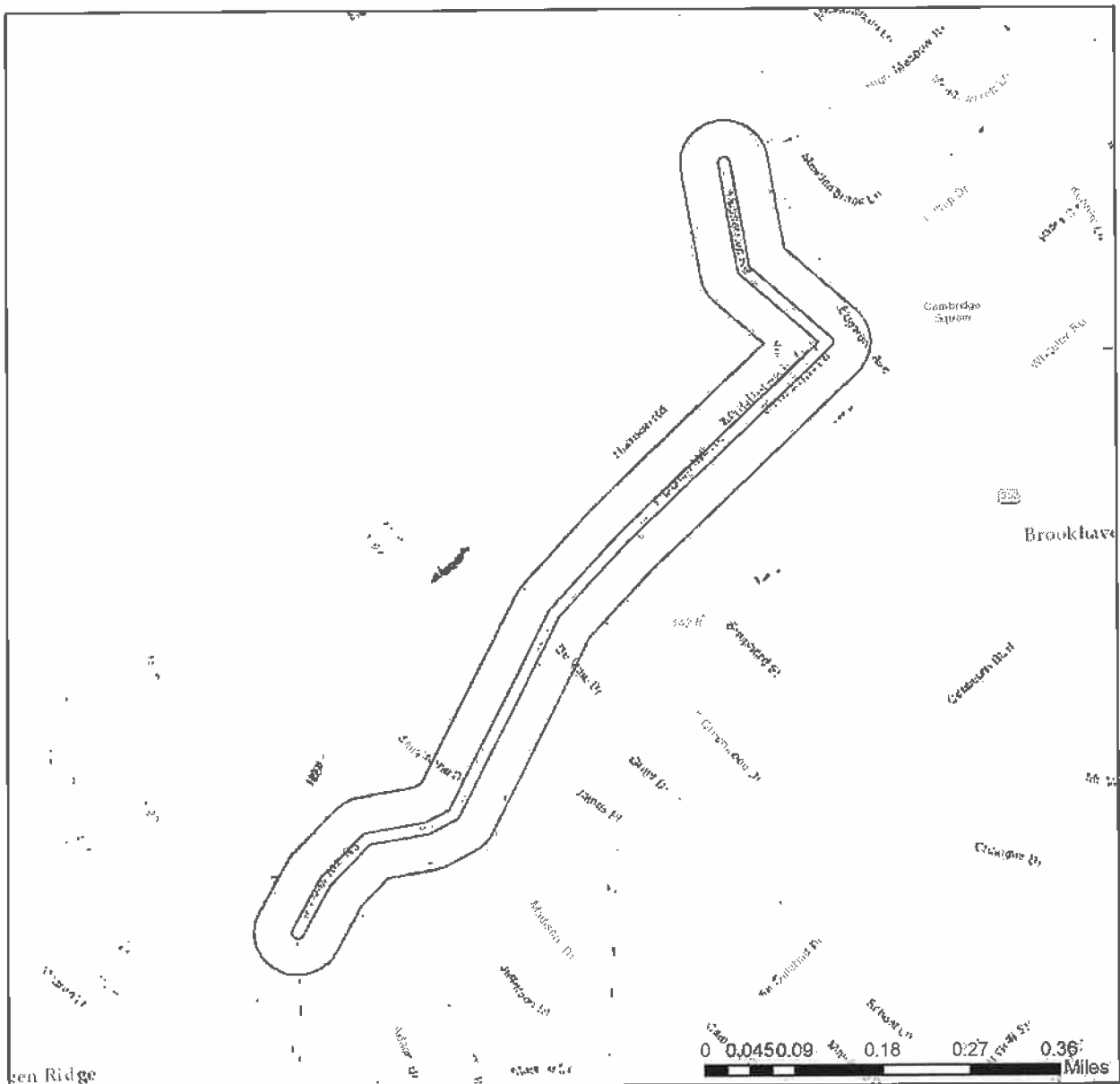


- ☐ Project Boundary
- ☐ Buffered Project Boundary



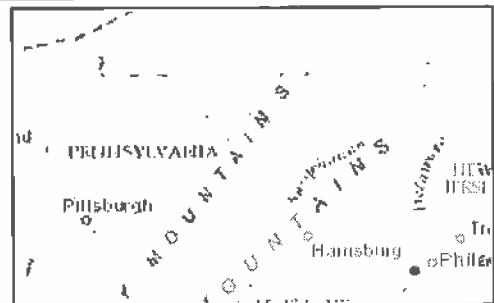
Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user

Dutton Mill Interceptor



- ☐ Project Boundary
- ☐ Buffered Project Boundary

Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



RESPONSE TO QUESTION(S) ASKED

Q1: Will this project or any project-related activities require any in-stream work, or a permanent or temporary crossing of a waterway (stream, river, creek, tributary)?

Your answer is: No

Q2: Describe how wastewater (effluent) will be handled (select one). For the purpose of this question, wastewater/effluent does not include stormwater runoff. If the project involves solely the renewal or modification of an existing discharge permit (e.g., NPDES permit), select from options 3, 4, 5, or 6 below.

Your answer is: All wastewater/effluent from this project/activity will be routed to an existing municipal wastewater treatment plant.

Q3: Accurately describe what is known about wetland presence in the project area or on the land parcel. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: The entire project will occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, or railroad bed.

Q4: Accurately describe what is known about wetland presence in the project area or on the land parcel by selecting ONE of the following. "Project" includes all features of the project (including buildings, roads, utility lines, outfall and intake structures, wells, stormwater retention/detention basins, parking lots, driveways, lawns, etc.), as well as all associated impacts (e.g., temporary staging areas, work areas, temporary road crossings, areas subject to grading or clearing, etc.). Include all areas that will be permanently or temporarily affected -- either directly or indirectly -- by any type of disturbance (e.g., land clearing, grading, tree removal, flooding, etc.). Land parcel = the lot(s) on which some type of project(s) or activity(s) are proposed to occur.

Your answer is: The entire project and associated discharge, plus a 300-foot buffer around the project area, all occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, railroad bed, or crop agriculture field.

Q5: Aquatic habitat (stream, river, lake, pond, etc.) is located on or adjacent to the subject property and project activities (including discharge) may occur within 300 feet of these habitats?

Your answer is: No

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

Avoidance Measure: Do not conduct this project/activity within 50 feet of any streams, rivers, creeks, or tributaries. This includes both perennial and intermittent waterways.

As the project proponent or applicant, I certify that I will implement the above Avoidance Measure:
_____(Signature)

SPECIAL NOTE: If you agree to implement the above Avoidance Measure, no further coordination with this agency regarding threatened and endangered species and/or special concern species and resources is required. If you are not able to comply with the Avoidance Measures, you are required to coordinate with this agency - please send project information to this agency for review (see "What to Send" section).

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, upload* or email* the following information to the agency(s). Instructions for uploading project materials can be found [here](#). This option provides the applicant with the convenience of sending project materials to a single location accessible to all three state agencies. Alternatively, applicants may email or mail their project materials (see AGENCY CONTACT INFORMATION).

***Note:** U.S.Fish and Wildlife Service requires applicants to mail project materials to the USFWS PA field office (see AGENCY CONTACT INFORMATION). USFWS will not accept project materials submitted electronically (by upload or email).

Check-list of Minimum Materials to be submitted:

____Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.

____A map with the project boundary and/or a basic site plan(particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)

In addition to the materials listed above, USFWS REQUIRES the following

____**SIGNED** copy of a Final Project Environmental Review Receipt

The inclusion of the following information may expedite the review process.

____Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)

____Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov
Fax: (717) 772-0271

PA Fish and Boat Commission

Division of Environmental Services
450 Robinson Lane, Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
NO Faxes Please

PA Game Commission

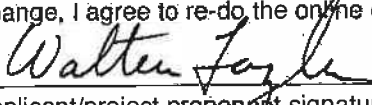
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Walter fazler
Company/Business Name: Bradford Engineering
Address: 2710 Concord Road, Suite 3
City, State, Zip: Aston, Pa 19014
Phone: (610) 497-6200 Fax: ()
Email: wfazler@bea-inc.com

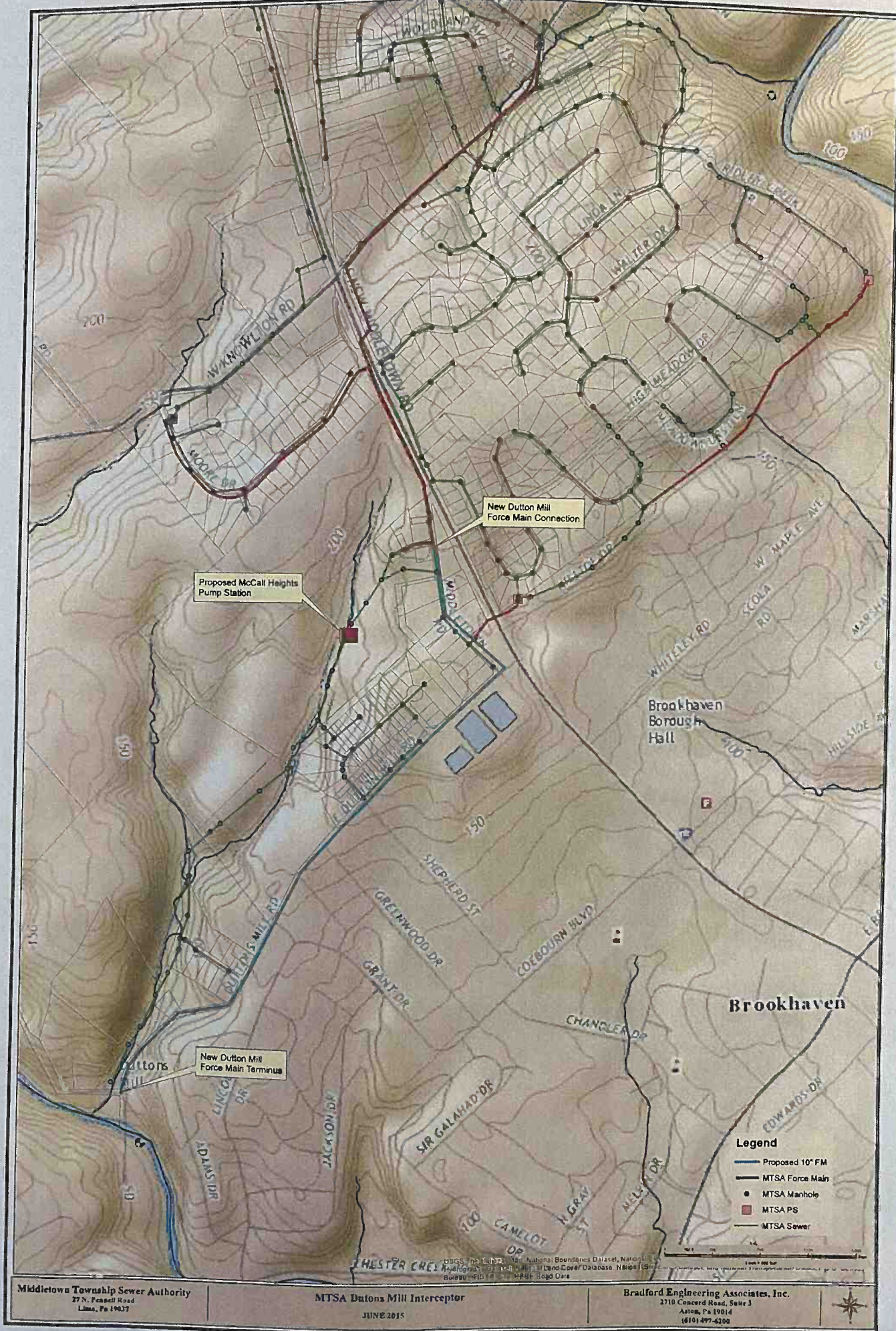
8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.


applicant/project proponent signature

3-1-17

date

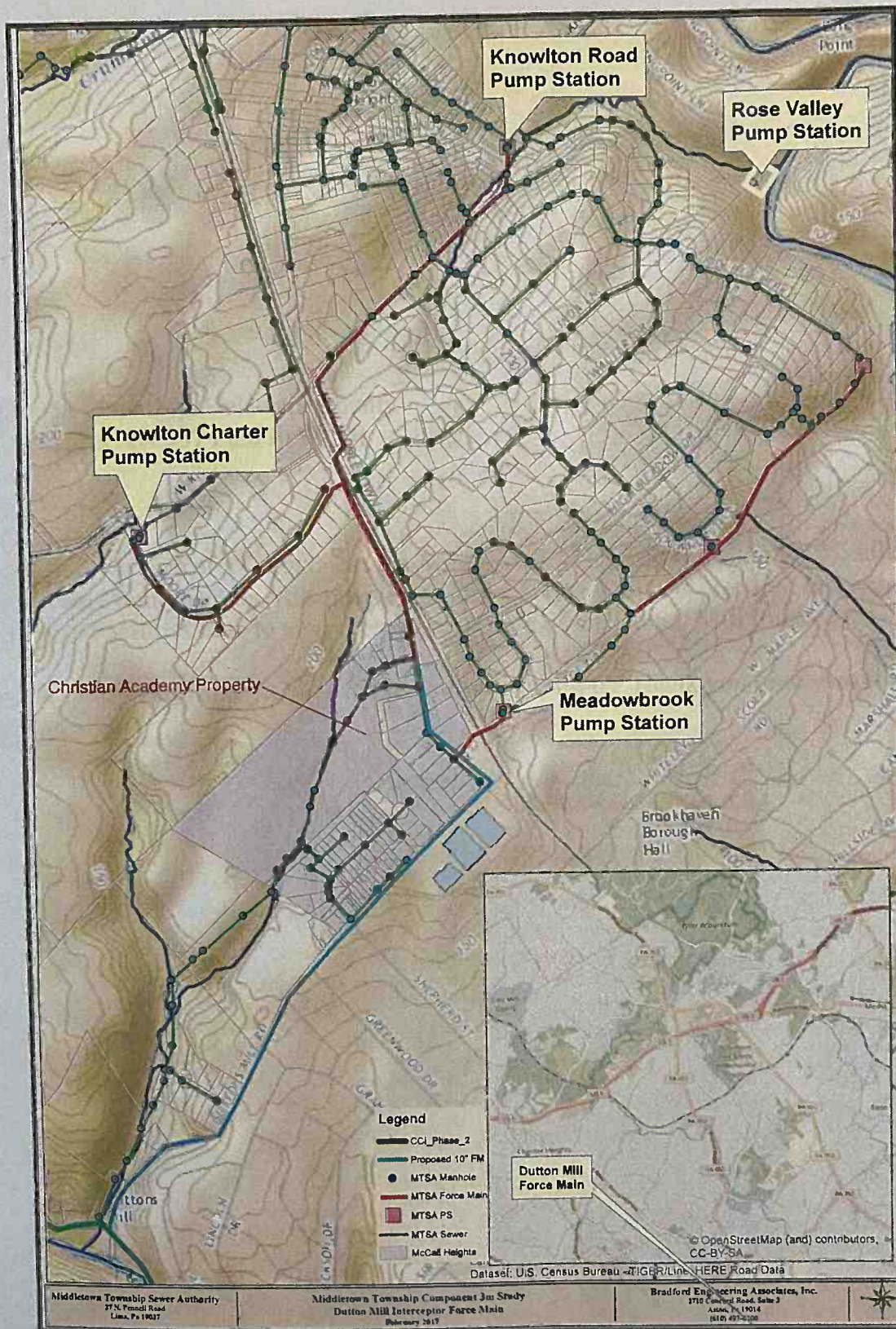


Middletown Township Authority
27 N. Pennell Road
Lima, Pa 19037

MTSA Dutton Mill Interceptor
JUNE 2015

Bradford Engineering Associates, Inc.
2710 Concord Road, Suite 3
Aston, Pa 19014
(610) 497-4200







U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
BUREAU OF TOPOGRAPHIC AND GEOLOGIC SURVEY

MEDIA QUADRANGLE
PENNSYLVANIA
7.5-MINUTE SERIES (TOPOGRAPHIC)
1913-1914



Produced by the United States Geological Survey
in cooperation with Pennsylvania Department of Conservation
and Natural Resources, Bureau of Topographic and Geologic Survey

Topographic map of Media, Pennsylvania, showing terrain, roads, and water features. The map includes a grid with coordinates and a scale bar.



SCALE 1:24,000
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC SURVEY OF 1929
10 COPIES OF FROM FEET TO MILES, MULTIPLY BY 5.280



ROAD CLASSIFICATION
Primary highway
Secondary highway
Light-duty road, hard or
improved surface
Unimproved road
Intermittent road
U.S. Route
State Route

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

MEDIA, PA
1995

Media, PA 1913-1914



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

DEP Code #

SEWAGE FACILITIES PLANNING MODULE
COMPONENT 4B - COUNTY PLANNING AGENCY REVIEW
(or Planning Agency with Areawide Jurisdiction)

Note to Project Sponsor: To expedite the review of your proposal, one copy of your completed planning package and one copy of this *Planning Agency Review Component* should be sent to the existing county planning agency or planning agency with areawide jurisdiction for their comments.

SECTION A. PROJECT NAME (See Section A of instructions)

Project Name

Dutton Mill Interceptor Force Mains Relocation

SECTION B. REVIEW SCHEDULE (See Section B of instructions)

1. Date plan received by county planning agency. February 10, 2017

2. Date plan received by planning agency with areawide jurisdiction _____

Agency name _____

3. Date review completed by agency March 2, 2017

SECTION C. AGENCY REVIEW (See Section C of instructions)

Yes No

☒ ☐ 1. Is there a county or areawide comprehensive plan adopted under the Municipalities Planning Code (53 P.S. 10101 *et seq.*)? *Delaware County 2035 was adopted on November 27, 2013. Responses to #2, #3, #4, & #5 are based on this plan.*

☒ ☐ 2. Is this proposal consistent with the comprehensive plan for land use? _____

☒ ☐ 3. Does this proposal meet the goals and objectives of the plan? _____

If no, describe goals and objectives that are not met _____

☒ ☐ 4. Is this proposal consistent with the use, development, and protection of water resources?

If no, describe inconsistency Please See Additional Comments

☒ ☐ 5. Is this proposal consistent with the county or areawide comprehensive land use planning relative to Prime Agricultural Land Preservation?

If no, describe inconsistencies: _____

☐ ☒ 6. Does this project propose encroachments, obstructions, or dams that will affect wetlands? *Response based on information contained in the National Wetlands Inventory Maps and review of the site development plan.*

If yes, describe impact _____

☐ ☒ 7. Will any known historical or archeological resources be impacted by this project? *Response based on information contained in the Delaware County Preservation Planning files and documents.*


If yes, describe impacts _____

☐ ☒ 8. Will any known endangered or threatened species of plant or animal be impacted by the development project? *Response based on information from the Natural Heritage Inventory of Delaware County.*

☐ ☒ 9. Is there a county or areawide zoning ordinance?

☐ ☐ 10. Does this proposal meet the zoning requirements of the ordinance?

If no, describe inconsistencies Not applicable.

| Yes | No | SECTION C. AGENCY REVIEW (continued) | |
|--|-------------------------------------|--------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 11. | Have all applicable zoning approvals been obtained? <u>Unknown, subject to municipal approval.</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. | Is there a county or areawide subdivision and land development ordinance? <i>The Delaware County Subdivision & Land Development Ordinance is used by some, but not all municipalities. It is not applicable to this municipality.</i> |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. | Does this proposal meet the requirements of the ordinance? <u>Not applicable.</u> If no, describe which requirements are not met <u>Not applicable.</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 14. | Is this proposal consistent with the municipal Act 537 Official Sewage Facilities Plan? If no, describe inconsistency _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 15. | Are there any wastewater disposal needs in the area adjacent to this proposal that should be considered by the municipality? If yes, describe _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. | Has a waiver of the sewage facilities planning requirements been requested for the residual tract of this subdivision? _____ If yes, is the proposed waiver consistent with applicable ordinances. If no, describe the inconsistencies <u>Not applicable.</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 17. | Does the county have a stormwater management plan as required by the Stormwater Management Act? <i>Only for the Ridley, Chester, Darby, and Crum Creek watersheds. This project is located in the <u>Chester Creek</u> watershed.</i> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | | If yes, will this project plan require the implementation of storm water management measures? _____ |
| 18. Name, Title and signature of person completing this section: | | | |
| Name: <u>Will Brugger</u> | | | |
| Title: <u>Environmental Planner</u> Signature: <u></u> | | | |
| Date: <u>March 2, 2017</u> | | | |
| Name of County or Areawide Planning Agency: <u>Delaware County Planning Department</u> | | | |
| Address: <u>Court House & Government Center, 201 W. Front Street, Media, PA 19063</u> | | | |
| Telephone Number: <u>610-891-5218</u> | | | |

| SECTION D. ADDITIONAL COMMENTS (See Section D of instructions) | |
|---|---|
| 4. | Is this proposal consistent with the use, development, and protection of water resources? U.S. Fish and Wildlife Service noted a response of "Avoidance Measure". "Do not conduct this project/activity within 50 feet of any streams, rivers, creeks, or tributaries. This includes both perennial and intermittent waterways." |
| This Component does not limit county planning agencies from making additional comments concerning the relevancy of the proposed plan to other plans or ordinances. If additional comments are needed, attach additional sheets. | |
| The county planning agency must complete this Component within 60 days. | |
| This Component and any additional comments are to be returned to the applicant. | |



DELAWARE COUNTY PLANNING DEPARTMENT

Court House/Government Center, 201 W. Front Street, Media, Pennsylvania 19063
Phone: 610-891-5200 Fax: 610-891-5203 Email: planning_department@co.delaware.pa.us

Application for Act 537 Review

Please type or print legibly

DEVELOPER/APPLICANT

Name Middletown Township Phone 610.565.2700
Address PO Box 157, Lima, PA 19037
Name of Development Dutton Mill Interceptor DEP #
Date of Act 247 Review n/a DCPD File #

PLANNING MODULE PREPARER

Name Walter Fazler Phone 610.497.6200
Address 2710 Concord Road, Suite 3, Aston, Pa 19014

| Type of Review (check 2 boxes) | Proposed Method of Treatment |
|--|--|
| <input type="checkbox"/> Initial Submittal | <input type="checkbox"/> Sewer tap-in |
| <input type="checkbox"/> Minor Revision Resubmittal | <input type="checkbox"/> Sewer extension/new collection system |
| <input type="checkbox"/> Major Revision Resubmittal | <input type="checkbox"/> Individual on-lot or new replacement system |
| <input type="checkbox"/> Standard Form (Component 1, 2, 3) | <input type="checkbox"/> Multiple on-lot system |
| <input type="checkbox"/> Private Request | <input type="checkbox"/> Community system or new plant |
| <input type="checkbox"/> Municipal Base Plan or Ordinance | |

Water: ☐ Private ☐ Public
Use: ☐ Commercial/Industrial ☐ Institutional ☐ Residential
EDUs 89 # of Connections 89 Projected Flow 20559 gpd Acreage

Statement of Intent Install public sewer to two sections of the Township

Has a copy of this module been forwarded to:
All tributary authorities or SEOs, as required? ☐ Yes ☐ No
PA Historical and Museum Commission, if required? ☐ Yes ☐ No ☐ N/A

MUNICIPALITY'S SECTION (Application Will Not Be Accepted Without Original Signature)

Municipality Middletown Township
Address PO Box 157, Lima, PA 19037
Municipal Official John Ibach, MTSA Manager Phone 610.566.3063
Official's Signature _____ Date _____

FOR DCPD USE ONLY

Date Received _____ ☐ Complete ☐ Incomplete
Date DCPD Comments Due _____ Staff Initials _____
Review Fee: Amount _____ Check No. _____
Date Received _____ Received By _____



DELAWARE COUNTY PLANNING DEPARTMENT

COURT HOUSE/GOVERNMENT CENTER
201 W. Front St. Media, PA 19063

COUNCIL

MARIO J. CIVERA, JR.
CHAIRMAN

COLLEEN P. MORRONE
VICE CHAIRMAN

JOHN P. McBLAIN
DAVID J. WHITE
MICHAEL F. CULP

Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063

Phone: (610) 891-5200

FAX: (610) 891-5203

E-mail: planning_department@co.delaware.pa.us

LINDA F. HILL
DIRECTOR

March 2, 2017

Bruce Clark, Township Manager
27 N. Pennell Road
Lima Pa, 19063

RE: Act 537 Review
Dutton Mill Interceptor Relocation
Middletown Township

Dear Mr. Clark:

The Delaware County Planning Department (DCPD) has completed its review of the planning module for the Dutton Mill Interceptor Force Mains Relocation. The proposed plan calls for Middletown Township Sewer Authority (MTSA) has to install a new 10" force main in the road way of Dutton Mill Road to convey flow to the Chester Creek Interceptor. This will replace Dutton's Mill Interceptor (DMI) gravity sewer line, from Old Middletown Road under the Sweeney landfill to the Chester Creek Interceptor. There will be five pump stations discharging to the DMI Force Main. These are the three existing, a future one at McCall Heights, and the proposed Rose Valley Pump Station. No additional flow, other than that previously approved from the Dutton Mill Service area, will be needed. DCPD has no objection to the proposed method of wastewater disposal.

Enclosed is the completed DEP Component 4 County Planning Agency Review Form.

If you have any questions or require additional information, please do not hesitate to contact me at (610) 891-5218.

Sincerely,

Will Brugger
Environmental Planner

Cc: PA Department of Environmental Protection
Bradford Engineering
Middletown Township Sewer Authority



Copy of Notice or Publication

AD#

1249464

Proof of Publication of Notice in Delaware County Daily Times

Under Newspaper Advertising Act. No. 587, Approved May 16, 1929

State of Pennsylvania,
County of Delaware,

SS.

Heather Lawler

designated agent of CENTRAL STATES PUBLISHING, INC.,

being duly sworn, deposes and says that the DELAWARE COUNTY DAILY TIMES, a daily newspaper of general circulation as defined in the above-mentioned Act, published at Primos, Delaware County, Pennsylvania, was established September 7, 1876, and issued and published continuously thereafter for a period of 100 years and for a period of more than six months immediately prior hereto, (under the name Chester Times prior to November 2, 1959) in the City of Chester, County of Delaware and further says that the printed notice or publication attached hereto is an exact copy of a notice or publication printed and published in the regular edition and issues of the DELAWARE COUNTY DAILY TIMES on the following dates,
VIZ.....

February 6th

A.D. 20 17

and that said advertising was inserted in all respects as ordered.

Affiant further deposes that he is the proper person duly authorized by CENTRAL STATES PUBLISHING, INC. publisher of said DELAWARE COUNTY DAILY TIMES, a newspaper of general circulation, to verify the foregoing statement under oath and that affiant is not interested in the subject matter of the aforesaid notice or advertisement, and that all allegations in the foregoing statements as to time, place and character of publication are true.

Heather Lawler

Sworn to and subscribed before me this

6th

day of

February

20 17

Joan McCarty Babiak

Notary Public

COMMONWEALTH OF PENNSYLVANIA

NOTARIAL SEAL

Joan McCarty Babiak, Notary Public
Limer Park, Pa. Delaware County

Notice

The Council of Middletown Township, Delaware County is considering adopting the Dutton Mill Interceptor Relocation Minor Act 537 Plan Revision, which is an update to the Township's Sewage Facilities (ACT 537) Plan. The Township is accepting comments on the Plan for a period of thirty (30) days beginning February 6, 2017.

The name of the project is the Dutton Mill Interceptor Relocation Project. The reason for the Plan revision is there is a need to change the method of conveyance of wastewater in the Dutton Mill watershed. There will be no increase in user fees as a result of this Plan.

The Act 537 Plan can be reviewed in its entirety at the Middletown Township Municipal Building, 27 N. Pennell Road, Lima, PA between the hours of 8:30 AM and 4:30 PM. Comments will be accepted at the Township Building during the thirty (30) day public review period. Comments may be mailed to Middletown Township, PO Box 9, Lima, PA 19037, or emailed to manager@middletowntownship.org.

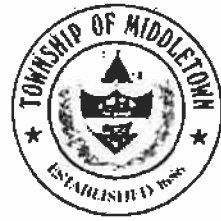
Bruce Clark, Township Manager

DCT, February 6, 2017

MIDDLETOWN TOWNSHIP

Delaware County, Pennsylvania

Where all trails lead



27 N. PENNELL ROAD
LIMA, PA 19037

SEWAGE FACILITIES PLAN

UNDER

PENNSYLVANIA ACT 537

CHESTER CREEK INTERCEPTOR PHASE 2 SPECIAL STUDY

June 2013

ORIGINAL

Prepared by:

Bradford Engineering Associates, Inc.

2710 Concord Road, Suite 3

Aston, PA 19014

610.497.6200

610.500.5677 fax

info@bea-inc.com

| | | |
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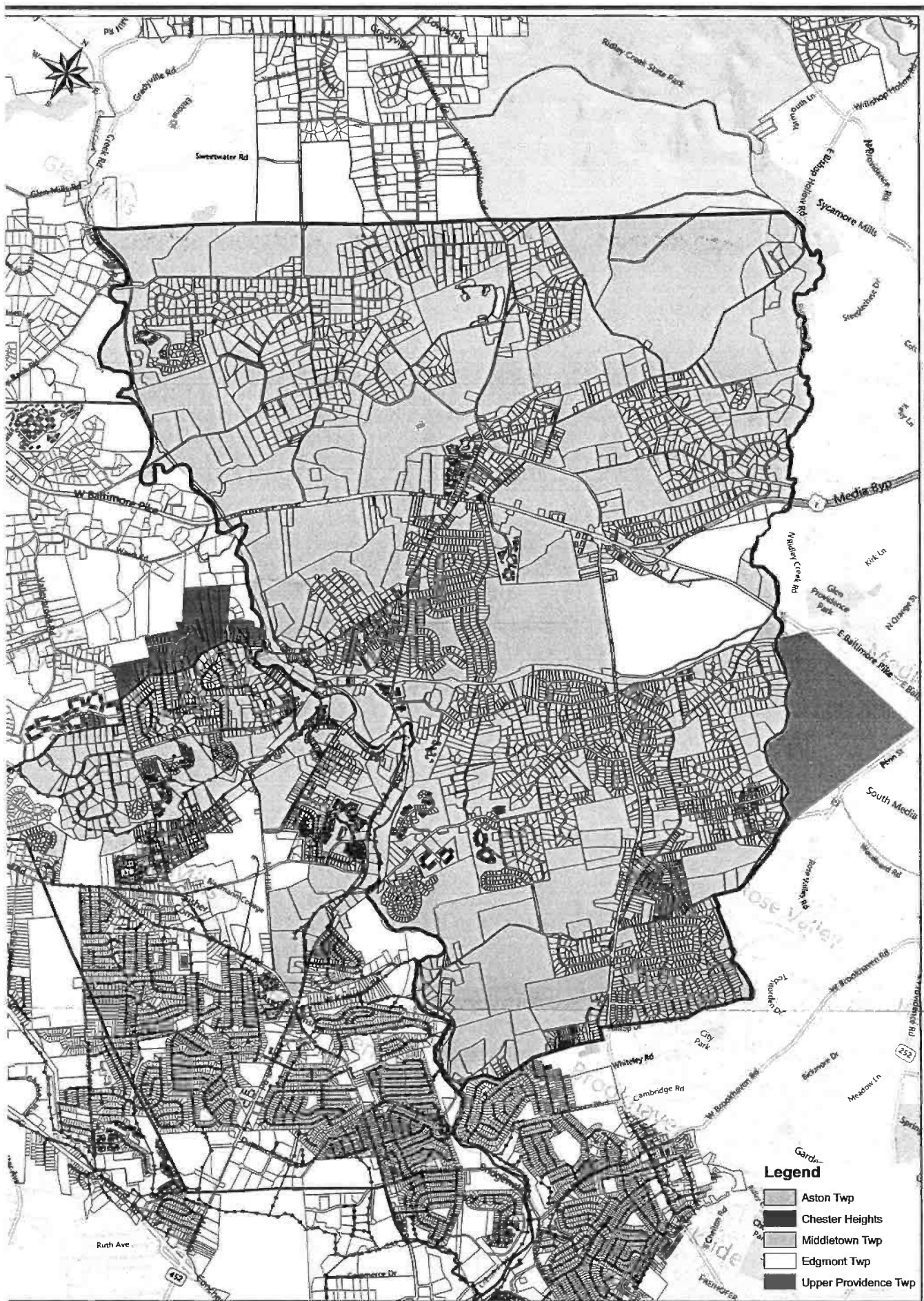
1 Executive Summary

1.1 Proposed Service Areas And Challenges Evaluated

The Authority's Chester Creek Interceptor (CCI) and Chrome Run Interceptor sewers were constructed as part of Middletown Township's original 1968 sewer project to convey sewage flows to the Southwest Delaware County Municipal Authority (SWDCMA) system for treatment. Since that time, the Crum Run Interceptor has been connected to the Chester Creek Interceptor, and the Dutton's Mill Road Interceptor was connected to the SWDCMA system. In addition, significant changes in sewage planning on both the County and local levels have resulted in additional flows through the interceptor lines that were not considered in the original design. This Act 537 Plan Revision, Special Study for the Chester Creek Interceptor Phase 2 (CCIP2) centers around documentation of existing flows in the interceptor, potential future flows in the tributary watershed, and examination of the need to upgrade the system.

The service area studied includes all areas that are currently tributary to the Chester Creek Interceptor or will be in the future. Figure 1 details the area tributary to Chester Creek. Areas in adjacent townships were included where the possibility of future connections is reasonably certain and well defined. Further planning will be required in adjacent municipalities if inquiries are made to connect to the CCI.

This report was completed to specifically address the proposed downstream extension of MTSA's Chester Creek Interceptor from Knowlton Road to the proposed DELCORA pump station. Upstream sections of the CCI were addressed in the recently adopted Chester Creek Interceptor Phase 1 (CCIP1) Special Study, which was approved by the Pennsylvania Department of Environmental Protection (PaDEP) on November 14, 2012. Since no further flow, other than the Dutton's Mill Interceptor, will be connected to the CCIP2, flow data developed as part of the CCIP1 Study was extracted and used in this report.



1.2 Selected Alternative

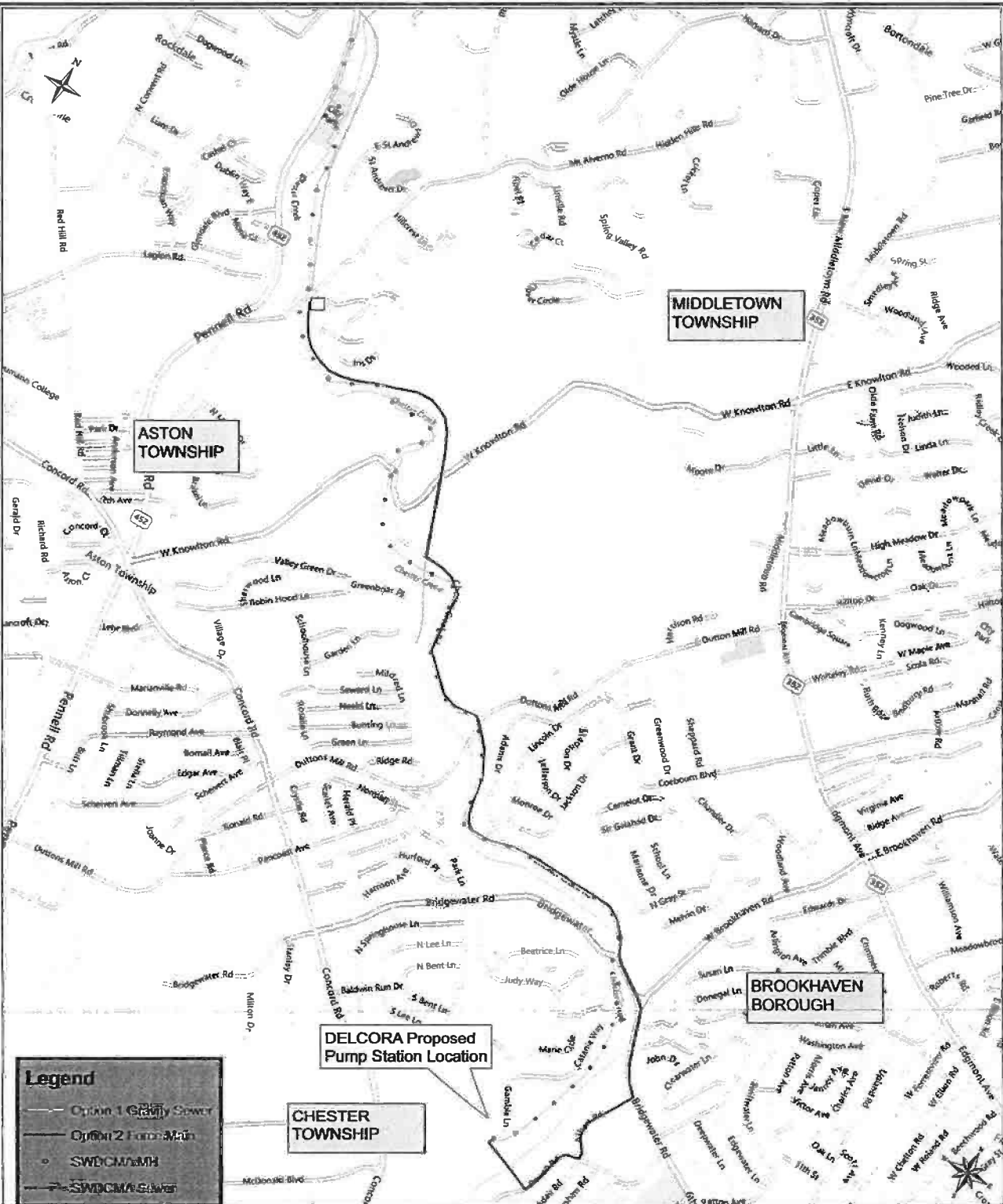
Two alternatives for the Chester Creek Interceptor Phase 2 were evaluated as part of this Special Study. First was the gravity flow option from Knowlton Road south to the proposed DELCORA pumping station. The second was the pump station and force main option terminating at the same location. Both of these alternatives relate to the Inter-Municipal Agreement with DELCORA that will result in the phase-out of SWDCMA's treatment facility and the conveyance of wastewater to DELCORA's plant in Chester City for treatment. Refer to Figure 2 for a graphical depiction of the two alternatives evaluated. The all gravity sewer option is the alternative of choice. This option is consistent with the recently signed Global Agreement between MTSA, SWDCMA and Aston Township to provide the necessary easements for construction of the CCIP2 along with other matters relating to construction of the DELCORA pump station. A copy of the Global Agreement is attached to this Plan as an Appendix.

1.2.1 CCIP2 Gravity; Option 1

This Option provides for all gravity service from Knowlton Road to the proposed DELCORA pumping station. The option provides for a separate MTSA gravity sewer from the existing connection to SWDCMA's CCI at the Knowlton Bridge to the proposed new pumping station to be installed by DELCORA as part of the Baldwin Run Treatment Plant Phase Out agreement. The gravity alignment will essentially follow the existing SWDCMA CCI with some minor variations.

1.2.2 CCIP2 Pump Station; Option 2

This Option requires the installation of a regional pump station at Mount Alverno Road with the force main discharging to the proposed DELCORA station as described above. This option would also require a pump station installation at Dutton Mill Road to convey flows from the Dutton Mill Interceptor to the DELCORA station. The Dutton Mill pump station would discharge to the force main serving the Mount Alverno station. The



Middletown Township Sewer Authority
27 N. Pennell Road
Lansdale, PA 19040
(610) 261-7800

CHESTER CREEK INTERCEPTOR ALTERNATIVES

Figure 2
May 2013

Bradford Engineering Associates, Inc.
2718 Concord Road, Suite 3
Aston, PA 19014
(610) 497-4280

alignment of the force main would keep the force main in Creek Road, Brookhaven Road and township roads in the Toby Farms section of Chester Township.

1.2.3 Phasing Considerations

The CCI Phase I Study raised capacity questions regarding the SWDCMA section of the interceptor. Construction of the proposed CCIP2 sewer system will eliminate the need to regulate and phase in future MTSA connections. The concern for phasing connections emanated from the issue of available capacity in the section of Southwest's interceptor below Knowlton Road.

The installation of the Phase II interceptor is consistent with the SWDCMA/MTSA inter-municipal agreement dated January 10, 1968. This agreement is scheduled to expire once the new DELCORA pump station is activated. This is consistent with the SWDCMA/DELCORA service agreement, the MTSA/DELCORA service agreement and the Global Agreement. The installation of the CCIP2 is consistent with all three agreements.

1.3 Estimated Cost Of Implementation

The following table is an estimate of the costs and debt service requirements for 100 percent financing of the selected Alternate plus project expenses. The corresponding increase in yearly sewer rent would be approximately \$74 per year to cover the cost of the project. The Authority may elect to pay a portion of the costs from capital improvement funds on hand. Any reduction in the amount financed will result in a corresponding reduction in sewer rental cost. Middletown's current annual sewer rental rate is \$300 per EDU and will be increased to \$325 in 2014. MTSA currently has no outstanding debt.

