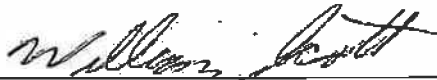


CERTIFICATION

I, William Scott, Borough Manager of the Borough of Sharon Hill hereby certify that the foregoing is a true copy of the Borough's Resolution No. 258-12, adopted February 28, 2002.



WILLIAM SCOTT,
BOROUGH MANAGER
BOROUGH OF SHARON HILL

RESOLUTION NO. 5-02

RESOLUTION of the Board of Commissioners of Springfield Township, Delaware County, Pennsylvania (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewer wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and]

WHEREAS, the Delaware County Planning Department, acting upon authorization from the Pennsylvania Department of Environmental Protection, did offer assistance to the municipalities in meeting their Act 537 requirements on a sub-County basis; and

WHEREAS, the Township of Springfield did by formal resolution dated November 14, 1989, authorize the County of Delaware to prepare the sewage facilities plan on its behalf; and

WHEREAS, the appropriate municipal officials of the Township have reviewed the findings and recommendations of that plan and find it to conform 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 Board of Commissioners of the Township of Springfield hereby accepts and adopts the "Delaware County Act 537 Sewage Facilities Plan Update - Eastern Plan of Study", prepared by the Delaware County Planning Department, February 2002, as the official plan for sewage facilities in compliance with the Pennsylvania Sewage Facilities Act of 1966. The Township 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 April, A.D. 2002 by the Board of Commissioners of Springfield Township.

By: 

President

(seal)

Attest: 

Manager/Secretary

BOROUGH OF SWARTHMORE
RESOLUTION NO. 2002-04

A RESOLUTION OF THE BOROUGH COUNCIL OF THE BOROUGH OF
SWARTHMORE, DELAWARE COUNTY, PENNSYLVANIA (HEREINAFTER "THE
MUNICIPALITY") ADOPTING THE DELAWARE COUNTY SEWAGE FACILITIES
PLAN - EASTERN PLAN OF STUDY

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 municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, the Delaware County Planning Department, acting upon authorization from the Pennsylvania Department of Environmental Protection, did offer assistance to the municipalities in meeting their Act 537 requirements on a sub-County basis; and

WHEREAS, the Borough of Swarthmore did by formal resolution dated February 12, 1990 authorize the County of Delaware to prepare the sewage facilities plan on its behalf; and

WHEREAS, the appropriate municipal officials of the Borough have reviewed the findings and recommendations of that plan and find it to conform 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 Borough Council of the Borough of Swarthmore hereby accepts and adopts the "Delaware County Act 537 Sewage Facilities Plan Update - Eastern Plan of Study," prepared by the Delaware County Planning Department, February 2002, as the official plan for sewage facilities in compliance with the Pennsylvania Sewage Facilities Act of 1966. The Borough 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 13TH DAY OF MAY, 2002.

SWARTHMORE BOROUGH COUNCIL


KEN KLOTHEN, PRESIDENT

ATTESTED THIS 13TH DAY OF
MAY, 2002


JANE C. BILLINGS, BOROUGH MANAGER

APPROVED THIS 13TH DAY OF
MAY, 2002


ELRIC C. GERNER, MAYOR

**TOWNSHIP OF TINICUM
RESOLUTION NO. 2002-04**

**ADOPTING THE DELAWARE COUNTY SEWAGE FACILITIES PLAN – EASTERN
PLAN OF STUDY**

RESOLUTION OF THE COMMISSIONERS OF TINICUM TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA (hereinafter “the municipality”).

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the “Pennsylvania Sewage Facilities Act,” as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, the Delaware County Planning Department, acting upon authorization from the Pennsylvania Department of Environmental Protection, did offer assistance to the municipalities in meeting their Act 537 requirements on a sub-County basis; and

WHEREAS, the Township of Tinicum did by formal resolution dated 19 November, 1989, authorize the County of Delaware to prepare the sewage facilities plan on its behalf; and

WHEREAS, the appropriate municipal officials of the Township have reviewed the findings and the recommendations of that plan and find it to conform 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 Commissioners of Tinicum Township hereby accept and adopt the “Delaware County Act 537 Sewage Facilities Plan Update – Eastern Plan of Study,” prepared by the Delaware County Planning Department, February 2002, as the official plan for sewage facilities in compliance with the Pennsylvania Sewage Facilities Act of 1966. The Township 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).

TINICUM TOWNSHIP
BOARD OF COMMISSIONERS

BY: William R. Wasch
William R. Wasch, President

I, Jean L. McCoy, Secretary, Tinicum Township hereby certify that the foregoing is a true copy of the Township Resolution No. 2002 - 04, adopted 18 March, 2002.

ATTEST: Jean L. McCoy

**BOROUGH OF TRAINER
DELAWARE COUNTY, PENNSYLVANIA**

RESOLUTION #884

**RESOLUTION OF THE COUNCIL OF TRAINER, DELAWARE COUNTY,
PENNSYLVANIA (hereinafter "the municipality")**

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage service adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, the Delaware County Planning Department, acting upon authorization from the Pennsylvania Department of Environmental Protection, did offer assistance to the municipalities in meeting their Act 537 requirements on a sub-County basis; and

WHEREAS, the Borough of Trainer, did by formal resolution dated April 11, 2002, authorize the County of Delaware to prepare the sewage facilities plan on its behalf; and

WHEREAS, the appropriate municipal officials of the Borough have reviewed the findings and recommendations of that plan and find it to conform 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 Trainer Borough hereby accept and adopt the "Delaware County Act 537 Sewage Facilities Plan Update – Eastern Plan of Study," prepared by the Delaware County Planning Department, February 2002, as the official plan for sewage facilities in compliance with the Pennsylvania Sewage Facilities Act of 1966. The Borough hereby assures the Department of the complete and timely implementation of the said plan as required by law. (Section 5, Pennsylvania Sewage Facilities Act, as amended).