Table 1 - Estimated Cost of Implementation

| Cost Category | Estimated Cost |
|---|-----------------------|
| Option 1 Gravity Interceptor (Construction and Engineering) | \$ 6,877,000 |
| Financing Costs (Conventional Bond Issue) | \$ 103,000 |
| Legal and Administration Costs (5%) | \$ 344,000 |
| Total Project Costs | \$ 7,324,000 |
| | |
| Approx Yearly Debt Service | \$ 515,325 |
| Assume 3.5% for 20 years | |

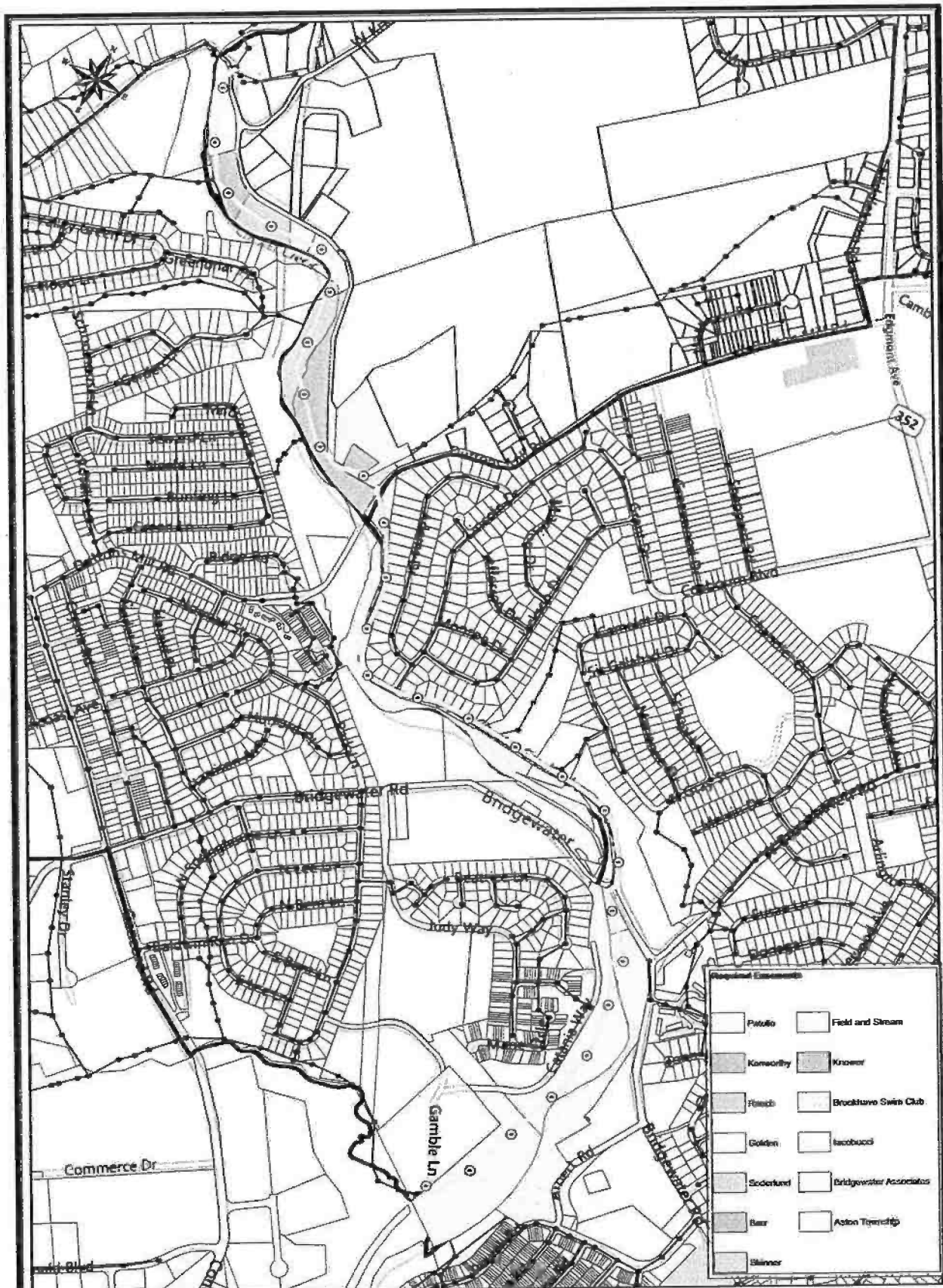
1.4 Municipal Commitments

The Middletown Township Sewer Authority was established as a Lease-Back Authority to plan, design, construct and finance wastewater facilities in areas designated by the Middletown Township Council. Since its inception the Sewer Authority has been actively involved with the completion of all major construction projects leased to Middletown Township and has provided administration, operation and maintenance of the system under an operating agreement with Middletown Township Council. This relationship will continue during implementation of this plan.

Easements will be required from some property owners under the current alignment. See Figure 3. A substantial section of the proposed project is located within public rights-of-way and will not require easements. The remaining sections of the project will require either new or expanded existing rights-of way. The Authority has the legal ability to negotiate acquisition of easements or use the power of eminent domain as a last resort. SWDCMA and the Aston Board of Commissioners will provide the necessary easements in Aston Township under the recently signed Global Agreement.

1.5 Proposed Implementation Schedule

The proposed implementation schedule below is based on estimated dates to complete the various milestones listed. MTSA will make every effort to keep the project on track. Milestone completion dates will be adjusted periodically to reflect actual progress toward



Middletown Township Sewer Authority
27 N. Pennell Road
Lima, PA 19063
(610) 566-3863

FIGURE 3
CCIP2 Approximate Alignment
May 2013

Bradford Engineering Associates, Inc.
2710 Concord Road, Suite 3
Aston, Pa 19014
(610) 497-6200

Implementation Schedule

| <i>Schedule Item</i> | <i>* Days to Completion</i> |
|--|------------------------------------|
| PaDEP Act 537 Plan Approval | 0 |
| CCI Detailed Design | 270 |
| Submitt Design to PaDEP for Part II Permit | 270 |
| Receive Part II Permit | 360 |
| Solicit Bids for Construiction | 360 |
| Start Construction (Notice to Proceed) | 480 |
| Complete Construction | 875 |
| Facility Start up | 905 |

2 Introduction

Bradford Engineering was directed by the Middletown Township, Delaware County, Sewer Authority (MTSA) on behalf of Middletown Township to conduct the necessary planning and engineering studies to determine the requirements to extend the existing Chester Creek Interceptor Phase 1 to the proposed DELCORA Chester Ridley Pump Station. The scope of the project involves the conveyance of all MTSA sewage from the CCIP1 south along Chester Creek to the new Station. The CCI Phase I Study raised capacity questions regarding the SWDCMA section of the interceptor. Construction of the proposed CCIP2 sewer system will eliminate the need to regulate and phase in future MTSA connections. The concern for phasing connections emanated from the issue of available capacity in the section of Southwest's interceptor below Knowlton Road.

The need for this facility is based upon the unknown but probable shortfall of capacity in the existing SWDCMA interceptor serving this area. Currently there is a limitation on connections to the SWDCMA system. More specifically, as it relates to MTSA, the limitation on connections is the SWDCMA Chester Creek Interceptor. The limitation on connections essentially limits the issuance of building permits in Middletown Township until such time that corrective measures are taken to reduce Inflow and Infiltration (I&I) into the Authorities' systems. Additionally, the capacity of the line is known but existing and future needs by SWDCMA have not been determined to date. That being said, future flow estimates for just the MTSA needs exceed the existing line capacity.

Other reports used in the preparation and summary of this Special Study include The Chester Creek Interceptor Special Study, August 2011, the SWDCMA and MTSA 2012 Chapter 94 Report and the Global Agreement. Important excerpts from these documents are included in the Appendix for reference.

The conclusion based upon the above studies is that the CCIP1 should be extended to service the projected future sewage flows from the Township and neighboring systems. The purpose of this Act 537 Special Study is to determine required pipe sizes based on the needs determined by the CCIP1 Special Study, provide cost estimates for the project and to incorporate the recommended extension of existing facilities into the current Township Sewage Facilities Plan.

This report comprises the second phase of the CCI project that addresses the alternatives available for installing new interceptor facilities. The new line will run from the existing connection to the SWDCMA line at Knowlton Road south along Chester Creek to the proposed DELCORA pumping station to be constructed at the Baldwin Run Treatment Plant site. The conclusion of this report was that a separate gravity interceptor sized to meet the needs of MTSA should be installed. This option is the Alternative of choice..

All of the background material prepared for the CCIP1 Plan applies to this report. Important excerpts from the Plan are included in this report for quick reference. New material presented includes the project description, alternatives evaluation, cost estimates, and mapping.

2.1 Planning Background

The service requirements for the CCI have changed over the years since its original design in the 1960's. The decisions not to construct the Ridley Creek Interceptor were based on changing priorities in the implementation of the Delaware County Sewage Facilities Plan. These decisions required MTSA to divert the majority of sewage flow from the Ridley Creek watershed into the Chester Creek watershed for treatment at the Southwest Delaware County Municipal Authority (SWDCMA) plant for treatment via the CCI. The need to provide public sewer service to the Ridley Creek watershed to correct areas with failing on-site systems required installation of sewage pump stations to convey wastewater over the ridgeline to the CCI. Additional flow from Upper Providence Township was also added with the signing of an inter-municipal agreement with MTSA and SWDCMA.

Increased growth and development patterns in Middletown Township are adding to the service demands on the CCI. The Special Use Zoning District (Granite Run Mall, Riddle Hospital, etc.) along the Baltimore Pike corridor is built out and some fairly high intensity uses are being proposed for future projects. For example, the Riddle Hospital property is being highly developed with both expanded medical uses and residential units, all of which was not considered in the original project designs. Various projects that include office, mixed commercial, and residential uses have been introduced and continue in different stages of planning and approval. The Franklin Mint Project, Sleighton School Property and areas of Edgmont Township which border Middletown Township are currently in the initial planning stages and public sewers are contemplated. In addition, public sewer service has been extended into areas of the Township that were not included in the original planning. All of this activity has increased the capacity requirements for the CCI beyond what could have been reasonably anticipated in the early days of the system.

The result is that the interceptor is serving a larger area than originally anticipated. Some of the major factors contributing to this situation include the decision by MTSA to provide public sewer service to the Ridley Creek watershed, increasing patterns of

growth and development in Middletown Township, and the potential to provide service to sections of Upper Providence and Edgmont Townships. A more detailed review of the Planning background is presented in the CCIP1 Special Study.

In connection with this Special Study, various studies, reports, maps and surveys have been reviewed. Evaluations of general conditions within the Township have been made to obtain the necessary current data relating to existing and projected future facilities and sewage flows. The primary purpose of this Special Study is to build upon the conclusions reached for the CCIP1 and provide a recommended course of action for the CCIP2. The planning area for this update includes the entire Township although the actual facilities under consideration are limited to the CCIP2. The following main topics have been studied and are included in the CCIP1 Special Study. Information developed for the CCIP1 was used for decision-making and facility design for the CCIP2.

- Updated totals for existing sewage flows generated by the Township.
- Estimated flows as available from neighboring systems.
- Projected sewage flows for five year and ten year increments.
- Evaluation of interceptor capacities.
- Need for Infiltration/Inflow (I/I) work related to the above items.
- Preliminary design considerations and financial feasibility.

2.2 Plan Content

This plan is specifically focused on subjects necessary for sizing for the CCIP2 and comparing the option to pump the wastewater to the DELCORA pump station. Therefore many of the topics addressed in the PaDEP Completeness Check List are not applicable to this Special Study and/or are already addressed in the upper CCI Special Study and in the current revision of the Township's Act 537 Plan. Also, there are sections of the existing plan that require updating as they apply to the CCI upgrade. Throughout this

document the status of topics (existing, updated, or new material) will be noted. In addition, the Completeness Checklist found in the Appendix will also indicate where the various components can be reviewed.

3 Previous Wastewater Planning

Previous sewage facility planning is listed in the current revision of the Middletown Township, Delaware County, Act 537 Plan. The latest revision is titled the 2003 UPDATE REVISION and is dated March 2003. All references to the current or latest plan refer to this “2003 Plan”. The topic of previous wastewater planning is covered in detail in the CCIP1 report and is not repeated here except as required for clarity of the topics being reviewed.

The 2012 Special Study for the upper CCI was completed to consolidate and update planning for sections of the CCI located north of Knowlton Road to the Glen Riddle section of Middletown Township. There are a substantial number of proposed development projects with approved Planning Modules most of which will have an impact on the CCI Upgrade Planning. These projects along with sewage flow projections are listed later in this document. Estimated flows generated for the CCIP1 study were used for sizing pipe for the CCIP2 project.

4 Physical And Demographic Analysis

Many of the items under this heading listed on the Completeness Checklist are contained in the 2003 Plan. The resulting flow from this Plan was used in the sizing of the CCIP2. Other items are updated or discussed with additional information below.

4.1 Limitations With Existing Facilities

The need for this facility is based upon the unknown but probable shortfall of capacity in the existing SWDCMA interceptor serving this area. Currently there is a limitation on connections to the SWDCMA system. More specifically, as it relates to MTSA, the limitation on connections is the SWDCMA Chester Creek Interceptor. The limitation on

connections essentially restricts the issuance of building permits in Middletown Township until such time that corrective measures are taken to reduce Inflow and Infiltration (I&I) into the Authorities system. Additionally, the capacity of the line is known but existing and future needs by SWDCMA have not been determined to date. Future flow estimates for just the MTSA needs exceed the existing line capacity. Finally, complete separation of sewage emanating from Aston and Middletown Townships is required as part of the Global Agreement. Installation of a separate line by MTSA eliminates SWDCMA CCI capacity concerns and facilitates implementation of the Global Agreement.

4.2 Future Growth And Land Development

Many of the items under this heading listed on the Completeness Checklist are contained in the 2003 Middletown Township Sewage Facilities Plan. Other items are updated or discussed with additional information below.

4.2.1 Delineation Of Areas With Existing Development Or Plotted Subdivisions

The Tables 2 and 3 are based on the MTSA 2012 Chapter 94 Report. The entire report is included in the Appendix. Table 2 includes planned future extensions of the MTSA collection system to serve existing development. These extensions were approved under the 2003 Middletown Township Sewage Facilities Plan.

Table 2 - Projects with Permits or Pending PaDEP Approval

| Subdivision Name | Connection Point | Number of EDUs | Number of EDU's Connected | Estimated ADF Remaining (gpd) * |
|-----------------------------|---------------------------|----------------|---------------------------|---------------------------------|
| Ponds Edge | Chester Creek Interceptor | 225.00 | - | 59,062.50 |
| 107 W Forge Rd | Chrome Run | 3.00 | - | 787.50 |
| 176 S. New Middletown Road | Chrome Run | 3.40 | - | 892.50 |
| 252 W. Forge Rd | Chrome Run | 2.00 | - | 525.00 |
| Alan Mancil | Chrome Run | 4.00 | - | 1,050.00 |
| Arbors Subdivision | Chrome Run | 14.00 | 13.00 | 262.50 |
| Brasland Subdivision | Chrome Run | 5.00 | - | 1,312.50 |
| Cavaliere | Chrome Run | 2.00 | - | 525.00 |
| Chuckran; 228 Howarth | Chrome Run | 1.00 | - | 262.50 |
| First Blackhawk | Chrome Run | 6.00 | - | 1,575.00 |
| Halcyon (Edgemont Township) | Chrome Run | 21.00 | - | 5,512.50 |
| Hilldale Subdivision | Chrome Run | 4.00 | 3.00 | 262.50 |
| Mar-J Builders | Chrome Run | 20.00 | 11.00 | 2,362.50 |
| Martin Subdivision | Chrome Run | 1.00 | - | 262.50 |
| Skycrest | Chrome Run | 112.00 | - | 29,400.00 |
| Sweetwater Valley | Chrome Run | 4.00 | - | 1,050.00 |
| Wall Subdivision | Chrome Run | 2.00 | - | 525.00 |
| Wawa Dairy | Chrome Run | 115.00 | 69.74 | 11,880.75 |
| 440 Mt Alverno Rd | Crum Run | 2.00 | - | 525.00 |
| Linville Orchards | Crum Run | 6.00 | 4.00 | 525.00 |
| 386 Duttons Mill Road | Duttons Mill Road | 1.00 | - | 262.50 |
| Commonwealth RE | Glen Riddle | 5.00 | - | 1,312.50 |
| MTSA Extensions | Various | 121.00 | 20.00 | 26,512.50 |
| | | | - | - |
| | | | - | - |
| | | | - | - |
| Total | | 679.40 | 120.74 | 146,648.25 |

*Based on 262.5 gpd/EDU

Table 3 - Projects in Active Planning

| Subdivision Name | Connection Point | Number of EDUs | Number of EDU's Connected | Estimated ADF Remaining (gpd) * |
|------------------|---------------------------|----------------|---------------------------|---------------------------------|
| Firovanti | Chester Creek Interceptor | 3 | - | 787.50 |
| Franklin Mint | Chester Creek Interceptor | 781 | - | 204,999.38 |
| Executive Plaza | Chrome Run | 12 | - | 3,150.00 |
| Kudamal | Chrome Run | 4 | - | 1,050.00 |
| | | | - | - |
| | | | - | - |
| | | | - | - |
| Total | | 797 | 0 | 209,987 |

*Based on 262.5 gpd/EDU

4.2.2 Update Of Planning Necessary For Future Conveyance Capacity Based On Projected Needs

Letters concerning future capacity needs were sent out to all potential users of the Chester Creek Interceptor as part of the CCIP1 Special Study. There have been preliminary discussions concerning projects in Edgmont Township that could be connected to the MTSA system for conveyance to the SWDCMA treatment facility. Potential flows from one Edgmont Township project have been included in the future flow requirements. It should be noted that there is currently no agreement with Edgmont with the exception of the Halcyon Development. This report in no way allocates capacity in the MTSA sewer system to projects in Edgmont Township other than the one that has been approved. Future Sewage Facilities Planning will be necessary to evaluate collection and conveyance capacity in the MTSA sewer system for any projects in Edgmont Township. Previously identified SWDCMA projects are included in future flow requirements. SWDCMA potential needs were included since a further extension of the CCI from Glen Riddle to Baltimore Pike is possible and contemplated. This extension will pass below a SWDCMA pump station (Team Road). The incremental increase in pipe size to handle this flow was not significant therefore good planning dictates consideration of this flow in the interceptor design. Please note, use of this portion of the MTSA system is conceptual only. There is no requirement nor is there a guarantee of capacity for Aston Township in the CCIP1 or CCIP2. Future Sewage Facilities Planning will be necessary to evaluate collection and conveyance capacity in the MTSA sewer system for any projects in the northwestern portion of Aston Township.

Table 4 is a reiteration of the same Table in the CCIP1 study used to predict future build out of Middletown Township. The information was determined by first selecting open tracts from the Township map where it appeared there may be some potential for development at some point in the future. The next step was to determine the size and current zoning of these tracts. Once this was complete, an estimate of the potential number of EDU's was made based on 80% net area being buildable. These EDU's were

then assigned to the appropriate interceptor connection point. Figure 4 maps the location of the parcels discussed in this section.

Table 4 - Long term Development Potential

| Tract No. | Area (Acres) | Zoning | EDUs | Connection Point |
|-----------------|--------------|--------|------|------------------|
| 1 | 104.2 | I-3 | 208 | Chrome Run |
| 2 | 2.4 | R-1 | 2 | Chrome Run |
| 3 | 34.5 | M | 35 | Glen Riddle |
| 4 | 44.2 | R-2 | 88 | Crum Run |
| 5 | 81.7 | R-1 | 81 | Duttons Mill |
| 6 | 24.5 | R-1 | 24 | Duttons Mill |
| 7 | 16.5 | R-1 | 16 | Duttons Mill |
| 7 | 16.5 | R-2 | 33 | Duttons Mill |
| 8 | 31.7 | R-1 | 31 | Duttons Mill |
| 9 | 13.1 | R-5 | 65 | Duttons Mill |
| 10 | 3.4 | R-1 | 3 | Chrome Run |
| 11 | 17.8 | R-1 | 17 | Chrome Run |
| CCI Connections | | | 603 | |

Notes

1. Area = 80% of gross tract area

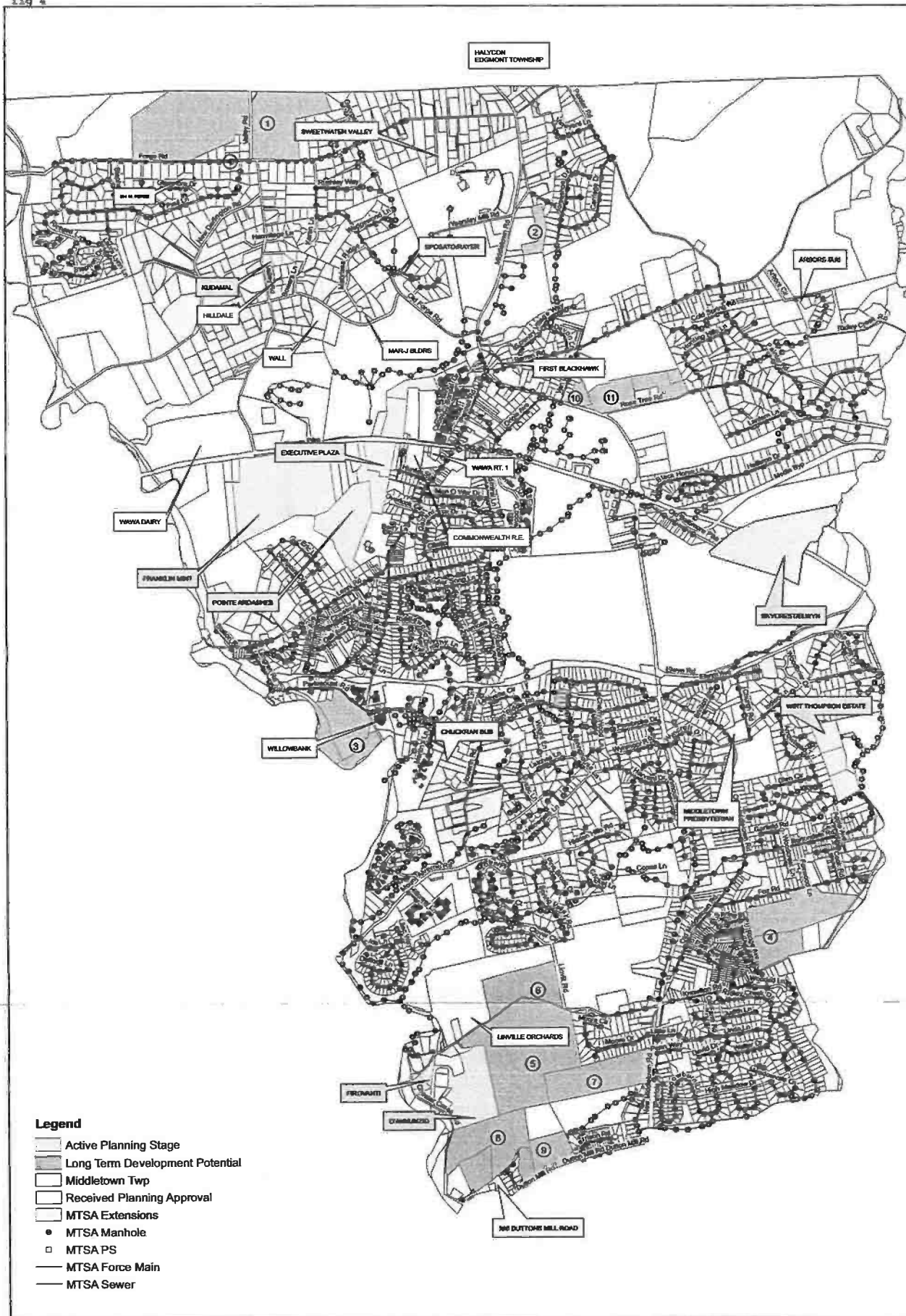
4.3 Existing Flows

Flow meter readings were used to record existing flows through the system. The meter previously at the lowest point of the Chester Creek Interceptor where it connects to the SWDCMA 30" diameter section indicated current average daily flows (ADF) of approximately 2.53 MGD. The meter indicated that peak flow rates were running about 1.5 times the ADF or approximately 3.76 MGD. However, this lower peak could be a result of the fact that the siphon just upstream has limited capacity and is acting as a restrictor. In accordance with the "10 States Standards" and PaDEPs Sewage Pumping Station Guidance document, the peaking factor for flows of this magnitude is 2.5. The 3.76 MGD peak flow falls within the best guess capacity of the line with the understanding that some surcharging is occurring in the system. Note that these figures represent dry weather flows and that storm events and wet periods produce flows that are

substantially higher. The SWDCMA flow contribution is approximately 0.35 MGD based on the meter readings provided. See the Appendix for the meter data used in this report. Note that the SWDCMA flows are no longer pertinent to the MTSA design with the selection of the separate line as the plan of choice. However some SWDCMA potential needs were included since a further extension of the CCI from Glen Riddle to Baltimore Pike is possible and contemplated. This extension will pass below two SWDCMA pump stations (Eagle and Team Road). The incremental increase in pipe size to handle this flow was not significant therefore good planning dictates consideration of this flow in the interceptor design.

4.4 Projected Future Needs

Chapter 94 reports for MTSA (2012) were used to project the future needs of the system. PaDEP recommended design standards were used for flow estimates unless noted otherwise in the Chapter 94 reports. Table 4 is provided to document preliminary design of the various segments of the Chester Creek Interceptor. The preliminary design is subject to change during the final design phase based on flow meter readings and possible revisions to the projected development projects. Pipe size is based on the projected ultimate build out flow as detailed in this Special Study and includes a 3.0 peaking factor applied to the projected average daily flow (ADF). Flow projections for the various drainage areas and connection points are shown in Tables 5 and 6. Figure 4 graphically shows the location of future flow projections. For additional information, see the Chester Creek Interceptor Schematic Diagram (Figure 5) for orientation of the connection points and line segments. Finally, Table 5 outlines the sizing of the proposed Interceptor pipe segments.

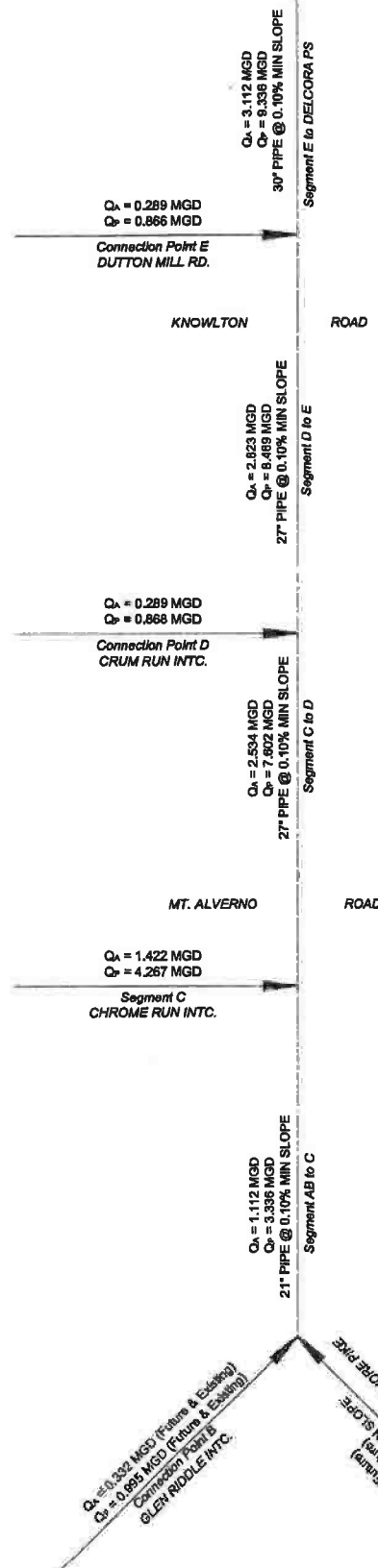
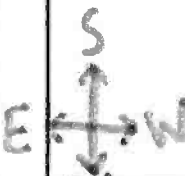


EXISTING CCI

SWDCMA

MTSA

SWDCMA



NOTES:
 Q_a = AVERAGE DAILY FLOW
 Q_p = PEAK DAILY FLOW
 PF = PEAK FLOW FACTOR
 Q_a(MGD) x 3.0 PF = Q_p(MGD)
 LONG TERM PROJECTED FLOWS ARE BASED ON TRACTS WHERE NO PLANNING FOR DEVELOPMENT HAS BEEN COMPLETED. (EST. FLOW BASED ON CURRENT ZONING.)

Phase 1 Project

Phase 2

This plan is a reproduction of an original plan that is the property of Bradford Engineering Associates, Inc. If this plan does not have the signature and seal of the Professional Engineer responsible for the project, whose name appears in the adjacent Title Block, it shall be considered as unprofessional error. Any reuse or misapplication of this plan or the information contained on the plan without the express written consent of Bradford Engineering Associates, Inc. will be at the user's sole risk and without any liability to Bradford Engineering Associates, Inc.

Bradford Engineering Associates, Inc.
 Civil Engineers
 2710 Concord Road, Suite 3 Astm, PA 19014
 Phone: (610) 497-0200 Fax: (610) 500-5677

| | | | | | | |
|--------|--|-----------------|-----|-------|----------|---------------------|
| CLIENT | MIDDLETOWN TOWNSHIP DELAWARE COUNTY SEWER AUTHORITY | APPROVED | WAF | SCALE | N.T.S. | W.O. No. 100-968 |
| | | DRAWN | HAF | | | |
| TITLE | CHESTER CREEK INTERCEPTOR PHASE 2 SIZING SCHEMATIC | CHECKED | WAF | DATE | MAY 2013 | DWG. No. 0 |
| | | DESIGN ENGINEER | JRP | | | |

Table 5 - Preliminary Design Flow Projections

CONNECTION POINT "A"- FUTURE EXTENSION OF CCI TO BALTIMORE PIKE.

| SOURCE | TIME FRAME | EST. FLOW (MGD) | EST. PEAK FLOW (MGD) |
|--------------------|---------------|-----------------|----------------------|
| METERED FLOW | EXISTING | N/A | N/A |
| * CHAPTER 94 | 0 TO 10 YEARS | 0.341 | 1.022 |
| ** LONG TERM PROJ. | OVER 10 YEARS | 0.440 | 1.319 |
| | TOTAL | 0.780 | 2.341 |

* Includes Potential Flow from Sleighton School Property not included in Ch 94 report

** Includes Potential Flow from SWDCMA (Based on Pump Station Capacity as reported in Ch 94 Report)

CONNECTION POINT "B"- GLEN RIDDLE CONNECTION.

| SOURCE | TIME FRAME | EST. FLOW (MGD) | EST. PEAK FLOW (MGD) |
|-----------------|---------------|-----------------|----------------------|
| METERED FLOW | EXISTING | 0.321 | 0.963 |
| CHAPTER 94 | 0 TO 10 YEARS | 0.001 | 0.004 |
| LONG TERM PROJ. | OVER 10 YEARS | 0.009 | 0.028 |
| | TOTAL | 0.332 | 0.995 |

CONNECTION POINT "C"- CHROME RUN INTERCEPTOR.

| SOURCE | TIME FRAME | EST. FLOW (MGD) | EST. PEAK FLOW (MGD) |
|-----------------|---------------|-----------------|----------------------|
| METERED FLOW | EXISTING | 1.274 | 3.822 |
| CHAPTER 94 | 0 TO 10 YEARS | 0.088 | 0.264 |
| LONG TERM PROJ. | OVER 10 YEARS | 0.060 | 0.181 |
| | TOTAL | 1.422 | 4.267 |

CONNECTION POINT "D"- CRUM RUN INTERCEPTOR.

| SOURCE | TIME FRAME | EST. FLOW (MGD) | EST. PEAK FLOW (MGD) |
|-----------------|---------------|-----------------|----------------------|
| METERED FLOW | EXISTING | 0.264 | 0.792 |
| CHAPTER 94 | 0 TO 10 YEARS | 0.002 | 0.006 |
| LONG TERM PROJ. | OVER 10 YEARS | 0.023 | 0.069 |
| | TOTAL | 0.289 | 0.868 |

CONNECTION POINT "E"- DUTTON MILL ROAD.

| SOURCE | TIME FRAME | EST. FLOW (MGD) | EST. PEAK FLOW (MGD) |
|-----------------|---------------|-----------------|----------------------|
| METERED FLOW | EXISTING | 0.222 | 0.666 |
| CHAPTER 94 | 0 TO 10 YEARS | 0.001 | 0.003 |
| LONG TERM PROJ. | OVER 10 YEARS | 0.066 | 0.197 |
| | TOTAL | 0.289 | 0.866 |

NOTES:

1. REFER TO CHESTER CREEK INTERCEPTOR SCHEMATIC DIAGRAM FOR ORIENTATION.
2. LONG TERM PROJECTED FLOWS ARE BASED ON TRACTS WHERE NO PLANNING FOR DEVELOPMENT HAS BEEN COMPLETED. (EST. FLOW BASED ON CURRENT ZONING.)

Table 6 - Preliminary Pipe Sizing for The Chester Creek Interceptor

1. INTERCEPTOR SEGMENT A/B to C

| | |
|--|--|
| ADF Connection Point A | $Q_A = 0.780$ MGD (Future). |
| ADF Connection Point B | $Q_A = 0.332$ MGD (Existing and Future). |
| Total PDF Seg. AB to C | $Q_P = 1.112$ MGD x 3.0 PF = 3.336 MGD |
| Preliminary size and slope selection = | 21" Pipe @ 0.10% minimum slope. |

2. INTERCEPTOR SEGMENT C to D

| | |
|--|--|
| ADF Seg. AB to C | $Q_A = 1.112$ MGD (Future and existing). |
| ADF Connection Point C | $Q_A = 1.422$ MGD (Existing and Future). |
| Total PDF Seg. C to D | $Q_P = 2.534$ MGD x 3.0 PF = 7.602 MGD |
| Preliminary size and slope selection = | 27" Pipe @ 0.10% minimum slope. |

3. INTERCEPTOR SEGMENT D to E

| | |
|--|--|
| ADF Seg. C-D | $Q_A = 2.534$ MGD (Future and existing). |
| ADF Connection Point D | $Q_A = 0.289$ MGD (Existing and Future). |
| Total PDF Seg. D to E | $Q_P = 2.823$ MGD x 3.0 PF = 8.469 MGD |
| Preliminary size and slope selection = | 27" Pipe @ 0.10% minimum slope. |

4. INTERCEPTOR SEGMENT E to DELCORA PS

| | |
|--|--|
| AADF Seg. D-E | $Q_A = 2.823$ MGD (Future and existing). |
| ADF Connection Point E | $Q_A = 0.289$ MGD (Existing and Future). |
| Line E to END | $Q_P = 3.112$ MGD x 3.0 PF = 9.336 MGD |
| Preliminary size and slope selection = | 30" Pipe @ 0.10% minimum slope. |

ADF = Average Daily Flow
PDF= Peak Daily Flow

5 Identification of Alternatives

5.1 Conventional Collection, Conveyance, And Treatment Alternatives

The MTSA system has been a part of regionalized wastewater disposal concepts since its inception. The existing agreement with SWDCMA provides for the treatment and final disposal of all wastewater generated in Middletown Township that can be connected to the public sewer system. Conveyance to SWDCMA's Baldwin Run Treatment Facility is provided by MTSA's CCI and part of SWDCMA's CCI from the area of Pennell Road and Glendale Boulevard upstream to a point roughly 700 feet south of the intersection of Pennell Road and Mount Road on the King's Mill property.

Both MTSA and SWDCMA have completed an inter-municipal agreement with DELCORA that will result in the conveyance of all wastewater generated in both Townships to DELCORA's system. The new agreement will provide for the construction of a regional pump station on the site of SWDCMA's plant with a force main installed to convey the wastes to DELCORA's Western Regional Treatment Plant. The station will be constructed, owned, and operated by DELCORA with costs being shared proportionately by the contributing users. This change in treatment facilities is consistent with MTSA's Act 537 Plan, which calls for treatment to be provided by another municipality.

MTSA and SWDCMA have The Global Agreement that, among other things, provides for the availability of easements in Aston Township needed by MTSA for interceptor construction..

5.1.1 Extension of Existing Facilities

Gravity extension of the Lower CCI is the Plan of Choice. This extension will be owned and operated by MTSA and will provide for the elimination of MTSA's flows in the SWDCMA's interceptor system.

The proposed interceptor extension will start at the existing CCI connection to the SWDCMA system at the Knowlton Road Bridge and will extend south approximately

parallel to Chester Creek within existing rights-of way wherever possible. The extension will be approximately 17,500 linear feet in length to its termination at MTSA's connection point at the proposed DELCORA pump station.

The specific alternates under evaluation for the downstream extension are:

Option 1 - An all gravity extension downstream from Knowlton Road to the new DELCORA Station.

Option 2 - A combination of gravity lines and pump stations. The main pump station would be located near Mount Alverno Road and would require an additional pump station to connect Dutton Mill Road flows via connection to a common force main terminating at the DELCORA Station.

The evaluation of these alternates is completed later in this Study.

5.1.2 Continued use of Existing Facilities (Do Nothing Alternative)

The Alternatives being evaluated include the continued use of existing municipal facilities. Repair, upgrading, and reduction of hydraulic loading are all elements of the Alternatives under consideration.

MTSA completed a major closed circuit TV inspection of the existing CCI and completed a number of repairs to the line as a result. The line is currently in good condition considering its 43 year age. Reduction of the hydraulic loading is being accomplished by an on-going program of extensive infiltration/inflow projects conducted by the Authority. The existing line will not meet the projected long-term needs of the Township even with modest flow reduction.

5.2 **Administrative Completeness Checklist Note**

The items from the Completeness Checklist noted below are not applicable to this Special Study. MTSA operates under a previously approved plan where these items were considered and addressed. As noted throughout this document, the scope of this Special

Study is limited to the selection and evaluation of CCIP2 installation alternatives. The topics not revisited are as follows;

- Use of individual sewage disposal systems.
- Use of small flow sewage treatment facilities.
- Use of community land disposal alternatives.
- Use of retaining tank alternatives.
- Sewage management programs.

6 Evaluation Of Alternatives

6.1 Evaluation Of Technical Feasible Alternatives With Respect To Existing Laws, Plans, and Regulations

All of the Alternates listed in Section 5 above, were evaluated for consistency and/or compliance with the following planning or regulatory agencies. All of the Alternates are consistent with the requirements as noted below.

- Sections 4 and 5 of the Clean Streams Law or Section 208 of the Clean Water Act.
- Municipal Wasteload Management Plans, Chapter 94.
- Plans developed under Title II of the Clean Water Act or Titles II and IV of the Water Quality Act.
- Plans developed under the PA Municipalities Planning Code.
- Anti-degradation requirements of PA Code, Title 25 Chapters 93, 94, and 102.
- State Water Plans.
- PA Prime Agricultural Land Policy.
- County Stormwater Management Plans.
- Wetlands protection.
- Protection of endangered plant or animal species.
- Protection of historic and archeological resources.

6.1.1 Acquisition of rights-of-way

Easements will be required from some property owners under the current alignment. See Figure 3. Substantial sections of the project will be located within State highway rights-of-way. The remaining sections of the project will require either new or expansion of existing rights-of-way. The Authority has the legal ability to negotiate acquisition of easements outside the borders of Middletown Township. Additionally, MTSA has the power of eminent domain to obtain needed easements on private property. Finally, with the signing of the Global agreement, easements needed for a gravity sewer system have been obtained from Aston Township to facilitate the installation of the CCIP2 sewer system

6.1.2 Extension of Existing Facilities Evaluation

Extension of the existing municipal facilities is the focus of this Special Study. The specific alternates under evaluation for upgrading are:

Option 1 – Gravity Interceptor from Knowlton Road Bridge to the proposed DELCORA pumping station.

Option 2 - Pump Station and force main from Mount Alverno Road to the proposed DELCORA pump station.

It became clear early on in the evaluation process that Option 1 would be selected as the Plan of Choice. The factors leading to this conclusion are as follows:

- The capital costs and ongoing O & M costs for one major pump station and one mid-sized pump station were considerably higher when looking at the Present Worth of each alternate. The Appendix contains a present worth analysis of both gravity and pump options.
- There is a higher risk of sewage spills with the use of pumps versus gravity lines. Even though today's pump stations are highly reliable, there

is always an increased risk when mechanical and electrical components are included in the system.

- It was the desire of the MTSA to segregate the flows from SWDCMA, if financially feasible, to avoid disagreements over flows, I/I, spills, etc. that have occurred in the past.

The largest impediment was the acquisition of easements from Aston Township. However with the signing of the Global Agreement, all needed easements have been obtained, making Option 1 even more feasible.

6.1.3 Extension of Existing Facilities- Description of Alternatives

6.1.3.1 Option 1 Gravity Interceptor

The proposed interceptor extension will start at the existing MTSA CCI connection with the SWDCMA system at the Knowlton Road Bridge. The line will extend south approximately parallel to Chester Creek within existing rights-of way wherever possible. The extension will be approximately 17,500 linear feet in length to its termination at the proposed DELCORA pump station. A preliminary alignment has been prepared and is included in the Appendix. The estimated cost to complete the upgrade of the Chester Creek Interceptor Phase 2 is approximately 6.87 million dollars. However, Option 2 described below would have eliminated nearly half of the CCIP1 gravity sewer. Therefore to properly compare both Options, updated costs of CCIP1 have been included in the evaluation of both options. The grand total of Option 1 (CCIP1 and CCIP2 gravity sewer) is ~~13.5 million dollars~~. A detailed cost estimate is provided in the Appendix.

\$ 10.84 M

6.1.3.2 Option 2 Pump Station and Force Main

The second option considered was to install a major pump station at Mount Alverno Road and install a 24" force main to the proposed DELCORA pump station. This option would also require extending the MTSA Crum Run Interceptor back to the pump station location and installing a second smaller pump station at Dutton Mill Road. It was

PS @ Mount Alverno Rd = Chester Creek PS

anticipated that the Dutton Mill pump station would connect directly to the Mount Alverno Road Pump Station force main.

Again, as explained in Option 1 above, to properly compare both Options, updated costs of CCIP1 has been included in the evaluation of both options. The grand total of Option 2 (CCIP1 gravity and CCIP2 pump station and force main) is 11.68 million dollars. Even though this Option has only slightly higher capital costs, the long term operations and maintenance cost of the station quickly increases its present worth value.

Option 2

The intangibles that come with this Option as stated earlier clearly make Option 1 the Plan of Choice.

6.2 Resolution of Inconsistencies with Other Agencies

There are no inconsistencies identified to date that require resolution with other agencies.

6.3 Evaluation Of Administrative Organizations

The Middletown Township, Delaware County, Sewer Authority will be the administrative organization responsible for the implementation of this plan. The Authority has the full legal authority to complete all tasks required for project implementation. The Authority is more fully evaluated in Section 7.0.

7 Institutional Evaluation

The Federal Water Pollution Control Act Amendments of 1972 mandated that the discharge of pollutants into the nation's waters be eliminated by 1985. To comply with this mandate, the State of Pennsylvania began the development of an area wide waste treatment plan to protect surface and groundwater from pollution. A comprehensive regional water quality plan was developed for Southeastern Pennsylvania (counties of Bucks, Chester, Delaware, Montgomery and Philadelphia) by the Delaware Valley Regional Planning Commission. The program was funded by the United States Environmental Protection Agency under Section 208 of the Water Pollution Control Act and the Pennsylvania Department of Environmental Resources. The COWAMP/208 plan

developed for Southeastern Pennsylvania meets the Federal mandated requirements for water pollution control. The legal authority for implementation of water pollution control management plans are found in the following legislation.

- Public Law 93-500, Federal Water Pollution Control Act Amendments of 1972.
- Pennsylvania Clean Streams Law, Act 394 of 1937 as amended.
- Pennsylvania Sewage Facilities Act 537 of 1966 as amended.
- Pennsylvania Municipalities Planning Code, Act 247 of 1968 as amended.
- Pennsylvania Municipal Authorities Act 382 of 1945 as amended.

The Pennsylvania Municipal Authorities Act 382 of 1945 as amended is the legislation in Pennsylvania that is used to finance local sewage projects.

The Middletown Township, Delaware County, Sewer Authority was incorporated under this Act in July, 1966, for the purpose of acquiring, constructing, improving, maintaining and operating a sewer system for the public. The Sewer Authority members are appointed by elected officials of the Middletown Township Council. Sewer Authority members are appointed for five year terms on a staggered basis so that a new member is appointed or reappointed every year.

The Middletown Township Sewer Authority was established as a Lease-Back Authority to plan, design, construct and finance wastewater facilities in areas designated by the Middletown Township Council. Since its inception the Sewer Authority has been actively involved with the completion of all major construction projects leased to Middletown Township and has provided administration of operation and maintenance of the system under an operating agreement with Middletown Township Council.