I, Alice Steppke, Secretary for Trainer Borough hereby certify that the foregoing is a true copy of the Boroughs Resolution No. 884 adopted April 11, 2002

BOROUGH OF TRAINER

BY: 

REGINA T. BECK
President of Council

ATTEST:


ALICE STEPPKE
BOROUGH SECRETARY


EUGENE MAYSKY, MAYOR

BOROUGH OF UPLAND
DELAWARE COUNTY, PENNSYLVANIA
RESOLUTION NO. 10 OF 2002

A RESOLUTION OF THE COUNCIL OF THE BOROUGH OF UPLAND,
DELAWARE COUNTY, PENNSYLVANIA

BE IT RESOLVED BY THE COUNCIL OF THE BOROUGH OF UPLAND
AND THIS IS HEREBY RESOLVED THAT:

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 municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, the Delaware County Planning Department, acting upon authorizations from the Pennsylvania Department of Environmental Protection, did offer assistance to the municipalities in meeting their Act 537 requirements on a sub-County basis; and

WHEREAS, the Borough of Upland did by formal Resolution dated February 11, 1992, authorize the County of Delaware to prepare the sewage facilities plan on its behalf; and

WHEREAS, the appropriate municipal officials of the Borough of Upland have reviewed the findings and recommendations of that plan and find it to conform 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 Upland Borough hereby accepts and adopts the "Delaware County Act 537 Sewage Facilities Plan Update-Eastern Plan of Study," prepared by the Delaware County Planning Department, February 2002, as the official

**UPPER DARBY TOWNSHIP
RESOLUTION NO. 45-02**

RESOLUTION OF THE COUNCIL OF UPPER DARBY TOWNSHIP,
DELAWARE COUNTY, PENNSYLVANIA AMENDING THE TOWNSHIP'S
ACT 537 PLAN.

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 to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the Township; and

WHEREAS, the Delaware County Planning Department, acting upon authorization from the Pennsylvania Department of Environmental Protection, did offer assistance to its constituent municipalities in meeting their Act 537 requirements on a sub-County basis; and

WHEREAS, the Upper Darby Township did, by Resolution No. 9-90, dated February 21, 1990, authorize the County of Delaware to prepare the sewage facilities plan on its behalf; and

WHEREAS, the appropriate municipal officials of the Township have reviewed the findings and recommendations of that plan and find it to conform 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 Township hereby accept and adopt the "Delaware County Act 537 Sewage Facilities Plan Update, — Eastern Plan of Study," prepared by the Delaware County Planning Department, February 2002, as the official plan for sewage facilities in compliance with the Pennsylvania Sewage Facilities

Act of 1966. The Township 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).

All Resolutions and parts of Resolutions inconsistent herewith are hereby repealed.

RESOLVED this 19th day of June, A.D. 2002

TOWNSHIP OF UPPER DARBY

By: 

JOHN E. CLARK
President of Council

Attest: 

THOMAS N. MICOZZIE,
Secretary of Council

Resolution No. 45-02 above is hereby approved this 19th day of June, 2002.

By: 

F. RAYMOND SHAY, Mayor

Attest: 

THOMAS JUDGE, Jr.
Chief Administrative Officer

YEADON BOROUGH RESOLUTION NO. 02 - 07
ADOPTING THE DELAWARE COUNTY SEWAGE FACILITIES PLAN
EASTERN PLAN STUDY

RESOLUTION OF THE Council of Yeadon Borough, Delaware County, Pennsylvania

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 Environment Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, require the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, the Delaware County Planning Department, acting upon authorization from the Pennsylvania Department of Environmental Protection, did offer assistance to the municipalities in meeting their Act 537 requirements on a sub-County basis; and

WHEREAS, THE Borough of Yeadon did authorize the County of Delaware to prepare the sewage facilities plan on its behalf; and

WHEREAS, the appropriate municipal officials of the Borough of Yeadon have reviewed the findings and recommendations of that plan and find it to conform 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 Borough of Yeadon hereby accepts and adopts the "Delaware County Act 537 Sewage Facilities Plan Update - Eastern Plan of Study," prepared by the Delaware County Planning Department, February 2002, as the official plan for sewage facilities in compliance with the Pennsylvania Sewage Facilities Act of 1966. The Borough 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), subject to Borough budgetary constraints and the Borough continuing selection on how best to effectively address I & I problems.

RESOLVED THIS 16th **DAY OF MAY, 2002**

SEAL

BY: Jacqueline Purdy-Bushley
President, Yeadon Borough Council

ATTEST:

Christopher R. van de Velde
Borough Manager

I, Christopher R. van de Velde, Manager, Yeadon Borough hereby certify that the foregoing is a true copy of the Borough's Resolution No. 02-07, adopted

Certification:

Christopher R. van de Velde

ACT 537 SPECIAL STUDY PLAN

of

**DELCORA
Central Delaware Pump Station**

Sellers Avenue, Ridley Township
Delaware County, PA

SERO
RECEIVED
SEP 16 2019

Prepared for
DELCORA
100 E. Fifth Street
Chester, Pa 19013

On Behalf of:

Edgmont Township
P.O. Box 267
Gradyville, Pa 19039

Marple Township
227 S. Sproul Road
Broomall, Pa 19008

Nether Providence Township
214 Sykes Lane
Wallingford, Pa 19086

Newtown Township
209 Bishop Hollow Road
Newtown Square, Pa 9073

Ridley Township
100 E. MacDade Boulevard
Folsom, Pa 19033

Springfield Township
50 Powell Road
Springfield, Pa 19064

Swarthmore Borough
121 Park Avenue
Swarthmore, Pa 19081

Upper Providence Township
935 N Providence Road
Media, Pa 19063

Catania Engineering Associates, Inc.
520 West MacDade Boulevard
Milmont Park, Pa 19033

June 28, 2018
REVISED September 12, 2019
File #81600-CDPS-2018

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Executive Summary:

This Act 537 Special Study Plan is being prepared to review the wet weather capacity issues at the DELCORA Central Delaware Pump Station. This is a multi-municipal plan for eight (8) towns within a portion of DELCORA's Eastern Service Area, namely the towns served by the Central Delaware County Authority's Crum Creek Pump Station.