The Pennsylvania Department of Environmental Protection regulates municipal, industrial and institutional wastewater discharges made to surface and groundwater in the State. The responsibility for regulating development of on-site septic systems to serve suburban areas has been delegated to local governments through the Pennsylvania

Sewage Facilities Act 537. Under this Act, Middletown Township exercises control over the construction of on-site septic systems.

Facility Planning conducted by the Middletown Township Sewer Authority must consider and be consistent with regional sewage planning efforts completed by the Delaware County and the Delaware Valley Regional Planning Commission that has completed and coordinates Regional Planning activities for Southeastern Pennsylvania under COWAMP/208.

The Middletown Township Sewer Authority is in a sound financial position at the present time. The continued growth in the Township has provided a customer base that has permitted the Sewer Authority to complete a number of projects without substantially increasing the annual sewer rentals. The latest annual audit is shown in the Appendix.

8 Justification For Selected Alternates

A number of alternatives were evaluated as part of this study. The need for this study is based upon the unknown but probable shortfall of capacity in the existing SWDCMA CCI serving Middletown Township. Currently there is a limitation on connections to the SWDCMA system. More specifically, as it relates to MTSA, the limitation on connections is the SWDCMA Chester Creek Interceptor. The limitation on connections essentially prohibits the issuance of building permits in Middletown Township until such time that corrective measures are taken to reduce Inflow and Infiltration (I&I) into the Authorities system. Although permits for connects were released by PaDEP upon signing of the Global Agreement, the area is still under a Connection Management Plan. Additionally, the capacity of the line is known but existing and future needs by SWDCMA have not been determined to date. That being said, future flow estimates for just the MTSA needs exceed the existing line capacity. Accordingly, the “Do Nothing Alternative” is not a viable option.

8.1 Extension Of Chester Creek Interceptor

The Plan of Choice is Option 1, CCIP2 Gravity Sewer. The all gravity option was selected to avoid the O & M tasks and expenses along with the many intangibles related to the installation of two pump stations. The gravity sewer installation will be more difficult to design and construct but in the end, the higher reliability and less environmental risk pushed the decision toward the gravity option.

9 Proposed Implementation Schedule

The proposed implementation schedule below is based on estimated dates to complete the various milestones listed. MTSA will make every effort to keep the project on track. Milestone completion dates will be adjusted periodically to reflect actual progress toward project completion. The days to completion listed represent the estimated running total from PaDEP Plan approval (day 0).

Table 7 - Implementation Schedule

| <i>Schedule Item</i> | <i>* Days to Completion</i> |
|--|------------------------------------|
| PaDEP Act 537 Plan Approval | 0 |
| CCI Detailed Design | 270 |
| Submitt Design to PaDEP for Part II Permit | 270 |
| Receive Part II Permit | 360 |
| Solicit Bids for Construction | 360 |
| Start Construction (Notice to Proceed) | 480 |
| Complete Construction | 875 |
| Facility Start up | 905 |

CCIP2 ACT 537 PLAN

APPENDIX A

Middletown Township, Delaware County, Sewer Authority

**27 N. Pennell Road
Lima, PA 19037**

TRIBUTARY MUNICIPALITY

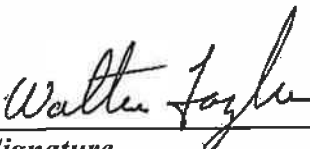
“2012 Chapter 94 Report”

March 2013

Prepared By:

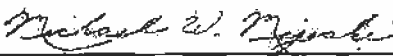
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2710 Concord Road, Suite 3
Aston, Pa 19014
(610) 497-6200
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Preparer:



Signature
Walter Fazler, PE

Permittee:



Signature
Michael W. Majeski

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1. Introduction

The service area covered by this report includes all sections of Middletown Township that are currently served by public sewers. Maps identifying the limits of the service area and other features are included in the Appendix. The initial phase of sewer installation in the Township was completed in 1968. Major expansions of the system have been completed in five phases since 1978. The Authority and subdivision developers completed many other minor extensions.

Wastewater generated in Middletown Township is conveyed to the Southwest Delaware County Municipal Authority (SWDCMA) for treatment via two connections to their Chester Creek Interceptors (CCI). Middletown's 24" diameter CCI connects to the SWDCMA 30" diameter CCI at Knowlton Road, south of the bridge over Chester Creek. The Dutton's Mill Road Interceptor is connected to the SWDCMA CCI near Dutton's Mill Road and Creek Road. Currently, SWDCMA discharges a portion of its flows into the MTSA Chester Creek Interceptor; specifically the Northwest Sewer District, Ballinahinch, and areas formally served by the SWDCMA's Old Pennell Road and Village Green pump stations.

The MTSA owned portion of the Chester Creek Interceptor is shared by MTSA and SWDCMA. In order to accurately quantify MTSA contribution of flow to the SWDCMA plant, five connection points to the Chester Creek Interceptor have been identified. These connection points are outlined on the attached map and listed in the chart below.

MTSA Connection Points to the Chester Creek Interceptor:

1. Glen Riddle (Currently offline)
2. Chrome Run
3. Crum Run
4. Old Mill Pointe
5. Dutton's Mill Road

Additionally, MTSA has transferred ownership of the Bortondale Road Pump Station to the Upper Providence Township Sewer Authority (UPTSA) for use in their SASSE project. Current flow for this connection was estimated using the number of UPTSA EDUs connected to the Bortondale Station and assuming 225 GPD/EDU.

On November 14, 2012, Middletown Township received approval of their Act 537 Plan revision for the Chester Creek Interceptor (CCI) Expansion and Extension. This is also referred as the CCI Phase 1. The CCI and Chrome Run Interceptor sewers were constructed as part of the original 1968 sewer project to convey sewage flows to the Southwest Delaware County Municipal Authority system for treatment. Since that time, the Crum Run Interceptor has been connected to the Chester Creek Interceptor. In addition, significant changes in sewage planning on both the County and local levels have resulted in additional flows through the interceptor lines that were not considered in the original design. The approved Act 537 Plan Revision, Special Study for the CCI documented existing flows in the interceptor, potential future flows in the tributary watershed, and examined the need to upgrade the system. Additionally, the Special Study addressed immediate needs for temporary relief of Sanitary Sewer Overflows (SSO) in the SWDCMA Upper Chester Creek Interceptor. In order to accomplish this, the MTSA Glen Riddle Pump Station was reactivated in accordance with PaDEP requirements to divert flow around the SWDCMA Upper Chester Creek Interceptor.

The discharge point of the Glen Riddle pump station is a gravity collection line tributary to the MTSA Chrome Run Interceptor. Because of the increased loading on the Chrome Run Interceptor, there are concerns of available capacity in portions of the Chrome Run Interceptor. Capacity should be available for all current planned and future projects scheduled to discharge to the Chrome Run Interceptor as outlined in Table 2 of this report. Any significant changes or requests for capacity will require further study of capacity in the Chrome Run Interceptor.

Final design is currently underway for the CCI Phase 1 project. The expected completion date is December of 2014.

Currently there is a limitation on connections to the SWDCMA system. More specifically, as it relates to MTSA, the limitation on connections is the SWDCMA Chester Creek Interceptor. The limitation on connections essentially prohibits the issuance of building permits in Middletown Township until such time that corrective measures are taken to reduce Inflow and Infiltration (I&I) into the Authorities system.

MTSA has committed substantial resources to the elimination of I&I. This includes

adding an I&I Coordinator as a paid position to the Authority staff. I&I reduction measures that have been taken over the past year are discussed later in this report.

On March 15, 2010, MTSA entered into a conveyance and treatment agreement with the Delaware County Regional Quality Control Authority (DELCORA). SWDCMA also has entered into a similar agreement. All flow that are currently treated at the SWDCMA Baldwin Run Pollution Control Facility will be conveyed via a pump station and force main to the DELCORA Western Regional Treatment Plant.

To further alleviate problems in the SWDCMA CCI and to accommodate future flows, Middletown Township will be further revising its Act 537 Plan to divert flow from the SWDCMA CCI into a new interceptor along Chester Creek (MTSA CCI Phase 2) to the new DELCORA pump station. The expected approval of this Act 537 Revision is April 2014. Expected construction completion of Phase 2 is May of 2017.

Finally, in 2010, the SWDCMA and MTSA began work on the “Global Agreement” which essentially provided for transfer of assets and easements to both Authorities and more importantly “fully and finally resolved any and all issues that have arisen among them since they entered into the SWDCMA/MTSA 19668 Agreement.” In October 2012, PaDEP assisted with the negotiation process by providing the incentive of releasing all required permits needed until the DELCORA pump station becomes operational once the Global Agreement has been executed. On February 25, 2013, the Global Agreement was executed by both Authorities.

2. Current Hydraulic Loading

The sum of the average daily flows from all connection points for the year 2011 is summarized in the following table. The flow data is taken from all available metering data.

| TABLE 1 | | | | | | | | |
|-------------------------------------|---------------|------------|----------------|----------|--------------|------------|----------|----------|
| Interceptor Hydraulic Loading (MGD) | | | | | | | | Rainfall |
| Interceptor | * Glen Riddle | Chrome Run | Old Mill Point | Crum Run | Duttons Mill | UPTSA Flow | Total | (in.) |
| January | 0 | 1.761 | 0.014 | 0.317 | 0.298 | -0.052 | 2.338475 | 5.85 |
| February | 0 | 1.44 | 0.014 | 0.269 | 0.264 | -0.052 | 1.935 | 1.4 |
| March | 0 | 1.383 | 0.014 | 0.25 | 0.266 | -0.052 | 1.861 | 1.9 |
| April | 0 | 1.199 | 0.014 | 0.252 | 0.235 | -0.052 | 1.648 | 3.3 |
| May | 0 | 1.214 | 0.014 | 0.244 | 0.22 | -0.052 | 1.64 | 3.85 |
| June | 0 | 1.098 | 0.014 | 0.214 | 0.213 | -0.052 | 1.487 | 4.1 |
| July | 0 | 1.064 | 0.014 | 0.222 | 0.182 | -0.052 | 1.43 | 2.4 |
| August ** | 0 | 1.274 | 0.014 | 0.218 | 0.166 | -0.052 | 1.62 | 5 |
| September ** | 0 | 1.274 | 0.014 | 0.272 | 0.185 | -0.052 | 1.693 | 11.75 |
| October | 0 | 1.221 | 0.014 | 0.286 | 0.194 | -0.052 | 1.663 | 8.9 |
| November | 0 | 1.142 | 0.014 | 0.292 | 0.203 | -0.052 | 1.599 | 1.25 |
| December | 0 | 1.22 | 0.014 | 0.335 | 0.234 | -0.052 | 1.751 | 6.45 |
| Average | | 1.274 | 0.014 | 0.264 | 0.222 | -0.052 | 1.722 | |

*The Glen Riddle Connection is temporarily disconnected from the CCI and diverted to the Chrome Run Interceptor

** Flow is estimated due to meter failure

Copies of the Chrome Run, Crum Run and Duttons Mill flow meter reports are attached to the report as an appendix.

3. 5-Year Hydraulic Loading Projections

The following tables will outline the MTSA 5-year hydraulic loading projections. Table 2 shows the committed and approved EDUs that can or will be connected to the MTSA system in the near future.

| TABLE 2 | | | | |
|---|---------------------------|----------------|---------------------------|---------------------------------|
| Projects that have received Planning Approval | | | | |
| Subdivision Name | Connection Point | Number of EDUs | Number of EDU's Connected | Estimated ADF Remaining (gpd) * |
| 107 W Forge Rd | Chrome Run | 3.00 | | 787.50 |
| 176 S. New Middletown Road | Chrome Run | 3.40 | - | 892.50 |
| 252 W. Forge Rd | Chrome Run | 2.00 | | 525.00 |
| 386 Duttons Mill Road | Duttons Mill Road | 1.00 | | 262.50 |
| 440 Mt Alverno Rd | Crum Run | 2.00 | | 525.00 |
| Alan Mancil | Chrome Run | 4.00 | | 1,050.00 |
| Arbors Subdivision | Chrome Run | 14.00 | 13.00 | 262.50 |
| Brasind Subdivision | Chrome Run | 5.00 | | 1,312.50 |
| Cavaliere | Chrome Run | 2.00 | | 525.00 |
| Chuckran; 228 Howarth | Chrome Run | 1.00 | - | 262.50 |
| Commonwealth RE | Glen Riddle | 5.00 | - | 1,312.50 |
| First Blackhawk | Chrome Run | 6.00 | - | 1,575.00 |
| Halcyon (Edgemont Township) | Chrome Run | 21.00 | - | 5,512.50 |
| Hilldale Subdivision | Chrome Run | 4.00 | 3.00 | 262.50 |
| Linville Orchards | Crum Run | 6.00 | 4.00 | 525.00 |
| Mar-J Builders | Chrome Run | 20.00 | 11.00 | 2,362.50 |
| Martin Subdivision | Chrome Run | 1.00 | - | 262.50 |
| MTSA Extensions | Various | 121.00 | 20.00 | 26,512.50 |
| Point Ardashes | Chester Creek Interceptor | 117.00 | - | 30,712.50 |
| Skycrest | Chrome Run | 112.00 | | 29,400.00 |
| Sweetwater Valley | Chrome Run | 4.00 | | 1,050.00 |
| Wall Subdivision | Chrome Run | 2.00 | - | 525.00 |
| Wawa Dairy | Chrome Run | 115.00 | 69.74 | 11,880.75 |
| | | | | - |
| | | | | - |
| | | | | - |
| Total | | 571.40 | 120.74 | 118,298.25 |

Tables 3 and 4 were developed using the PaDEP example for calculating the five-year adjusted annual average flow. Flow projections are a best guess number and largely depend on capacity at the SWDCMA treatment facility and regional economic conditions.

| TABLE 3 Calculation of Adjusted Annual Average Flow | | | | | | | |
|---|-------------------|--------------------|-------|-------|-------|-------------------|---------------------|
| Year | AA Flow in MGD | All EDUs connected | | | | | Adjusted AA Flow |
| | | 2008 | 2009 | 2010 | 2011 | 2012 | |
| 2008 | 1.512 | | 0.003 | 0.012 | 0.001 | 0.000 | 1.528 |
| 2009 | 1.480 | | | 0.012 | 0.001 | 0.000 | 1.493 |
| 2010 | 1.661 | | | | 0.001 | 0.000 | 1.662 |
| 2011 | 1.902 | | | | | 0.000 | 1.902 |
| 2012 | 1.722 | | | | | | 1.722 |
| Total | 8.277 | | | | | Total | 8.308 |
| 5 Year Average | 1.655 | | | | | 5 Year Average | 1.662 |

| TABLE 4 Adjusted Projections | | | | |
|--|--|----------|--------------------------------------|---|
| Year | Previous Year's Annual Average Flow ₁ | New EDUs | Increased Flow ₂ (MGD) | Projected Annual Average Flow ₃ (MGD) |
| 2013 | 1.662 | 15.4 | 0.004 | 1.665 |
| 2014 | 1.665 | 73 | 0.018 | 1.684 |
| 2015 | 1.684 | 111 | 0.028 | 1.711 |
| 2016 | 1.711 | 76 | 0.019 | 1.730 |
| 2017 | 1.730 | 175 | 0.043 | 1.773 |

4. Sewer Extensions

A Map showing all sewer extensions constructed in the past calendar year, approved extensions not yet constructed, and projects in preliminary planning but not yet with Permits are included in the Appendix. Tables 2 and 2A summarizes all projects that require public sewers. Individuals or corporate entities sponsor the majority of these projects. Economic conditions in the region will dictate the build out rate of these projects. Based upon the hydraulic loading projection, the projects listed will not have a

negative effect on the population served by the MTSA. Table 2A contains projects that MTSA is aware of, however it is not used in any calculations in this report. Table 2A is used strictly for strategic long term planning.

| TABLE 2A | | | | |
|--|----------------------------|----------------|---------------------------|---------------------------------|
| Projects that may require public sewer | | | | |
| Subdivision Name | Connection Point | Number of EDUs | Number of EDU's Connected | Estimated ADF Remaining (gpd) * |
| Executive Plaza | Chrome Run | 12 | - | 3,150.00 |
| Firovanti | Chester Creek Interceptor | 3 | - | 787.50 |
| Franklin Mint | Chester Creek Intrreceptor | 781 | - | 204,999.38 |
| Kudamal | Chrome Run | 4 | - | 1,050.00 |
| | | | | |
| | | | | |
| Total | | 800 | 0 | 209,987 |

*Based on 262.5 gpd/EDU

5. Program for Sanitary Sewer Monitoring, Maintenance, and Repair

The following is a discussion of the Authority's program for sanitary sewer system monitoring, maintenance, repair and rehabilitation, including routine and special activities.

➤ *Lateral Inspections*

Over the past several years, the Authority has been working on a program to thoroughly inspect the Authority owned laterals and privately owned building sewers in the Township. The Authority has drafted a lateral inspection ordinance for Middletown Township to adopt. This Ordinance not only requires "Certification" of the lateral and building sewer at the time of sale, it also give the Authority the right to inspect all laterals in an area that has been identified as having excessive I&I. In addition, the Authority decided that the cost to implement this program will be budgeted and paid for by the Authority. The rational for this decision was that the benefit of finding and eliminating sources of I&I will be shared by the entire user base through reduced system upgrades and treatment expenses.

➤ *Collection System Operation*

The Middletown Township Sewage Collection System is monitored continuously by a team of dedicated and conscientious individuals with approximately 150 collective

years of environmental protection experience. DEP records will demonstrate the proactive track record of this organization.

The Team includes:

Aqua Wastewater Management, Inc., mechanics who visit large horsepower pump stations at least 3 times per week and smaller pump stations at least weekly. All stations have telephone or radio dialers keeping mechanics apprised of any abnormal operating conditions.

Authority Engineers and Inspectors at Bradford Engineering Associates, Inc. monitor flow meters; system maintenance and repair procedures, Infiltration & Inflow Programs, etc. Bradford Engineering specializes in sanitary sewer design and provides construction, operation and maintenance inspections.

Authority Manager is a full time employee since 1972 and is on call 24 hours per day to respond to system problems. The manager is a licensed Wastewater Collection System Operator.

The Authority also created the position of *I&I Program Coordinator*. This position will be responsible for coordination projects such as lateral inspections, flow metering of the gravity sewers and pump stations, working with the engineer on closed circuit TV projects and repairs, as well as many other projects in Middletown Township.

Pa. State, Aston, Media, Brookhaven and Upper Providence Police Departments; SWDCMA; PA. D.O.T.; Middletown Public Works Dept. and Building & Plumbing Dept.; Fire Marshal and Fire Companies; Pa. Fish & Boat Commission; Delaware Co. Conservation District; Chester-Ridley-Crum Creeks Assoc.; Aqua America; PECO; Verizon; Sunoco and Mobile Pipeline companies; corporate facilities supervisors; Pa. One Call System; various civic associations, commercial and industrial facilities managers, hikers, equestrians and individual property owners are each considered valuable members of our surveillance team. Years of mutual cooperation with these

various public and private entities has created a network of emergency responders with a proven record of quick reaction to potential or actual emergency situations involving this Authority's system as well as neighboring sewer systems.

All but one of the 18 residential grinder pump installations owned by the Sewer Authority are duplex pumps and are maintained as needed. In 2008, MTSA purchased new cores from Environment One Corp. The old cores provided numerous years of good service. The new and improved model should provide the same reliability. Aqua Wastewater Management, Inc. (AWMI) and Site Specific Design, Inc. provide service on a 24-hour basis as needed. All property owners are provided written instructions for emergency service needs. The Authority has spare E-One pump cores for emergency backup to the 18 installations owned by the Authority as well as any other privately owned E-One installations within the Township.

The monthly services reports from AWMI are attached to this report as an appendix. Please refer to these service reports to answer questions about "specific" repairs and frequency of maintenance. Also note that prior to April 1, 2005 the AWMI mechanics were employees of the MTSA and are licensed by DEP as Collection System Operators. AWMI's Chief Mechanic, George Golden is a licensed STP Operator and has worked with MTSA since 1981.

➤ *Township and State Road Paving Programs*

Middletown Sewer Authority believes that a major source of inflow is under manhole frames.

Under the annual paving programs, the Sewer Authority participates in raising and/or replacing existing manhole frames. This Authority does not permit the use of steel riser rings for adjusting the height of frames. We believe the rings allow too much inflow, and defeat the purpose of the built-in lid gaskets that we have specified for several years.

The Authority pays Penn DOT and the Township's contractors to raise the frames with precast concrete rings or recycled rubber rings with sealant. On all state highway-paving projects, new frames and gasketed covers are installed. Current cost per manhole is about \$500 for adjustment. Replacement frames and covers average about \$300 each.

➤ ***House Sewer Inspection Reports***

When Land Title Companies request sewer account certifications from the Sewer Authority the seller of the property is required to complete a Sewer Drain Report. The owners must certify that no sump pumps are connected to the sanitary sewer drains; downspouts are not connected; and that all clean-out caps and vent pipes in the lawn are accessible and in watertight condition. Once the new sewer connection ordinance is adopted, this process is expected to be completed during the CCTV of the building sewer and lateral. One hundred and forty-four Sewer Drain Reports were filed in 2012 with 4 illegal sump pumps reported and one buried clean-out.

➤ ***Pennsylvania One Call System***

The State of Pennsylvania requires that public utilities mark the location of service lines to properties prior to any excavation on a property. Each time we visit a property to mark out the sanitary sewer, we locate and inspect the vent and any clean-out caps in the lawns. If caps are found broken, missing, or not water tight, we notify the property owners of the condition and require a repair under the Township's Plumbing Codes.

We also advise property owners of "do-it-yourself" repair methods or provide a list of plumbers. The Authority makes new cast iron vent caps, Fernco Connectors, and pieces of PVC pipe, available to homeowners who wish to make repairs to cleanouts.

We also conduct annual inspections of various townhouse developments, which have

privately owned 6" diameter common sewer lines.

➤ ***Public Awareness Efforts***

The Township has established an Internet Web Page (www.middletowntownship.org) and the Sewer Authority is included. Past and current project are described. Articles about the Authority's Infiltration and Inflow Programs have been occasionally included in the Township's quarterly newsletters as well as community association newsletters. Project Notices are also published on the Township Cable Channel supplied by Comcast.

Approximately 5000 brochures entitled *Stop Throwing Money Down the Drain!*, produced by DELCORA with a grant from PADEP, were distributed to all property owners in Middletown Township with the annual tax bills. The brochure educates residents on sewer lateral maintenance and inflow/infiltration reduction efforts. An educational video produced by DELCORA is available to the public on Middletown's Public Cable Channel as well as the Township website.

Middletown Sewer Authority and its Consulting Engineers, Bradford Engineering Associates, Inc., participated on the steering committee assembled by DELCORA to develop the above referenced educational material.

➤ ***Inflow and Infiltration Inspection Programs***

The following is a summary of the Inflow/Infiltration (I&I) abatement actions taken by the Middletown Township Sewer Authority (MTSA). MTSA's I&I abatement activity over the past year continued, and the Authority has pledged significant funds for future work.

➤ ***Closed Circuit Television Work***

The Riddlewood CCTV project was awarded in 2012. The project area included the inspection of right-of-way sewers in the Riddlewood/Glen Riddle sections of the Township along with right-of-way along the railroad between Elm Ave and Laurel

Lane.

This project, although not as large in terms of footage as the last several projects was one of the more difficult to complete. The sewer pipes are located in unmaintained areas of the Township. Before work on cleaning and CCTV began, several trees needed to be removed. Additionally a temporary wetlands crossing needed to be installed to allow heavy equipment to reach the sewer system.

Also, on a percentage basis, there were far more leaks found and repairs made than on previous projects. We believe the work on the project significantly reduced the amount of I&I into the system. Analysis of the I&I reduction is still being performed.

The following is a summary of work performed on the project:

| | |
|--|----------|
| 1. Sewer cleaned and televised. | 6,897 LF |
| 2. Heavy cleaning (includes root cutting). | 2,942 LF |
| 3. Individual joints grouted. | 28 EA. |
| 4. Total grout used. | 480 GAL. |
| 5. Cured in place pipe liners (various lengths). | 17 EA. |
| 6. Lateral reinstatements. | 1 EA. |

The Total cost of the project was \$96,000.

➤ ***Private Lateral Repairs***

Glenloch (3); Alverno Valley (2), plus one root treatment. Approximately one dozen permits were issued for lateral repairs on private properties.

Illegal Sump Pumps Disconnected: 4 each (144 Sewer Drain Reports Filed)

➤ ***GIS System and Mapping***

In order to accurately record problem areas, MTSA implemented a Geographical Information System (GIS) program specifically oriented towards mapping the entire sewer system throughout the Township. As it relates to I&I, the mapping program gives MTSA the ability to graphically show all areas that have been inspected and aid in planning future inspection efforts. Currently, the Authority and Middletown Township are working on a GIS system that can be implemented to cover all infrastructure and

properties in the Township. This system is centrally located at the Township, and includes MTSA I&I abatement activity.

The Authority's 5 year Capital Budget is being updated on a yearly basis. In this plan, the Authority is pledging significant funds to I&I abatement activity. The Authority plans on continuing to monitor the sanitary sewer system and evaluate the need to perform CCTV inspection.

6. Condition of the Sewer System

The following is a discussion of the condition of the sanitary sewer system starting with metered flows of the major interceptors.

The Authority is finalizing a study of its options to remediate various stream bank erosion problems along Chrome Run. At this time, no interceptor manholes are known to become submerged during normal heavy rains. Some manhole sides are becoming exposed due to loss of soil over the years. It appears the best alternative will be to relocate the sewer lines based on lower construction and engineering costs along with minimal impact on the environment. Work on this system will most likely be performed with work on the MTSA Chester Creek Interceptor upgrade project.

The following is a list of repairs made to the system during the 2012 Calendar Year

- **Manholes raised and sealed:**
 - Barren Road (13); Riddlewood/Glen Riddle (6); Alverno Valley and Glenloch
- **Easements Cleared:**
 - Approximately 6,500 LF in the Riddlewood, Glen Riddle and Lenni areas.
- **Manhole Inspections**
 - 121 Manholes were inspected in the 2012 calendar year. A detailed inspection report for each manhole was created. Any deficiencies along with severity were noted.
 - 119 manhole inserts were installed in the Riddlewood section of the

Township. The manhole inserts are manufactured by Parsons. The idea of the insert is to stop inflow of rain water into the manhole from the joint between the cast iron cover and frame. Another 230 inserts are scheduled to be installed in 2013.

7. Sewage Pumping Stations

The following is a discussion of the Authority's 22 pump stations. The tables below are based on hour meter readings for each pump and the nameplate output capacity listed for each pump. This method does not permit the determination of actual peak flows received by the stations. The tables indicate an estimated peak flow based on a 2.5 peaking factor. The tables also list the available peaking factor showing the ratio of pump capacity to average daily flow with one pump.

In most cases the available peak flow factor exceeds 5.0, a level considered conservatively safe when reviewing station capacity. This level of reserve is felt to be adequate for even the most severe wet weather conditions. It would be rare for a station to be designed for a peak rate over 4.0 using normally accepted engineering standards.

Six of the Authority's twenty-two stations have an available peak factor of less than 5.0. Five of these six stations are being considered for either a discharge flow meter or a wet well monitor to record actual inflow to the station. The wet well monitor is the preferred option and the equipment is already available. The operational status and data recording need to be set up and tested. The Darlington Valley Pump Station is not being considered for additional metering since little or no future growth is projected for this station and no problems have been encountered with wet weather conditions.

The tables also list the two year estimated growth for each station based on the subdivision lists from Section 4. The current state of the economy is likely to delay work on these projects for an indeterminate amount of time.

MTSA Chapter 94 Report
Pump Station Capacity Data (2012)

| Pump Station | Total No. of Pumps at Station | Single Pump Capacity | Ave. Daily Flow | Peak Daily Flow | 2 yr. Peak Flow | AVAIL. PEAK |
|---------------------|----------------------------------|-------------------------|-----------------|-----------------|--------------------|-------------|
| COUNTRY VILLAGE WAY | 2 | 403,200 | 130,451 | 326,128 | 331,004 | 3.1 |
| DARLINGTON VALLEY | 2 | 144,000 | 34,126 | 85,315 | 74,788 | 4.2 |
| ELWYN AVENUE | 2 | 144,000 | 10,997 | 27,493 | 29,618 | 13.1 |
| ERIC LANE | 2 | 144,000 | 2,421 | 6,053 | 7,518 | 59.5 |
| FAIR ACRES | 2 | 972,000 | 247,072 | 617,680 | 681,504 | 3.9 |
| FORGE ROAD | 2 | 144,000 | 3,146 | 7,865 | 13,480 | 45.8 |
| FOX ROAD | 2 | 144,000 | 5,313 | 13,283 | 11,335 | 27.1 |
| HUNTER STREET | 2 | 144,000 | 12,837 | 32,093 | 43,164 | 11.2 |
| KNOWLTON CHARTER | 2 | 144,000 | 8,713 | 21,783 | 24,268 | 16.5 |
| KNOWLTON ROAD | 2 | 576,000 | 101,688 | 254,220 | 301,425 | 5.7 |
| LENNI ROAD | 2 | 144,000 | 4,308 | 10,770 | 12,903 | 33.4 |
| MEADOWBROOK | 2 | 252,000 | 24,469 | 61,173 | 63,908 | 10.3 |
| MEADOWHURST | 2 | 180,000 | 11,110 | 27,775 | 30,258 | 16.2 |
| NORTH HEILBRON | 2 | 216,000 | 74,086 | 185,215 | 151,554 | 2.9 |
| PAINTER ROAD | 2 | 172,800 | 8,407 | 21,018 | 24,348 | 20.6 |
| PARKMOUNT ROAD | 2 | 360,000 | 59,941 | 149,853 | 172,070 | 6.0 |
| PAUL LANE | 2 | 144,000 | 9,535 | 23,838 | 26,688 | 15.1 |
| RIDLEY CREEK | 2 | 115,200 | 6,053 | 15,133 | 12,698 | 19.0 |
| SOUTH HEILBRON | 2 | 432,000 | 67,818 | 169,545 | 248,794 | 6.4 |
| SPRINGHOUSE LANE | 2 | 155,200 | 2,785 | 6,963 | 10,415 | 55.7 |
| YEARSLEY MILL ROAD | 2 | 244,800 | 35,088 | 87,720 | 154,126 | 7.0 |

NOTES:

1. All flows expressed as gallons per day (gpd)
2. Pump capacity listed are for 1 pump running
3. Average daily flow based on hour readings at the pumps.
4. Peak daily flow based on average daily flow multiplied by 2.5
5. The 2 yr. peak flow is based on the table in section 4
6. The available peak = Pump Capacity / Average daily flow

INDUSTRIAL WASTES.

Industrial Discharge - Middletown Township adopted the model Pre-treatment Ordinance as recommended by the U.S. Environmental Protection Agency and is the same ordinance adopted by all of the municipalities serviced by the Southwest Delaware County Municipal Authority's (SWDCMA) Sewage Treatment Plant. Wawa, Inc. is the only industrial facility in Middletown and it pre-treats all of its wastewater before discharging into the Middletown system. Monitoring of the wastewater characteristics is done directly by SWDCMA.

8. Calibration Reports

Flow meters used in MTSA are owned and operated by an outside contractor. Their contract with MTSA requires that the equipment be properly maintained to provide consistently accurate data to MTSA. The meters were calibrated when installed in the spring of 2010 and are checked for calibration monthly. Copies of the charts are included as an appendix to this report.

9. Sanitary Sewer Overflows (SSO)

The Authority reported 4 SSO events during 2012. Three of these events involved pump station force main failures; the other one was a capacity related SSOs. See attached reports for reference. All capacity related SSOs occurred in the Chester Creek Interceptor and for reasons previously outlined.

10. Pump Station Upgrades and Replacement

- a. The 1985 Meadowhurst pump station is in the process of being replaced with a new Smith & Loveless, Inc. wet-well mounted station. A bypass pump valve is being installed on the force main to facilitate the installation of the new equipment and to serve as connection point for an emergency bypass pump if needed in the future. The electrical service panels are also being replaced. Total Cost - \$110,000
- b. The 1985 Meadowbrook pump station will be replaced in early 2013 the equipment was purchased in late 2012.
- c. Fair Acres Pump Station – In 2012, a new natural gas fired standby power generator and automatic transfer switch were replaced. Also, replaced were two main high voltage circuit breakers; one in the station and the other at the Fair Acres secondary electrical control room. Total cost – \$90,000

CCIP2 ACT 537 PLAN

APPENDIX B

AGREEMENT

This Agreement is made the **15th** day of **March, 2010** by and between Middletown Township, Delaware County, Sewer Authority ("MTSA") and the Delaware County Regional Water Quality Control Authority ("DELCORA").

WHEREAS, MTSA owns and operates a wastewater collection and conveyance system servicing Middletown Township, and parts of Upper Providence and Edgmont Townships and a small portion of Brookhaven Borough, Delaware County, Pennsylvania (the "MTSA System");

WHEREAS, DELCORA owns and operates a wastewater collection system and treatment facility servicing various areas of Delaware County and certain other users;

WHEREAS, MTSA currently conveys wastewater to a system owned and operated by Southwest Delaware County Municipal Authority's ("Southwest") Baldwin Run Treatment Plant;

WHEREAS, MTSA now desires to convey its current flow of wastewater and its anticipated flow of wastewater from future developments to DELCORA for treatment, which wastewater will be conveyed to DELCORA's western regional treatment plant in the City of Chester (the "WRTP"), or other facilities utilized for treatment by DELCORA;

NOW, THEREFORE, in recognition of the above recitals, in exchange for the mutual consideration set forth herein, the legal sufficiency of which each party hereby acknowledges, and intending to be legally bound, the parties hereby agree as follows:

1. Relationship. Upon completion of construction of the Improvements as herein defined, MTSA shall begin to convey wastewater to DELCORA (the "Initial Conveyance") and terminate its current agreement with the Southwest Delaware County Municipal Authority. At the time of the Initial Conveyance, DELCORA shall begin to treat all wastewater conveyed by MTSA through MTSA's collection system to a pump station (the "Pump Station") and force main to the WRTP to be designed, constructed, owned and operated solely by DELCORA (collectively, the "Improvements"). MTSA shall have the right to review and comment upon such design. Nothing set forth herein shall prevent DELCORA, in its discretion, from conveying wastewater it receives from MTSA to the City of Philadelphia's Southwest Wastewater Treatment Plant (the "Philadelphia Plant") for treatment.

2. Standards, Rules and Regulations. Prior to the conveyance of any wastewater to DELCORA, MTSA shall adopt any resolutions necessary to provide equivalency with DELCORA's then-effective standards, rules and regulations for the treatment of wastewater. If, at any time, DELCORA amends its standards, rules and regulations, MTSA shall, to the extent permitted by law, adopt a resolution comparable to such ordinance. The actions required of MTSA in the event of an amendment to DELCORA's standards, rules and regulations shall be adopted within sixty (60) days after DELCORA's written notice of passage of any such amendment, unless MTSA's rules and resolutions already offer such equivalency.

DELCORA and MTSA, by and through intermunicipal agreements to be developed between DELCORA, MTSA, and each of MTSA's municipal customers, shall use their best efforts to have each municipality conveying wastewater through the MTSA System enact an ordinance governing wastewater in such municipality that provides equivalency with DELCORA's then-effective standards, rules and regulations for the treatment of wastewater and that includes criminal and civil penalties for discharges into the MTSA system that violate such standards, rules and regulations, with minimum penalties at least as high as those established by EPA's pretreatment regulations. DELCORA's obligations hereunder shall be contingent upon the completion of the aforementioned intermunicipal agreements in a form satisfactory to DELCORA. In the event of an amendment to DELCORA's standards, rules and regulations, DELCORA and MTSA shall use their best efforts to have each municipality conveying wastewater through the MTSA system amend such municipality's ordinance to provide equivalency with the amended DELCORA standards as soon as is reasonably practicable.

At any time when DELCORA has separate standards, rules and regulations applicable to flows transported to the W RTP versus those transported to Philadelphia Plant, MTSA shall cooperate with DELCORA to seek to cause all municipalities conveying wastewater through MTSA's System to adopt an ordinance that is, at minimum as stringent as the most stringent combination of the two.

3. Industrial Connections. MTSA acknowledges that any and all industrial users discharging into its collection system, including current users, must obtain a permit issued by DELCORA prior to releasing any discharge. MTSA agrees to cooperate with DELCORA in identifying industrial users to its system; both those in operation at the inception of this Agreement and those who begin to operate thereafter. DELCORA and MTSA, by and through their intermunicipal agreements, shall use their best efforts to have each municipality conveying wastewater through MTSA's System adopt an ordinance that requires all industrial users in such municipality to obtain a discharge permit, grants DELCORA the power to enforce such requirement, and sets civil and criminal penalties for the failure to do so at least as high as those established by EPA's pretreatment regulations.

4. Improper Discharges. MTSA will provide DELCORA with assistance in determining the source of any wastewater discharge into DELCORA's system from the MTSA System that violates any rule, standard or regulation set forth in any current resolution duly adopted by DELCORA and applicable to such flow. Upon notice from and at the direction of DELCORA, MTSA will assist DELCORA in terminating such flow. All damages caused to DELCORA's and/or MTSA's property as the result of such flow shall be recoverable from the person or entity which is the source of the improper discharge. If DELCORA is unable to recover its damages caused by such discharge after pursuing a civil action against the source to its conclusion, DELCORA shall recover the excess damages through the treatment component of the Service Charges (as defined hereafter) in succeeding years. MTSA shall indemnify and hold harmless DELCORA with respect to any damages or losses suffered by DELCORA due to an improper discharge or improper wastewater conveyed to DELCORA by the MTSA System from an MTSA customer. The term "improper" as used in this paragraph shall refer to any discharge or wastewater in violation of any federal, state or local law, ordinance, rule or regulation or in violation of DELCORA's standards, rules and regulations.

5. Tapping Fees. DELCORA shall not charge a tapping fee to any MTSA customer who is either an existing customer at the time of the Initial Conveyance or who, prior to the time of Initial Conveyance, received final and unappealable land development and/or zoning approval for the particular use of such customer requiring connection. DELCORA may institute a tapping fee applicable to any new MTSA customers that connect to the MTSA's collection system after two years following the Initial Conveyance. In no event shall MTSA customers be subject to a tapping fee that would violate Municipal Authorities Act.

6. Easements. MTSA shall be required to acquire all easements needed to upgrade or improve its collection system within its existing service area including easements for construction of the interceptor necessary to convey MTSA's wastewater to the Pump Station. DELCORA, at MTSA's request, shall assist MTSA in obtaining said easements. DELCORA shall bear sole responsibility to obtain such easements as may be necessary for the construction of the Improvements contemplated by Paragraph 1 of this Agreement.

7. Sewage Facilities Planning Modules. The parties acknowledge that every proposed connection to the MTSA System that requires a planning module or a planning module exemption under the Pennsylvania Sewage Act will require approval from the municipality in which such flows originate for collection, MTSA for conveyance, DELCORA for conveyance, and DELCORA for treatment. Such approvals shall be obtained before the proposed connection may take place.

8. 537 Planning. MTSA shall have the sole responsibility for authoring the MTSA Act 537 Plan and any amendments thereto. DELCORA shall have sole responsibility for implementing that Plan as to the conveyance from the Pump Station and the treatment, provided same remains consistent with the terms of this Agreement. DELCORA will accept consultation from MTSA on the timing of such implementation; however, MTSA acknowledges that any changes DELCORA may make in its implementation schedule based upon such consultation could affect the cost to MTSA's customers. DELCORA shall have sole responsibility for authoring its Act 537 Plan and any amendments thereto.

9. Measurement of Wastewater Flows.

- a. Installation of Meters. Metering stations will be constructed at the pump station as part of the Southwest Middletown diversion force main project. Design and installation of meters will be done in such a way so as to allow for continuous measurements of the total Southwest and Middletown flow to DELCORA and individual flows from each municipal entity. Data will be transmitted to the DELCORA SCADA system for use in process control and billing. A historical record will be maintained for transmitted data.
- b. Meter Technology, Readings, Maintenance and Calibration. Employment of meter technology will be:

- For total station flow best available electromagnetic flow meters with integral diagnostics for total station flow allowing for an accuracy of +/- 1% of total meter span. Meters will be installed in strict accordance with the manufacturer's specifications unless the specifics of the installation site make this impossible. In so far as possible, equivalent or next best available technology will be utilized for measurements of the flow from each municipal entity so as to allow for the most accurate apportionment of flow to each municipality;
 - Meter technology will be based on industry standards for wastewater flow measurement;
 - On site, redundant, flow rate and flow total recording equipment will be utilized on all measurement points to provide for backup record keeping capability;
 - Totalizers will be utilized to compute total daily flow from each measurement point for the purpose of accurate apportionment of flow from each municipality;
 - Records will be kept of the material balance of flows entering and leaving the pump station. Analysis of the balance will be done at least monthly;
 - DELCORA will maintain historical records of the wastewater flow through the station meters for inspection by interested parties;
 - Meters will be maintained, inspected and calibrated for accuracy at least quarterly by an independent company qualified to make such inspections and calibrations as part of annual operating costs;
 - At the request and at the expense of any interested municipal entity flow meters will be removed and sent to the meter manufacturer or another qualified company for absolute calibration in a flow proving loop. During the meter outage period estimates will be made of flow based on prior and subsequent flows.
- c. Access to Meters. Municipal entities whose waste water flows go to the pump station shall have the right of access to all meters for inspection or other data verification purposes at their expense.
- d. Missing or Inaccurate Flow Records. In the case of missing or inaccurate flow records due to faulty meter operation or otherwise, an estimate of flows shall be made by DELCORA based on records of past flows or similar flows as applied to the current conditions, for use in place of meter readings.

10. Service Charges. The parties acknowledge that all costs associated with the design, construction, financing, operation, maintenance and administration of the Improvements shall be borne by the MTSA System's users in proportion to all users of the Improvements, as set forth below. DELCORA shall be responsible for all aspects of construction, including engaging professionals, bidding and awarding construction contracts and management of sewer installation.

“Service Charges” is defined as the annual charges to be paid by MTSA to DELCORA and shall consist of three separate components: treatment, conveyance, and construction cost/debt service of the Improvements as herein defined. To the extent that Conveyance Costs (as defined herein) are billed to MTSA, they shall be based upon the proportion which the flows from MTSA bear to the total flows conveyed to DELCORA from the Pump Station. To the extent that treatment costs are billed to MTSA, they shall be based upon the proportion which the flows from MTSA bear to the total flows conveyed to DELCORA for treatment.

- a. Treatment costs shall be based upon rates that are uniform for all users within a particular class and that are equitable among classes.