- Edgmont Township
- Marple Township
- Nether Providence Township
- Newtown Township
- Ridley Township
- Springfield Township
- Swarthmore Borough
- Upper Providence Township

The purpose of the study is to review the feasibility to construct a new force main to divert flows from the Central Delaware County Authority's Crum Creek Pump Station directly to the DELCORA Central Diversion Force Main, diverting flow away from the DELCORA Central Delaware Pump Station. The study will also review alternate routes for the new force main.

The DELCORA Central Delaware Pump Station is rated for 40 MGD. Average Daily Flow over the last five (5) years has been approximately 9.4 MGD with wet weather peak flows exceeding 40 MGD. The wet weather peak flows have caused multiple sanitary sewer overflows in that time period. The CDCA Crum Creek Pump Station conveys flows from the CDCA Crum Creek Interceptor. The CDCA Crum Creek Pump Station is currently in design to increase the capacity to 24 MGD to meet future flow demands. The proposed flow diversion will reduce the flow demand at the DELCORA Central Delaware Pump Station to below the pumping capacity. Alternatives to the construction of a new force main were investigated in a separate Feasibility Study for the Central Delaware Pump Station. The Feasibility Study determined that the new force main was the most cost-effective solution.

The Preferred Alternate Route is construction of a new force main from the Central Delaware County Authority's Crum Creek Pump Station, along Crum Creek through the Baldwin Towers Office Complex and the Liberty Electric Power Plant to the DELCORA Central Diversion Force Main in Route 291 – Industrial Highway. The proximity of multiple petroleum pipelines and uncertainty with acquisition of right of way from private property owners could affect the feasibility of this alternate. If these issues become unreasonable to address, a secondary route along Chester Pike and local Eddystone streets is reasonable options and should be pursued.

The cost for the new force main is estimated at \$8.6 million. The Project includes the additional work required at the CDCA Crum Creek Pump Station, the construction of the new force main, and the improvements required on the DELCORA Central Diversion force main. A summary is as follows:

CDCA Crum Creek Pump Station	\$1,294,000
CCPS Diversion Force Main	\$6,911,600
DELCORA Central Diversion FM Improvements	<u>\$ 414,000</u>
Total	\$8,619,600

The cost per household is estimated at \$14.25 based upon an estimated annual debt service of \$600,000 and 42,370 units in the CDCA Service Area.

The project scheduled completion is within three (3) years of the Plan approval. Key milestone dates are as follows:

PaDEP Act 537 Special Study Plan Submission	Dec	2018
PaDEP Act 537 Special Study Plan Approval	Nov	2019
Final Engineering Design	Jun	2020
PaDEP Part 2 Approval	Dec	2020
Project Construction Completion	Dec	2022

Plan Summary:

This Act 537 Special Study Plan is being prepared to review the wet weather capacity issues at the DELCORA Central Delaware Pump Station. This is a multi-municipal plan for eight (8) towns within a portion of DELCORA's Eastern Service Area, namely the towns served by the Central Delaware County Authority's Crum Creek Pump Station.

- Edgmont Township
- Marple Township
- Nether Providence Township
- Newtown Township
- Ridley Township
- Springfield Township
- Swarthmore Borough
- Upper Providence Township

DELCORA owns and operates the 40 MGD Central Delaware Pump Station (CDPS) located on Sellers Avenue in Ridley Township, Delaware County. Central Delaware County Authority owns and operates the 24 MGD Crum Creek Pump Station located along Crum Creek near Chester Pike in Ridley Township. The CDCA Crum Creek Pump Station conveys flows to the DELCORA Central Delaware Pump Station.

Based upon guidance from PaDEP, this Special Study Plan investigates the feasibility of diverting the flows from the CDCA Crum Creek Pump Station directly to the DELCORA Central Diversion Force Main, bypassing the DELCORA Central Delaware Pump Station. Initial design calculations estimate the proposed force main to be a 36" pipe. The flow diversion will reduce the flow demand at the DELCORA Central Delaware Pump Station to below the flow capacity and eliminate the wet weather capacity issues. A Feasibility Study for Central Delaware Pump Station has been completed as a supplementary document to review alternatives to the Crum Creek Bypass Force Main.

Further, the Act 537 Special Study Plan reviews the potential route for the proposed force main. The two (2) alternate routes reviewed are: (1) along Chester Pike and through local streets in Eddystone Borough and (2) along Crum Creek through Baldwin Towers Office Complex and through Liberty Electric Power Plant.

The costs for the new force main is estimated at \$8.6 million. The Project includes the additional work required at the CDCA Crum Creek Pump Station, the construction of the new force main, and the improvements required on the DELCORA Central Diversion force main. A summary is as follows:

CDCA Crum Creek Pump Station	\$1,294,000
CCPS Diversion Force Main	\$6,911,600
DELCORA Central Diversion FM Improvements	<u>\$ 414,000</u>
Total	\$8,619,600

The cost per household is estimated at \$14.25 based upon an estimated annual debt service of \$600,000 and 42,370 units in the CDCA Service Area.

Current agreements between DELCORA and CDCA and between CDCA and member municipalities provide the necessary authority for DELCORA to complete the project. No updates to the agreements appear to be necessary. Each member identified above in the CDCA Crum Creek Pump Station service area will be required to approve this Plan.

The project scheduled completion is within three (3) years of the Plan approval. Key milestone dates are as follows:

PaDEP Act 537 Special Study Plan Submission	Dec	2018
PaDEP Act 537 Special Study Plan Approval	Nov	2019
Final Engineering Design	Jun	2020
PaDEP Part 2 Approval	Dec	2020
Project Construction Completion	Dec	2022

- - - - -

Section I: Previous Wastewater Planning

Wastewater planning in Delaware County dates back to the early 1930s with a Delaware County Board of Engineers report and the formation of six (6) watershed sewerage systems:

- Central Delaware County Authority,
- City of Chester,
- Darby Creek Joint Authority,
- Muckinipates Authority,
- Marcus Hook,
- Eddystone

In the early 1970s, Delaware County prepared a County-wide Sewerage Facilities Plan. The Plan resulted in the regionalization of sewage treatment into basically the current sewage conveyance and treatment facilities; a series of pumping stations and two (2) regional treatment facilities.

In 1997, DELCORA completed an Act 537 Plan Update for the Treatment and Disposal of Wastewater from the Central Delaware County Authority Service Area. The Plan addressed the diversion of flow from the DELCORA Central Delaware Pump Station to the DELCORA Western Regional Treatment Plant to address peak wet weather flow exceedances at the Philadelphia sewage treatment facility. Recommendations of the Plan included upgrades to the DELCORA Central Delaware Pump Station, construction of a new Central Diversion force main along Route 291 toward the DELCORA treatment facility, and upgrades to the DELCORA treatment facility.

In 2002, the Delaware County Planning Department in cooperation with DELCORA completed an Act 537 Plan Update for the Eastern Service Area. The Eastern Service Area consists of 27 municipalities in the Darby Creek Joint Authority, Muckinipates Authority and Central Delaware County Authority. The 2002 Plan Update recommendations focused on-line maintenance and inflow & infiltration reduction programs. Furthering that goal, DELCORA sponsored inflow & infiltration reduction studies for all of the municipalities.

In 2007, Central Delaware County Authority, on behalf of Edgmont Township, Newtown Township, and Upper Providence Township, completed an Act 537 Plan Update for the Crum Creek Watershed. The 2007 Plan Update addressed the addition of flows from the three above-mentioned towns into the Central Delaware County Authority system and, in particular, improvements required in the CDCA Crum Creek Interceptor conveyance system.

In 2013, the Delaware County Planning Department and DELCORA prepared a Delaware County Act 537 Sewage Facilities Plan Update – Eastern Service Area. The plan was never adopted and subsequently withdrawn from PaDEP. The purpose of the Plan Update was to investigate alternatives to sewage

treatment facilities. While not adopted, the Plan Update provided information on the Philadelphia Long Term Control Plan and costs of the same charged to DELCORA.

In 2014, Central Delaware County Authority, on behalf of Edgmont Township, Newtown Township, and Upper Providence Township, completed an Act 537 Plan Update for the Crum Creek Watershed. The plan addressed the improvements to the CDCA Crum Creek Pump Station, the CDCA Chester Pike Force main, and the CDCA gravity interceptors downstream of the force main.

The CCPS Diversion is a cost-effective and timely solution to the periodic wet weather capacity issues currently experienced at DELCORA's CDPS. This project represents DELCORA's continued commitment to improving system performance while simultaneously accommodating the long-term growth of the service area.

In addition to DELCORA's capital investment in the CCPS Diversion, the Authority also acknowledges the opportunity for I/I reduction as a cost-effective means to address peak wet weather flows. DELCORA is continuing its program of I/I evaluation and remediation in areas where DELCORA owns the sewer infrastructure. A representative list of activities undertaken by DELCORA to date is enclosed in Appendix 14. DELCORA plans to expand upon these efforts in the future.

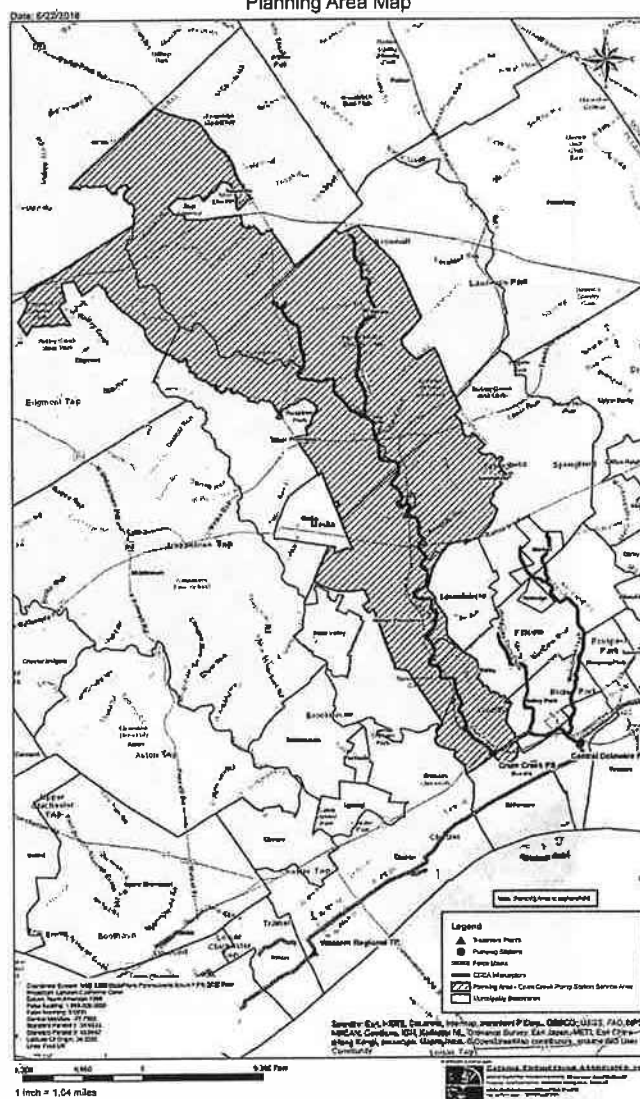
Concurrent with DELCORA's system wide I/I evaluation strategy, CDCA is currently engaged in a variety of I/I reduction efforts. A representative list of activities undertaken by DELCORA to date is enclosed in Appendix 15. This includes an annual program to review metering data for member municipalities and coordination with member municipalities to identify areas of concern. In addition, CDCA monitors its system on a regular basis by video inspection and corrects any deficiencies found. The collection systems are not owned nor maintained by CDCA and the I/I reduction efforts vary widely among towns. Activities in these systems are generally reported in the annual Chapter 94 reports.