Service Charges for any industrial users of MTSA served by this Agreement who are required to obtain an industrial discharge permit shall be shown separately on each DELCORA invoice. Charges for such industries shall include a volume charge (based upon wastewater flow or water consumption as deemed appropriate by DELCORA) and any applicable surcharges for high strength flows. Such rates and surcharges shall be equitable and consistent with rates and surcharges established for industrial users in other parts of the Western Service Area. Charges for industrial users will be reconciled at year end based on actual flows and loadings.

DELCORA’s good faith determination as to elements of costs, classifications of customers, size of reasonable reserves and like matters shall be conclusive.

- b. Conveyance costs (“Conveyance Costs”) shall include all costs associated with the operation and maintenance of the Improvements in proportion to the metered flows from MTSA to the total flows to DELCORA received at the Pump Station. DELCORA will exercise best efforts to continuously operate, maintain and repair the Improvements or cause the Improvements to be maintained and repaired so that Improvements will at all times be in efficient operating conditions and at all times in compliance with the standards proscribed by all appropriate regulatory agencies for the purpose of this Agreement. It is contemplated that additional municipalities may contract with DELCORA to deliver wastewater to the Pump Station for conveyance and treatment at the W RTP. Any additional flows accepted by DELCORA will result in a prospective reduction of MTSA’s proportionate share of the Conveyance Costs for the period during which DELCORA accepts such flows.
- c. Construction costs and debt service shall consist of all costs associated with the design, approvals, easements, and construction of the Improvements as defined herein, which costs will be amortized over periods(s) determined by DELCORA following consultation with MTSA. MTSA will be responsible for the construction cost and debt service in proportion to its annual metered flows to the total annual flows to DELCORA received at the Pump Station. It is contemplated that additional municipalities may contract with DELCORA

to deliver wastewater to the Pump Station for conveyance and treatment at the W RTP. Any additional flows accepted by DELCORA will result in a prospective reduction of MTSA's proportionate share of the construction costs and debt service for all subsequent years.

11. Estimates of Service Charges. On or before December 1st of each year following the Initial Conveyance, DELCORA will prepare and submit to MTSA a statement approved by the DELCORA Board of Directors showing, in reasonable detail, for the next succeeding calendar year: (1) the estimated amounts to be paid by MTSA during such year as its estimated Service Charge determined in accordance with the provisions hereof; (2) the amount, if any, to be credited against the estimated Service Charge for such year as the result of any overpayments or adjustments of payments for any preceding year, as provided under Paragraph 15, below; and (3) the amount of any prior bill not paid pursuant to Paragraph 13 ("Estimated Service Charges"). On or before November 1st of each year following the Initial Conveyance, DELCORA will prepare and submit to MTSA preliminary Estimated Service Charge. For the partial year following the Initial Conveyance, DELCORA will prepare Estimated Service Charges and submit to MTSA as soon as reasonably possible.

12. Amended Estimates. In the event of unusual contingencies requiring an upward revision in the current budget adopted by DELCORA, or in the event of a material change in the quantity or quality of MTSA's wastewater flow, DELCORA may amend the Estimated Service Charges to reflect such changed conditions. A statement showing the amended estimated payments, in reasonable detail, and the reasons therefore shall be submitted to MTSA. Thereafter, commencing with the next quarterly payment, the payments made by MTSA shall be based upon the amended estimate.

13. Payments on Estimates. MTSA agrees to pay its Estimated Service Charges for such next succeeding calendar year in four (4) equal installments to be paid on or before March 15, June 15, September 15, and December 15 of each year. Actual usage of DELCORA's sewer system will be reconciled with the estimates utilized in calculating quarterly billings and adjustments made pursuant to Paragraph 15, below.

14. Audited Statements. DELCORA shall cause to be prepared and certified by an Independent Public Accountant on or before April 30th of each year a report setting forth in reasonable detail: (a) the Operating and Capital Costs of the W RTP for the preceding calendar year; and (b) the final Service Charge chargeable to MTSA for such year determined in accordance with the provisions of Paragraphs 10 through 13. Such report shall contain statements setting forth the payments theretofore made by MTSA as estimated payments of Service Charges and the amount by which the final service charge to MTSA exceeds or is less than the aggregate of the payments and credits theretofore made by or allowed to MTSA on account of such service charge.

15. Payment of Final Service Charges; Credit for Overpayments. If the Final Service Charge to MTSA for any calendar year as shown by such certified report differs from the aggregate of the payments and credits theretofore made by it based upon the aforesaid estimates, then MTSA will pay to DELCORA the amount of any deficiency within thirty (30) days after the delivery of such certified report, and any excess of such payments and credits on account of

estimates over the Final Service Charges shall be refunded to MTSA within thirty (30) days or applied as a credit for payments due under Paragraph 14 above at MTSA's option.

16. Grants. DELCORA may make application to any entity for any available grants, subsidies or other payments and for all permits and approvals with respect to design, construction and maintenance of the sewers and sewage related facilities. MTSA agrees to cooperate in such applications as may be necessary, and will take such action, within its legal powers, as may be required to comply with applicable laws and regulations relating to such grants and/or subsidies. To the extent that DELCORA receives any funding as a result of such an application including, but not limited to, grants or subsidies, MTSA shall be entitled to benefit proportionally from any such funding.

17. Contingencies. The parties' obligations under this Agreement will be contingent upon DEP approval of any necessary amendments to either party's, or such party's member municipalities' or incorporating municipality's Act 537 plan, and DEP issuance of permits required to construct the Improvements. The parties' obligations under this Agreement will also be contingent upon the adoption of the resolutions and ordinances contemplated by Paragraph 3 of this Agreement and upon DELCORA acquiring such easements as may be necessary to the construction of the Improvements and MTSA acquiring such easements as are necessary for the construction of its Interceptor to the Pump Station.

18. Insurance. DELCORA shall maintain the following types and amounts of insurance during the term of this Agreement. MTSA shall be named as an additional insured in the applicable liability insurance policies for claims arising out of DELCORA's negligence:

| <u>Type of Coverage</u> | <u>Minimum Limits</u> |
|---------------------------------|-----------------------|
| Worker's Compensation | Statutory |
| General Liability | \$2,000,000 |
| Excess General Liability | \$5,000,000 |
| Automobile Liability | \$500,000 |
| Excess Automobile Liability | \$5,000,000 |
| Pollution Control and Liability | \$1,000,000 |

DELCORA will provide the MTSA with a certificate of insurance evidencing it is listed as an additional insured. DELCORA further agrees to maintain property damage, and to the extent possible, loss of use coverage on the Improvements, the W RTP and the DELCORA conveyance system.

19. Pass Throughs. MTSA shall not allow any customers to pass through its system for the purpose of conveying their flow to DELCORA, unless such customers have entered into intermunicipal agreements with MTSA and DELCORA for conveyance and treatment. DELCORA shall bear the responsibility for obtaining such agreements.

20. Debt. Should MTSA divert all or any portion of its flow to any other facility

while any debt, or the refinancing of any debt, for the Improvements remains outstanding, MTSA will remain liable for its share of such debt. The amount diverted (the "MTSA Initial Diverted Flow") shall be the total metered flow diverted. MTSA's liability shall be recalculated annually on a proportional basis by determining the product of MTSA's then-current annual flows to DELCORA plus MTSA's Initial Diverted Flow, then dividing by the product of the total annual flows to DELCORA through the Improvements plus MTSA's Initial Diverted Flow. By way of example, the calculation of MTSA's annual percentage share of the debt is as follows:

$$\frac{\text{MTSA current annual flow to DELCORA} + \text{MTSA Initial Diverted Flow}}{\text{DELCORA current annual flow} + \text{MTSA Initial Diverted Flow}}$$

An example of such calculation, solely for illustration purposes, is attached hereto as Exhibit A.

The permissibility of any such diversion shall be subject to the terms of any such financing or refinancing, as the case may be. In the event that MTSA must send flow to another facility because DELCORA does not have the capacity for such flow, this shall not constitute diverted flow. DELCORA will require identical provisions in all Treatment Agreements with other municipalities or authorities who send wastewater through the Improvements.

21. Inspection. Each party shall provide the other from time to time all information relevant to the proper administration of its responsibilities under this Agreement, or in respect to the interpretation hereof, as, and in such form and detail as, may be reasonably requested and each shall at all reasonable times and from time to time permit the other's representatives to examine and inspect its records relevant to the subject matter of this Agreement.

22. Force Majeure. Notwithstanding any other provision of this Agreement, neither party hereto shall be responsible in damages to the other for any failure to comply with this Agreement resulting from an act of God, riot, sabotage, public calamity, flood, strike, breakdown of conveyance or treatment facilities, or other event beyond reasonable control.

23. Indemnity. To the extent permitted by the Political Subdivision Claims Act, or successor statute, each party agrees to indemnify, defend and save harmless the other against all costs, claims, losses, damages or legal actions of any nature on account of injury to persons or property occurring in the performance of this Agreement due to the negligence of the indemnifying party, its agents, employees, contractors or subcontractors.

MTSA will indemnify, defend and hold DELCORA harmless from and against any suit, liability, action or cause of action in any way related to the operation of MTSA's collection system, or the collection of any fees in any way related to such system or in any claim of successor liability for MTSA's debt, or any claim related to MTSA's facilities or the conveyance of wastewater there through.

DELCORA will indemnify, defend and hold MTSA harmless from and against any suit, liability, action or cause of action in any way related to the operation of DELCORA's system or the collection of any fees in any way related to such system, prior to the time that its flows are diverted to the W RTP, or in any claim of successor liability for DELCORA's debt, or any claim

related to DELCORA's facilities, including its conveyance system, the WRTP and the Improvements, or the conveyance or treatment of wastewater there through except to the extent that such claim arises out of MTSA's facilities or the conveyance of wastewater there through.

24. No Joint Ownership. No provision of this Agreement shall be construed to create any type of joint ownership of any property, any partnership or joint venture, or create any other rights or liabilities except as otherwise expressly set forth herein.

25. Acceptance of Wastewater. DELCORA agrees to accept those discharges from the MTSA System which are in compliance with the then-applicable DELCORA standards, rules and regulations and applicable 537 Plans, subject to the availability of capacity at the applicable treatment facility.

26. Future Development. MTSA acknowledges that capacity at the WRTP is provided to DELCORA customers on a first come, first served basis, and that DELCORA does not reserve capacity for any customer. DELCORA acknowledges that capacity will be provided for all existing MTSA customers at the time of the Initial Conveyance as well as all potential customers identified in Middletown Township's amended Act 537 plan as referenced in paragraph 8 above. Request for capacity shall be accomplished through the planning module process or through Act 537 revisions.

27. Severability. Should any provision hereof for any reason be held illegal or invalid, no other provision of this Agreement shall be affected, and this Agreement shall then be construed and enforced as if such illegal or invalid provision had not been contained herein, unless such illegal or invalid provision contains an unsatisfied precondition to performance.

28. Waiver. The failure of a party hereto to insist upon strict performance of this Agreement or of any of the terms or conditions hereof shall not be construed as a waiver of any of its rights hereunder.

29. Counterparts. This Agreement may be executed in counterparts, each of which shall be regarded for all purposes as an original, but such counterparts shall together constitute but one and the same instrument.

30. Successors and Assigns. Except as otherwise provided herein, this Agreement may not be voluntarily assigned by either party without the consent of the other that is not to be unreasonably withheld. Subject to the foregoing, this Agreement shall bind and inure to the benefit of the respective successors and assigns of the parties hereto.

31. Term. The term of this Agreement shall be for 25 years starting as of the date of the Initial Conveyance. MTSA shall have a total of five (5) options to extend this Agreement at its then-current term, with each extension being for a period of five (5) years. MTSA shall be deemed to have exercised an option to extend at each five year interval unless it gives DELCORA written notice to the contrary. Provided, however, that the term of this Agreement and the options to extend shall depend upon any appropriate extensions of the period of existence of DELCORA and MTSA.

32. Headings. The section headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

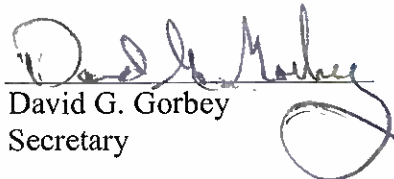
IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized officers as of the date below their respective signatures.

DELAWARE COUNTY REGIONAL
WATER QUALITY CONTROL AUTHORITY

[Seal]

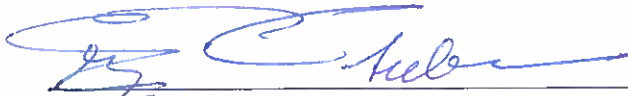

Stanley R. Kester
Chairman

Attest:


David G. Gorbey
Secretary

MIDDLETOWN TOWNSHIP DELAWARE COUNTY
SEWER AUTHORITY

[Seal]


Timothy F. Sullivan, Esquire
Chairman

Attest:

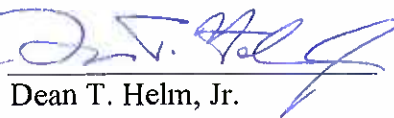

Dean T. Helm, Jr.
Secretary

EXHIBIT A

Hypothetical calculations to demonstrate changes in shares of debt service on Improvements:

Calculation #1 (1st year)

DELCORA PS at start up handles6,000,000 GPD or 100%

MTSA INITIAL FLOWS TO DELCORA = 2,400,000 GPD or 40%

SWMA " " " " = 3,600,000 GPD or 60%

Calculation #2 (Say, 5th year)

In year 5 MTSA diverts 400,000 or eliminates 400,000 GPD

MTSA current flow (2,000,000) + initial diverted flow (400,000) = 2,400,000 = 40%

DELCORA current total flow (5,600,000) + diverted (400,000) = 6,000,000

Calculation #3 (Say 6th year)

In year 6 DELCORA picks up 500,000 GPD from Edgmont:

MTSA current flow (2,000,000) + initial diverted flow (400,000) = 2,400,000 = 36.9%

DELCORA current total flow (6,100,000) + initial diverted (400,000) = 6,500,000

Summary of proportionate shares: MTSA = 36.93

SWMA = 55.38

ETSA = 7.69

Total = 100%

Note: The diverted flows from MTSA are still included in MTSA's initial obligation but as other users connect MTSA's and SWMA proportionate shares are reduced.

Prepared by Mike Majeski 12/28/09

Salvucci Addition – 12/28/09:

SWMA reduces flow through I&I reduction to 3,000,000 GPD

MTSA current flow (2,000,000) + initial diverted flow (400,000) = 2,400,000

Edgmont 500,000

SWMA 3,000,000

Total Flow 5,900,000

MTSA Share 40.7%

SWMA Share 50.8%

Edgmont Share 8.5%

100.0%

CCIP2 ACT 537 PLAN

APPENDIX C



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SUPPLY AND WASTEWATER MANAGEMENT

Act 537 Plan Content and Environmental Assessment Checklist

PART 1 GENERAL INFORMATION

A. Project Information

1. Project Name Middletown Township, Delaware County Sewage Facilities Plan - Chester Creek Interceptor Special Study
2. Brief Project Description This Act 537 Plan Revision, Special Study for the CCI Phase 2 centers around documentation of existing flows in the interceptor, potential future flows in the tributary watershed, and examination of the need to upgrade the system.

B. Client (Municipality) Information

| | | | | |
|---|--------------------------------|--|----------------------------------|--|
| Municipality Name Middletown Township | County | City <input type="checkbox"/> | Boro <input type="checkbox"/> | Twp <input checked="" type="checkbox"/> |
| Municipality Contact Individual - Last Name Clark | First Name Bruce | MI | Suffix Manager | Title |
| Additional Individual Last Name Majeski | First Name Michael | MI | Suffix | Title Sewer Authority Manager |
| Municipality Mailing Address Line 1 27 N. Pennell Road | | Mailing Address Line 2 | | |
| Address Last Line -- City Lima | | State PA | ZIP+4 19037 | |
| Phone + Ext. 610-565-2700 | FAX (optional) 610-566-3640 | Email (optional) manager@middletowntownship.org | | |

C. Site Information

| | | |
|---|----------------------|-------------------------------|
| Site (or Project) Name Chester Creek Interceptor Phase 2 | | (Municipal Name) Act 537 Plan |
| Site Location Line 1 | Site Location Line 2 | |

D. Project Consultant Information

| | | | |
|---|---|---------------------|----------------|
| Last Name Fazler | First Name Walter | MI | Suffix |
| Title Consulting Engineer | Consulting Firm Name Bradford Engineering Associates, Inc. | | |
| Mailing Address Line 1 2710 Concord Road | Mailing Address Line 2 Suite 3 | | |
| Address Last Line -- City Aston | State PA | ZIP+4 19014 | Country USA |
| Email wfazler@bea-inc.com | Phone + Ext. 610-497-6200 x111 | FAX 610-500-5677 | |

PART 2 ADMINISTRATIVE COMPLETENESS CHECKLIST

| DEP Use Only | Indicate Page #(s) in Plan | In addition to the main body of the plan, the plan must include items one through eight listed below to be accepted for formal review by the department. Incomplete Plans will be returned unless the municipality is clearly requesting an advisory review. |
|--------------------|----------------------------------|--|
| _____ | <u>1</u> | 1. Table of Contents |
| _____ | <u>3</u> | 2. Plan Summary |
| _____ | <u>3</u> | A. Identify the proposed service areas and major problems evaluated in the plan. (Reference - Title 25, §71.21.a.7.i). |
| _____ | <u>3</u> | 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). |
| _____ | <u>7</u> | 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). |
| _____ | <u>7</u> | D. Identify the municipal commitments necessary to implement the Plan. (Reference Title 25, §71.21.a.7.iii). |
| _____ | <u>8</u> | E. Provide a schedule of implementation for the project that identifies the MAJOR milestones with dates necessary to accomplish the project to the point of operational status. (Reference Title 25, §71.21.a.7.iv). |
| _____ | <u>App L</u> | 3. Municipal Adoption: Original, signed and sealed Resolution of Adoption by the municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. (Reference Title 25, §71.31.f) Section V.F. of the Planning Guide. |
| _____ | <u>App K</u> | 4. Planning Commission / County Health Department Comments: Evidence that the municipality has requested, reviewed and considered comments by appropriate official planning agencies of the municipality, planning agencies of the county, planning agencies with area wide jurisdiction (where applicable), and any existing county or joint county departments of health. (Reference-Title 25, §71.31.b) Section V.E.1 of the Planning Guide. |
| _____ | <u>App J</u> | 5. Publication: Proof of Public Notice which documents the proposed plan adoption, plan summary, and the establishment and conduct of a 30 day comment period. (Reference-Title 25, §71.31.c) Section V.E.2 of the Planning Guide. |
| _____ | <u>App K</u> | 6. Comments and Responses: 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. |
| _____ | <u>10</u> | 7. Implementation Schedule: A complete project implementation schedule with milestone dates specific for each existing and future area of need. Other activities in the project implementation schedule should be indicated as occurring a finite number of days from a major milestone. (Reference-Title 25, §71.31.d) Section V.F. of the Planning Guide. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference Title 25, §71.21.c). |
| _____ | <u>APPI</u> | 8. Consistency Documentation: Documentation indicating that the appropriate agencies have received, reviewed and concurred with the method proposed to resolve identified inconsistencies within the proposed alternative and consistency requirements in 71.21.(a)(5)(i-iii). (Reference-Title 25, §71.31.e). Appendix B of the Planning Guide. |

PART 3 GENERAL PLAN CONTENT CHECKLIST

| DEP Use Only | Indicate Page #(s) in Plan | Item Required |
|--------------------|----------------------------------|--|
| _____ | <u>12</u> | I. Previous Wastewater Planning |
| | | A. Identify, describe and briefly analyze all past wastewater planning for its impact on the current planning effort: |
| _____ | <u>12</u> | 1. Previously undertaken under the Sewage Facilities Act (Act 537). (Reference-Act 537, Section 5 §d.1). |
| _____ | <u>12</u> | 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. |
| _____ | <u>12</u> | 3. Is anticipated or planned by applicable sewer authorities or approved under a Chapter 94 Corrective Action Plan. (Reference-Title 25, §71.21.a.5.i.A&B). Section V.D. of the Planning Guide. |
| _____ | <u>12</u> | 4. Through planning modules for new land development, planning "exemptions" and addenda. (Reference-Title 25, §71.21.a.5.i.A). |
| _____ | <u>13</u> | 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). |
| _____ | <u>13</u> | A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference-Title 25, §71.21.a.1.i). |
| _____ | <u>13</u> | 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). |
| _____ | <u>13</u> | C. Soils - Analysis with description by soil type and soils mapping for areas not presently served by sanitary sewer service. Show areas suitable for in-ground onlot systems, elevated sand mounds, individual residential spray irrigation systems, 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). |
| _____ | <u>13</u> | D. Geologic Features - (1) Identification through analysis, (2) mapping and (3) their relation to existing or potential nitrate-nitrogen pollution and drinking water sources. Include areas where existing nitrate-nitrogen levels are in excess of 5 mg/L. (Reference-Title 25, §71.21.a.1.iii). |
| _____ | <u>13</u> | E. Topography - Depict areas with slopes that are suitable for conventional systems; slopes that are suitable for elevated sand mounds and slopes that are unsuitable for onlot systems. (Reference-Title 25, §71.21.a.1.ii). |
| _____ | <u>13</u> | F. Potable Water Supplies - Identification through mapping, description and analysis. Include public water supply service areas and available public water supply capacity and aquifer yield for groundwater supplies. (Reference-Title 25 §71.21.a.1.vi). Section V.C. of the Planning Guide. |

| | | |
|-------|------------|---|
| _____ | <u>13</u> | 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. |
| _____ | <u>13</u> | III. Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs |
| _____ | | A. Identify, map and describe municipal and non-municipal, individual and community sewerage systems in the planning area including: |
| _____ | <u>13</u> | 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, §71.21.a.2.i.A). |
| _____ | <u>n/a</u> | 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.A). |
| _____ | <u>13</u> | 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 DEP. (Reference-Title 25, §71.21.a.2.i.B). |
| _____ | <u>n/a</u> | 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). |
| _____ | <u>n/a</u> | 5. A detailed description of the municipality's operation and maintenance requirements for small flow treatment facility systems, including the status of past and present compliance with these requirements and any other requirements relating to sewage management programs. (Reference-Title 25, §71.21.a.2.i.C). |
| _____ | <u>n/a</u> | 6. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference-Title 25, §71.21.a.4.i & ii). |
| _____ | <u>13</u> | B. Using DEP's publication titled <i>Sewage Disposal Needs Identification</i> , identify, map and describe areas that utilize individual and community onlot sewage disposal and, unpermitted collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including: |
| _____ | <u>13</u> | 1. The types of onlot systems in use. (Reference-Title 25, §71.21.a.2.ii.A). |
| _____ | <u>13</u> | 2. A sanitary survey complete with description, map and tabulation of documented and potential public health, pollution, and operational problems (including malfunctioning systems) with the systems, including violations of local ordinances, the Sewage Facilities Act, the Clean Stream Law or regulations promulgated thereunder. (Reference-Title 25, §71.21.a.2.ii.B). |
| _____ | <u>13</u> | 3. A comparison of the types of onlot sewage systems installed in an area with |

the types of systems which are appropriate for the area according to soil, geologic conditions, topographic limitations sewage flows, and Title 25 Chapter 73 (relating to standards for sewage disposal facilities). (Reference-Title 25, §71.21.a.2.ii.C).

4. An individual water supply survey to identify possible contamination by malfunctioning onlot sewage disposal systems consistent with DEP's *Sewage Disposal Needs Identification* publication. (Reference-Title 25 §71.21.a.2.ii.B).

5. Detailed description of operation and maintenance requirements of the municipality for individual and small volume community onlot systems, including the status of past and present compliance with these requirements and any other requirements relating to sewage management programs. (Reference-Title 25, §71.21.a.2.i.C).

C. Identify wastewater sludge and septage generation, transport and disposal methods. Include this information in the sewage facilities alternative analysis including:

1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference-Title 25 §71.71).

2. Quantities of the types of sludges or septage generated. (Reference-Title 25 §71.71).

3. Present disposal methods, locations, capacities and transportation methods. (Reference-Title 25 §71.71).

IV. Future Growth and Land Development

A. Identify and briefly summarize all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including:

1. All land use plans and zoning maps that identify residential, commercial, industrial, agricultural, recreational and open space areas. (Reference-Title 25, §71.21.a.3.iv).

2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference – Title 25§71.21.a.3.iv).

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.

B. 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 EDU's in development, total number of EDU's currently developed and total number of EDU's remaining to be developed (include time schedule for EDU's remaining to be developed). (Reference-Title 25, §71.21.a.3.i).

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).

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).

4. Zoning, and/or subdivision regulations; local, county or regional comprehensive plans; and existing plans of any other agency relating to the development, use and protection of land and water resources with special attention to: (Reference-Title 25, §71.21.a.3.iv).

--public ground/surface water supplies

--recreational water use areas

--groundwater recharge areas

--industrial water use

--wetlands

5. Sewage planning necessary to provide adequate wastewater treatment for five and ten year future planning periods based on projected growth of 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:

1. The potential for regional wastewater treatment. (Reference-Title 25, §71.21.a.4).
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).
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).
 - a. Repair. (Reference-Title 25, §71.21.a.4.ii.A).
 - b. Upgrading. (Reference-Title 25, §71.21.a.4.ii.B).
 - c. Reduction of hydraulic or organic loading to existing facilities. (Reference-Title 25, §71.71).
 - d. Improved operation and maintenance. Reference-Title 25, §71.21.a.4.ii.C).
 - e. Other applicable actions that will resolve or abate the identified problems. (Reference-Title 25, §71.21.a.4.ii.D).
4. Repair or replacement of existing collection and conveyance system components. (Reference-Title 25, §71.21.a.4.ii.A).
5. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference-Title 25, §71.21.a.4.iii).
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:

1. Soil and slope suitability. (Reference-Title 25, §71.21.a.2.ii.C).
2. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.21.a.2.ii.C).
3. The establishment of a sewage management program. (Reference-Title 25, §71.21.a.4.iv). See also Part "F" below.
4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for onlot disposal considering: (Reference-Title 25, §71.21.a.4).
 - a. Existing technology and sizing requirements of Title 25 Chapter 73. (Reference-Title 25, §73.31-73.72).
 - b. Use of expanded absorption areas or alternating absorption areas. (Reference-Title 25, §73.16).
 - 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 with consideration of: (Reference-Title 25, §71.64.d).

1. Treatment and discharge requirements. (Reference-Title 25, §71.64.d).
2. Soil suitability. (Reference-Title 25, §71.64.c.i).
3. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.64.c.2).
4. Municipal, Local, Agency or other controls over operation and maintenance requirements through a Sewage Management Program. (Reference-Title 25, §71.64.d). See Part "F" below.

D. The use of community land disposal alternatives including:

1. Soil and site suitability. (Reference-Title 25, §71.21.a.2.ii.C).
2. Preliminary hydrogeologic evaluation. (Reference-Title 25, §71.21.a.2.ii.C).
3. Municipality, Local Agency or Other Controls over operation and maintenance requirements through a Sewage Management Program (Reference-Title 25, §71.21.a.2.ii.C). See Part "F" below.
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.

E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference-Title 25, §71.21.a.4).

1. Commercial, residential and industrial use. (Reference-Title 25, §71.63.e).
2. Designated conveyance facilities (pumper trucks). (Reference-Title 25, §71.63.b.2).
3. Designated treatment facilities or disposal site. (Reference-Title 25, §71.63.b.2).
4. Implementation of a retaining tank ordinance by the municipality. (Reference-Title 25, §71.63.c.3). See Part "F" below.

| | | |
|-------|------------|--|
| _____ | <u>n/a</u> | 5. Financial guarantees when retaining tanks are used as an interim sewage disposal measure. (Reference-Title 25, §71.63.c.2). |
| _____ | <u>n/a</u> | F. Sewage Management Programs to assure the future operation and maintenance of existing and proposed sewage facilities through: |
| _____ | <u>n/a</u> | 1. Municipal ownership or control over the operation and maintenance of individual onlot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference-Title 25, §71.21.a.4.iv). |
| _____ | <u>n/a</u> | 2. Required inspection of sewage disposal systems on a schedule established by the municipality. (Reference-Title 25, §71.73.b.1.). |
| _____ | <u>n/a</u> | 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). |
| _____ | <u>n/a</u> | 4. Repair, replacement or upgrading of malfunctioning onlot sewage systems. (Reference-Title 25, §71.21.a.4.iv) and §71.73.b.5 through: |
| _____ | <u>n/a</u> | a. Aggressive pro-active enforcement of ordinances that require operation and maintenance and prohibit malfunctioning systems. (Reference-Title 25, §71.73.b.5). |
| _____ | <u>n/a</u> | b. Public education programs to encourage proper operation and maintenance and repair of sewage disposal systems. |
| _____ | <u>n/a</u> | 5. Establishment of joint municipal sewage management programs. (Reference-Title 25, §71.73.b.8). |
| _____ | <u>n/a</u> | 6. Requirements for bonding, escrow accounts, management agencies or associations to assure operation and maintenance for non-municipal facilities. (Reference-Title 25, §71.71). |
| _____ | <u>n/a</u> | 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). |
| _____ | <u>n/a</u> | 1. Modification of existing comprehensive plans involving: |
| _____ | <u>n/a</u> | a. Land use designations. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | b. Densities. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | c. Municipal ordinances and regulations. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | d. Improved enforcement. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | e. Protection of drinking water sources. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 2. Consideration of a local comprehensive plan to assist in producing sound economic and consistent land development. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 3. Alternatives for creating or changing municipal subdivision regulations to assure long-term use of on-site sewage disposal that consider lot sizes and protection of replacement areas. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference-Title 25, §71.21.a.4). |

| | | |
|-------|------------|--|
| _____ | <u>n/a</u> | H. A no-action alternative which includes discussion of both short-term and long-term impacts on: (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 1. Water Quality/Public Health. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 2. Growth potential (residential, commercial, industrial). (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 3. Community economic conditions. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 4. Recreational opportunities. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 5. Drinking water sources. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>n/a</u> | 6. Other environmental concerns. (Reference-Title 25, §71.21.a.4). |
| _____ | <u>24</u> | VI. Evaluation of Alternatives |
| | | A. Technically feasible alternatives identified in Section V of this check-list must be evaluated for consistency with respect to the following: (Reference-Title 25, §71.21.a.5.i.). |
| _____ | <u>24</u> | 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. |
| _____ | <u>18</u> | 2. Municipal wasteload management Corrective Action Plans or Annual Reports 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. |
| _____ | <u>n/a</u> | 3. Plans developed under Title II of the Clean Water Act (33 U.S.C.A. 1281-1299) or Titles II and VI of the Water Quality Act of 1987 (33 U.S.C.A. 1251-1376). (Reference-Title 25, §71.21.a.5.i.C). Appendix B, Section II.E of the Planning Guide. |
| _____ | <u>n/a</u> | 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. |
| _____ | <u>26</u> | 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. |
| _____ | <u>26</u> | 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. |
| _____ | <u>26</u> | 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. |

8. **County Stormwater Management Plans** approved by DEP 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.

9. **Wetland Protection.** Using wetland mapping developed under Checklist Section II.G, identify and discuss mitigative measures including the need to obtain permits for any encroachments on wetlands from the construction or operation of any proposed wastewater facilities. (Reference-Title 25, §71.21.a.5.i.I) Appendix B, Section II.I of the Planning Guide.

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 DEP 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 B, Section II.J of the Planning Guide.

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 of the Bureau of Historic Preservation (BHP) to provide a listing of known historical sites and potential impacts on known archaeological and historical sites. Also provide a copy of the response letter from the BHP. Appendix B, Section II.K of the Planning Guide.

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.

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).

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 years from the date of plan submission. (Reference-Title 25, §71.21.a.5.iv).

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).

| | | |
|-------------------|------------|---|
| <u> </u> | <u>32</u> | 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). |
| <u> </u> | <u>32</u> | 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). |
| <u> </u> | <u>32</u> | 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). |
| <u> </u> | <u>32</u> | G. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - Title 25, §71.21.a.5.vi.D.). |
| <u> </u> | <u>31</u> | VII. Institutional Evaluation |
| | | A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including: |
| <u> </u> | <u>31</u> | 1. Financial and debt status. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>31</u> | 2. Available staff and administrative resources. (Reference-Title 25, §71.61.d.2) |
| <u> </u> | <u>31</u> | 3. Existing legal authority to: |
| <u> </u> | <u>31</u> | a. Implement wastewater planning recommendations. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>31</u> | b. Implement system-wide operation and maintenance activities. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>32</u> | c. Set user fees and take purchasing actions. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>31</u> | d. Take enforcement actions against ordinance violators. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>31</u> | e. Negotiate agreements with other parties. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>31</u> | f. Raise capital for construction and operation and maintenance of facilities. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>n/a</u> | B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including: |
| <u> </u> | <u>n/a</u> | 1. Need for new municipal departments or municipal authorities. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>n/a</u> | 2. Functions of existing and proposed organizations (sewer authorities, onlot maintenance agencies, etc.). (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>n/a</u> | 3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>31</u> | C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including: |
| <u> </u> | <u>n/a</u> | 1. Incorporation of authorities or agencies. (Reference-Title 25, §71.61.d.2). |
| <u> </u> | <u>n/a</u> | 2. Development of all required ordinances, regulations, standards and inter-municipal agreements. (Reference-Title 25, §71.61.d.2). |

| | | |
|-------|------------|--|
| _____ | <u>29</u> | 3. Description of activities to provide rights-of-way, easements and land transfers. (Reference-Title 25, §71.61.d.2). |
| _____ | <u>n/a</u> | 4. Adoption of other municipal sewage facilities plans. (Reference-Title 25, §71.61.d.2). |
| _____ | <u>n/a</u> | 5. Any other legal documents. (Reference-Title 25, §71.61.d.2). |
| _____ | <u>32</u> | 6. Dates or timeframes for items 1-5 above on the project's implementation schedule. |
| _____ | <u>32</u> | D. Identify the proposed institutional alternative for implementing the chosen technical wastewater disposal alternative. Provide justification for choosing the specific institutional alternative considering administrative issues, organizational needs and enabling legal authority. (Reference-Title 25, §71.61.d.2). |
| _____ | <u>32</u> | VIII. Implementation Schedule and Justification for Selected Technical & Institutional Alternatives |
| _____ | <u>32</u> | 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: |
| _____ | <u>32</u> | 1. Existing wastewater disposal needs. (Reference-Title 25, §71.21.a.6). |
| _____ | <u>32</u> | 2. Future wastewater disposal needs. (five and ten years growth areas). (Reference-Title 25, §71.21.a.6). |
| _____ | <u>32</u> | 3. Operation and maintenance considerations. (Reference-Title 25, §71.21.a.6). |
| _____ | <u>32</u> | 4. Cost-effectiveness. (Reference-Title 25, §71.21.a.6). |
| _____ | <u>32</u> | 5. Available management and administrative systems. (Reference-Title 25, §71.21.a.6). |
| _____ | <u>32</u> | 6. Available financing methods. (Reference-Title 25, §71.21.a.6). |
| _____ | <u>32</u> | 7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference-Title 25, §71.21.a.6). |
| _____ | <u>n/a</u> | B. Designate and describe the capital financing plan chosen to implement the selected alternative(s). Designate and describe the chosen back-up financing plan. (Reference-Title 25, §71.21.a.6) |
| _____ | <u>32</u> | C. Designate and describe the implementation schedule for the recommended alternative, including justification for any proposed phasing of construction or implementation of a Sewage Management Program. (Reference – Title 25 §71.31d) |
| _____ | <u>n/a</u> | IX. Environmental Report (ER) generated from the Uniform Environmental Review Process (UER) |
| _____ | <u>n/a</u> | A. Complete an ER as required by the UER process and as described in the DEP Technical Guidance 381-5511-111. Include this document as "Appendix A" to the Act 537 Plan Update Revision. Note: <i>An ER is required only for Wastewater projects proposing funding through any of the funding sources identified in the UER.</i> |

ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS

Municipalities that propose to implement their official sewage facilities plan updates with PENNVEST funds must meet six additional requirements to be eligible for such funds. See A Guide for Preparing Act 537 Update Revisions (362-0300-003), Appendix N for greater detail or contact the DEP regional office serving your county listed in Appendix J of the same publication.

| DEP Use Only | Indicate Page #(s) in Plan | Item Required |
|--------------------|----------------------------------|---|
| _____ | <u>n/a</u> | 1. Environmental Impact Assessment. (Planning Phase) The Uniform Environment Review (UER) replaces the Environmental Impact Assessment that was a previous requirement for PENNVEST projects. |
| _____ | <u>n/a</u> | 2. Cost Effectiveness (Planning Phase) The cost-effectiveness analysis should be a present-worth (or equivalent uniform annual) cost evaluation of the principle alternatives using the interest rate that is published annually by the Water Resources Council. Normally, for PENNVEST projects the applicant should select the most cost-effective alternative based upon the above analysis. Once the alternative has been selected the user fee estimates should be developed based upon interest rates and loan terms of the selected funding method. |
| _____ | n/a | 3. Second Opinion Project Review. (Design Phase) |
| _____ | n/a | 4. Minority Business Enterprise/Women's Business Enterprise (Construction Phase) |
| _____ | n/a | 5. Civil Rights. (Construction Phase) |
| _____ | n/a | 6. Initiation of Operation/Performance Certification. (Post-construction Phase) |

CCIP2 ACT 537 PLAN

APPENDIX D



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHEAST REGIONAL OFFICE

May 2, 2013

Mr. Nelson Shaffer, Chairman
Board of Directors
Southwest Delaware County
Municipal Authority
1 Gamble Lane
P.O. Box 2466
Aston, PA 19014

Mr. Timothy F. Sullivan, Chairman
Middletown Township Sewer
Authority
27 North Pennell Road
P.O. Box 9
Lima, PA 19037

Re: Sewage
Connection Management Plan
Southwest Delaware County Municipal Authority
Middletown Township Sewer Authority
Delaware County

Dear Messrs. Shaffer and Sullivan:

The Department of Environmental Protection ("Department") met with representatives of the Southwest Delaware County Municipal Authority ("SWDCMA") and the Middletown Township Sewer Authority ("MTSA") on December 14, 2012. At this meeting, the Department requested that SWDCMA and MTSA submit to the Department revised Connection Management Plans ("CMPs") for projects tributary to the Chester Creek Interceptor and/or the SWDCMA Baldwin Run Sewage Treatment Facility ("Baldwin Run STP"). We requested that the revised CMPs contain all projects anticipated to be connected to the system until the Baldwin Run STP is decommissioned and the flows currently tributary to the Baldwin Run STP are diverted to Delaware County Regional Water Quality Control Authority's Western Regional Treatment Plant ("WRTP").

The Department received your respective submissions and revisions.

The Department hereby accepts the revised CMPs. Capacity may be allocated consistent with the attached tables.

Please be advised that, although connection credits have been released by the Department for the referenced projects, sewage facilities planning may be required prior to the issuance of any building permits for these projects and/or connections of these projects to the system. For those projects that do not include a Date of DEP Approval on the table below, a Sewage Facilities Planning Module Application Mailer ("application mailer") must be submitted to the Department prior to the issuance of any building or occupancy permit. The Department will determine if sewage facilities planning is required upon receipt of the application mailer.

Mr. Nelson Shaffer, Chairman
Mr. Timothy F. Sullivan, Chairman

- 2 -

May 2, 2013

We request that SWDCMA and MTSA each submit to the Department an updated CMP on a biannual basis. The updated CMPs shall be due on or before May 1 and November 1 of each year until the Baldwin Run STP has been decommissioned and the flows diverted.

The updated CMP should reflect those changes made in the number of equivalent dwelling units (EDUs) connected and the number of EDUs needed, if any, for each project.

You will note that the Department has provided 10 additional EDUs each to SWDCMA and to MTSA that may be made available to projects that are currently unknown. As these EDUs are assigned, the name of the project and other pertinent information must be added to the CMP and the EDUs assigned must be subtracted from these 10 miscellaneous connections.

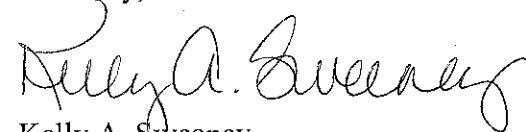
Be advised that, with the exception of the "MTSA Extensions" listing and the 10 miscellaneous connections granted to SWDCMA and to MTSA, the EDUs included on this CMP were accepted by the Department as being allocated to the specific project noted. EDUs may not be transferred between projects without approval.

Any requests for the release of additional EDUs must be made in writing and will be released at the Department's sole discretion.

The Department anticipates the submission of a new CMP specific to the Chester Creek Interceptor following the diversion of flow to the WRTP.

If you have any questions, please contact me at 484.250.5182.