Section II: Physical and Demographic Analysis

2.1 Identification of Planning Area

The Planning Area is identified as those towns which have sewage flows conveyed through the CDCA Crum Creek Pump Station located along Crum Creek near Chester Pike in Ridley Township, Delaware County. The facility serves portions of Edgmont Township, Marple Township, Nether Providence Township, Newtown Township, Ridley Township, Springfield Township, Swarthmore Borough and Upper Providence Township. The Planning Area is shown in Figure 2.1.1.

Figure 2.1.1
Planning Area Map



Full size map is located in Appendix 12

2.2 Identification of Physical Characteristics

The Planning Area is within the Crum Creek Watershed. Crum Creek is designated as a warm water fishery, migratory fishery under Pa Code Chapter 93. It should be noted that Crum Creek from its headwaters to the boundary of Newtown, Edgmont and Willistown Township is designated as High Quality Cold Water Fishery. However, the study area and proposed work is within the segment of Crum Creek designated as Warm Water Fishery. The proposed force main route will require a crossing of Crum Creek. Most of the proposed force main route will be within existing paved roads and driveways. The Crum Creek Watershed and potential stream crossing are shown in Figure 2.2.1.

Figure 2.2.1
Crum Creek Watershed

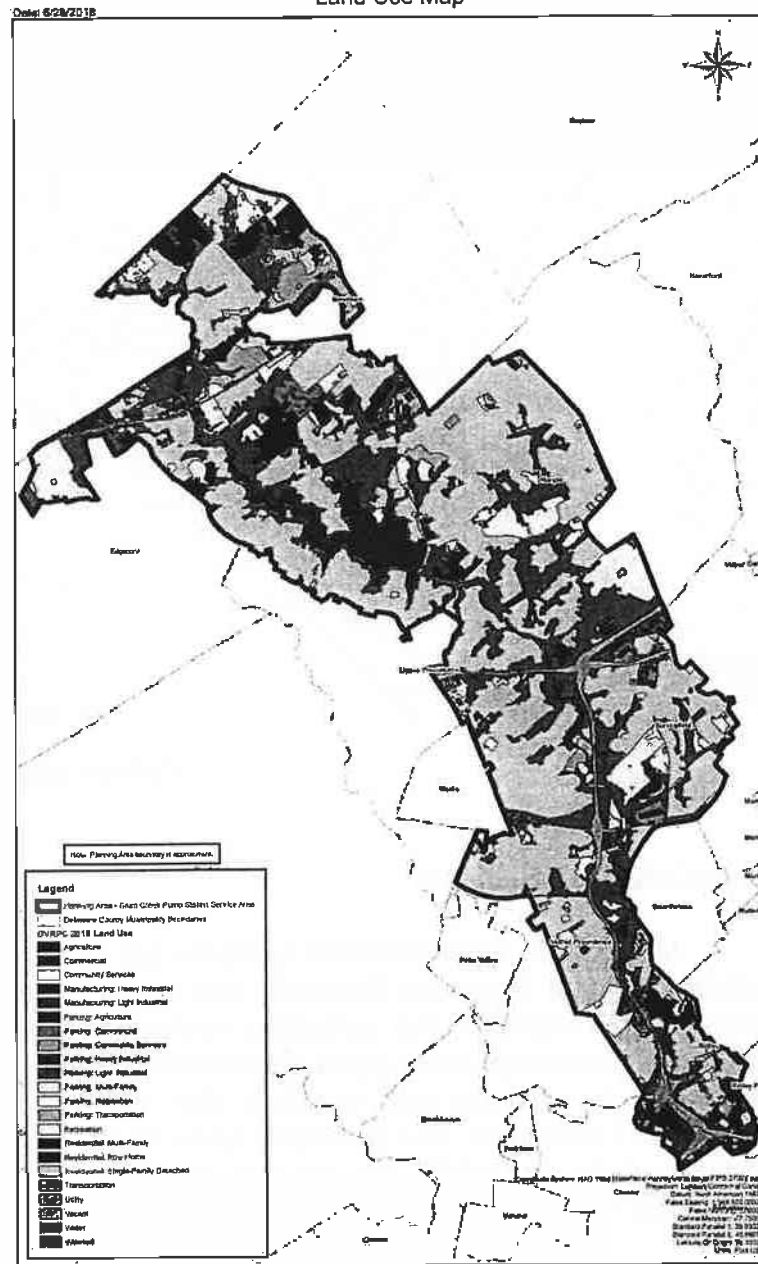


Full size map is located in Appendix 12

2.3 Identification of Demographics

The Planning Area land use varies throughout the Planning Area but is primarily residential. The lower Crum Creek areas are mainly developed with limited opportunities for infill development. The upper Crum Creek areas have potential for future development. The future development projections were covered in the 2007 Act 537 Plan Update on behalf of Edgmont, Newtown and Upper Providence Townships. A Land Use Map is included in Figure 2.3.1.

Figure 2.3.1
Land Use Map

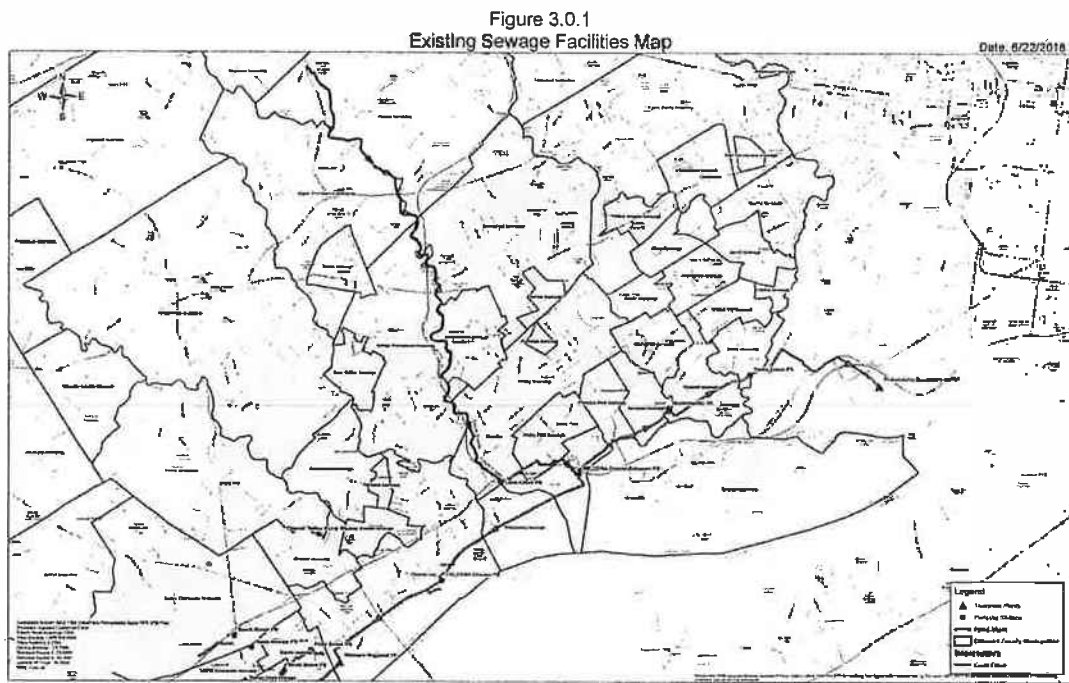


Full size map is located in Appendix 12

Section III: Existing Sewage Facilities in the Planning Area

3.0 General

The Planning Area is served by municipal sewerage systems. Flows from the Area are collected by local collection system, conveyed by a Central Delaware County Authority interceptor and pump station and by a DELCORA pump station, and treated at either the DELCORA treatment facility or the Philadelphia Southwest treatment facility. An Existing Sewage Facilities Map is shown in Figure 3.0.1.



Full size map is located in Appendix 12

3.1 Local Collection Systems

Most of the local collection systems are owned and operated by the individual towns. Edgmont Township has an agreement with DELCORA to operate and maintain the collection system within Edgmont Township. Newtown Township and Upper Providence Township have local sewer authorities to operate and maintain the collection systems within the respective Townships. The collection systems range in age with the earliest dating back to the 1930s and the newest under construction at this time. Most were constructed in the 1950s as development prospered in the area.