Sincerely,



Kelly A. Sweeney
Sewage Planning Specialist 2
Clean Water

cc: Mr. Servidio (via e-mail)
Ms. Fields (via e-mail)
Mr. O'Neil (via e-mail)
Mr. Fernandes (via e-mail)
Mr. Majeski (via e-mail)
Mr. Fazler (via e-mail)
Re 30 (joh13clw)113-1

| Southwest Delaware County Municipal Authority (SWDCMA) and Middletown Township Sewer Authority (MTSA) Connection Management Plan (Revised 4/2013) | | | | | | | | | | | |
|---|-----------------|-----------------------------------|----------------------|------|---------------------|------------------------|-----------------------------|--------------------|----------------|-------------|----------------|
| Project Name | DEP Code No | Sewage Facilities Planning Status | | | Construction Status | | Connection Status | | | | |
| | | 537 Status | Approved Flow GPD | EDUs | Date/537 Approval | Construction Status | Date/Bldg Permits Issued | Total Project EDUs | EDUs Connected | EDUs Needed | EDUs Allocated |
| MTSA | | | | | | | | | | | |
| 176 S. New Middletown Road | 1-23940-185-3M | | | | | | | 3.40 | | 3.40 | 3.40 |
| Wawa Dairy | | | | | | | | 115.00 | 69.74 | 45.26 | 45.26 |
| Linville Orchards | 1-23940-172-E | Exempt | 1500 | 6 | 6/5/2008 | | | 6.00 | 4.00 | 2.00 | 2.00 |
| 440 Mt. Alverno Road | NA | NA ¹ | NA | NA | NA | | | 2.00 | | 2.00 | 2.00 |
| Mar-J Builders | 1-23940-141-E | Exempt | 5250 | 20 | 5/19/2004 | | | 20.00 | 11.00 | 9.00 | 9.00 |
| Hilldale Subdivision | 1-23940-135-3J | Approved | 1050 | 4 | 6/22/2004 | | | 4.00 | 3.00 | 1.00 | 1.00 |
| Arbors Subdivision | | | | | | | | 14.00 | 13.00 | 1.00 | 1.00 |
| 386 Duttons Mill Road | 1-23940-169-E | Exempt | 262.5 | 1 | 12/26/2007 | | | 4.00 | | 4.00 | 4.00 |
| Chuckran, 228 Howarth | | | | | | | | 1.00 | | 1.00 | 1.00 |
| Martin 76 Cherrywood | 1-23940-186-3J | Approved | 262.5 | 1 | 4/2/2013 | | | 1.00 | | 1.00 | 1.00 |
| First Blackhawk | 1-23940-136-E | Exempt | 1575 | 6 | 1/29/2004 | | | 6.00 | | 6.00 | 6.00 |
| MTSA Extensions | | | | | | | | 121.00 | 20.00 | 101.00 | 101.00 |
| Wall Subdivision | 1-23940-165-3J | | | | | | | 2.00 | | 2.00 | 2.00 |
| Cavaliere | 1-23940-166-E | Exempt | 262.5 | 1 | 2/14/2007 | | | 2.00 | | 2.00 | 2.00 |
| Halycon (Barakat) | 1-23939-106-3IJ | Approved | 7350 | 21 | 7/30/2007 | | | 21.00 | | 21.00 | 21.00 |
| Sweetwater Valley | 1-23940-173-E | Exempt | 1000 | 4 | 4/1/2010 | | | 4.00 | | 4.00 | 4.00 |
| Commonwealth RE | | | | | | | | 5.00 | | 5.00 | 5.00 |
| Point Ardashes (Ponds Edge) | 1-23940-130-3IJ | Approved | 46800 | 117 | 3/11/2004 | | | 117.00 | | 117.00 | 117.00 |
| Brasaland Subdivision | 1-23940-192-3J | | | | | | | 5.00 | 1.00 | 4.00 | 4.00 |
| Skycrest Subdivision | 1-23940-191-3J | | | | | | | 112.00 | | 112.00 | 112.00 |
| Alan Mancil | 1-23940-193-3J | | | | | | | 4.00 | | 4.00 | 4.00 |
| Kedron Investments; 107 West Forge | | | | | | | | 3.00 | 3.00 | 3.00 | 3.00 |
| Easterly, 252 West Forge | | | | | | | | 2.00 | | 2.00 | 2.00 |
| Firovanti | | | | | | | | 3.00 | | 3.00 | 3.00 |
| Franklin Mint Property | | | | | | | | 780.95 | | 780.95 | 780.95 |
| 620 Manchester Ave (Palumbo) | | | | | | | | 5.00 | | 5.00 | 5.00 |
| 500 Manchester Ave (Bonaventure) | 1-23834-082-E | Exempt | 700 | 2 | 4/2005 | | | 2.00 | | 2.00 | 2.00 |
| Miscellaneous | | | | | | | | 10.00 | | 10.00 | 10.00 |
| TOTALS | | | | | | | | 1375.35 | 121.74 | 1253.61 | 1253.61 |

¹ No planning is required; these lots were existing as of the early 1970s

| Southwest Delaware County Municipal Authority (SWDCMA) and Middletown Township Sewer Authority (MTSA) Connection Management Plan (Revised 4/2013) | | | | | | | | | | | | |
|---|-----------------------------------|------------|---------------|------|-------------------|---------------------|--------------------------|--------------------|----------------|-------------|----------------|--|
| Project Name | Sewage Facilities Planning Status | | | | | Construction Status | | Connection Status | | | | |
| | DEP Code No | 537 Status | Approved Flow | | Date/537 Approval | Construction Status | Date/Bldg Permits Issued | Total Project EDUs | EDUs Connected | EDUs Needed | EDUs Allocated | |
| | | | GPD | EDUs | | | | | | | | |
| SWDCMA | | | | | | | | | | | | |
| Baldwin Run Development | 1-23006-100-E | Exempt | 6725 | 26.9 | 3/16/2001 | | | 26.90 | | 26.90 | 26.90 | |
| Church of Christ | | | | | | | | 1.00 | | 1.00 | 1.00 | |
| Courts of Springbrooke | 1-23006-132-E | Exempt | 42000 | 168 | 4/26/2005 | | | 168.00 | | 168.00 | 168.00 | |
| Aston Land Corp. | | | | | | | | 4.20 | 1.00 | 3.20 | 3.20 | |
| Astra Foods | | | | | | | | 88.00 | | 88.00 | 88.00 | |
| Res Kem | | | | | | | | 200.00 | | 200.00 | 200.00 | |
| Lister - 809 Aston Mills Road | | | | | | | | 1.00 | | 1.00 | 1.00 | |
| Star Hill (Grace Property) | | | | | | | | 278.40 | | 278.40 | 278.40 | |
| Rolling Hills Development | | | | | | | | 10.00 | | 10.00 | 10.00 | |
| Knight Brothers | | | | | | | | 0.12 | | 0.12 | 0.12 | |
| 22 Mt. Pleasant Road (Mulch Works Recycling) | | | | | | | | 0.40 | | 0.40 | 0.40 | |
| 230 Pennell Road | | | | | | | | 1.00 | | 1.00 | 1.00 | |
| Arbor Developers, S. Wellington Road | 1-23006-159-X | Waived | 250 | 1 | 3/28/2012 | | | 1.00 | | 1.00 | 1.00 | |
| Grassman | 1-23006-156-X | Waived | 120 | 0.48 | 9/15/2010 | | | 0.48 | | 0.48 | 0.48 | |
| Jomlin Partnership 100 Bodley Road | 1-23006-155-X | Waived | 120 | 0.48 | 7/8/2010 | | | 0.48 | | 0.48 | 0.48 | |
| Valleybrooke Development | | | | | | | | 288.00 | | 288.00 | 288.00 | |
| Rupnicki | 1-23006-153-E | Exempt | 300 | 1.2 | 1/27/2010 | | | 1.20 | | 1.20 | 1.20 | |
| Collinson | | | | | | | | 1.20 | | 1.20 | 1.20 | |
| Newsome's Pond | | | | | | | | 4.80 | | 4.80 | 4.80 | |
| 692 Lenni Road, Chester Heights | 1-23006-148-E | Exempt | 1200 | 4.8 | 8/18/2008 | | | 1.00 | | 1.00 | 1.00 | |
| Breinig, 309 Ronald Avenue | | | | | | | | 1.00 | | 1.00 | 1.00 | |
| 98 Elliston Road | | | | | | | | 1.00 | | 1.00 | 1.00 | |
| 6 Diamond Street | | | | | | | | 1.00 | | 1.00 | 1.00 | |
| Cotter - 50 New Road | | | | | | | | 1.00 | | 1.00 | 1.00 | |
| Collinson (200 Donnelly Road) | 1-23006-151-E | Exempt | 350 | 1.4 | 3/12/2009 | | | 1.40 | | 1.40 | 1.40 | |
| Gahres (109 Wellington) | 1-23006-146-E | Exempt | 350 | 1.4 | 4/9/2008 | | | 1.40 | | 1.40 | 1.40 | |
| Whitekind & Bramble (Dogwood Lane) | 1-23006-141-E | Exempt | 263 | 1.05 | 8/15/2006 | | | 1.05 | | 1.05 | 1.05 | |
| 119 Old Pennell Road | 1-23006-139-E | Exempt | 350 | 1.4 | 4/13/2006 | | | 1.40 | | 1.40 | 1.40 | |
| Miscellaneous | | | | | | | | 10.00 | | 10.00 | 10.00 | |
| TOTALS | | | | | | | | 1096.43 | 1.00 | 1095.43 | 1095.43 | |

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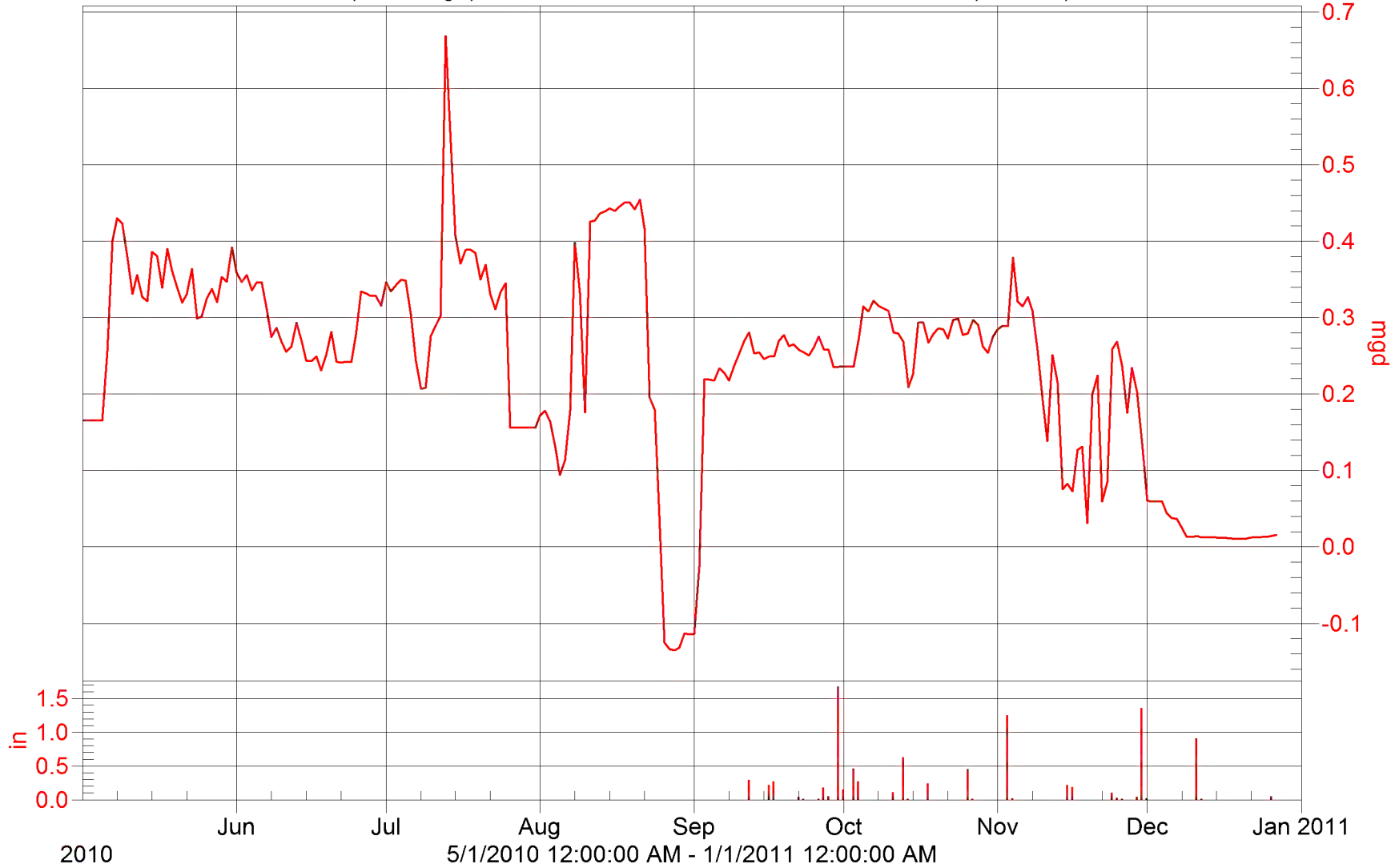
APPENDIX E

Glen Riddle

Average Daily Flow

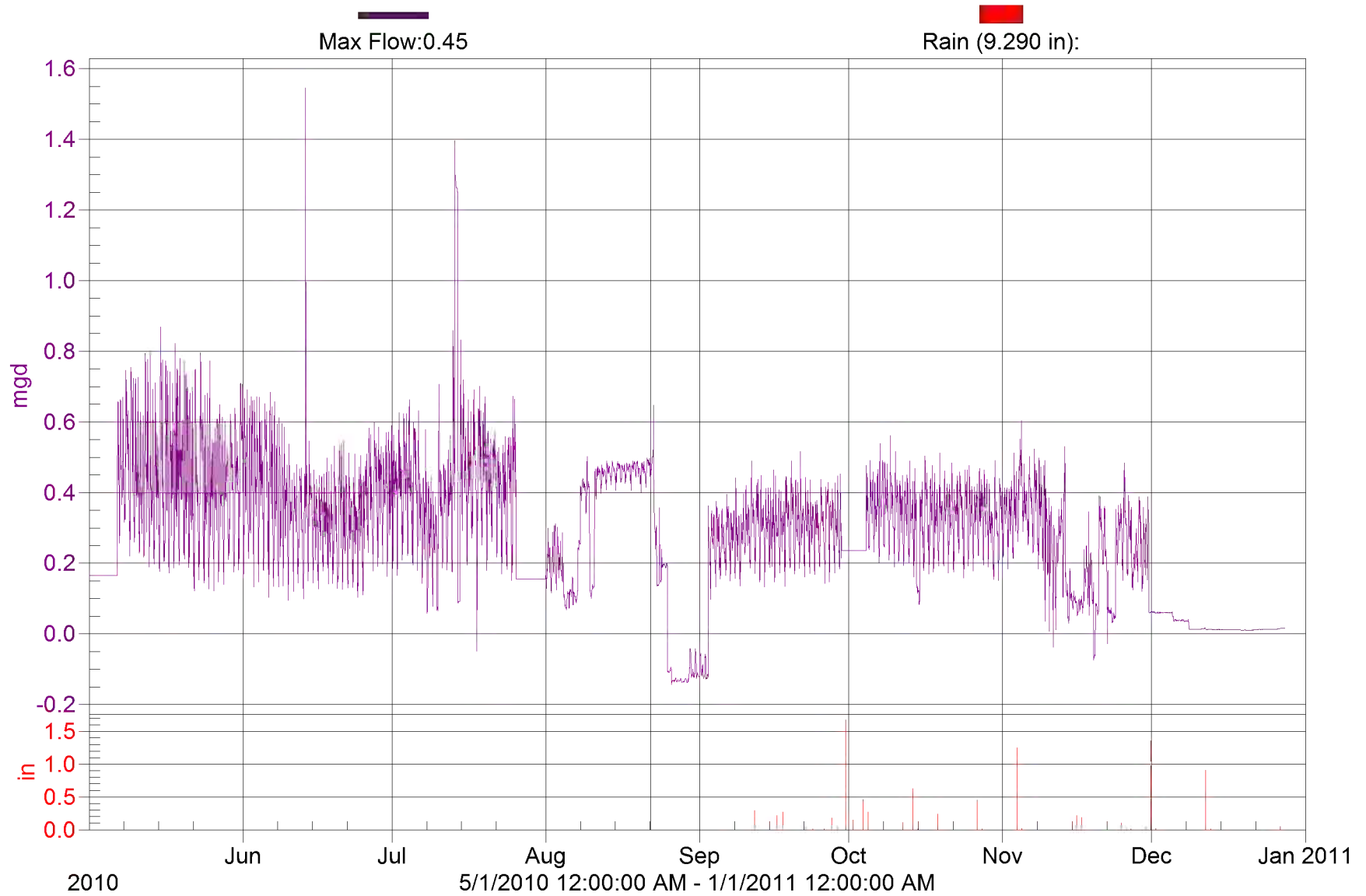
Ave Flow (0.238 mgd):0.17

Rain (9.290 in):



Glen Riddle

Peak Hourly Flow

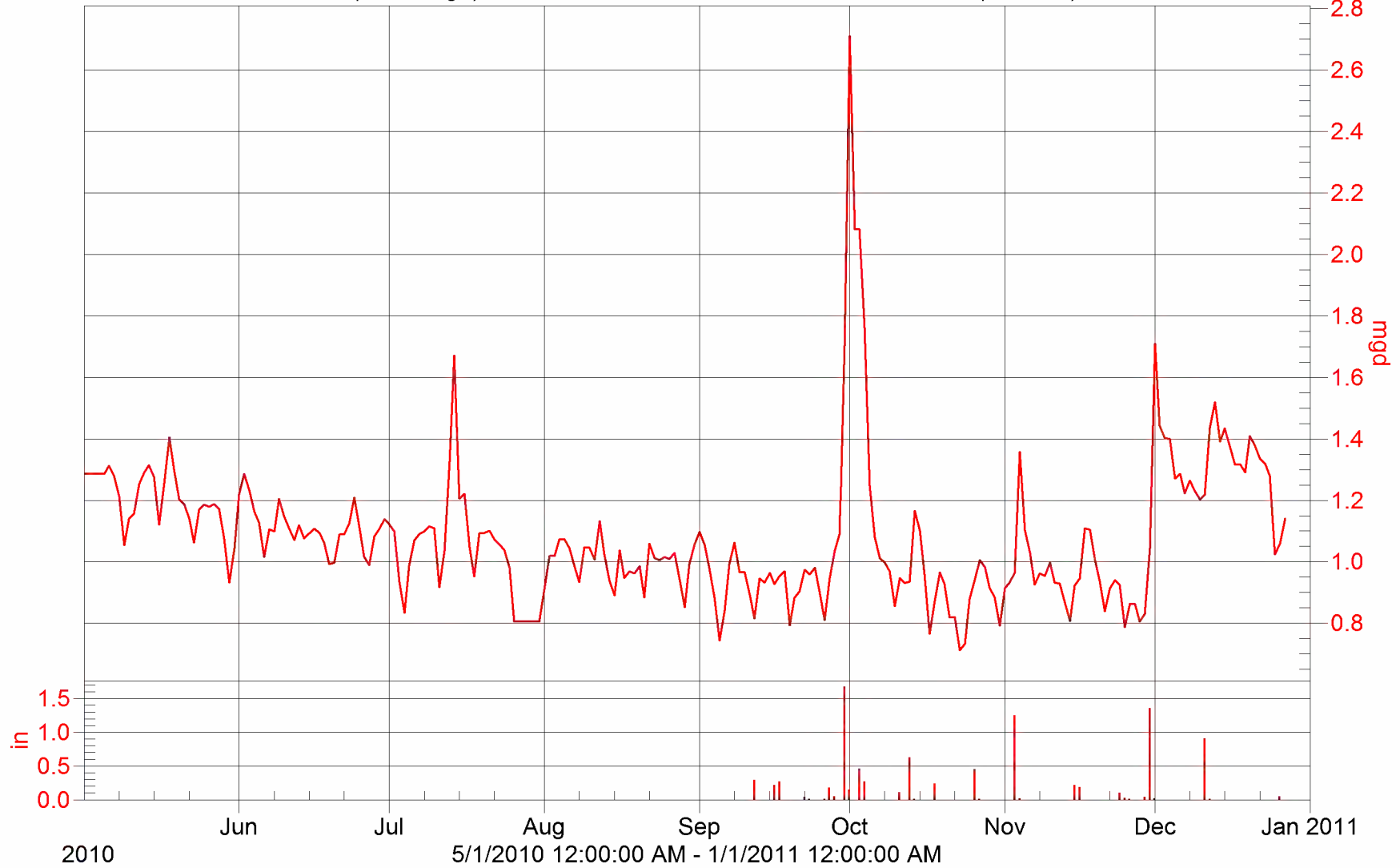


Chrome Run

Average Daily Flow

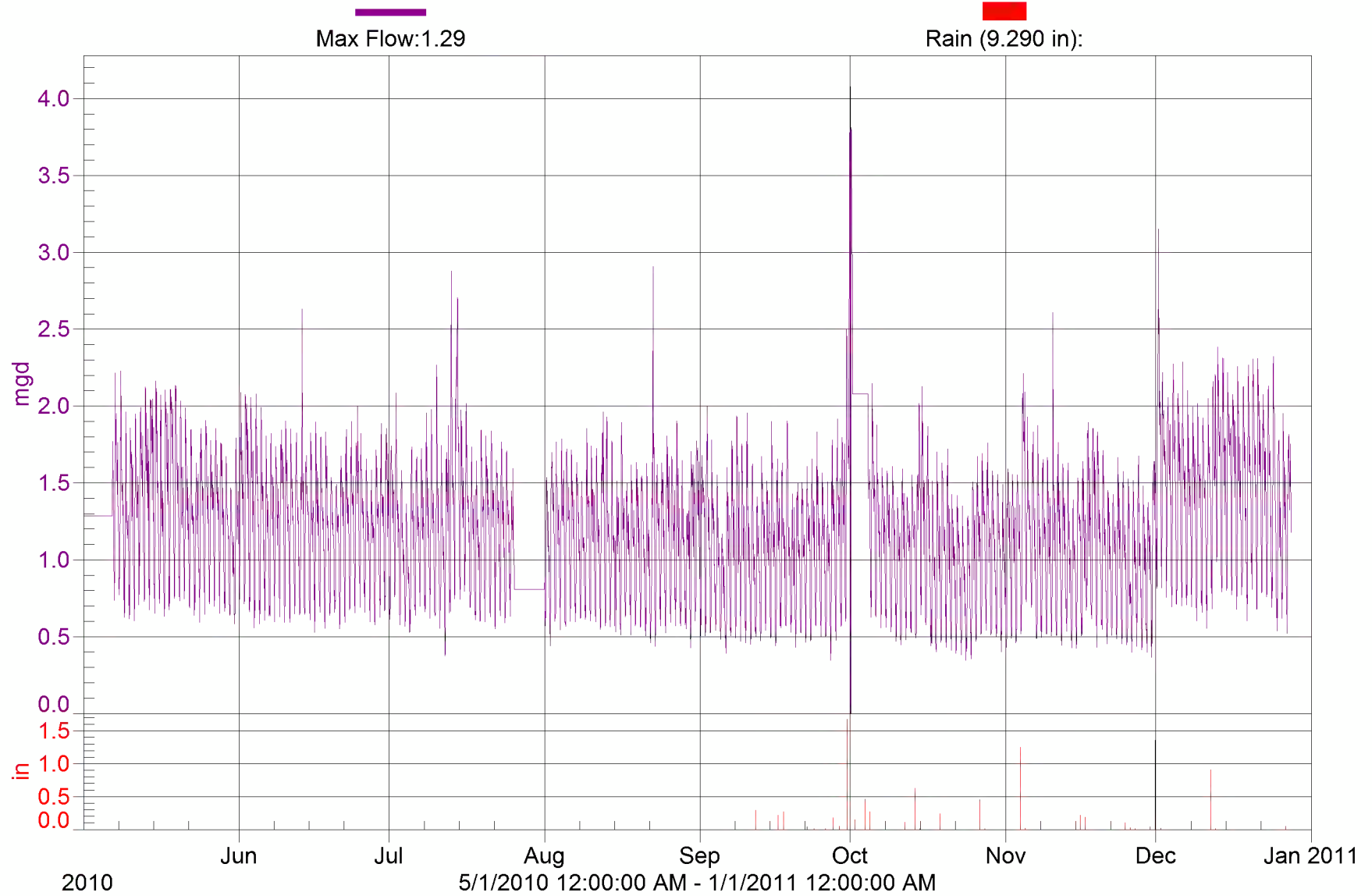
Ave Flow (1.082 mgd): 1.29

Rain (9.290 in):



Chrome Run

Peak Hourly Flow

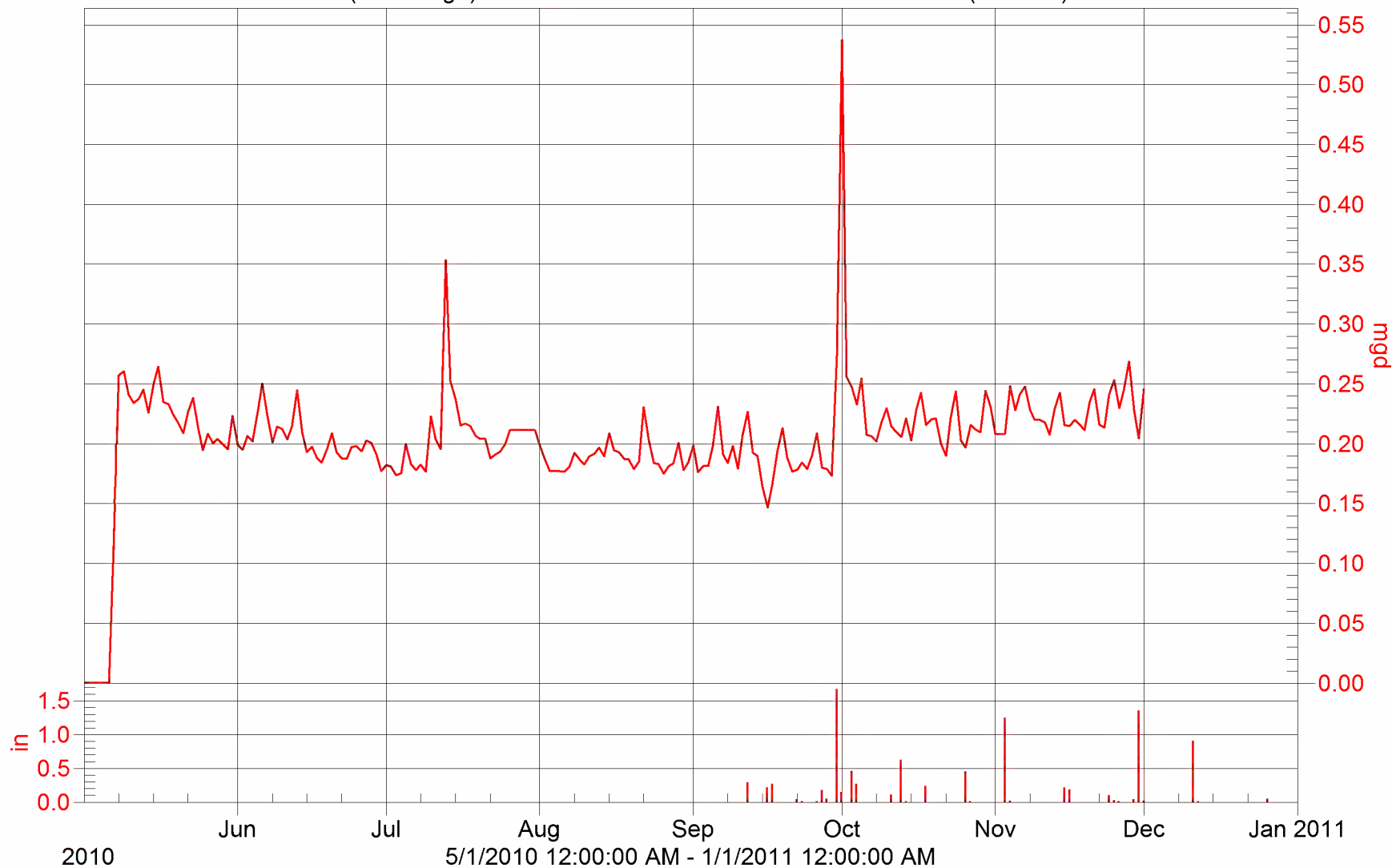


Crum Run

Average Daily Flow

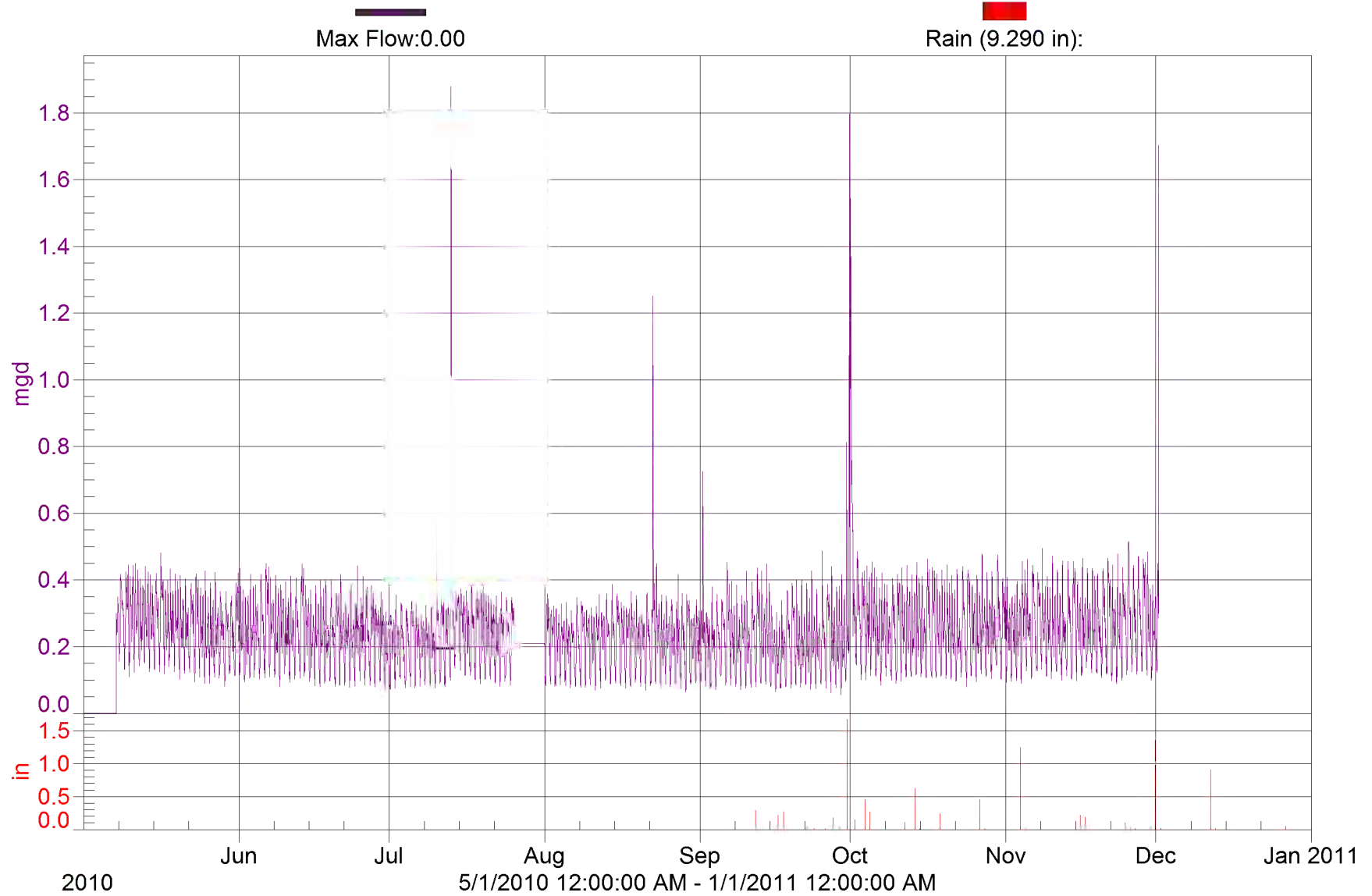
Ave Flow (0.204 mgd):0.00

Rain (9.290 in):



Crum Run

Peak Hourly Flow



Duttons Mill

Average Daily Flow

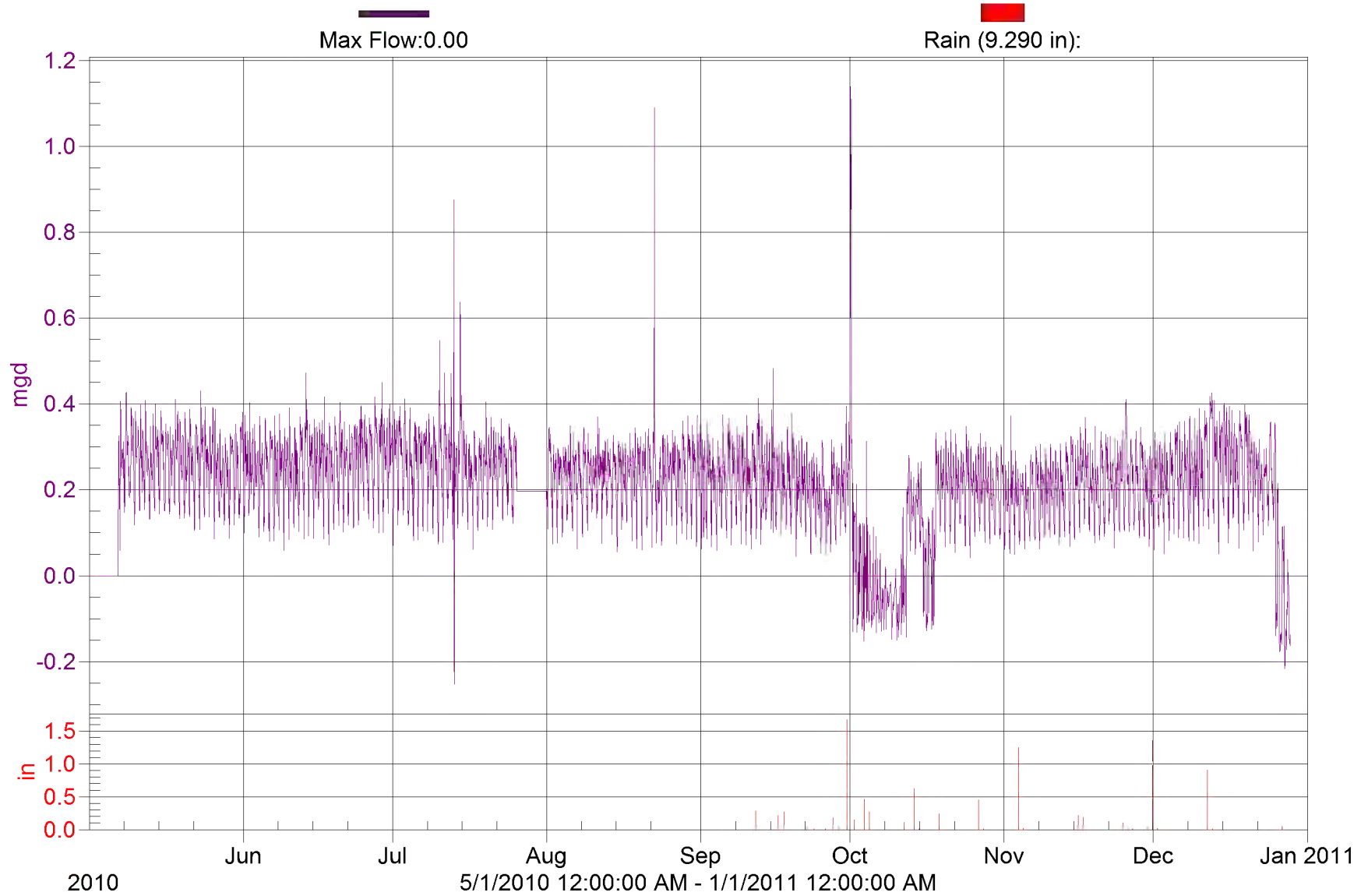
Ave Flow (0.175 mgd):0.00

Rain (9.290 in):



Duttons Mill

Peak Hourly Flow



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APPENDIX F

Gravity Option

| <i>Description</i> | <i>Quantity</i> | <i>Unit</i> | <i>Unit Price</i> | <i>Total Price</i> |
|-----------------------|-----------------|-------------|-------------------|---------------------|
| CCI Phase 1 | | | | |
| LAYOUT | 1 | LS | \$ 37,500 | \$ 37,500 |
| E & S CONTROLS | 1 | LS | \$ 85,000 | \$ 85,000 |
| CLEAR AND GRUBB | 4 | AC | \$ 8,500 | \$ 34,000 |
| STRIP TOPSOIL IN R/W | 1 | LS | \$ 28,000 | \$ 28,000 |
| TIE INTO EXISTING | 1 | LS | \$ 9,000 | \$ 9,000 |
| 21-27" SDR 35 | 8541 | LF | \$ 175 | \$ 1,494,675 |
| JACK AND BORE | 1 | LS | \$ 275,000 | \$ 275,000 |
| MANHOLE/(4)SIPHON BOX | 34 | EA | \$ 12,500 | \$ 425,000 |
| SELECT BACKFILL | 1 | LS | \$ 220,000 | \$ 220,000 |
| R/W RESTORATION | 1 | LS | \$ 45,000 | \$ 45,000 |
| MILL PAVING | 1 | LS | \$ 11,500 | \$ 11,500 |
| PATCH PAVING | 1 | LS | \$ 70,000 | \$ 70,000 |
| TRAFFIC CONTROL | 1 | LS | \$ 70,000 | \$ 70,000 |
| Rock Excavation | 1 | LS | \$ 100,000 | \$ 100,000 |
| Easement Aquisition | 1 | LS | \$ 25,000 | \$ 25,000 |
| Total | | | | \$ 2,929,675 |
| 20% Contingency | 1 | | \$ 585,935 | \$ 585,935 |
| 15% Engineering | 1 | | \$ 439,451 | \$ 439,451 |
| Grand Total | | | | \$ 3,955,061 |

| | | | | |
|-----------------------------|-------|----|--------------|---------------------|
| CCI Phase 2 | | | | |
| Relocate SWDCMA Sewer | 300 | LF | \$ 200 | \$ 60,000 |
| LAYOUT | 1 | LS | \$ 54,000 | \$ 54,000 |
| E & S CONTROLS | 1 | LS | \$ 115,000 | \$ 115,000 |
| CLEAR AND GRUBB | 3 | AC | \$ 8,500 | \$ 25,500 |
| STRIP TOPSOIL IN R/W | 1 | LS | \$ 28,125 | \$ 28,125 |
| TIE INTO EXISTING | 1 | LS | \$ 9,000 | \$ 9,000 |
| 21-30" SDR 35 (DEL 2113 LF) | 13202 | LF | \$ 200 | \$ 2,640,400 |
| JACK AND BORE | 1 | LS | \$ 275,000 | \$ 275,000 |
| SIPHON PIPING-2X100' ADDT | 200 | LF | \$ 400 | \$ 80,000 |
| MANHOLE/(4)SIPHON BOX | 50 | EA | \$ 12,500 | \$ 625,000 |
| SELECT BACKFILL | 1.2 | LS | \$ 370,500 | \$ 444,600 |
| R/W RESTORATION | 0.5 | LS | \$ 45,000 | \$ 22,500 |
| MILL PAVING | 1 | LS | \$ 35,000 | \$ 35,000 |
| PATCH PAVING | 1 | LS | \$ 190,000 | \$ 190,000 |
| TRAFFIC CONTROL | 1 | LS | \$ 115,000 | \$ 115,000 |
| Rock Excavation | 1 | LS | \$ 300,000 | \$ 300,000 |
| Easement Aquisition | 1 | LS | \$ 75,000 | \$ 75,000 |
| Total | | | | \$ 5,094,125 |
| 20% Contingency | 1 | | \$ 1,018,825 | \$ 1,018,825 |
| 15% Engineering | 1 | | \$ 764,119 | \$ 764,119 |
| Grand Total | | | | \$ 6,877,069 |

| <i>Description</i> | <i>Quantity</i> | <i>Unit</i> | <i>Unit Price</i> | <i>Total Price</i> |
|---------------------------------|-----------------|-------------|-------------------|---------------------|
| Chester Creek Force Main | | | | |
| Tie Into Existing | 1 | ea | \$ 4,500 | \$ 4,500 |
| Clearing | 1 | ls | \$ 12,000 | \$ 12,000 |
| Mill Paving | 1 | ls | \$ 55,000 | \$ 55,000 |
| Air Release | 7 | ea | \$ 10,000 | \$ 70,000 |
| 24"DIP | 18114 | lf | \$ 175 | \$ 3,169,950 |
| Thrust Blocks | 1 | ls | \$ 40,000 | \$ 40,000 |
| Full Stone Backfill | 1 | ls | \$ 300,000 | \$ 300,000 |
| Testing | 1 | ls | \$ 14,500 | \$ 14,500 |
| Patch Pave | 1 | ls | \$ 200,000 | \$ 200,000 |
| Patch Concrete | 1 | ls | \$ 6,000 | \$ 6,000 |
| Traffic Control | 1 | ls | \$ 70,000 | \$ 70,000 |
| Peco Pole Suports | 1 | ls | \$ 40,000 | \$ 40,000 |
| Layout | 1 | ls | \$ 65,000 | \$ 65,000 |
| Stream Crossing | 1 | ls | \$ 5,500 | \$ 5,500 |
| Erosion Control | 1 | ls | \$ 120,000 | \$ 120,000 |
| Easement Rest | 1 | ls | \$ 25,000 | \$ 25,000 |
| Easement Acquisition | 1 | ls | \$ 75,000 | \$ 75,000 |
| Total | | | | \$ 4,272,450 |
| 20% Contingency | 1 | | \$ 854,490 | \$ 854,490 |
| 15% Engineering | 1 | | \$ 640,868 | \$ 640,868 |
| Grand Total | | | | \$ 5,767,808 |

| | | | | |
|-----------------------------------|---|----|------------|---------------------|
| Chester Creek Pump Station | | | | |
| Site Work | 1 | ls | \$ 25,000 | \$ 25,000 |
| Valves | 1 | ls | \$ 75,000 | \$ 75,000 |
| Wetwell | 1 | ls | \$ 600,000 | \$ 600,000 |
| Pumps | 1 | ls | \$ 700,000 | \$ 700,000 |
| Generator | 1 | ls | \$ 400,000 | \$ 400,000 |
| Building | 1 | ls | \$ 125,000 | \$ 125,000 |
| Rock | 1 | ls | \$ 100,000 | \$ 100,000 |
| Electrics | 1 | ls | \$ 50,000 | \$ 50,000 |
| Total | | | | \$ 2,075,000 |
| 20% Contingency | 1 | | \$ 415,000 | \$ 415,000 |
| 15% Engineering | 1 | | \$ 311,250 | \$ 311,250 |
| Grand Total | | | | \$ 2,801,250 |

| | | | | |
|---------------------------|------|----|--------|-----------|
| Crum Run Diversion | | | | |
| 10" Sewer (0'-8') | 1000 | lf | \$ 75 | \$ 75,000 |
| 10" Sewer (8'-10') | 725 | lf | \$ 85 | \$ 61,625 |
| 10" Sewer (10'-12') | 200 | lf | \$ 95 | \$ 19,000 |
| 10" Sewer (12'-14') | 100 | lf | \$ 120 | \$ 12,000 |
| 10" Sewer (14'-16') | 100 | lf | \$ 135 | \$ 13,500 |
| 10" Sewer (16'-18') | 50 | lf | \$ 150 | \$ 7,500 |
| 10" Sewer (18'-20') | 50 | lf | \$ 175 | \$ 8,750 |

Middletown Township Sewer Authority
 Chester Creek Interceptor Phase 2
 Act 537 Plan Special Study

PUMP STATION OPTION

| | | | | |
|--------------------|------|----|-----------|-------------------|
| Manholes (0'-8') | 11 | ea | \$ 3,000 | \$ 33,000 |
| Additional MH Dpth | 20 | ea | \$ 275 | \$ 5,500 |
| Watertight Covers | 11 | vf | \$ 250 | \$ 2,750 |
| Type II Bedding | 2225 | ea | \$ 7 | \$ 15,575 |
| Lawn Restoration | 2225 | lf | \$ 9 | \$ 20,025 |
| Connect to PS | 1 | ea | \$ 3,000 | \$ 3,000 |
| Total | | | | \$ 277,225 |
| 20% Contingency | 1 | | \$ 55,445 | \$ 55,445 |
| 15% Engineering | 1 | | \$ 41,584 | \$ 41,584 |
| Grand Total | | | | \$ 374,254 |

| | | | | |
|-----------------------------------|---|----|------------|-------------------|
| Duttons Mills Pump Station | | | | |
| Site Work | 1 | ls | \$ 31,000 | \$ 31,000 |
| Wetwell | 1 | ea | \$ 50,000 | \$ 50,000 |
| Valve Box | 1 | ls | \$ 10,000 | \$ 10,000 |
| Pumps and Acc | 1 | ls | \$ 220,000 | \$ 220,000 |
| Install and Piping | 1 | ls | \$ 50,000 | \$ 50,000 |
| Water | 1 | ls | \$ 1,000 | \$ 1,000 |
| Grinder | 1 | ls | \$ 31,000 | \$ 31,000 |
| Generator and Elec | 1 | ls | \$ 202,100 | \$ 202,100 |
| Total | | | | \$ 595,100 |
| 20% Contingency | 1 | | \$ 119,020 | \$ 119,020 |
| 15% Engineering | 1 | | \$ 89,265 | \$ 89,265 |
| Grand Total | | | | \$ 803,385 |