3.2 Conveyance Systems

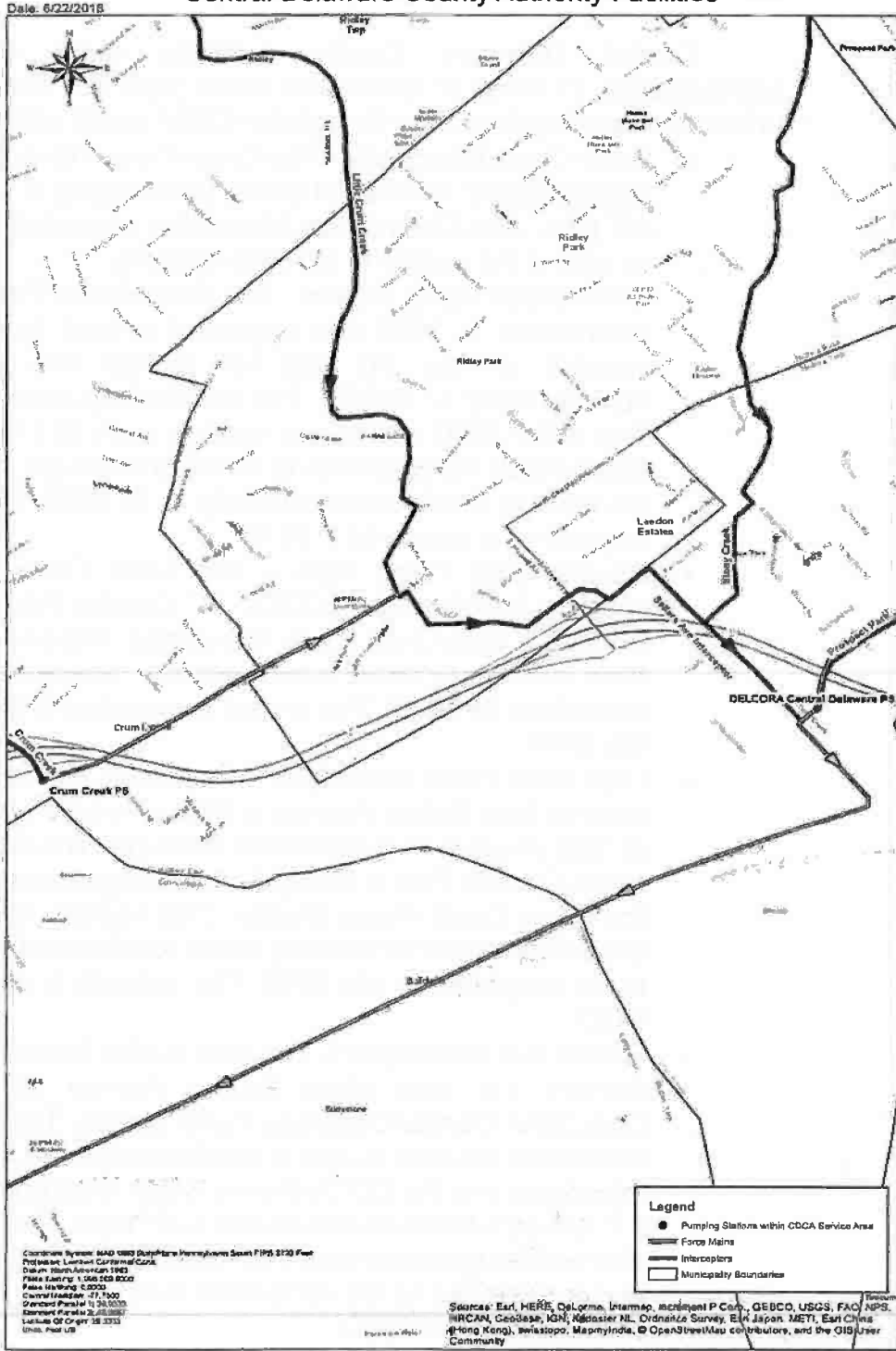
3.2.1 Central Delaware County Authority

Central Delaware County Authority owns and maintains approximately 21 miles of interceptor sewer pipe and one pump station. Within the Planning Area, flow through the CDCA would utilize the following:

- Crum Creek Interceptor - The Crum Creek Interceptor consists of approximately 10 miles of sewer pipe ranging in size from 12" to 42" pipe. The Crum Creek Interceptor was rehabilitated in 2012 as part of the project to increase capacity.
- Crum Creek Pump Station - The Crum Creek Pump Station was constructed in 1939 and upgraded several times. It currently consists of four (4) 100 HP pumps with a capacity of approximately 17.5 MGD. The current daily average dry weather flow is 5.2 MGD with a wet weather peak at 17.5 MGD. A new Crum Creek Pump Station is currently in design stage to replace the existing and increase capacity to 24 MGD. Planning for this upgrade was approved in 2016.
- Chester Pike Force Main - The Crum Creek Pump Station conveys flow through a CDCA 24" Chester Pike Force Main to the CDCA Little Crum Creek Interceptor. The Chester Pike Force Main is currently under construction to increase size to 36" and capacity to 24 MGD. The project is expected to be operational in late 2018.
- Little Crum Creek Interceptor – the Little Crum Creek Interceptor extends from Sellers Avenue in Ridley Park Borough to upstream of Yale Avenue in Swarthmore Borough. The 0.65 mile portion below Chester Pike in Ridley Park Borough is used by flows from the Crum Creek Pump Station. This section of the Little Crum Creek Interceptor is currently being rehabilitated and is expected to be completed in late 2018. The capacity is approximately 36 MGD.
- Sellers Ave Interceptor – this pipe is also known as the Special Section and runs along Sellers Avenue from I-95 to the DELCORA Central Delaware Pump Station. The Sellers Avenue Interceptor starts at a point of confluence of the Little Crum Creek Interceptor and the CDCA Stoney Creek Interceptor. It is currently a 7 feet by 4 feet box culvert and a 36" pipe. The box culvert and pipe are being replaced by a 48" pipe currently under construction and is expected to be completed in late 2018. The capacity is approximately 55 MGD.

A map of the Central Delaware County Authority facilities is included as Figure 3.2.1.

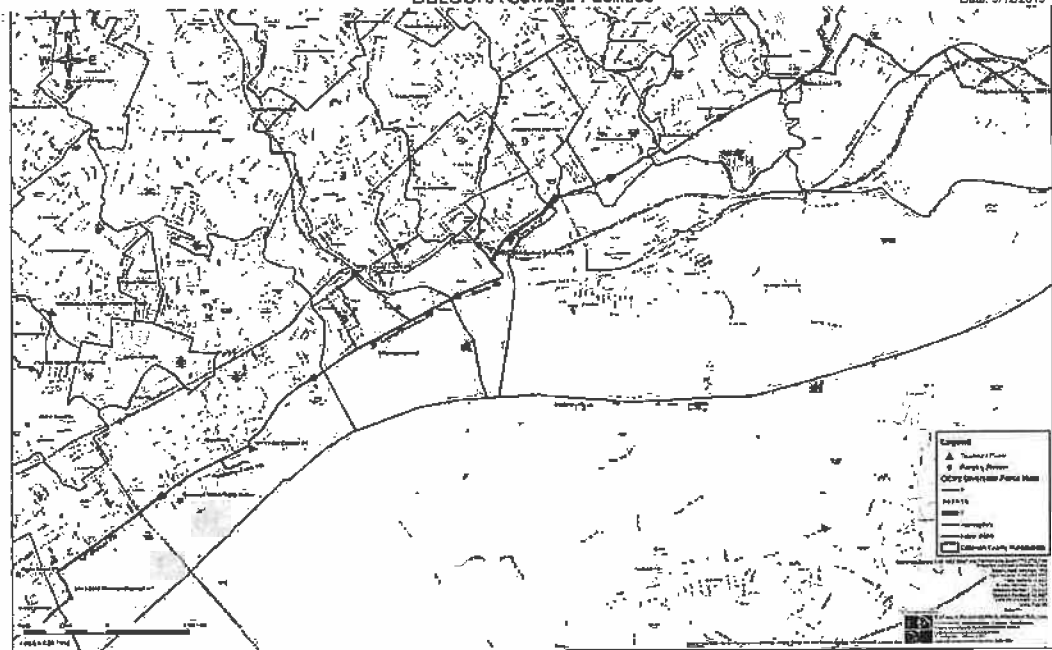
Central Delaware County Authority Facilities



Full size map is located in Appendix 12

3.2.2 DELCORA

**Figure 3.2.2
DELCORA Sewage Facilities**



- Central Delaware Pump Station – The DELCORA Central Delaware Pump Station is located on Sellers Avenue in Ridley Township and conveys all flows from the Central Delaware