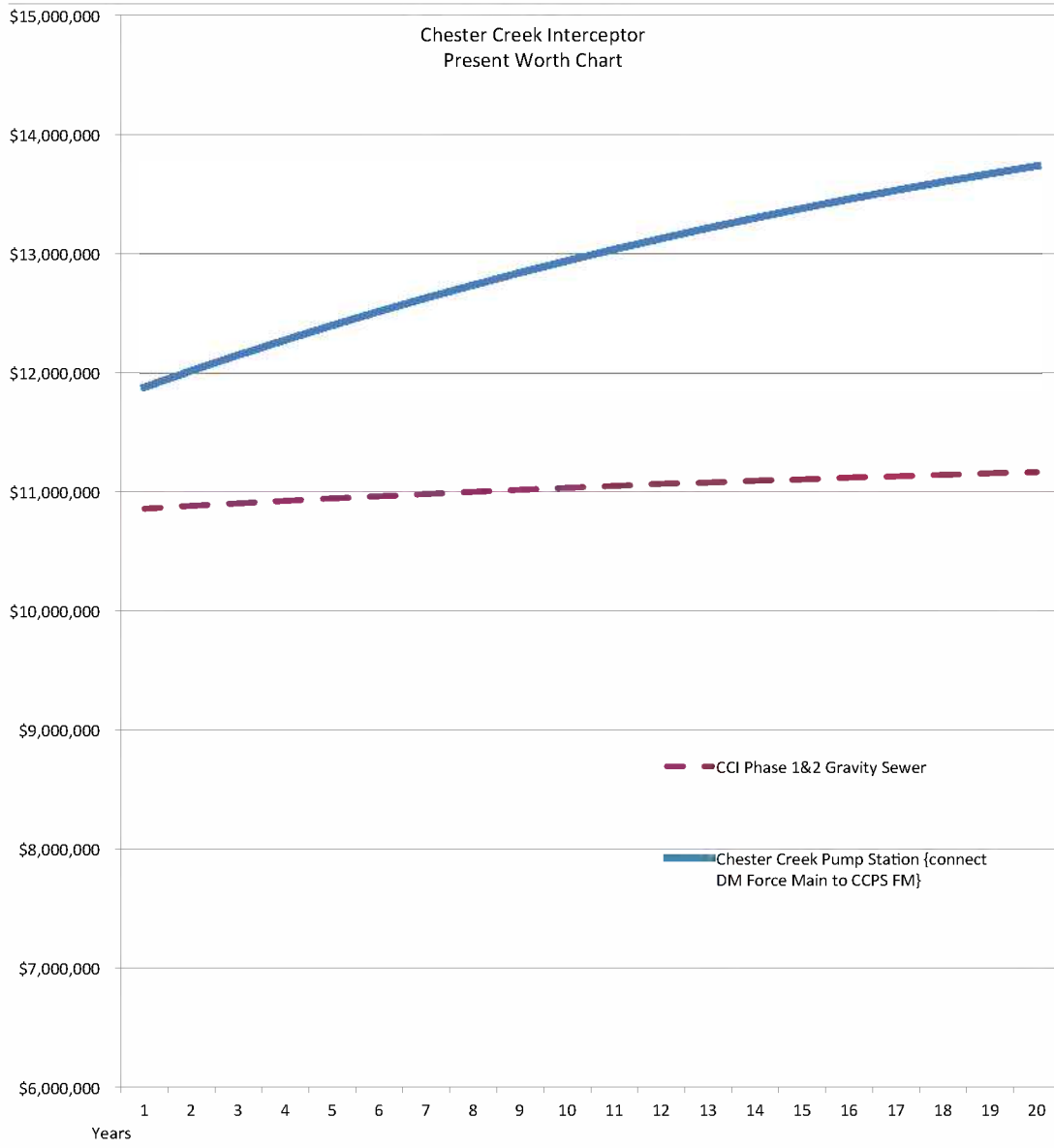
| | | | | |
|-----------------------------|------|----|------------|---------------------|
| Phase 1 to New Pump | | | | |
| LAYOUT | 0.5 | LS | 37500 | \$ 18,750 |
| E & S CONTROLS | 0.5 | LS | \$ 85,000 | \$ 42,500 |
| CLEAR AND GRUBB | 3 | AC | \$ 8,500 | \$ 25,500 |
| STRIP TOPSOIL IN R/W | 0.5 | LS | \$ 28,000 | \$ 14,000 |
| TIE INTO EXISTING | 1 | LS | \$ 9,000 | \$ 9,000 |
| 21/27" SDR 35 (DEL 2113 LF) | 4322 | LF | \$ 175 | \$ 756,350 |
| JACK AND BORE | 0 | LS | \$ 275,000 | \$ - |
| MANHOLE/SIPHON BOX | 14 | EA | \$ 12,500 | \$ 175,000 |
| SELECT BACKFILL | 1 | LS | \$ 220,000 | \$ 220,000 |
| R/W RESTORATION | 0.5 | LS | \$ 45,000 | \$ 22,500 |
| MILL PAVING | 1 | LS | 11500 | \$ 11,500 |
| PATCH PAVING | 1 | LS | 70000 | \$ 70,000 |
| TRAFFIC CONTROL | 1 | LS | 70000 | \$ 70,000 |
| Total | | | | \$ 1,435,100 |
| 20% Contingency | 1 | | \$ 287,020 | \$ 287,020 |
| 15% Engineering | 1 | | \$ 215,265 | \$ 215,265 |
| Grand Total | | | | \$ 1,937,385 |

CCIP2 ACT 537 PLAN

APPENDIX G

| CCI Phase 1&2 Gravity Sewer | | | | | | |
|--|------|---------------|-----------|---------------------|---------------------|--|
| 20 yr Present Worth Calculations | | | | | | |
| Initial Capital | Year | Capital Cost | O&M | Annual Increase O&M | Total Present Worth | |
| \$10,832,200 | 1 | \$ 10,832,200 | \$23,580 | \$0 | \$10,855,780 | |
| | 2 | \$ 10,832,200 | \$45,830 | \$440 | \$10,878,470 | |
| O&M | 3 | \$ 10,832,200 | \$66,830 | \$1,280 | \$10,900,310 | |
| | 4 | \$ 10,832,200 | \$86,630 | \$2,470 | \$10,921,300 | |
| \$25,000 | 5 | \$ 10,832,200 | \$105,310 | \$3,970 | \$10,941,480 | |
| | 6 | \$ 10,832,200 | \$122,930 | \$5,730 | \$10,960,860 | |
| Annual Increase O&M (2%) | 7 | \$ 10,832,200 | \$139,560 | \$7,720 | \$10,979,480 | |
| | 8 | \$ 10,832,200 | \$155,240 | \$9,920 | \$10,997,360 | |
| \$500 | 9 | \$ 10,832,200 | \$170,040 | \$12,290 | \$11,014,530 | |
| | 10 | \$ 10,832,200 | \$184,000 | \$14,800 | \$11,031,000 | |
| Interest | 11 | \$ 10,832,200 | \$197,170 | \$17,440 | \$11,046,810 | |
| | 12 | \$ 10,832,200 | \$209,600 | \$20,170 | \$11,061,970 | |
| 6% | 13 | \$ 10,832,200 | \$221,320 | \$22,980 | \$11,076,500 | |
| | 14 | \$ 10,832,200 | \$232,370 | \$25,860 | \$11,090,430 | |
| | 15 | \$ 10,832,200 | \$242,810 | \$28,780 | \$11,103,790 | |
| | 16 | \$ 10,832,200 | \$252,650 | \$31,730 | \$11,116,580 | |
| | 17 | \$ 10,832,200 | \$261,930 | \$34,700 | \$11,128,830 | |
| | 18 | \$ 10,832,200 | \$270,690 | \$37,680 | \$11,140,570 | |
| | 19 | \$ 10,832,200 | \$278,950 | \$40,650 | \$11,151,800 | |
| | 20 | \$ 10,832,200 | \$286,750 | \$43,620 | \$11,162,570 | |

| Chester Creek Pump Station (connect DM Force Main to CCPS FM) | | | | | | |
|--|------|--------------|-------------|---------------------|-------------------|---------------------|
| 20 yr Present Worth Calculations | | | | | | |
| Initial Capital | Year | Capital Cost | O&M | Annual Increase O&M | Pump Depreciation | Total Present Worth |
| \$11,684,185 | 1 | \$11,684,190 | \$142,180 | \$0 | \$55,000 | \$11,881,370 |
| | 2 | \$11,684,190 | \$276,320 | \$2,680 | \$55,000 | \$12,018,190 |
| O&M | 3 | \$11,684,190 | \$402,860 | \$7,740 | \$55,000 | \$12,149,790 |
| | 4 | \$11,684,190 | \$522,240 | \$14,910 | \$55,000 | \$12,276,340 |
| \$150,713 | 5 | \$11,684,190 | \$634,860 | \$23,920 | \$55,000 | \$12,397,970 |
| | 6 | \$11,684,190 | \$741,100 | \$34,540 | \$55,000 | \$12,514,830 |
| Annual Increase O&M (2%) | 7 | \$11,684,190 | \$841,340 | \$46,570 | \$55,000 | \$12,627,100 |
| | 8 | \$11,684,190 | \$935,900 | \$59,810 | \$55,000 | \$12,734,900 |
| \$3,014 | 9 | \$11,684,190 | \$1,025,100 | \$74,080 | \$55,000 | \$12,838,370 |
| | 10 | \$11,684,190 | \$1,109,260 | \$89,230 | \$55,000 | \$12,937,680 |
| Interest | 11 | \$11,684,190 | \$1,188,650 | \$105,110 | \$55,000 | \$13,032,950 |
| | 12 | \$11,684,190 | \$1,263,550 | \$121,590 | \$55,000 | \$13,124,330 |
| 6% | 13 | \$11,684,190 | \$1,334,210 | \$138,540 | \$55,000 | \$13,211,940 |
| | 14 | \$11,684,190 | \$1,400,880 | \$155,880 | \$55,000 | \$13,295,950 |
| | 15 | \$11,684,190 | \$1,463,760 | \$173,480 | \$55,000 | \$13,376,430 |
| | 16 | \$11,684,190 | \$1,523,090 | \$191,280 | \$55,000 | \$13,453,560 |
| | 17 | \$11,684,190 | \$1,579,060 | \$209,190 | \$55,000 | \$13,527,440 |
| | 18 | \$11,684,190 | \$1,631,860 | \$227,150 | \$55,000 | \$13,598,200 |
| | 19 | \$11,684,190 | \$1,681,670 | \$245,080 | \$55,000 | \$13,665,940 |
| | 20 | \$11,684,190 | \$1,728,670 | \$262,940 | \$55,000 | \$13,730,800 |



Initial Capital Calculations

| Phase 1 & 2 Gravity | | MTSA Chester Creek PS | |
|---------------------|---------------------|----------------------------|---------------------|
| CCI Phase 1 | \$3,955,100 | Chester Creek Force Main | \$5,767,800 |
| CCI Phase 2 | \$6,877,100 | Chester Creek Pump Station | \$2,801,300 |
| | | Crum Run Diversion | \$374,300 |
| | | Duttons Mills Pump Station | \$803,400 |
| | | CCI Gravity Phase 1 | \$1,937,385 |
| Grand Total | \$10,832,200 | Grand Total | \$11,684,185 |

CCIP2 ACT 537 PLAN

APPENDIX H



**Financial Statements
And
Supplementary Information**

**Sewer Authority
Sewer Revenue Fund
(A Component Unit of Middletown Township)**

Years Ended April 30, 2012 and 2011

INDEX

Middletown Township Sewer Revenue Fund
Middletown Township Sewer Authority

April 30, 2012 and 2011

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MIDDLETOWN TOWNSHIP SEWER REVENUE FUND

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|---|---------|
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|--------------------------------------|
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Introductory Section

**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
SEWER AUTHORITY
&
SEWER REVENUE FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS
FISCAL YEAR ENDED APRIL 30, 2012**

This section presents management's discussion of the financial condition and operating performance of the Middletown Township Delaware County Sewer Authority ("Authority") and the Middletown Township Sewer Revenue Fund over the course of the Fiscal Year ended April 30, 2012. Please read this analysis in conjunction with the Authority's financial statements which follow this document.

SUMMARY OF ORGANIZATION AND BUSINESS RELATIONSHIP BETWEEN THE TOWNSHIP OF MIDDLETOWN AND THE AUTHORITY

The Authority is a municipal corporation created by the Township of Middletown (Township) in 1966 under the Pennsylvania Municipality Authorities Act of 1945, as amended, ("Act") for the purpose of financing, engineering and building the public sanitary sewer system that currently serves 7,344 Equivalent Dwelling Units (EDU). The system includes approximately 70 miles of collection pipelines and 23 pumping stations, which convey about 1.6 million gallons per day. Wastewater is conveyed to the Southwest Delaware County Municipal Authority (SWDCMA) for treatment at its six million gallon per day sewage treatment plant in neighboring Aston Township. Township Council appoints the five members of the Sewer Authority Board of Directors to staggered terms of five years. The Authority hires its own team of employees and professional advisors.

The Authority is a "Financing" or "Lease-Back" type of authority (as opposed to an "Operating" Authority) as permitted under the Act. The Authority owns the sewer system and leases it to the Township under a Lease Agreement that expires in July 2017. Ownership of the system may then be transferred to the Township. Under the terms of the Lease Agreement the Township is obligated to maintain an adequate sewer rental rate structure and properly operate the public sanitary sewer system. Since 1968, the Township has assigned all operational responsibilities to the Authority under an Operating Agreement.

SNAPSHOT OF THE PAST FISCAL YEAR

- Total assets of the Authority in the amount of \$12,658,126; with total liabilities of \$1,149,315 represent a very favorable Asset to Liabilities Ratio of 11:1, which is a very good indicator of the Authority's financial position.
- The Township's Lease Rental Payments to the Authority under the terms of the Amortization Schedule in the 2003 Lease Agreement has been satisfied as of November 1, 2011 when the Authority directed its Trustee, TD Bank, to call \$1,710,000 worth of outstanding Sewer Revenue Bonds for early redemption. Paying off the total amount of outstanding debt resulted in an interest expense saving of approximately \$250,000, which would have been paid over the next 4.5 years at an average bond interest rate of 3.8%. An additional savings of \$78,000 may also be realized by eliminating annual trustee and audit fees. Since the interest earnings on the required trust fund reserves was nearly zero; the Authority decided to pay down the debt which is a permitted use of the Bond Redemption and Improvement Trust Fund.
- Due to the anticipated capital cost associated with upgrades to the Chester Creek Interceptor and the future connection to the DELCORA conveyance and treatment system; the Authority will place excess revenue realized from the eliminating the Township's lease payments into a separate savings account for future capital obligations.

**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
SEWER AUTHORITY
&
SEWER REVENUE FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS
FISCAL YEAR ENDED APRIL 30, 2012**

- By eliminating its bonded debt, the Authority is not obligated to retain the services of the trustee which enabled the Authority to directly invest sewer revenues, capital reserves and tapping fees into insured accounts paying higher interest rates than the trustee could earn with the investment restrictions imposed by the terms of the 2003 Trust Indenture. The Authority has opened various accounts with banks and local credit unions. The deposits are insured by the FDIC or NCUA up to \$250,000. Banks are required to guarantee public fund investments in excess of \$250,000 by pledging bank assets to cover any losses.
- The Authority's performance this past fiscal year was better than expected compared to the operating budget. Revenue received was \$2,488,560 which included \$26,500 in tapping fee receipts. Tapping fees are anticipated but not budgeted due to unpredictable variables such as housing markets, weather conditions and construction delays caused in part by regulatory agencies. Expenses were \$1,273,805 resulting in \$1,214,755 in excess receipts over disbursements due to the 2011 and 2012 rate increases, tapping fee receipts, and elimination of lease rental payments.
- The Authority is committed to the long term maintenance and upgrade of the sewage collection system. In fiscal year 2012, the Authority expended a total of \$164,000 to subcontractors and its engineer for sewer inspection and repair work which encompasses over 15,000 linear feet of sewer mains and laterals in addition to easement maintenance. This work is primarily done in conjunction with the Authority Infiltration & Inflow Program, which is done to find and remove sources of rainwater or groundwater which may be entering the sanitary sewer system. In 2011, our efforts were concentrated in the Glenloch and Alverno Valley Farms Planning Residential Developments built in the early 1970's. Additional routine maintenance and repairs were done throughout the system.
- The Authority's defined benefit retirement plan with the Pennsylvania Municipal Retirement System has no unfunded liability but there are minimal annual expenses due to actuarial rate adjustments by PMRS resulting from changes in market conditions, costs, longevity projections, etc. The plan currently covers five retirees and two active employees who are both eligible for early retirement benefits. The Authority's Municipal Obligation Payment to the plan in Year 2011 was only \$5,179, a \$749 reduction from 2010.
- The Sewer Authority's Annual Audit Reports are now available to the public on Middletown Township's web-site: www.middletowntownship.org.

OVERVIEW OF ANNUAL FINANCIAL REPORT

Management's Discussion and Analysis (MD&A) is an introduction to the basic financial statements. The MD&A represents management's analysis of the Authority's financial condition and performance.

The financial statements include a ***Statement of Net Assets; Statement of Revenues, Expenses and Changes in Net Assets; Statement of Cash Flows, Notes to Financial Statements and Supplementary Information.***

Statement of Net Assets – This statement will provide information that will help the reader determine if the Township's Sewer Revenue Fund is financially better or worse as a result of the year's activity. These statements include all assets and liabilities using historical cost and the accrual method of accounting similar to that used by private sector companies.

**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
SEWER AUTHORITY
&
SEWER REVENUE FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS
FISCAL YEAR ENDED APRIL 30, 2012**

Statement of Revenues, Expenses and Changes in Net Assets – This statement presents the results of business activities during the fiscal year and the amounts by which the net assets changed. All current year revenues and expenses are taken into account regardless of when the cash is received or paid.

Statement of Cash Flow – Reports changes in cash and cash equivalents resulting from operational, capital and financing, and investment activities.

Notes to Financial Statements – The financial statement note disclosures provide the reader with additional information that is essential to a full understanding of the data presented in the financial statements.

Supplementary Information – This section includes financial information concerning the combined Authority and Township Sewer Revenue Fund operating expenses, and budget data.

The financial statements were prepared by the Authority's staff from the detailed books and records of the Authority. The statements were audited and adjusted, if the adjustments were material, during the independent external audit process by Hanna, McGlone & Co. P.C.

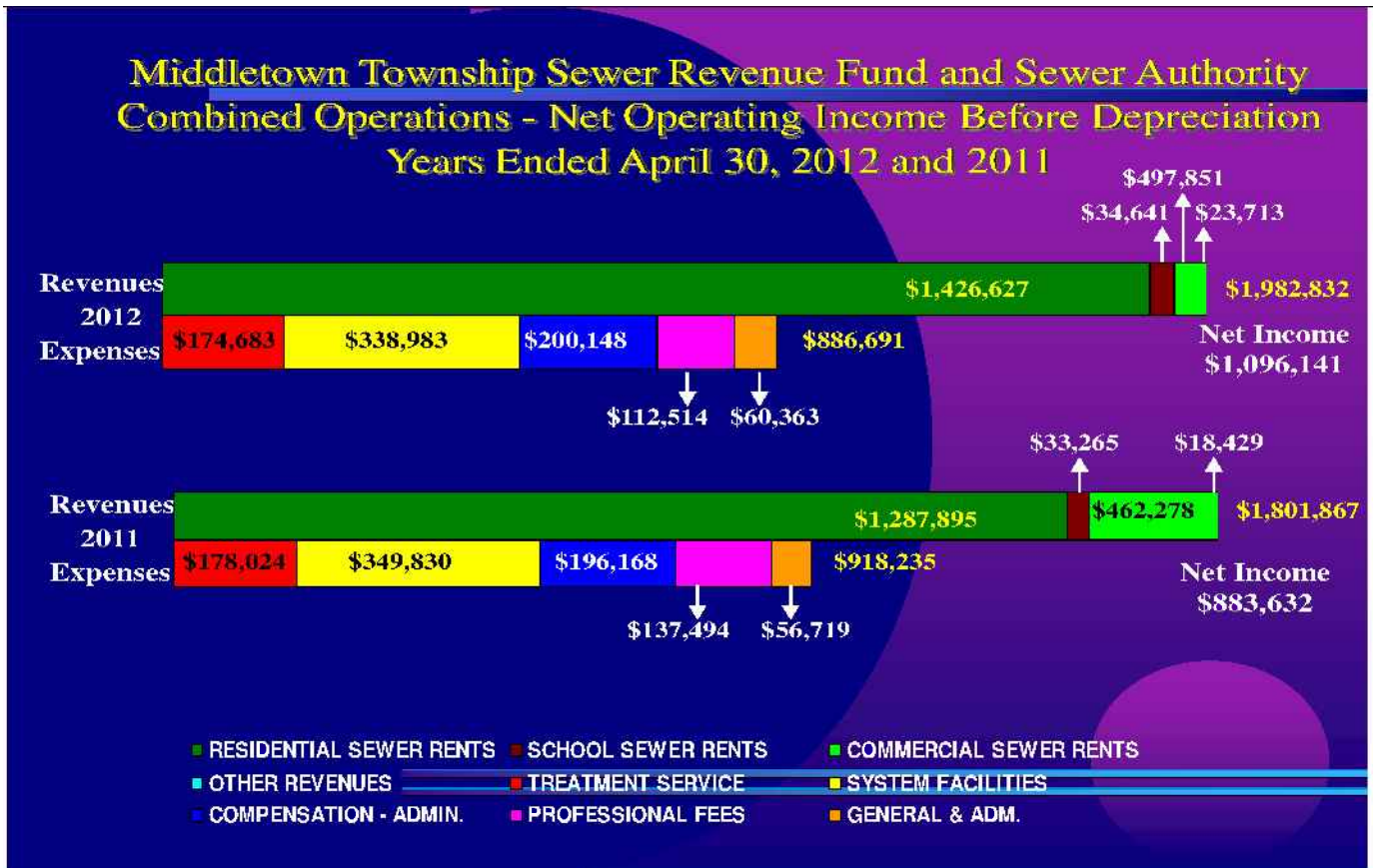
FINANCIAL ANALYSIS

Statement of Revenues, Expenses and Changes in Net Assets:

The following graph presents Net Income from Operations before Depreciation on a combined basis for the Authority and the Sewer Revenue Fund for the fiscal years ended April 30, 2012 and 2011:

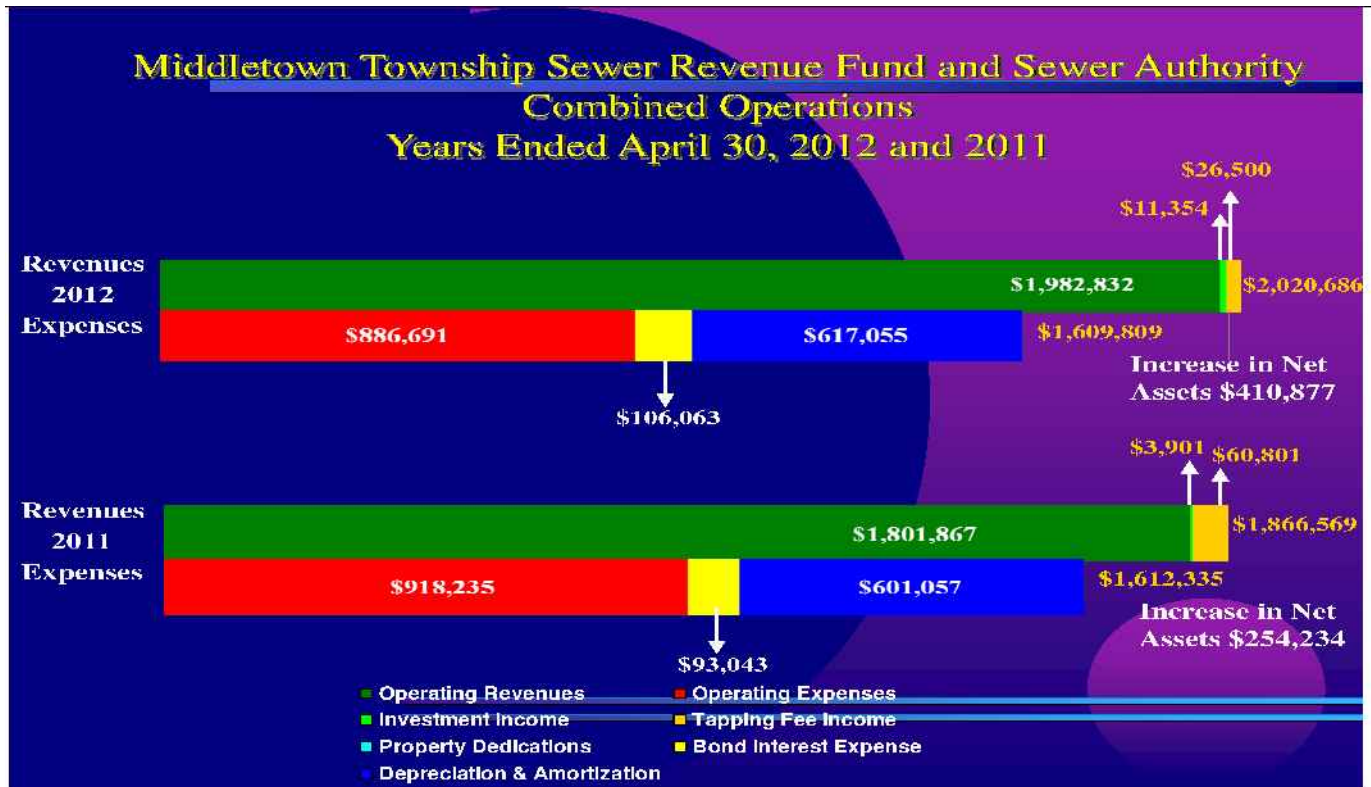
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**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
SEWER AUTHORITY
&
SEWER REVENUE FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS
FISCAL YEAR ENDED APRIL 30, 2012**



The following graph expands on the operating revenue and expense detail contained in the preceding graph to include depreciation expense, non-operating income and expenses, and the overall increase in net assets.

**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
SEWER AUTHORITY
&
SEWER REVENUE FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS
FISCAL YEAR ENDED APRIL 30, 2012**



**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
SEWER AUTHORITY
&
SEWER REVENUE FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS
FISCAL YEAR ENDED APRIL 30, 2012**

Statement of Net Assets:

The combined statement of financial condition for the Authority and the Township Sewer Revenue Fund as of April 30, 2012 and 2011 is presented in the following graph.

| Middletown Township Sewer Revenue Fund and Sewer Authority Statement of Net Assets April 30 | | | | | |
|--|-----------------------|-----------------------|--|---------------------|---------------------|
| | 2012 | 2011 | | 2012 | 2011 |
| Current Assets | \$4,258,951 | \$1,994,342 | Current Liabilities | \$1,135,571 | \$1,025,819 |
| Prop., Plant & Equip. (PP&E) | \$25,284,804 | \$24,763,561 | Curr. Liab. (Payable from Restricted Funds) (CLR) | \$13,744 | \$344,707 |
| Accumulated Depreciation | (\$16,899,373) | (\$16,297,562) | Long-Term Liabilities | \$0 | \$1,411,584 |
| Net PP&E | \$8,385,431 | \$8,465,999 | Total Liabilities | \$1,149,315 | \$2,782,110 |
| Restricted Assets | \$13,744 | \$3,419,703 | Net Assets | \$11,508,811 | \$11,097,934 |
| Total Assets | \$12,658,126 | \$13,880,044 | Total Liabilities & Net Assets | \$12,658,126 | \$13,880,044 |

Current assets consist primarily of cash, short-term cash investments and customer accounts receivable. Property, Plant & Equipment reflects the cost of the Authority's collection system and pump stations, capitalized repairs and infiltration and inflow expenses. Restricted assets represent escrow cash from developers to be used for developer's costs. The Authority's outstanding bonds totaling \$1,710,000 as of November 1, 2011 were retired, with restricted asset balances, in an effort to save between 3.5% and 4.2% in interest payments.

Current liabilities are comprised principally of accounts payable and deferred revenue.

SIGNIFICANT EVENTS:

Projected Growth & Customer Base Activity

Economic growth is struggling nationwide but the potential for growth in Middletown Township remains strong in the opinion of the Authority's manager. Developers have invested in various parcels of land which will eventually be developed into single family homes, commercial uses and age restricted living facilities.

**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
SEWER AUTHORITY
&
SEWER REVENUE FUND
MANAGEMENT'S DISCUSSION AND ANALYSIS
FISCAL YEAR ENDED APRIL 30, 2012**

The Authority's Annual Waste-load Management Report projects an increase of over 500 EDU's during the next five years. Most of the new units are expected to be senior living, town center/townhouse style developments, a hotel/conference center and medical services buildings. With the slowdown in the overall economy, the growth rate will certainly be slower than expected, but if, or when, these proposed units are constructed, they will generate over \$3,900,000 in tapping fees and approximately \$165,000 in annual rental receipts under the revised rate structure of the Authority.

Middletown Township is required by state law to have a Sewage Facilities Plan. Historically, the plan has been prepared and implemented by the Authority. Approximately 98% of all households and businesses in the township are serviced by the Authority's system. On-lot septic systems are being utilized by about 350 households in 13 separate sections of the Township. In one of the 13 sections without public sewers, a developer has installed a low-pressure sewer force main for his 12 new houses along Valley Road and has made the system available to at least a dozen existing homes and is positioned for further extensions.

Wolfson Group, Inc. (WG) has purchased several properties along a one mile section of W. Baltimore Pike; including large developed parcels which were once controlled by the Franklin Mint. WG are experienced developers with projects such as the Exton Town Square and Oxford Wal-Mart Shopping Center in nearby Chester County. Middletown Township Council approved a zoning change for the entire Baltimore Pike corridor which will enable WG and other property owners to incorporate some retail establishments along with offices, apartments, hotels and restaurants.

Currently the former Franklin Mint offices and warehouse space is being offered for lease and is partially occupied by Wawa, Inc., along with a document shredding company and a landscaping firm.

Wawa, Inc. is continuing to grow and its milk and soft drinks processing plant has become the largest customer of the Authority with an estimated \$106,000 per year in sewer rental. Increases in flow projected at 10,000 gallons per day for each of the next 5 years are anticipated to support growth in the number of "Super Wawa Convenience Stores" being constructed in the mid-Atlantic region. Wawa has actually reduced some of its daily water consumption by implementing water conservation measures.

Granite Run Mall, with approximately 100 stores, the mall seems to have a constant tenant base but some vacancies exist. Granite Run Mall's anchor stores, namely Sears, J.C. Penney, Boscov's, Kohl's, Acme and AMC Theaters, appear to be doing well. The Mall received approval from the township for a major addition to include a large book store, restaurants and retail stores along with relocation/expansion of the existing movie theaters currently situated on an adjoining parcel.

During 2012 Madison Marquette, Inc. officially assumed management and leasing responsibility for Granite Run Mall. Approximately \$1.2 million has been spent by Madison Marquette to update the general appearance of the property and enhance security systems.

Riddle Memorial Hospital – Our local hospital was one of the last privately owned hospitals in the area until it joined the Main Line Medical Group affiliated with Jefferson Hospital in Philadelphia. Riddle Memorial Hospital recently completed construction of a new medical office building ("Green" LEED Certified) with parking garage on Baltimore Pike. The majority of the building space is being occupied by the Rothman Orthopedic Center.

**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
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SEWER REVENUE FUND
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FISCAL YEAR ENDED APRIL 30, 2012**

Riddle Memorial Hospital is currently implementing plans to renovate and expand its Emergency Room Facilities.

Linville Orchards is a 300-acre farm dedicated to agriculture, entertainment and education. The Linville family raises their own fresh fruits and vegetables that you can pick yourself or purchase in their Farm Market. The year-round operation recently expanded the market and other facilities under a new land development plan approved by Middletown Township. In November of 2010 the facilities were connected to the public sewer system via a privately owned sewage pump system.

Chick-fil-a recently replaced a struggling Kentucky Fried Chicken/Taco Bell store at the intersection of Routes 1 and 452. The store has been extremely successful since it opened in the spring this year.

YMCA – our regional “Y” located on Baltimore Pike recently completed an expansion of its “family swim” facilities. Memberships have been increasing steadily over the past few years.

Upper Chester Creek Interceptor Sewer Expansion/Extension - The Authority has conducted a feasibility study for the expansion and extension of the existing Interceptor to accommodate future economic growth anticipated within our township and from the adjoining municipalities of Aston Township, Edgmont Township, Upper Providence Township and the Borough of Chester Heights. Sewage Facilities Planning approval and preliminary engineering design is now underway with anticipated completion in 2014.

Sewer Rental Rates and Tapping Fees

At the beginning of the 2009 Fiscal Year the rate was set at \$194. In November 2008 Township Council unanimously accepted its Sewer Authority's recommendation to raise the residential and commercial base rate to \$225 with incremental increases on commercial and industrial usage rates. Base rate increases of approximately \$25 per year per Equivalent Dwelling Unit though the year 2015 will enable the Authority to meet anticipated capital and service cost demands when the future transfer of flow to DELCORA is complete. Please visit Middletown Township's website, www.middletowntownship.org, for more details on commercial and industrial usage rates.

When Middletown's flows are treated by DELCORA the future base annual residential sewer rate in Middletown is estimated to be approximately \$400.

In comparison to other municipalities in Delaware County, Middletown's sewer rental rates and charges have been stable for many years and are considered fair and reasonable by its customers, developers and the real estate industry (Middletown's original sewer rental rate of \$160 was set in 1968).

The 5-Year Capital Improvement Budget of the Sewer Authority calls for the expansion and extension of the existing Chester Creek Interceptor which will cost approximately \$15,000,000 dollars in addition to numerous upgrades, repairs and inspection programs necessary to assure the integrity and performance of the township's sewage collection system.

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Middletown Sewer Authority's Tapping Fee per equivalent dwelling unit (EDU) has grown from \$400 in 1979 to \$6,000 in 2011. Tapping fees are permitted under the PA Municipality Authorities Act to recoup certain capital costs. The Authority has complied with PA Act 57 which required Authorities to recalculate tapping fees periodically with the last analysis completed in 2010. The tapping fee is anticipated to be increased to \$6,500 per EDU in January 2013.

Current and Future Sewage Treatment Service

Middletown's current sewage treatment agreement with Southwest Delaware County Municipal Authority in Aston Township will expire in October 2019. Middletown has received notice from SWDCMA that the terms of the contract will not be extended beyond the expiration date. Middletown has analyzed treatment options available for the future and has determined that the **Delaware County Regional Water Quality Control Authority (DELCORA) in Chester, PA**, will provide the most reliable service in terms of cost and available capacity to meet the anticipated growth in Middletown. In March of 2010, MTSA entered into a 25 year service agreement with DELCORA with an option for another 25 years. The transfer of Middletown's flows is anticipated to be accomplished by the beginning of the year 2015.

The SWDCMA has entered into a similar long term service agreement with DELCORA and is expected to terminate operation of its sewage treatment plant by 2015.

We have learned over the past couple of years that the United States Environment Protection Agency (EPA) is requiring the Pennsylvania Department of Environmental Protection to impose more stringent permit limits on the amount of nutrients municipal sewage treatment plants may discharge to local waterways. SWDCMA has estimated it could cost approximately \$20,000,000 to upgrade its plant to remove the amounts of nitrogen and phosphorus expected by the EPA. Transferring its flows to DELCORA's larger facility will be the most feasible option for SWDCMA and its satellite municipal customers. No capital contributions were made to SWDCMA in Fiscal Year 2012.

Negotiations with SWDCMA are currently underway to work out the details involving the transfer of flows to DELCORA and the decommissioning of the existing SWDCMA treatment plant in 2015.

ADMINISTRATIVE AND SYSTEM MAINTENANCE ACCOMPLISHMENTS

Office Accounting and Banking Practices have been streamlined over the years by sharing the township's modern computer system which services several departments. Departments have both password secured data access as well as assigned shared files such as the Laser Fiche system of records storage. The computer network is maintained by a reputable local service provider.

The Authority's accounts payable software system is provided by a separate service provider which has over 25 years of municipal accounting experience in Pennsylvania

Residential sewer billing receipts collected along with the township real estate taxes are electronically transferred between township and Authority accounts. Commercial customer payments are processed by the Authority bookkeeper with checks scanned electronically to the sewer revenue account.

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Aqua Wastewater Management, Inc. (AWMI) continues to maintain the wastewater collection system in Middletown Township under a new two year contract awarded in December 2010. The Sewer Authority has no mechanics on staff at this time and it is anticipated that all service work will be contracted to private service companies in the future. Although costs are expected to increase, the Authority has reduced much of the exposure associated with the hazards of sewer maintenance activity by in-house employees. Long term health insurance and pension administration expenses were also reduced with the outsourcing of the collection system and pump stations maintenance to AWMI. As the sanitary sewer system grows and ages, and with increasing governmental mandates, a full time maintenance team should be considered "if" contract services prove to be inadequate, unreliable or more expensive. Finding experienced, qualified and "willing" workers in the wastewater field is becoming more difficult with state mandated licensing requirements. The average age of a municipal wastewater worker in Pennsylvania is 57! MTSA has urged local vocational schools to consider offering water and wastewater facilities operation training programs.

Sewer system maintenance costs decreased by \$10,000 for the Fiscal Year Ended April 30, 2012. One of the primary reasons was a fewer number of storm events. The Authority did complete a planned \$40,000 stream bank stabilization project in 2012, which was partially aggravated by hurricane Irene the previous year. The Federal Emergency Management Agency assisted with about \$2000 of the work and also reimbursed MTSA for about \$6,000 for emergency expenses during "Irene".

AQUA Wastewater Management's pump station mechanics and field crews are to be commended for their tireless efforts to protect and maintain our sewer system during the most extreme conditions this region has seen in decades, with fiscal year 2012 being the 'wettest' year on record.

Inflow and Infiltration Work

The Pennsylvania Department of Environmental Protection (DEP) has determined that a great deal of Infiltration (groundwater) & Inflow (rain water), referred to as I&I, is being treated at sewage treatment plants and is coming from private residential and commercial sewer laterals. The sewer lateral is the pipe that connects a house or other building to the public sewer system. In some areas, municipalities are surcharged for the additional treatment costs based on total flows measured. Middletown anticipates being charged for I&I in the future and is continuing efforts to reduce the amount of extraneous water entering its system. I&I can cause serious capacity issues for the sewage collection systems, pump stations and the sewage treatment plants. In addition to the inspection and maintenance programs being implemented to find and repair leaks in Middletown's public sewer lines, the Authority has taken steps to encourage property owners to maintain their private building sewers. Prior to the sale of a property in Middletown, owners are asked to certify that no illegal sump pumps, rain water downspouts, etc. are connected to the sewer and that all exterior vent pipes and clean-out caps are in good condition.

The Authority is in the process of finalizing a draft amendment to the **Township's Sewer Connection Ordinance** to require that private building sewer lines be inspected via closed circuit television equipment prior to the transfer of the real estate or when determined to be causing extraneous flow into the public sanitary sewer system. The Pennsylvania Department of

**MIDDLETOWN TOWNSHIP, DELAWARE COUNTY,
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Environmental Protection will be requiring all municipalities to pass similar regulations in the near future.

The Authority has also participated in the **Private Lateral Inflow and Infiltration Elimination Project** conducted by the Delaware County Regional Water Quality Control Authority, (DELCORA) with funding from DEP. A report was produced in the summer of 2010 along with an educational video and brochures for every property owner in Delaware County.

In 2002, the Authority developed a long term **Inflow & Infiltration (I&I) Program** to clean, televise, joint test and repair pipes or manholes. Approximately \$3.3 million was expended through the Fiscal Year Ended April 30, 2012 on numerous projects. Approximately \$250,000 is budgeted for I&I work in the next fiscal year.

During fiscal year 2012, the Authority's contractors completed inspection of approximately 15,000 linear feet of 8" diameter clay and asbestos cement sewer mains that were constructed in the Glenloch and Alverno Valley Farms Communities. These Planned Residential Developments were constructed in 1972 and 1979 respectively. Most of the sewer mains were located in easements which encircle the communities. Clearing the easements was performed by AWM I prior to Pipe Services, Inc. doing the closed circuit television inspections and repairs. The total project cost was approximately \$200,000.

In conjunction with the township and state paving programs in fiscal year 2012, the Authority raised 54 cast iron manhole frames utilizing rubber riser rings made from recycled tires. The rings provide a durable base for the manhole frames as well as a better water seal than the old brick and mortar method of raising castings to meet new road grades.

Training and Technology

The Authority has participated in the development of the **Township's Geographical Information System (GIS)** and has incorporated several hundred sewer collection system drawings into the system. Digital maps of the township streets, property address, sanitary sewers, storm sewers, fire hydrants, petroleum pipelines, etc. have been developed and are being shared by numerous emergency and maintenance organizations that service Middletown. In the past fiscal year approximately three linear miles of sewer mains and manholes were inspected via closed circuit television along with 150 service laterals. The sewer lines were located by the Authority's Consulting Engineers, Bradford Engineering Associates, Inc., with portable global positioning equipment to more accurately map the sewer lines, manholes, laterals, clean-outs, etc. The system is also integrated with Google Earth for field use by our engineer, inspectors and mechanics utilizing cellular "smart" phones!

The Authority's manager, engineer and AWM I mechanics have become licensed **Wastewater Collection System Operators** as required by law as of February 1, 2004. Continuing education courses are required for renewal of all licenses scheduled to expire on September 30, 2013. A Pennsylvania Department of Environmental Protection has mandated the completing of a course entitled *Securing Water and Wastewater Plants which has been* taken to satisfy the next license renewal cycle.

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FISCAL YEAR ENDED APRIL 30, 2012**

Daily responses to ***Pennsylvania One Call System*** notifications (approx. 1100 per yr.) are required by law for safety and to protect the sewer system from excavation work by others. System location mark-outs are conducted by the Authority's Consulting Engineer, Bradford Engineering, Inc. with oversight assistance by the Authority Manager.

STATEMENT OF FINANCIAL CONDITION OF THE AUTHORITY

The Authority's overall financial condition was very strong at fiscal year end. There are adequate liquid assets to meet next year's goals and objectives for routine operation and scheduled major capital improvement projects. The overall economy of the Delaware Valley region has been strained. Housing starts have declined dramatically. Sewer rental receipts are expected to be adequate and paid on time by the vast majority of residents and businesses in Middletown. Only 47 municipal liens were filed for delinquent sewer rental in 2011!

The trust funds of the Authority were closed when the bonds were retired on November 1st from reserves held in the Bond Reserve Fund and the Bond Redemption & Improvement Fund.

The Authority is "debt free" for the first time since it was created in 1968. Future bond issues will be forthcoming to satisfy the long term obligation of expanding the Chester Creek Interceptor and connection to the County's sewage conveyance and treatment facilities, scheduled for January 1, 2015.

Major capital projects, such as transferring flows to DELCORA; interceptor expansion and extension; Infiltration & Inflow Program and stream bank erosion control projects planned for the future will be costly. It is very important to note that gradual rate increases will be necessary in the future. Please read the remainder of this report in its entirety for more details regarding the current and historic financial condition and operating results of the Middletown Township, Delaware County, Sewer Authority and Township Sewer Revenue Fund.

The Authority has enjoyed an excellent working relationship with the Township of Middletown, our residents, commercial customers, other utilities as well as state and federal agencies. This professional and friendly affiliation has resulted in the creation of a valuable public utility service which benefits the natural environment in the entire community in which we live and work.

Thank you.

Respectfully submitted by:

David Irving, Treasurer

and

Michael W. Majeski, Manager

Financial Section

ORGANIZATION

Middletown Township Sewer Authority

| | | |
|-----------------------------|----------------------------------|-------------------------------|
| MEMBERS OF THE BOARD | <i>Timothy F. Sullivan, Esq.</i> | Chairperson |
| | <i>Robert J. Scholz, P.E.</i> | Vice Chairperson |
| | <i>Dean T. Helm, Jr.</i> | Secretary |
| | <i>David E. Irving</i> | Treasurer |
| | <i>Roland W. Bailey</i> | Assistant Secretary/Treasurer |

| | |
|----------------------------|---|
| CONSULTING ENGINEER | <i>Walter A. Fazler, P.E.</i> Bradford Engineering Associates, Inc. Aston, Pennsylvania |
|----------------------------|---|

| | |
|------------------|---|
| SOLICITOR | <i>James Flandreau, Esq.</i> Media, Pennsylvania |
|------------------|---|

| | |
|---------------------|--|
| BOND COUNSEL | Kassab Archbold & O'Brien, L.L.C. Media, Pennsylvania |
|---------------------|--|

| | |
|--------------------|---|
| UNDERWRITER | TD Bank Capital Markets, Inc. Philadelphia, Pennsylvania |
|--------------------|---|

| | |
|----------------|--|
| TRUSTEE | TD Bank/Pennsylvania, N.A. Philadelphia, Pennsylvania |
|----------------|--|

INDEPENDENT AUDITOR'S REPORT**To the Members of the Council
Middletown Township****To the Members of the Board
Middletown Township Sewer Authority**

We have audited the accompanying financial statements of the Middletown Township Sewer Revenue Fund and Middletown Township Sewer Authority of Middletown Township, Delaware County, Pennsylvania, as of and for the years ended April 30, 2012 and 2011, as listed in the foregoing index. These financial statements are the responsibility of the management of Middletown Township, Pennsylvania and the Middletown Township Sewer Authority. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Middletown Township Sewer Authority's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 1, the financial statements present only the Middletown Township Sewer Revenue Fund and Middletown Township Sewer Authority and do not purport to, and do not, present fairly the financial position of Middletown Township, Delaware County, Pennsylvania as of April 30, 2012 and 2011, and the changes in its financial position and cash flows, where applicable, for the years then ended in conformity with accounting principles generally accepted in the United States of America.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Middletown Township Sewer Revenue Fund and the Middletown Township Sewer Authority as of April 30, 2012 and 2011, and the changes in financial position and cash flows thereof for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Management's discussion and analysis on pages 1 through 12 of the Introductory Section is not a required part of the basic financial statements but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Middletown Township Sewer Authority's basic financial statements as a whole. The Supplementary Information is presented for the purpose of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying

accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures. In our opinion, the information is fairly stated, in all material respects, in relation to the financial statements as a whole.

In accordance with the provision of Article IX, Section 9.10 of the Trust Indenture dated August 15, 2003, between the Middletown Township Sewer Authority and TD Bank/Pennsylvania, N.A., Trustee, nothing came to our attention which caused us to believe that the provisions of the Trust Indenture have not been materially complied with. Our examination was not, however, directed primarily toward obtaining knowledge of noncompliance.

Hanna, McGlone & Co. P.C.

**Hanna, McGlone & Co. P.C.
August 22, 2012**

Middletown Township Sewer Revenue Fund
Middletown Township Sewer Authority

STATEMENTS OF NET ASSETS

| ASSETS | | April 30 | Sewer Revenue Fund | Sewer Authority | 2012 Combined | 2011 Combined | | | |
|--|---|----------|--------------------------|--------------------|------------------|------------------|---------------|----|---------------|
| CURRENT ASSETS | Cash and Cash Equivalents (Notes 1 and 3) | \$ | 2,911,348 | \$ | 1,306 | \$ | 2,912,654 | \$ | 1,696,593 |
| | Accounts Receivable - Net of Provision for Doubtful | | | | | | | | |
| | Accounts (\$1,500 in 2012 and 2011) (Notes 1 and 6) | | 207,080 | | 0 | | 207,080 | | 190,075 |
| | Unbilled Accounts Receivable (Notes 1 and 6) | | 109,300 | | 0 | | 109,300 | | 101,136 |
| | Investments (Note 3) | | 0 | | 995,931 | | 995,931 | | 0 |
| | Recoverable Disbursements | | 11,915 | | 0 | | 11,915 | | 1,712 |
| | Prepaid Expenses | | 22,071 | | 0 | | 22,071 | | 4,826 |
| Total Current Assets | | | 3,261,714 | | 997,237 | | 4,258,951 | | 1,994,342 |
| PROPERTY, PLANT & EQUIPMENT (NOTE 1) | Collection System | | 23,434,792 | | 0 | | 23,434,792 | | 22,913,649 |
| | Land | | 206,043 | | 0 | | 206,043 | | 205,943 |
| | Southwest Treatment Plant - Capital Improvements | | 1,022,572 | | 0 | | 1,022,572 | | 1,022,572 |
| | Southwest Treatment Plant - Advance Capital Contributions | | 588,294 | | 0 | | 588,294 | | 588,294 |
| | Office Equipment | | 14,177 | | 0 | | 14,177 | | 14,177 |
| | Vehicles | | 18,926 | | 0 | | 18,926 | | 18,926 |
| | | | 25,284,804 | | 0 | | 25,284,804 | | 24,763,561 |
| | Less: Accumulated Depreciation | | 16,899,373 | | 0 | | 16,899,373 | | 16,297,562 |
| Net Property, Plant & Equipment | | | 8,385,431 | | 0 | | 8,385,431 | | 8,465,999 |
| RESTRICTED ASSETS (NOTE 1) | Cash and Cash Equivalents: | | | | | | | | |
| | - Cash - Developers' Escrow (Note 2) | | 13,744 | | 0 | | 13,744 | | 13,706 |
| | - Administrative Expense Account | | 0 | | 0 | | 0 | | 42,621 |
| | - 2003 Series Bonds | | 0 | | 0 | | 0 | | 3,347,848 |
| | Bond Issuance Costs - Net of Amortization (Note 1) | | 0 | | 0 | | 0 | | 15,245 |
| | Other - Administrative Expense Account | | 0 | | 0 | | 0 | | 283 |
| Total Restricted Assets | | | 13,744 | | 0 | | 13,744 | | 3,419,703 |
| TOTAL ASSETS | | | \$ 11,660,889 | | \$ 997,237 | | \$ 12,658,126 | | \$ 13,880,044 |

The accompanying notes are an integral part of these financial statements.

Middletown Township Sewer Revenue Fund
Middletown Township Sewer Authority

STATEMENTS OF NET ASSETS (Continued)

| <i>LIABILITIES & NET ASSETS</i> | | <i>April 30</i> | <i>Sewer Revenue Fund</i> | <i>Sewer Authority</i> | <i>2012 Combined</i> | <i>2011 Combined</i> |
|---|---|-----------------|-----------------------------------|----------------------------|--------------------------|--------------------------|
| CURRENT LIABILITIES | Accounts Payable | | \$ 114,559 | \$ 0 | \$ 114,559 | \$ 97,455 |
| | Unearned Revenue (Notes 1 and 6) | | 1,014,250 | 0 | 1,014,250 | 921,435 |
| | Accrued Payroll and Payroll Taxes | | 6,762 | 0 | 6,762 | 6,929 |
| | <i>Total Current Liabilities</i> | | 1,135,571 | 0 | 1,135,571 | 1,025,819 |
| CURRENT LIABILITIES (Payable from Restricted Assets) | Developers' Escrow (Note 2) | | 13,744 | 0 | 13,744 | 13,706 |
| | Refundable Deposits | | 0 | 0 | 0 | 4,423 |
| | Revenue Bonds Payable: | | | | | |
| | - Current Maturities | | 0 | 0 | 0 | 220,000 |
| | - Accrued Interest | | 0 | 0 | 0 | 30,210 |
| | Accounts Payable | | 0 | 0 | 0 | 76,368 |
| | <i>Total Current Liabilities (Payable from Restricted Assets)</i> | | 13,744 | 0 | 13,744 | 344,707 |
| LONG-TERM LIABILITIES (Notes 4 and 5) | Revenue Bonds Payable | | 0 | 0 | 0 | 1,710,000 |
| | Less: Current Maturities | | 0 | 0 | 0 | (220,000) |
| | Less: Unamortized Deferral on 1998 Bonds | | | | | |
| | Advance Refunding | | 0 | 0 | 0 | (78,416) |
| | <i>Total Long-Term Liabilities</i> | | 0 | 0 | 0 | 1,411,584 |
| TOTAL LIABILITIES | | | 1,149,315 | 0 | 1,149,315 | 2,782,110 |
| NET ASSETS (PAGE 6) | Invested in Capital Assets, Net of Related Debt | | 8,385,431 | 0 | 8,385,431 | 6,755,999 |
| | Restricted for Debt Service | | 0 | 0 | 0 | 3,236,847 |
| | Unrestricted | | 2,126,143 | 997,237 | 3,123,380 | 1,105,088 |
| | <i>Total Net Assets</i> | | 10,511,574 | 997,237 | 11,508,811 | 11,097,934 |
| TOTAL LIABILITIES & NET ASSETS | | | \$ 11,660,889 | \$ 997,237 | \$ 12,658,126 | \$ 13,880,044 |

Middletown Township Sewer Revenue Fund
Middletown Township Sewer Authority

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS

| Years Ended April 30 | | Sewer Revenue Fund | Sewer Authority | Eliminations | 2012 Combined | % | 2011 Combined | % |
|---|---|--------------------------|-----------------------|--------------|----------------------|--------------|----------------------|--------------|
| OPERATING REVENUES | Sewer Rents (Note 6) | \$ 1,959,119 | \$ 0 | \$ 0 | \$ 1,959,119 | 98.8 | \$ 1,783,438 | 99.0 |
| | Other | 23,713 | 0 | 0 | 23,713 | 1.2 | 18,429 | 1.0 |
| Total Operating Revenues | | 1,982,832 | 0 | 0 | 1,982,832 | 100.0 | 1,801,867 | 100.0 |
| OPERATING EXPENSES BEFORE DEPRECIATION (PAGES 16 & 17) | Treatment Service | 174,683 | 0 | 0 | 174,683 | 8.8 | 178,024 | 9.9 |
| | System Facilities - Operations & Maintenance | 338,983 | 0 | 0 | 338,983 | 17.1 | 349,830 | 19.4 |
| | Administrative Compensation | 200,148 | 0 | 0 | 200,148 | 10.0 | 196,168 | 10.9 |
| | Professional Fees | 102,514 | 10,000 | 0 | 112,514 | 5.7 | 137,494 | 7.7 |
| | General & Administrative | 62,804 | (2,441) | 0 | 60,363 | 3.1 | 56,719 | 3.2 |
| Total Operating Expenses | | 879,132 | 7,559 | 0 | 886,691 | 44.7 | 918,235 | 51.1 |
| NET OPERATING INCOME (LOSS) BEFORE DEPRECIATION | | 1,103,700 | (7,559) | 0 | 1,096,141 | 55.3 | 883,632 | 48.9 |
| Depreciation (Note 1) | | 601,810 | 0 | 0 | 601,810 | 30.4 | 596,490 | 33.1 |
| NET OPERATING INCOME (LOSS) | | 501,890 | (7,559) | 0 | 494,331 | 24.9 | 287,142 | 15.8 |
| NON-OPERATING INCOME (EXPENSE) | Investment Interest | 7,271 | 4,083 | 0 | 11,354 | 0.6 | 3,901 | 0.2 |
| | Amortization of Bond Issuance Costs (Note 1) | 0 | (15,245) | 0 | (15,245) | (0.8) | (4,567) | (0.3) |
| | Interest Expense: | | | | | | | |
| | - Amortization of Deferral on 1998 Bonds (Note 5) | 0 | (78,416) | 0 | (78,416) | (4.0) | (23,490) | (1.3) |
| | - 2003 Bonds | 0 | (27,647) | 0 | (27,647) | (1.4) | (69,553) | (3.9) |
| Non-Operating Income (Expense) - Net | | 7,271 | (117,225) | 0 | (109,954) | (5.6) | (93,709) | (5.3) |
| Increase (Decrease) in Net Assets Before Capital Contributions & Transfers | | 509,161 | (124,784) | 0 | 384,377 | 19.3 | 193,433 | 10.5 |
| CAPITAL CONTRIBUTIONS AND TRANSFERS | Capitalized Construction and Other Costs | 166,391 | (166,391) | 0 | 0 | 0.0 | 0 | 0.0 |
| | Tapping Fee Income (Note 6) | 26,500 | 0 | 0 | 26,500 | 1.3 | 60,801 | 3.4 |
| | Retirement of Lease Rentals | 1,710,000 | (1,710,000) | 0 | 0 | 0.0 | 0 | 0.0 |
| | Transfer In (Out) | 375,000 | (375,000) | 0 | 0 | 0.0 | 0 | 0.0 |
| Total Capital Contributions and Transfers | | 2,277,891 | (2,251,391) | 0 | 26,500 | 1.3 | 60,801 | 3.4 |
| INCREASE (DECREASE) IN NET ASSETS | | \$ 2,787,052 | \$ (2,376,175) | \$ 0 | \$ 410,877 | 20.6 | \$ 254,234 | 13.9 |
| NET ASSETS AT BEGINNING OF YEAR | | 7,724,522 | 3,373,412 | 0 | 11,097,934 | | 10,843,700 | |
| NET ASSETS AT END OF YEAR | | \$ 10,511,574 | \$ 997,237 | \$ 0 | \$ 11,508,811 | | \$ 11,097,934 | |

Middletown Township Sewer Revenue Fund
Middletown Township Sewer Authority

STATEMENTS OF CASH FLOWS

| <i>CASH FLOWS FROM:</i> | <i>Years Ended April 30</i> | <i>Sewer Revenue Fund</i> | <i>Sewer Authority</i> | <i>Eliminations</i> | <i>2012 Combined</i> | <i>2011 Combined</i> |
|--|---|-----------------------------------|----------------------------|---------------------|--------------------------|--------------------------|
| OPERATING ACTIVITIES | Cash Receipts from Customers | \$ 2,028,250 | \$ 0 | \$ 0 | \$ 2,028,250 | \$ 1,843,658 |
| | Other Operating Cash Receipts | 51,539 | 0 | 0 | 51,539 | 37,677 |
| | Cash Payments to Employees for Services | (234,275) | 0 | 0 | (234,275) | (223,144) |
| | Cash Payments to Vendors for Goods and Services | (707,277) | (11,699) | 0 | (718,976) | (709,777) |
| | <i>Net Cash Provided (Used) By Operating Activities</i> | 1,138,237 | (11,699) | 0 | 1,126,538 | 948,414 |
| CAPITAL AND RELATED FINANCING | Tapping Fee Income | 26,500 | 0 | 0 | 26,500 | 60,801 |
| | Additions to Property, Plant and Equipment | (332,215) | (242,756) | 0 | (574,971) | (590,094) |
| | Interfund Transfers | 375,000 | (375,000) | 0 | 0 | 0 |
| | Bond Redemptions | 0 | (1,710,000) | 0 | (1,710,000) | (210,000) |
| | Interest Paid | 0 | (57,860) | 0 | (57,860) | (72,633) |
| | <i>Net Cash Provided (Used) By Capital and Related Financing Activities</i> | 69,285 | (2,385,616) | 0 | (2,316,331) | (811,926) |
| INVESTING ACTIVITIES | Purchase of Investments | 0 | (995,931) | 0 | (995,931) | 0 |
| | Investment Earnings | 7,271 | 4,083 | 0 | 11,354 | 3,901 |
| | <i>Net Cash Provided (Used) By Investing Activities</i> | 7,271 | (991,848) | 0 | (984,577) | 3,901 |
| | <i>Net Increase (Decrease) in Cash and Cash Equivalents</i> | 1,214,793 | (3,389,163) | 0 | (2,174,370) | 140,389 |
| | <i>Cash and Cash Equivalents - May 1</i> | 1,710,299 | 3,390,469 | 0 | 5,100,768 | 4,960,379 |
| | <i>Cash and Cash Equivalents - April 30</i> | <u>\$ 2,925,092</u> | <u>\$ 1,306</u> | <u>\$ 0</u> | <u>\$ 2,926,398</u> | <u>\$ 5,100,768</u> |
| | Cash and Cash Equivalents - Unrestricted | \$ 2,911,348 | \$ 1,306 | \$ 0 | \$ 2,912,654 | \$ 1,696,593 |
| | Cash and Cash Equivalents - Restricted | 13,744 | 0 | 0 | 13,744 | 3,404,175 |
| | | <u>\$ 2,925,092</u> | <u>\$ 1,306</u> | <u>\$ 0</u> | <u>\$ 2,926,398</u> | <u>\$ 5,100,768</u> |

Reconciliation of Operating Income to Net Cash
Provided by Operating Activities:

| | | | | | |
|---|---------------------|--------------------|-------------|---------------------|-------------------|
| Operating Income (Loss) | \$ 501,890 | \$ (7,559) | \$ 0 | \$ 494,331 | \$ 287,142 |
| Adjustment for Noncash Charges to Operations: | | | | | |
| Depreciation | 601,810 | 0 | 0 | 601,810 | 596,490 |
| Write-off of Other - Administrative Expense Account | 0 | 283 | 0 | 283 | 0 |
| Write-off of Refundable Deposits | 0 | (4,423) | 0 | (4,423) | 0 |
| Changes in Assets and Liabilities: | | | | | |
| Increase in Billed and Unbilled | | | | | |
| Accounts Receivable | (25,169) | 0 | 0 | (25,169) | (30,016) |
| (Increase) Decrease in Other Current Assets | (27,448) | 0 | 0 | (27,448) | 16,547 |
| Increase in Current Liabilities | 87,116 | 0 | 0 | 87,116 | 78,216 |
| Increase in Developers' Escrow | 38 | 0 | 0 | 38 | 35 |
| <i>Net Cash Provided (Used) By Operating Activities</i> | \$ 1,138,237 | \$ (11,699) | \$ 0 | \$ 1,126,538 | \$ 948,414 |

Non-Cash Investing, Capital, and Financing Activities:

| | | | | | |
|--|-----------|-----------|------|-----------|-----------|
| Amortization of Bond Issuance Costs | \$ 0 | \$ 15,245 | \$ 0 | \$ 15,245 | \$ 4,567 |
| Amortization of Deferral on Advance Refunding | \$ 0 | \$ 78,416 | \$ 0 | \$ 78,416 | \$ 23,490 |
| Purchases of Property included in Accounts Payable | \$ 25,559 | \$ 0 | \$ 0 | \$ 25,559 | \$ 2,921 |

**1. Summary of
Significant
Accounting Policies
and Description of
Operations**

Organization and Description of Operations. The Middletown Township Sewer Authority (the "Authority") is a body, politic and corporate, created pursuant to an ordinance of the Board of Supervisors of the Township of Middletown, Delaware County, Pennsylvania (the "Township"), under an Act of the General Assembly of the Commonwealth of Pennsylvania, approved May 2, 1945, P.L. 382, as amended and supplemented, known as the Municipality Authorities Act of 1945 (the "Act"). The certificate of incorporation of the Authority was issued by the Secretary of the Commonwealth of Pennsylvania on July 22, 1966. The charter was amended on August 29, 1977, to extend the existence of the Authority to the year 2020.

The governing body of the Authority is a Board consisting of five members appointed by the Township Council. The terms of the members of the Board have been staggered so that the term of one member expires annually. The Board is authorized to exercise any and all powers conferred by the aforementioned Act necessary for the acquisition, construction, improvement, extension, maintenance and operation of the system facilities.

The Authority was created by the Township for the purpose of financing the construction and acquisition of the sewer system and related facilities. Financing is provided principally through the issuance of Sewer Revenue Bonds under the provisions of a Trust Indenture. The Authority leases the sewer system to the Township pursuant to the terms of a lease by and between the Township and the Authority, dated August 15, 2003, the terms of which require the Township, among other things, to operate and maintain the sewer system and to pay certain lease rental payments in amounts sufficient to pay the annual debt service requirements with respect to the Authority's Guaranteed Sewer Revenue Bonds, Series of 2003 (the "Bonds"). All of which were fully retired in October 2011. The terms of the lease provide for the establishment of the Sewer Revenue Fund separately from all other funds of the Township in order to collect sewer rentals and charges imposed by the Township ordinance. The Authority operates and maintains the sewer system on behalf of the Township in accordance with the terms of an operating agreement with the Township dated July 20, 1985.

Reporting Entity. The accompanying financial statements are presented in accordance with the provisions of the Governmental Accounting Standards Board ("GASB"). The financial statements of the Middletown Township Sewer Revenue Fund represent a discrete presentation of a segment of the primary government's (i.e., Middletown Township) financial statements. Middletown Township Sewer Authority is considered a component unit of Middletown Township based on the criteria that the primary government can modify or approve rate or fee changes affecting revenues, such as sewer usage rate increases and that the Township appoints the board members of the Authority. The Authority's financial statements have been incorporated into the reporting entity.

Basis of Presentation and Accounting. The Sewer Revenue Fund and the Authority reflect their combined operations as an enterprise fund which accounts for business activities financed and operated similar to a private business enterprise where the intent of the governing body is to recover the cost of providing services to the general public on a continuing basis through user charges.

All activities of the Authority are accounted for within a single proprietary (enterprise) fund. Proprietary funds are used to account for operations that are (a) financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the cost (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

The Authority follows all applicable GASB pronouncements and Financial Accounting Standards Board ("FASB") pronouncements issued before December 1, 1989 unless those pronouncements conflict or contradict GASB pronouncements.

Continued on next page.

**1. Summary of
Significant
Accounting Policies
and Description of
Operations
(Continued)**

When both restricted and unrestricted resources are available for use, it is the Authority's policy to use restricted resources first, then unrestricted resources as they are needed.

Measurement Focus. Measurement focus is a term used to describe "which" transactions are recorded within the various financial statements. Basis of accounting refers to "when" transactions are recorded regardless of the measurement focus applied. Proprietary or enterprise funds are accounted for on an economic resources measurement focus using the accrual basis of accounting. Under the economic resources measurement focus, all (both current and long-term) economic resources and obligations of the Authority are reported. Revenues are recorded when they are earned, including unbilled and unearned sewer services which are accrued and deferred, respectively. Expenses are recorded at the time liabilities are incurred.

Sewer revenues and related charges are recorded as operating income and the related treatment expense along with maintenance and administrative charges are recorded as operating expenses. Debt service payments and investment income are treated as nonoperating income and included under capital and related financing and investment activities in the Statement of Cash Flows.

Trust Indenture. The Authority entered into a Trust Indenture, dated August 15, 2003, with TD Bank/Pennsylvania, N.A. as Trustee in connection with the issuance of its Guaranteed Sewer Revenue Bonds, Series of 2003. The aforementioned Trust Indenture provided for the creation of a:

- **Revenue Fund** for deposit of rentals paid by the Township under the lease;
- **Bond Fund** into which revenues are to be transferred for payment of interest and principal on the bonds as they become due;
- **Bond Reserve Fund** in an amount specified in the Indenture for the purpose of funding deficiencies which may occur in the Bond Fund;
- **Construction Fund** for the payment of costs of each project involving construction for which bonds are issued;
- **Bond Redemption and Improvement Fund** for funding (1) any deficiencies which may occur in the Bond or Bond Reserve Funds, (2) capital repairs, additions or contributions, and (3) bond redemptions.

On October 1, 2011, all bonds outstanding on the 2003 bond issue were paid in full and the above mentioned Trust Indenture accounts were closed.

Cash and Cash Equivalents. The Authority considers money market funds and all highly liquid investments with an original maturity date of ninety days or less to be cash equivalents unless they are included as a component of an investment account. Cash equivalents are stated at cost, which approximates market.

Unearned Revenue - Residential Customers. In accordance with the provisions of Township Ordinance No. 701 on November 24, 2008, residential customers are billed on a single, calendar year billing cycle in which amounts are included with the annual real estate tax bills sent by Middletown Township to township residents. As a result, sewer rents billed covering the period from May 1 through December 31 are unearned and deferred on a pro rata basis at the end of the fiscal year.

Accounts Receivable - Billed. The Authority recognizes uncollectible accounts at the time they are deemed uncollectible. A lien is filed against delinquent accounts which results in collection of substantially all accounts receivable.

Continued on next page.

**1. Summary of
Significant
Accounting Policies
and Description of
Operations
(Continued)**

Accounts Receivable - Unbilled. Commercial customers are billed quarterly on the 15th day of February, May, August, and November of each year, for the quarterly period immediately preceding the date of the bill. As a result, revenues earned for services provided, but not yet billed, encompassing the period from February 15 through April 30, are accrued on a pro rata basis at the end of the fiscal year.

Property, Plant and Equipment. Land, plant and equipment are carried at cost. Purchases with estimated useful lives in excess of one year are capitalized. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets. Land, plant and equipment at April 30, 2012 and 2011 and related depreciation expense for the years then ended follow:

2012

| | Estimated Useful Lives | Beginning | Increases | Decreases | Ending | Depreciation |
|--------------------------------|---------------------------|----------------------|-------------------|-------------|----------------------|-------------------|
| Land | | \$ 205,943 | \$ 100 | \$ 0 | \$ 206,043 | |
| Collection System | 30 - 40 Years | \$ 22,913,649 | \$ 521,143 | \$ 0 | \$ 23,434,792 | \$ 569,251 |
| Southwest Treatment Plant | 24 Years | \$ 1,610,866 | \$ 0 | \$ 0 | \$ 1,610,866 | \$ 31,279 |
| Office Equipment & Vehicles | 5 - 10 Years | \$ 33,103 | \$ 0 | \$ 0 | \$ 33,103 | \$ 1,280 |
| Total | | \$ 24,763,561 | \$ 521,243 | \$ 0 | \$ 25,284,804 | \$ 601,810 |

2011

| | Estimated Useful Lives | Beginning | Increases | Decreases | Ending | Depreciation |
|--------------------------------|---------------------------|----------------------|-------------------|--------------------|----------------------|-------------------|
| Land | | \$ 203,543 | \$ 2,400 | \$ 0 | \$ 205,943 | |
| Collection System | 30 - 40 Years | \$ 22,298,403 | \$ 615,246 | \$ 0 | \$ 22,913,649 | \$ 563,390 |
| Southwest Treatment Plant | 24 Years | \$ 1,610,866 | \$ 0 | \$ 0 | \$ 1,610,866 | \$ 31,279 |
| Office Equipment & Vehicles | 5 - 10 Years | \$ 73,724 | \$ 0 | \$ (40,621) | \$ 33,103 | \$ 1,821 |
| Total | | \$ 24,186,536 | \$ 617,646 | \$ (40,621) | \$ 24,763,561 | \$ 596,490 |

Expenditures for maintenance, repairs, and minor replacements are expensed as incurred. Replacements and betterments which increase the service capacity or prolong the service life beyond that originally contemplated are capitalized. Upon retirement or disposal, the cost of the asset and the related allowance for depreciation are removed from the respective accounts, and any gain or loss is included in the statement of operations.

Compensated Absences. Full-time administrative employees are granted 5 to 25 days of vacation leave per calendar year, depending upon length of service with the Authority. Unused vacation may be carried over subject to approval by the Authority Manager. An employee in good standing is entitled to payment for unused vacation time upon termination of employment with the Authority. Accrued vacation pay amounted to \$3,294 and \$4,141 at April 30, 2012 and 2011, respectively. The Authority does not have a policy for the payment of unused sick time.

Bond Issuance Costs. Bond issuance costs are amortized over the life of the bond issue using the effective interest method.

Continued on next page.

**1. Summary of
Significant
Accounting Policies
and Description of
Operations
(Continued)**

Restricted Assets and Restricted Net Assets. Restricted assets represent cash and investment of funds established pursuant to the terms of the Trust Indenture for specific purposes and uses. For financial reporting purposes, restricted net assets have been reserved in an amount corresponding to the required amounts in the restricted asset accounts, less any liabilities currently payable from such assets. Restricted assets also include developers' escrow deposits pledged to the payment of costs incurred by the Authority on behalf of developers as more fully described in Note 2.

Deferred Amount on Refunding of Sewer Bonds. Deferred amount on refunding of sewer bonds relates to the difference between the reacquisition price and the net carrying amount of the refunded bonds. The amount deferred is included as a reduction to bonds payable and is amortized on an effective interest method over the life of the refunded bonds or the life of the refunding bonds, whichever is shorter (See Note 5).

Operating Revenues and Expenses. Operating revenues and expenses generally result from providing services in connection with the Authority's principal ongoing operations which consist of sewer rentals and fees. Operating expenses include the cost of sewage treatment services, facility maintenance, professional and administrative expenses, lease payments, and depreciation on capital assets. All other revenues and expenses not meeting the aforementioned criteria are reported as nonoperating revenues and expenses.

Net Assets. Net assets represent the difference between the Authority's assets and liabilities. Net Assets Invested in Capital Assets, Net of Related Debt represent capital assets, reduced by accumulated depreciation and by any outstanding debt related to the acquisition, construction or improvement of those assets. Net Assets Restricted for Debt Service constitute certain funds restricted under the Trust Indenture for payment of debt service on bonds. Unrestricted Net Assets consist of net assets that do not meet the definition of "restricted" or "invested in capital assets, net of related debt".

Budget. Although not required to prepare an annual budget, the Authority annually approves a budget which utilizes the cash basis of accounting. The current operating budget details the Authority's plans to earn and expend funds for charges incurred for operation, maintenance, certain interest and general functions, and other charges for the year. In order to provide a meaningful comparison of actual results with budgeted amounts, the budget and all transactions are presented in accordance with the cash basis of accounting in the Supplementary Information section of the accompanying financial statements in a schedule entitled Comparison of Cash Budget and Actual Receipts and Disbursements.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues, expenditures, and expenses during the reporting period. Actual results could differ from those estimates.

**2. Developers'
Escrow**

Developers' escrow cash and corresponding offsetting liabilities (\$13,744 and \$13,706 at April 30, 2012 and 2011, respectively) represent amounts received under the terms of Sanitary Sewer Agreements between the Authority and various developers with respect to construction by the developers of certain residential subdivision sewer-related facilities.

The escrowed amounts represent security for payment of all costs and expenses incurred by the Authority pursuant to the terms of the Agreements and are subject to various minimum balance requirements. Upon payment of all Authority costs and expenses, any unexpended balance is returnable to the developers.

**3. Deposits and
Investments**

Deposits. The Authority maintains its cash balances at several financial institutions. State law requires that all deposits in financial institutions in excess of federal insurance limits be fully collateralized by obligations of the United States, the Commonwealth of Pennsylvania or any political subdivision of the Commonwealth. Pennsylvania Act 72 of 1971, as amended, permits banking institutions to satisfy this collateralization requirement by pooling securities pledged as collateral for public funds on deposit.

Continued on next page.

3. Deposits and Investments
(Continued)

At April 30, 2012, the bank balances of Sewer Revenue Fund deposits with financial institutions were \$3,912,882. Of the total bank balance, \$2,742,000 was covered by Federal Deposit Insurance Corporation ("FDIC"). The remainder \$1,170,882 was collateralized under the provisions of Pennsylvania Act 72, as amended.

Investments. State law and the Trust Indenture authorize investments of both the Township Sewer Revenue Fund and the Authority to be invested in (1) cash accounts which are insured by the FDIC, (2) direct obligations of the United States and certain federal agencies, (3) senior debt obligations of other government sponsored agencies, (4) commercial paper, (5) money market funds, or (6) obligations of any state in the United States or of any agency, instrumentality, or local government unit of any such state.

Fair value of investments at April 30, 2012 and 2011, follows:

| | 2012 | | 2011 | |
|----------------------------------|------------|-----------------|--------------|-----------------|
| | Fair Value | Carrying Amount | Fair Value | Carrying Amount |
| Certificates of Deposit | \$ 995,931 | \$ 995,931 | \$ - | \$ - |
| U.S. Treasury Money Market Funds | - | - | 3,347,848 | 3,347,848 |
| Total Investments | \$ 995,931 | \$ 995,931 | \$ 3,347,848 | \$ 3,347,848 |

Credit Risk. The Pennsylvania Municipality Authorities Act of 1945 provides for investment of governmental funds into certain authorized investment types including U.S. Treasury bills, other short-term U.S. and Pennsylvania government obligations and insured or collateralized time deposits and certificates of deposit. Statutes do not prescribe regulations related to demand deposits; however, they do permit pooling of governmental funds for investment. As of April 30, 2012 and 2011, the Authority invested in cash, certificates of deposit and money market funds which do not have a credit rating.

The Authority does not have a formal investment policy that addresses interest rate and credit risk but adheres to state statutes, trust indenture requirements and prudent business practice.

Custodial Credit Risk. Amounts invested in money market mutual funds are not subject to custodial risk categorizations since they are not evidenced by securities that exist in physical or book entry form. As of April 30, 2012, 49% of the Township's deposits and investments were held in three financial institutions. As of April 30, 2011, 96% of the Township's deposits and investments were held in one financial institution.

4. Revenue Bonds

Guaranteed Sewer Revenue Bonds. The 2003 Bond Series were issued in the amount of \$4,845,000 with interest rates ranging from 2.00% to 4.20%, pursuant to, and secured by, a Trust Indenture dated August 15, 2003 by and between the Authority and TD Bank/Pennsylvania, N.A., Trustee. The Township had unconditionally guaranteed payment of principal and interest on the Bonds via pledge of its full faith, credit and taxing powers pursuant to the terms of an August 15, 2003, Guaranty Agreement. The Bonds were further secured by a pledge under the Indenture of future lease rentals payable by the Township to the Authority. In October 2011, the 2003 Sewer Revenue Bonds were retired.

Sewer Revenue Bonds outstanding at April 30, 2012 and 2011 and a summary of activity for the year ended April 30, 2012 follow:

| | April 30, 2011 | Additions | Reductions | April 30, 2012 |
|---|----------------|-----------|----------------|----------------|
| Bonds Payable at May 1, 2011 | \$ 1,930,000 | \$ - | \$ (1,930,000) | \$ - |
| Less: Unamortized Deferred Amount on Refunding of Bonds | (78,416) | - | 78,416 | - |
| Less: Current Portion | (220,000) | - | 220,000 | - |
| Bonds Payable - Net of Current Portion | \$ 1,631,584 | \$ - | \$ (1,631,584) | \$ - |

5. Deferral on Advance Refunding

Prior to the retirement of the Authority's 2003 Sewer Revenue Bonds in October 2011, the difference between the reacquisition price; i.e., the amount placed in escrow to repay the Authority's 1998 Sewer Revenue Bonds ("1998 Bonds"), and the net carrying amount of the 1998 Bonds was being deferred and amortized as a component of interest expense using the effective interest method over the remaining life of the Authority's 2003 Sewer Revenue Bonds. Advance refunding deferral amortization included as a component of interest expense totaled \$78,416 and \$23,490 for the years ended April 30, 2012 and 2011, respectively.

6. Sewer Rents

Sewer Rents. On November 22, 2010, Middletown Township Council passed Sewer Rate Ordinance No. 716 which increased the annual residential sewer rate to \$250 per EDU for calendar year 2011 and \$275 for year 2012.

Sources of sewer rent billings, including penalties, accounts receivable and unbilled and unearned revenues and equivalent dwelling units (EDUs) for the years ended April 30, 2012 and 2011, follow:

| 2012 | | | | | |
|-------------------------------------|---------------------|----------------------------|------------------------------------|-------------------------|-----------------|
| Description | Rents | Accounts Receivable | Unbilled Revenue Receivable | Unearned Revenue | EDUs |
| Residential & Apartments | \$ 1,418,385 | \$ 207,049 | \$ - | \$ 1,014,250 | 5,500.00 |
| Commercial, Industrial, and Schools | 531,500 | 1,531 | 109,300 | - | 1,846.39 |
| Penalties & Fees | 9,234 | - | - | - | - |
| Allowance for Doubtful Accounts | - | (1,500) | - | - | - |
| Total | \$ 1,959,119 | \$ 207,080 | \$ 109,300 | \$ 1,014,250 | 7,346.39 |

| 2011 | | | | | |
|-------------------------------------|---------------------|----------------------------|------------------------------------|-------------------------|-----------------|
| Description | Rents | Accounts Receivable | Unbilled Revenue Receivable | Unearned Revenue | EDU's |
| Residential & Apartments | \$ 1,279,450 | \$ 189,879 | \$ - | \$ 921,435 | 5,493.00 |
| Commercial, Industrial, and Schools | 493,935 | 1,696 | 101,136 | - | 1,738.74 |
| Penalties & Fees | 10,053 | - | - | - | - |
| Allowance for Doubtful Accounts | - | (1,500) | - | - | - |
| Total | \$ 1,783,438 | \$ 190,075 | \$ 101,136 | \$ 921,435 | 7,231.74 |

Tapping and Connection Fees. On February 22, 2011, the Authority passed Resolution 2011-05 to increase tapping fees from \$5,300 to \$6,000.

Tapping fees received during the years ended April 30, 2012 and 2011, follow:

| Tapping Fee Income | 2012 | 2011 |
|---------------------------------|------------------|------------------|
| Residential | \$ 26,500 | \$ 26,306 |
| Commercial | 0 | 34,495 |
| Total Tapping Fee Income | \$ 26,500 | \$ 60,801 |

7. Capital Contributions-Southwest Delaware County Municipal Authority

Sewage from this system is treated and disposed of by the Southwest Delaware County Municipal Authority ("Southwest") pursuant to the terms of a forty year sewage treatment agreement, dated January 10, 1968, and an amendment thereto, dated August 30, 1977, which extended the term of the contract an additional ten years, through the year 2018.

Continued on next page.

7. Capital Contributions-Southwest Delaware County Municipal Authority
(Continued)

Over the past several years, the Authority paid voluntary advance capital contributions to Southwest totaling \$588,294, representing a total of 326.45 EDUs. The contributions were funded through an \$1,800 increase in tapping fees charged per EDU. Amounts paid under this arrangement are creditable against any future capital expenditures for which the Authority is obligated under the terms of the Treatment Agreement.

On March 15, 2010, the Authority entered into a contract sewage treatment agreement with The Delaware County Regional Water Quality Control Authority ("DELCORA"). Once certain construction improvements are completed, the treatment agreement with Southwest will be terminated and DELCORA will begin treating the Authority's wastewater. Treatment costs under the DELCORA agreement will consist of three components: treatment, conveyance and construction costs/debt service and will be based on water consumption as opposed to EDUs under the current treatment agreement with Southwest. The term of the new agreement is 25 years with options to extend the term an additional 25 years.

8. Retirement Plan

Plan Description. The Authority maintains a single-employer defined benefit pension plan and participates in the Pennsylvania Municipal Retirement System ("PMRS"), an agent multiple-employer public employees' retirement system created by the Pennsylvania General Assembly in 1974 and administered by the Pennsylvania Municipal Retirement Board. PMRS acts as a common investment and administrative agent for participating municipal pension plans. The agent maintains each municipality's accounts separate with that municipality's contributions. The assets may only be used for payment of benefits to members of the plan. PMRS issues a separate publicly available Comprehensive Annual Financial Report which can be obtained by contacting the PMRS accounting office. As of August 22, 2012, the Authority had two active plan members and five retirees and beneficiaries receiving benefits.

For the year ended December 31, 2011, the Authority's covered payroll for all employees was \$147,895. Covered payroll refers to all compensation paid by the Authority to active employees covered by PMRS on which contributions to the pension plan are based.

Following is a summary of the plan's coverage and benefit provisions and significant actuarial assumptions:

| Coverage and Benefit Provisions | |
|--|---|
| Covered Employees | All permanent full-time employees. |
| Benefit Vesting | 100% after 5 years of services. |
| Normal Retirement Date | Age 65 and completion of 5 years of service. |
| Retirement Benefit | Equal to 2% of final salary multiplied by total years of credited service, not to exceed 40% of final salary. Final salary is the average annual compensation paid during the member's highest 5 consecutive years of employment. |
| Early Retirement Provision | Separation from employment upon attainment of age 55 with 15 years of credited service with a reduced benefit entitlement. |
| Significant Actuarial Assumptions | |
| Actuarial Interest Rate | 6%, net of investment expenses |
| Rate of Compensation Increase | 5.2% |

Contributions, Funding Policy and Status. The plan does not require employee contributions. Act 205 requires that annual contributions be based upon the plan's Minimum Municipal Obligation ("MMO") which is based on the plan's biennial actuarial valuation which uses the Entry Age Normal Cost Method. Under this method, a normal pension cost is calculated which would fund an employee's benefits during the employee's career as a level percent of pay. The plan was actuarially overfunded as of the January 1, 2011 valuation.

Continued on next page.

8. Retirement Plan Pension expense for the years ended April 30, 2012 and 2011 amounted to \$4,702 and \$5,440 respectively.
(Continued)

Five-Year Trend Information -

| Year Ended December 31 | Annual Pension Cost (APC) | Percentage of APC Contributed | Net Pension Obligation |
|---------------------------|------------------------------|----------------------------------|---------------------------|
| 2007 | \$894 | 100% | \$0 |
| 2008 | \$1,020 | 100% | \$0 |
| 2009 | \$4,863 | 100% | \$0 |
| 2010 | \$5,928 | 100% | \$0 |
| 2011 | \$4,464 | 100% | \$0 |

9. Risk Management and Commitments **Litigation.** The Authority is currently not involved, as plaintiff or defendant, in any legal proceedings pertinent to routine operations.

Risk Management. The Authority is subject to various risks of losses arising from torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees and natural disasters. The Authority maintains property, general liability, workers' compensation, public officials' liability, automobile, boiler and machinery, pollution, and employee health insurance coverage. Claims have not exceeded coverage during the years ended April 30, 2012 and 2011.

**10. Other
Information**

GASB has issued the following Statements which will become effective in future years:

Statement No. 62, *"Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements"*. This Statement incorporates into the GASB's authoritative literature certain accounting and financial reporting guidance that is included the FASB Statements and Interpretations, Accounting Principles Board Opinions, and Accounting Research Bulletins of the AICPA that were issued on or before November 30, 1989. This Statement will become effective for the Authority in fiscal year ending April 30, 2013.

Statement No. 63, *"Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position"*. This Statement standardizes the presentation of deferred inflows and outflows of resources and their effects on a government's net position. This Statement will become effective for the Authority in fiscal year ending April 30, 2013.

Statement No. 65, *"Items Previously Reported as Assets and Liabilities"*. This Statement establishes accounting and financial reporting standards that reclassify, as deferred inflows and outflows of resources, certain items that were previously reported as assets and liabilities. This Statement will become effective for the Authority in fiscal year ending April 30, 2014.

Management has not yet determined the effect of these Statements on the financial statements.

Supplementary Information

Middletown Township Sewer Revenue Fund
Middletown Township Sewer Authority

STATEMENTS OF OPERATING EXPENSES

| | | Sewer | | | | 2012 | | 2011 | | Variance | |
|---|---|------------|-----------|--------------|------------|----------|------------|----------|------------|---------------------|---|
| Years Ended April 30 | | Revenue | Sewer | Eliminations | | Combined | % | Combined | % | Increase (Decrease) | |
| | | Fund | Authority | | | | | | | \$ | % |
| TREATMENT SERVICE | Southwest Delaware County Municipal Authority | \$ 174,683 | \$ 0 | \$ 0 | \$ 174,683 | 8.8 | \$ 175,683 | 9.8 | \$ (1,000) | (0.6) | |
| | Elwyn Institute: | | | | | | | | | | |
| | - Sewage Treatment | 0 | 0 | 0 | 0 | 0.0 | 1,649 | 0.1 | (1,649) | (100.0) | |
| | - Capital Contribution | 0 | 0 | 0 | 0 | 0.0 | 692 | 0.0 | (692) | (100.0) | |
| | | 174,683 | 0 | 0 | 174,683 | 8.8 | 178,024 | 9.9 | (3,341) | (1.9) | |
| SYSTEM FACILITIES - OPERATIONS & MAINTENANCE | Sewer Maintenance & Supplies | 253,641 | 0 | 0 | 253,641 | 12.8 | 275,596 | 15.3 | (21,955) | (8.0) | |
| | Electricity | 69,437 | 0 | 0 | 69,437 | 3.5 | 58,580 | 3.3 | 10,857 | 18.5 | |
| | Pump Station Telephone | 6,643 | 0 | 0 | 6,643 | 0.3 | 6,242 | 0.3 | 401 | 6.4 | |
| | Maintenance Payroll | 5,004 | 0 | 0 | 5,004 | 0.3 | 4,775 | 0.3 | 229 | 4.8 | |
| | Water | 2,839 | 0 | 0 | 2,839 | 0.1 | 2,362 | 0.1 | 477 | 20.2 | |
| | Vehicle Expense | 1,419 | 0 | 0 | 1,419 | 0.1 | 2,275 | 0.1 | (856) | (37.6) | |
| | | 338,983 | 0 | 0 | 338,983 | 17.1 | 349,830 | 19.4 | (10,847) | (3.1) | |
| ADMINISTRATIVE COMPENSATION | Office Payroll | 149,078 | 0 | 0 | 149,078 | 7.5 | 147,537 | 8.2 | 1,541 | 1.0 | |
| | Employee Insurance | 34,519 | 0 | 0 | 34,519 | 1.7 | 31,059 | 1.7 | 3,460 | 11.1 | |
| | Payroll Taxes | 11,849 | 0 | 0 | 11,849 | 0.6 | 12,132 | 0.7 | (283) | (2.3) | |
| | Pension | 4,702 | 0 | 0 | 4,702 | 0.2 | 5,440 | 0.3 | (738) | (13.6) | |
| | | \$ 200,148 | \$ 0 | \$ 0 | \$ 200,148 | 10.0 | \$ 196,168 | 10.9 | \$ 3,980 | 2.0 | |

Continued on following page.

Middletown Township Sewer Revenue Fund
Middletown Township Sewer Authority

STATEMENTS OF OPERATING EXPENSES (Continued)

| | | Sewer | | Sewer | | 2012 | | 2011 | | Variance | |
|---|-------------------------------|---------|---------|-----------|--------------|----------|---------|----------|----|---------------------|-------|
| Years Ended April 30 | | Revenue | Fund | Authority | Eliminations | Combined | % | Combined | % | Increase (Decrease) | |
| | | | | | | | | | | \$ | % |
| PROFESSIONAL FEES | Consulting Engineer | \$ | 42,780 | \$ | 0 | \$ | 42,780 | 2.2 | \$ | 83,579 | 4.6 |
| | Audit Fees | | 13,000 | | 10,000 | | 23,000 | 1.2 | | 20,763 | 1.2 |
| | Lateral Inspections | | 18,733 | | 0 | | 18,733 | 0.9 | | 14,796 | 0.8 |
| | Consulting Fees | | 14,748 | | 0 | | 14,748 | 0.7 | | 10,761 | 0.6 |
| | Legal Fees | | 13,236 | | 0 | | 13,236 | 0.7 | | 4,838 | 0.3 |
| | Trustee Fees and Bank Charges | | 17 | | 0 | | 17 | 0.0 | | 2,757 | 0.2 |
| | | | 102,514 | | 10,000 | | 112,514 | 5.7 | | 137,494 | 7.7 |
| GENERAL & ADMINISTRATIVE | Office Rent | | 11,100 | | 0 | | 11,100 | 0.6 | | 11,100 | 0.6 |
| | General Business Insurance: | | | | | | | | | | |
| | - General Liability | | 15,485 | | 0 | | 15,485 | 0.8 | | 15,811 | 0.9 |
| | - Umbrella | | 3,256 | | 0 | | 3,256 | 0.2 | | 2,778 | 0.2 |
| | - Pollution | | 3,024 | | 0 | | 3,024 | 0.2 | | 0 | 0.0 |
| | - Public Officials Liability | | 2,464 | | 0 | | 2,464 | 0.1 | | 2,268 | 0.1 |
| | - Boiler & Machinery | | 2,104 | | 0 | | 2,104 | 0.1 | | 2,105 | 0.1 |
| | - Workers Compensation | | 1,295 | | 0 | | 1,295 | 0.1 | | 672 | 0.0 |
| | - Commercial Automobile | | 1,048 | | 0 | | 1,048 | 0.1 | | 1,023 | 0.1 |
| | Billing Services and Supplies | | 9,635 | | 0 | | 9,635 | 0.5 | | 6,440 | 0.4 |
| | Miscellaneous | | 3,420 | | (2,441) | | 979 | 0.0 | | 3,377 | 0.2 |
| | Postage | | 2,736 | | 0 | | 2,736 | 0.1 | | 2,528 | 0.1 |
| | Office Supplies | | 2,213 | | 0 | | 2,213 | 0.1 | | 1,594 | 0.1 |
| | Telephone | | 2,157 | | 0 | | 2,157 | 0.1 | | 2,142 | 0.1 |
| | Payroll Service | | 1,393 | | 0 | | 1,393 | 0.1 | | 1,212 | 0.1 |
| | Advertising | | 852 | | 0 | | 852 | 0.0 | | 2,396 | 0.1 |
| | Dues and Conferences | | 622 | | 0 | | 622 | 0.0 | | 1,273 | 0.1 |
| | | | 62,804 | | (2,441) | | 60,363 | 3.1 | | 56,719 | 3.2 |
| Total Operating Expenses Before Depreciation | | \$ | 879,132 | \$ | 7,559 | \$ | 886,691 | 44.7 | \$ | 918,235 | 51.1 |
| | | | | | 0 | | | | | (31,544) | (3.4) |

COMPARISON OF CASH BUDGET AND ACTUAL RECEIPTS AND DISBURSEMENTS

| Year Ended April 30 | | 2012 | | |
|---|----|----------------------------|--------------|-----------------|
| | | ORIGINAL & FINAL BUDGET | ACTUAL | OVER (UNDER) |
| RECEIPTS | | | | |
| Rents - Residential | \$ | 1,630,000 | \$ 1,498,794 | \$ (131,206) |
| Rents - Commercial | | 350,000 | 376,317 | 26,317 |
| Rents - Industrial | | 117,500 | 112,887 | (4,613) |
| Rents - Schools | | 32,000 | 34,298 | 2,298 |
| Fees/Penalties (Combined) | | 8,000 | 5,954 | (2,046) |
| Interest | | 2,500 | 7,271 | 4,771 |
| Developer Reimbursement/Miscellaneous | | 4,000 | 51,539 | 47,539 |
| Tapping Fees | | 0 | 26,500 | 26,500 |
| Transfer from Authority | | 0 | 375,000 | 375,000 |
| Total Receipts | | 2,144,000 | 2,488,560 | 344,560 |
| DISBURSEMENTS | | | | |
| Lease Rental Payments | | 331,626 | 0 | (331,626) |
| Sewage Treatment | | 183,500 | 174,767 | (8,733) |
| Capital Contribution - Elwyn | | 1,500 | 0 | (1,500) |
| Pump Stations - Utilities | | 91,000 | 79,133 | (11,867) |
| Sewer Maintenance Payroll | | 6,000 | 4,973 | (1,027) |
| Contract Sewer Maintenance | | 75,000 | 71,203 | (3,797) |
| Collection System Maintenance | | 50,000 | 28,468 | (21,532) |
| Pump Stations - Supplies | | 180,000 | 181,207 | 1,207 |
| Authority Vehicle/Operating Expenses | | 1,500 | 1,284 | (216) |
| Administration Payroll | | 153,500 | 149,287 | (4,213) |
| Employee Benefits | | 35,000 | 34,519 | (481) |
| Payroll Taxes | | 11,600 | 11,849 | 249 |
| Employee Retirement Plan | | 6,000 | 5,179 | (821) |
| Consulting Engineer | | 50,000 | 55,918 | 5,918 |
| Accounting and Audit Fees | | 13,000 | 13,000 | 0 |
| Legal Services | | 18,000 | 13,236 | (4,764) |
| Consulting Services/Studies | | 10,000 | 13,149 | 3,149 |
| Lateral Inspections & PA One Call Responses | | 17,000 | 18,288 | 1,288 |
| Building Rental and Debt Service | | 12,000 | 11,100 | (900) |
| Insurance | | 28,600 | 45,444 | 16,844 |
| Telephone | | 2,200 | 2,147 | (53) |
| Office Equipment/Maintenance/Supplies | | 2,150 | 2,213 | 63 |
| Postage | | 3,000 | 2,642 | (358) |
| Advertising | | 2,000 | 852 | (1,148) |
| PMAA | | 1,600 | 622 | (978) |
| Miscellaneous | | 3,000 | 3,406 | 406 |
| Computer System and Billing | | 8,500 | 10,933 | 2,433 |
| Rights of Way | | 10,000 | 100 | (9,900) |
| Capital Repairs & Improvements | | 35,000 | 338,886 | 303,886 |
| Transfer to Capital Reserves | | 801,724 | 0 | (801,724) |
| Total Disbursements | | 2,144,000 | 1,273,805 | (870,195) |
| Excess of Disbursements | | 0 | 1,214,755 | \$ 1,214,755 |
| Cash & Equivalents Unrestricted - May 1 | | 1,696,593 | 1,696,593 | |
| Cash & Equivalents Unrestricted - April 30 | \$ | 1,696,593 | \$ 2,911,348 | |

STATEMENTS OF OPERATIONS - 10 YEAR COMPARISON

| (Amounts in Dollars) | | | | | | | | | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Years Ended April 30 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 |
| OPERATING REVENUES: | | | | | | | | | | |
| Sewer Rentals | 1,959,119 | 1,783,438 | 1,689,451 | 1,526,386 | 1,447,353 | 1,439,469 | 1,437,019 | 1,416,557 | 1,435,871 | 1,421,097 |
| Other | 23,713 | 18,429 | 3,136 | 5,847 | 14,336 | 5,418 | 6,126 | 40,723 | 6,380 | 6,977 |
| Total Operating Revenues | 1,982,832 | 1,801,867 | 1,692,587 | 1,532,233 | 1,461,689 | 1,444,887 | 1,443,145 | 1,457,280 | 1,442,251 | 1,428,074 |
| OPERATING EXPENSES BEFORE DEPRECIATION: | | | | | | | | | | |
| Lease Payments | 0 | 121,626 | (17,411) | 185,933 | 181,802 | 191,598 | 204,752 | 300,553 | 706,531 | 300,732 |
| Treatment Service | 174,683 | 178,024 | 177,241 | 177,604 | 178,440 | 181,031 | 180,433 | 179,363 | 180,803 | 179,687 |
| Electricity and Water | 72,276 | 60,942 | 59,283 | 50,418 | 51,502 | 55,696 | 45,398 | 53,054 | 49,339 | 60,309 |
| Pump Station and Sewer Maintenance | 265,288 | 286,614 | 249,875 | 168,197 | 146,850 | 130,192 | 120,088 | 94,570 | 100,778 | 83,465 |
| Vehicle | 1,419 | 2,275 | 710 | 691 | 1,287 | 1,570 | 3,085 | 1,420 | 572 | 1,481 |
| Office Payroll and Pension | 153,780 | 152,977 | 152,463 | 143,265 | 135,974 | 126,419 | 133,570 | 124,780 | 124,946 | 160,291 |
| Payroll Taxes | 11,849 | 12,132 | 12,175 | 11,435 | 10,834 | 10,527 | 11,108 | 13,557 | 15,202 | 15,894 |
| Employee Insurance | 34,519 | 31,059 | 31,927 | 30,916 | 28,818 | 25,758 | 25,520 | 55,966 | 47,274 | 38,614 |
| Consulting Engineer | 61,513 | 98,375 | 77,061 | 53,908 | 46,916 | 35,897 | 19,775 | 13,551 | 11,401 | 7,452 |
| Audit and Accounting Fees | 13,000 | 10,842 | 12,673 | 12,670 | 11,919 | 11,461 | 11,128 | 12,804 | 10,804 | 10,592 |
| Legal Fees | 13,236 | 4,838 | 29,986 | 12,846 | 13,087 | 12,738 | 12,862 | 12,659 | 13,241 | 10,162 |
| Consultants' Fees | 14,748 | 10,761 | 8,125 | 13,874 | 985 | 8,575 | 8,196 | 3,719 | 6,464 | 2,931 |
| General Business Insurance | 28,676 | 24,657 | 28,607 | 33,781 | 26,333 | 24,147 | 27,064 | 27,851 | 27,714 | 23,444 |
| Office Rent | 11,100 | 11,100 | 11,100 | 11,100 | 11,100 | 11,100 | 11,100 | 19,470 | 25,298 | 20,342 |
| Office | 7,105 | 6,263 | 5,745 | 7,533 | 7,316 | 7,965 | 10,137 | 13,276 | 13,806 | 14,231 |
| Miscellaneous | 6,305 | 7,765 | 6,717 | 5,995 | 5,660 | 6,225 | 6,876 | 4,692 | 5,412 | 11,766 |
| Billing Services and Supplies | 9,635 | 6,440 | 6,732 | 8,829 | 3,739 | 4,453 | 2,097 | 4,562 | 2,265 | 3,107 |
| Total Operating Expenses before Depreciation | 879,132 | 1,026,690 | 853,009 | 928,995 | 862,562 | 845,352 | 833,189 | 935,847 | 1,341,850 | 944,500 |
| NET OPERATING INCOME BEFORE DEPRECIATION | 1,103,700 | 775,177 | 839,578 | 603,238 | 599,127 | 599,535 | 609,956 | 521,433 | 100,401 | 483,574 |
| LESS: DEPRECIATION | 601,810 | 596,490 | 606,613 | 730,904 | 724,186 | 714,591 | 703,918 | 689,304 | 678,319 | 667,490 |
| NET OPERATING INCOME (LOSS) | 501,890 | 178,687 | 232,965 | (127,666) | (125,059) | (115,056) | (93,962) | (167,871) | (577,918) | (183,916) |
| NON-OPERATING INCOME (EXPENSE) | | | | | | | | | | |
| Investment Interest | 7,271 | 3,473 | 3,094 | 9,316 | 31,302 | 31,561 | 24,901 | 10,678 | 5,087 | 12,800 |
| Tapping Fee Income | 26,500 | 60,801 | 88,394 | 59,000 | 157,353 | 189,785 | 662,640 | 90,358 | 144,000 | 156,518 |
| Transfers | 375,000 | 0 | 0 | (150,000) | 0 | 0 | (500,000) | 0 | 0 | (248,000) |
| Capitalized Construction and Other Costs | 166,391 | 334,853 | 380,093 | 152,595 | 129,999 | 242,712 | 355,189 | 285,073 | 17,080 | 0 |
| Retirement of Lease Rentals | 1,710,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Property Dedications | 0 | 0 | 75,000 | 32,550 | 0 | 0 | 0 | 0 | 0 | 0 |
| Income From Debt Restructuring | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 270,000 | 0 |
| Total Non-Operating Income (Expense), Net | 2,285,162 | 399,127 | 546,581 | 103,461 | 318,654 | 464,058 | 542,730 | 386,109 | 436,167 | (78,682) |
| NET INCOME (LOSS) | 2,787,052 | 577,814 | 779,546 | (24,205) | 193,595 | 349,002 | 448,768 | 218,238 | (141,751) | (262,598) |

Middletown Township Sewer Revenue Fund

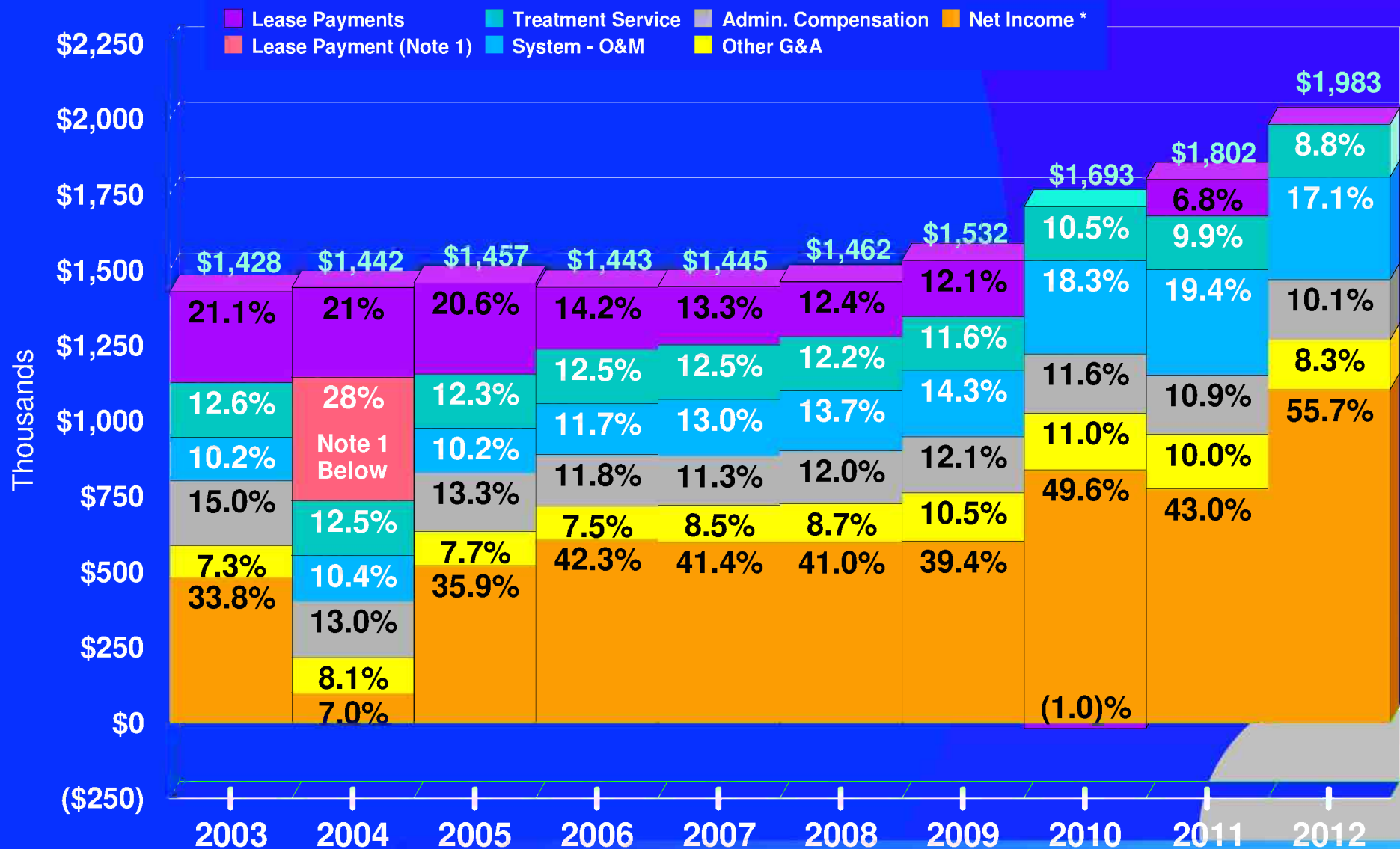
SCHEDULE OF PENSION FUNDING PROGRESS

| | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------------------|------------------------------|---|-------------------------|--|--|---|
| Valuation Date January 1, | Actuarial Value of Assets | Actuarial Accrued Liability (AAL) | Funded Ratio (1)/(2) | Unfunded (Overfunded) (AAL) (2)-(1) | Projected Annual Covered Payroll | Unfunded (Overfunded) AAL as a % of Projected Covered Payroll (4)/(5) |
| 1999 | \$343,563 | \$329,335 | 104.32% | (\$14,228) | \$169,103 | (8.41%) |
| 2001 | \$486,455 | \$392,043 | 124.08% | (\$94,412) | \$176,220 | (53.58%) |
| 2003 | \$554,625 | \$460,697 | 120.39% | (\$93,928) | \$157,783 | (59.53%) |
| 2005 | \$604,791 | \$519,987 | 116.31% | (\$84,804) | \$171,099 | (49.56%) |
| 2007 | \$639,311 | \$579,084 | 110.40% | (\$60,227) | \$128,774 | (46.77%) |
| 2009 | \$680,935 | \$619,817 | 109.86% | (\$61,118) | \$137,572 | (44.43%) |
| 2011 | \$704,391 | \$656,670 | 107.27% | (\$47,721) | \$146,639 | (32.54%) |

Graphic Analysis

Middletown Township Sewer Revenue Fund

Trend Analysis - Operations - Years Ended April 30

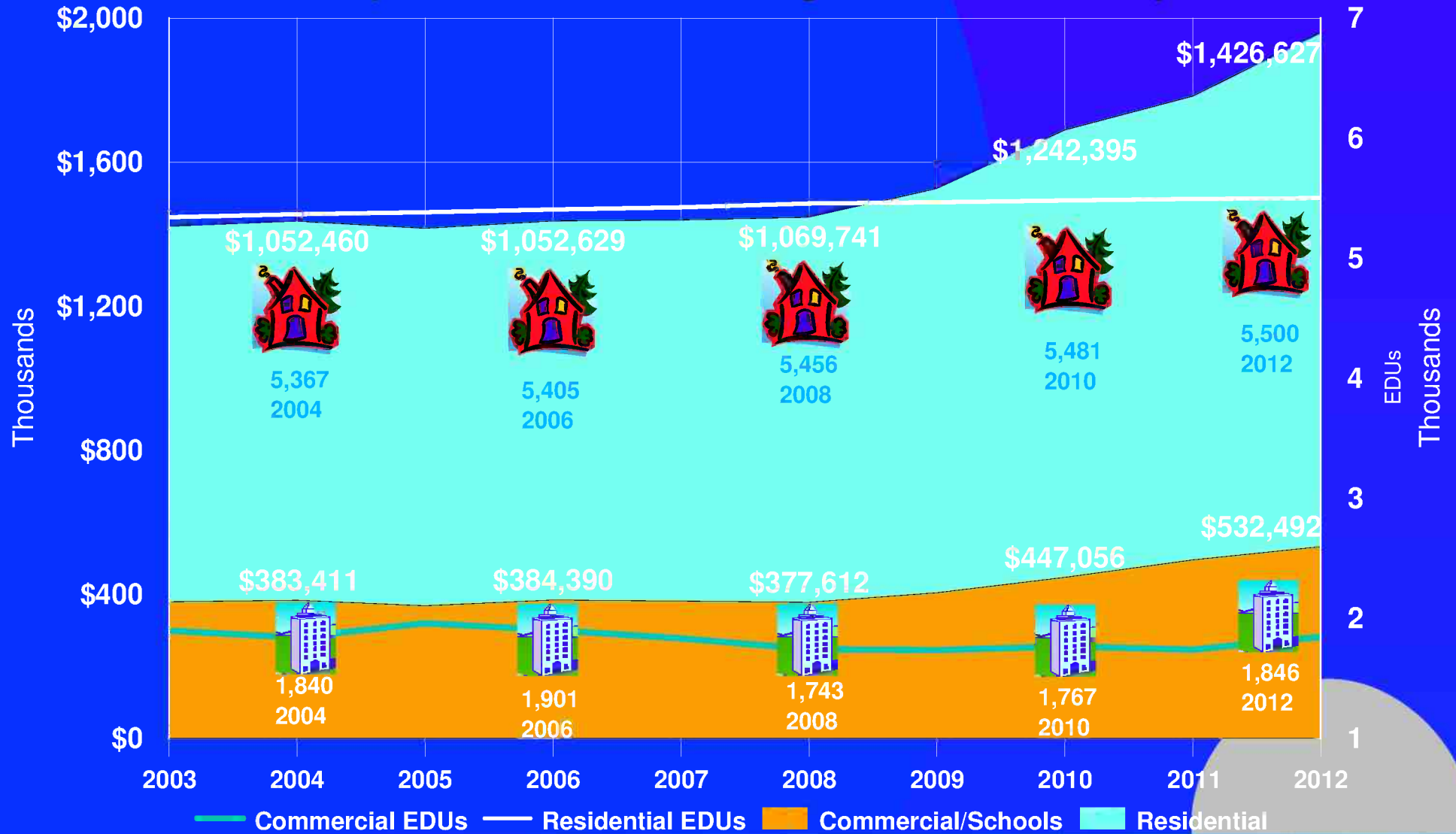


*Net Income represents net operating income before depreciation.

Note 1: Lease payment increase attributable to forgone debt payment due to advance refunding of Sewer Revenue Bonds.

Middletown Township Sewer Revenue Fund

Trend Analysis - Sewer Rent Billings - Years Ended April 30



CCIP2 ACT 537 PLAN

APPENDIX I

1. PROJECT INFORMATION

Project Name: **MTSA CCIP2**

Date of review: **5/8/2013 3:27:37 PM**

Project Category: **Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewage module/Act 537 plan**

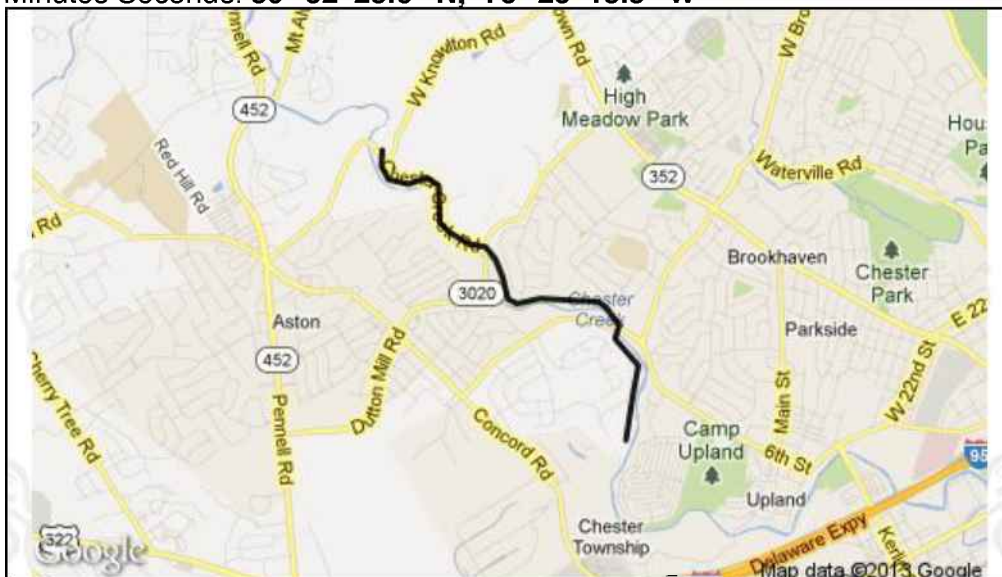
Project Length: **12150.9 feet**

County: **Delaware** Township/Municipality: **Aston, Middletown, Brookhaven**

Quadrangle Name: **MEDIA** ~ ZIP Code: **19014, 19015, 19063**

Decimal Degrees: **39.874603 N, -75.420498 W**

Degrees Minutes Seconds: **39° 52' 28.6" N, -75° 25' 13.8" W**



2. SEARCH RESULTS

| Agency | Results | Response |
|---|-----------------|----------------------------|
| PA Game Commission | No Known Impact | No Further Review Required |
| PA Department of Conservation and Natural Resources | No Known Impact | No Further Review Required |
| PA Fish and Boat Commission | No Known Impact | No Further Review Required |
| U.S. Fish and Wildlife Service | No Known Impact | No Further Review Required |

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened and endangered species and/or special concern species and resources within the project area. Therefore, based on the information you provided, no further coordination is required with the jurisdictional agencies. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE: No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special

concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a **preliminary** screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552, Harrisburg, PA.
17105-8552
Fax: (717) 772-0271

U.S. Fish and Wildlife Service

Endangered Species Section
315 South Allen Street, Suite 322, State College, PA.
16801-4851
NO Faxes Please.

PA Fish and Boat Commission

Division of Environmental Services
450 Robinson Lane, Bellefonte, PA. 16823-7437
NO Faxes Please

PA Game Commission

Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
Fax: (717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: Walter Fazler
Company/Business Name: Bradford Engineering Associates
Address: 2710 Concord Rd, Suite 3
City, State, Zip: Aston, PA 19014
Phone: (610) 497-6200 Fax: (610) 500-5677
Email: wfazler@bea-inc.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

Walter Fazler 1-7-14
applicant/project proponent signature date

CCIP2 ACT 537 PLAN

APPENDIX J

Notice

The Council of Middletown Township, Delaware County is considering adopting a Special Study for the Chester Creek Interceptor Phase 2 (CCIP2), which is an updated revision to the Township's Sewage Facilities (ACT 537) Plan. Prior to Council review, the Township is accepting comments on the Plan for a period of thirty (30) days beginning July 18, 2013.

This report was completed to specifically address the proposed downstream extension of Middletown Township, Delaware County, Sewer Authority's (MTSA) Chester Creek Interceptor (CCI) from Knowlton Road to the proposed Delaware County Regional Water Quality Control Authority (DELCORA) Chester Ridley pump station. Upstream sections of the CCI were addressed in the recently adopted Chester Creek Interceptor Phase 1 Special Study, which was approved by the Pennsylvania Department of Environmental Protection (PaDEP) on November 14, 2012.

Two alternatives for the Chester Creek Interceptor Phase 2 were evaluated as part of this Special Study. First was the gravity flow option from Knowlton Road south to the proposed DELCORA pumping station. The second was the pump station and force main option terminating at the same location. Both of these alternatives relate to the Inter-Municipal Agreement with DELCORA that will result in the phase-out of Southwest Delaware County Municipal Authority's treatment facility and the conveyance of wastewater to DELCORA for treatment. **The alternative of choice is installation of a gravity sewer system.**

The Act 537 Plan can be reviewed in its entirety at the Middleton Township Municipal Building, 27 N. Pennell Road, Lima, PA between the hours of 8:30 AM and 4:30 PM. The plan is also available for viewing online at <http://www.middletowntownship.org>. Comments will be accepted at the Township Building during the thirty (30) day public review period. Comments may be mailed to Middletown Township, PO Box 9, Lima, Pa 19037, or emailed to manager@middletowntownship.org.

Bruce Clark, Township Manager

State of Pennsylvania,
County of Delaware,

}

SS.

LYNN D. BETTCHER

designated agent of CENTRAL STATI

being duly sworn, deposes and says that the DELAWARE COUNTY DAILY TIMES, a daily newspaper as defined in the above-mentioned Act, published at Primos, Delaware County, Pennsylvania, was e 1876, and issued and published continuously thereafter for a period of 100 years and for a period c immediately prior hereto, (under the name Chester Times prior to November 2, 1959) in the City Delaware and further says that the printed notice or publication attached hereto is an exact copy of printed and published in the regular edition and issues of the DELAWARE COUNTY DAILY TIME. viz.....

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This report was completed to specifically address the proposed downstream extension of Middletown Township, Delaware County Sewer Authority's (MTSA) Chester Creek Interceptor (CCI) from Knowlton Road to the proposed Delaware County Regional Water Quality Control Authority (DELCORA) Chester Ridley pump station. Upstream sections of the CCI were addressed in the recently adopted Chester Creek Interceptor Phase 1 Special Study, which was approved by the Pennsylvania Department of Environmental Protection (PaDEP) on November 14, 2012.

Two alternatives for the Chester Creek Interceptor Phase 2 were evaluated as part of this Special Study. First was the gravity flow option from Knowlton Road south to the proposed DELCORA pumping station. The second was the pump station and force main option terminating at the same location. Both of these alternatives relate to the Inter-Municipal Agreement with DELCORA that will result in the phase-out of Southwest Delaware County Municipal Authority's treatment facility and the conveyance of wastewater to DELCORA for treatment. The alternative choice is installation of a gravity sewer system.

The Act 537 Plan can be reviewed in its entirety at the Middletown Township Municipal Building, 27 N. Pennell Road, Lima, PA between the hours of 8:30 AM and 4:30 PM. The plan is also available for viewing online at <http://www.middletownship.org>. Comments will be accepted at the Township Building during the thirty (30) day public review period. Comments may be mailed to Middletown Township, PO Box 9, Lima, PA 19037, or emailed to manager@middletownship.org.

Bruce Clark
Township Manager

July 18,

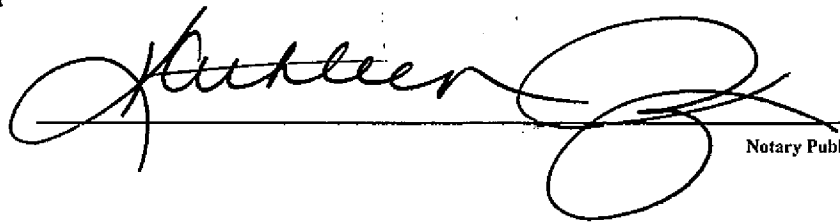
and that said advertising was inserted in all respects as ordered.

Affiant further deposes that he is the proper person duly authorized by PUBLISHING, INC. publisher of said DELAWARE COUNTY DAILY TIMES, a newspaper of gene the foregoing statement under oath and that affiant is not interested in the subject matter of advertisement, and that all allegations in the foregoing statements as to time, place and character of p



Sworn to and subscribed before me this

18 day of July



Notary Publ

COMMONWEALTH OF PENNSYLVANIA

Notarial Seal

Kathleen Ragni, Notary Public
Upper Darby Twp., Delaware Count
My Commission Expires March 2, 20

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

CCIP2 ACT 537 PLAN

APPENDIX K

Bradford Engineering Associates, Inc.

2710 Concord Road, Suite 3
Aston, PA 19014
info @bea-inc.com

Tel: 610.497.6200
Fax: 610.500.5677

September 2, 2013

MEMO

TO: Michael Majeski
FROM: Walter Fazler, Bradford Engineering Associates
CC: CCI Phase 2 Act 537 Plan
RE: MT Act 537 Plan Revision, Planning Agencies and Public Review

Mike,

As you know a copy of the Middletown Township's revision to the Act 537 Plan dated June 2013 was made available for comment to the public at the office of the Authority and on the Middletown Township web site. In addition, a notice was placed in the Delaware County Daily Times advising the public that the Township was requesting comments on the plan.

Also, a copy of the Plan was sent to Aston Township, Aston Township Planning Commission, Southwest Delaware County Municipal Authority, Middletown Township Planning Commission, Brookhaven Borough, Brookhaven Borough Planning Commission and the Delaware County Planning Department.

As of the date of this memo, the only comments received were from the Middletown Township Planning Commission and the Delaware County Planning Department. The comments from both agencies were positive and do not require a response.



Walter A. Fazler, P.E.

COUNCIL MEMBERS

AT LARGE

NORMAN C. SHROPSHIRE
MARK KIRCHGASSER
LORRAINE BRADSHAW

FIRST DISTRICT

SCOTT D. GALLOWAY

SECOND DISTRICT

MARGARET J. AMOROSO

THIRD DISTRICT

RUSS CARLSON

FOURTH DISTRICT

CHRISTOPHER B. QUINN

TOWNSHIP OF MIDDLETOWN

DELAWARE COUNTY, PENNSYLVANIA

27 N. PENNELL ROAD

P.O. BOX 157

LIMA, PA 19037-0157



610-565-2700

FAX 610-566-3640

MANAGER

W. BRUCE CLARK

ENGINEER

ARTHUR W. ROTHF, P.E.

SOLICITOR

JOSEPH A. DAMICO, JR., ESQ.

www.middletowntownship.org

June 12, 2013

Timothy F. Sullivan, Esq.
Middletown Township
Sewer Authority
27 N. Pennell Road
P.O. Box 9
Lima, PA 19037

Re: Middletown Sewage Facilities Plan (Act 537) Update Chester Creek Interceptor Phase 2

Dear Tim:

Thank you for your presentation of the Township's Sewage Facilities Plan Amendment for Expansion/Extension of the Chester Creek Interceptor at the June 11, 2013 Planning Commission meeting.

Be advised that the Planning Commission has no issue with or comments, on the plan.

Sincerely,

David Sharbaugh, Chair

Cc: Planning Commission members
Bruce Clark
Mike Majeski
Art Rothe



DELAWARE COUNTY PLANNING DEPARTMENT

COURT HOUSE/GOVERNMENT CENTER
201 W. Front St. Media, PA 19063

COUNCIL

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DAVID J. WHITE

W. Bruce Clark, Township Manager
Middletown Township
P.O. Box 157
Lima, PA 19037

Office Location: Toal Building, 2nd & Orange Sts., Media, PA 19063
Phone: (610) 891-5200 FAX: (610) 891-5203
E-mail: planning_department@co.delaware.pa.us

JOHN E. PICKETT, AICP
DIRECTOR

September 3, 2013

RE: Middletown Township Act 537 Plan Update
Chester Creek Interceptor Phase II

Dear Mr. Clark:

The Delaware County Planning Department (DCPD) has reviewed Middletown Township's Act 537 Sewage Facilities Plan for the *Chester Creek Interceptor Phase 2 Special Study* (June 2013). Phase II presents documentation of the existing flows in the interceptor, potential future flows in the tributary watershed, and an examination of the need to upgrade the system. Phase II also addresses the necessary upgrades for two existing inverted siphons (included as part of Phase I) in order to prevent sanitary sewer overflows, as these siphons currently have limited capacity available. Under this phase, the existing interceptor will eventually be transferred to Southwest Delaware County Municipal Authority as stipulated under the Global Agreement, and construction of the second phase of the Chester Creek Interceptor sewer system would eliminate the need to regulate and phase in future Middletown Township Sewer Authority (MTSA) connections.

Phase II of the study specifically addresses the proposed 17,500 linear foot downstream extension of MTSA's Chester Creek Interceptor from Knowlton Road to the new DELCORA pump station to be installed as part of the Baldwin Run Treatment Plant Phase Out agreement. The chosen alternative calls for the installation of a separate gravity interceptor that would be able to accommodate the needs of the MTSA. The portion of the proposed extension beginning at Mt. Alverno Road and ending at the new proposed pump station is also located within the supporting landscape of Chester Creek, per the *Delaware County Natural Heritage Inventory* (2011).

A review from the DCPD Historic Preservation section indicated that, per the County's *Archaeological Inventory and Management Plan*, many areas along the proposed sewer extension's path are in areas with a high potential for underground archaeological artifacts. This is especially true adjacent to Chester Creek. As is the case in most projects with ground-disturbing activity, it is recommended that if any potential artifacts are discovered during project activity, to please contact Beverlee Barnes at the Delaware County Planning Department's Historic Preservation section for a short recordation process at (610) 891-5209.

DCPD generally supports the recommendations outlined in the Middletown Township Plan. We trust that the actions taken by the Middletown Township Sewer Authority will remain in compliance with all local, state and federal regulations and ordinances. Should you have any other questions about these comments, please feel free to contact me at (610) 891-5215.

Sincerely,

Ginny M. McIntosh
Environmental Planner



cc: PA Department of Environmental Protection
Walter Fazler, P.E., Bradford Engineering
Michael Majeski, Middletown Township Sewer Authority

CCIP2 ACT 537 PLAN

APPENDIX L

**MIDDLETOWN TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA**

RESOLUTION 2013 - 78

RESOLUTION OF THE COUNCIL OF MIDDLETOWN TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA (hereinafter "the Township").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the **Pennsylvania Code**, require the Township of Middletown to, among other things, 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, Bradford Engineering Associates, Inc. has prepared a Sewage Facilities Plan under Pennsylvania Act 537, Chester Creek Interceptor Phase 2 Special Study, dated June 2013 that updates and amends the Township's Act 537 Plan; and

The alternative of choice to be implemented is installation of approximately 13,200 feet of gravity sewer from Knowlton Road to the Proposed DELCORA Chester Ridley Pump Station. Upon Department approval, the key implementation activities/dates include:

| <i>Schedule Item</i> | <i>* Days to Completion</i> |
|--|------------------------------------|
| PaDEP Act 537 Plan Approval | 0 |
| CCI Detailed Design | 270 |
| Submitt Design to PaDEP for Part II Permit | 270 |
| Receive Part II Permit | 360 |
| Solicit Bids for Construiction | 360 |
| Start Construction (Notice to Proceed) | 480 |
| Complete Construction | 875 |
| Facility Start up | 905 |

WHEREAS, Middletown Township finds that the Facility Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Council of the Township of Middletown hereby adopt and submit 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).

Resolved this 9th day of SEPTEMBER, 2013.

SIGNED: Lorraine Bradshaw
LORRAINE BRADSHAW
COUNCIL CHAIRPERSON

ATTEST: W. Bruce Clark
W. BRUCE CLARK
TOWNSHIP MANAGER

I, W. Bruce Clark, Secretary, Middletown Township Council, hereby certify that the foregoing is a true copy of the Township's Resolution No. 2013 - 78, adopted SEPTEMBER 9, 2013.

AUTHORIZED SIGNATURE

W. Bruce Clark

TOWNSHIP SEAL