County Authority. The CDPS is currently permitted at 40 MGD. The CDPS was upgraded in 2002 which included the construction of an additional force main to allow flows to be directed to the Philadelphia treatment facility, the DELCORA treatment plant, or both. Flows are controlled by a flow-monitored modulating valve in the force main to the Philadelphia treatment plant. The valve is programmed to open and close to maintain a constant flow of 20 MGD to the DELCORA treatment plant and any additional flow is diverted to the Philadelphia treatment plant. Over the period of 2013 to 2016, the annual average flow was 9.4 MGD with a daily peak flow of approximately 15 MGD. During rain events, the flow spikes to 40 MGD. Over the same time period, there have been 7 sanitary sewer overflows at DELCORA Central Delaware Pump Station due to the peak wet weather flows. There have been 3 additional events in 2017 and 2018. The peak hourly flows are metered at DELCORA's Central Delaware Pump Station and several wet weather events in 2018 are shown in Table 3.2.2.1

Table 3.2.2.1: Wet Weather Peak Flows of DELCORA's CDPS

Date	—CDPS-Peak Hourly Flow (MGD)	DELCORA W RTP Daily Average Flow (MGD)	PWD SWWPCP Daily Average Flow (MGD) ²
1/12/2018	36.28	20.17	16.11
2/11/2018	36.65	20.11	16.54
3/2/2018	33.63	20.10	13.53
4/16/2018	36.48	25.56	10.92
5/17/2018	28.74	21.12	7.62
8/13/2018	26.55	20.28	6.27
9/9/2018	36.73	20.04	16.69
11/16/2018	35.51	20.07	15.44
11/24/2018	35.75	20.04	15.71
11/26/2018	35.66	20.05	15.61
12/21/2018	38.31	16.39	21.92
12/28/2018	39.73	16.79	22.94
1/16/2018	¹ 9.52	9.50	0.02

¹ peak flow on dry weather day

² note that flow to PWD was adjusted to correspond to same hour as peak hour to W RTP

Peak hourly flow to PWD varied slightly due to hourly deviation

- Central Diversion Force Main – The 36" Central Diversion Force main was constructed in 2002 to divert flows from the

Philadelphia treatment facility to the DELCORA treatment plant to address peak wet weather surcharges. The Central Diversion Force main is currently operating at a peak flow of 20 MGD. A recent flow study completed by Flow Science Inc. for DELCORA indicates that the design capacity of the CDFM can be re-rated to up to 32 MGD. A revision to the PaDEP WQM Part 2 permit will be required as part of this project to increase the permitted capacity.

The Central Diversion Force Main flow is controlled by a flow-monitored modulating valve which maintains a constant flow. The force main also conveys flow from Boeing Center North and Liberty Electric. The flows from those sources combined are less than 1 MGD.

- Chester Force Main –The 54" Chester Force Main was reconstructed in 2012 and conveys flow from the Chester Pump Station to the DELCORA Western Regional Treatment Plant. The original Chester Force Main was constructed prior to the Water Quality Management Program and in accordance with the Planning Consultation and Task Activity Report from the Pennvest Wastewater Facilities Loan Program dated Thursday, February 19, 2009, a Part II WQM Construction permit was not required for the reconstruction that was completed in 2012. The design peak flow of 65 MGD is stated in the WQM permit for the Chester Pump Station. The Central Diversion Force Main connects directly to the Chester Force Main. The Chester Force Main has a current operating capacity of 54 MGD with an existing flow of 15 MGD average, and 30 MGD peak. In order to clarify the miscellaneous and apparent conflicting flow data, a revision to the PaDEP WQM Part 2 Permit will be required as part of this project to document the capacity.
- Chester Pump Station - According to the DEP Permit for the Chester Pump Station, it has a design peak flow capacity of 55 MGD. The current average flow is 7.6 MGD and the current peak flow is 38.62 MGD. Furthermore, the Chester Pump Station is offline from the Chester Force Main, meaning it pumps into the Chester Force Main, therefore the Chester Pump Station would not be taking on the flows from the new Crum Creek Diversion Force Main.

3.3 Treatment Facility

The DELCORA Western Regional Treatment Plant is located along the Delaware River at Booth Street in the City of Chester and discharges to the Delaware River under NPDES Permit PA 0027103. The design capacity of WRTP is as follows:

Average:	50 MGD
Maximum:	88 MGD
Peak/ Instantaneous	
Wet Weather:	120 MGD
	128 MGD (future)

All permits are in place for the 50 MGD capacity. One permit is conditional on constructing a new outfall pipe into the Delaware River to achieve better mixing.

Current flows at WRTP are as follows:

Average:	33.7 MGD (5-year average)
Dry Weather Peak:	34.4 MGD
Wet Weather Peak:	89.25 MGD to 112.32 MGD.

The current peak hourly flows are shown in Table 3.3.1.

Table 3.3.1: Wet Weather Peak Flows of DELCORA's WRTP

Date	WRTP Hr Flow (MGD)	Date	WRTP Hr Flow (MGD)
1/12/2018	97.98	11/16/2018	92.65
2/11/2018	97.85	11/24/2018	107.82
3/2/2018	92.58	11/26/2018	99.5
4/16/2018	112.32	12/21/2018	91.45
5/17/2018	89.25	12/28/2018	106.04
8/13/2018	100.68	1/16/2018*	34.38
9/9/2018	104.15	Max	112.32

* Peak hourly flow on a dry day

Projected flows with this Project will divert 4 MGD of additional flow to WRTP.

The peak plant capacity of 88 MGD is discussed in DELCORA's draft Long-Term Control Plan Update (LTCPU) which is under review by the Department. The peak wet weather flow to WRTP is often much higher than the 88 MGD with the objective of "Maximizing Flow to the POTW for Treatment" as defined in EPA's Guidance for Nine Minimum CSO Controls.

Recent WRTP hydraulic modifications to the headworks and improvements to the secondary clarifiers have facilitated increasing the Peak Wet Weather Flow to 120 MGD provided the plant biological conditions (settleability) are good. System flows in excess of what WRTP can accommodate would result in a slight reduction in the wet weather capture ratio until the LTCP is implemented. Upon full implementation of the LTCP improvements in 2028, an addition 40 MGD of wet weather treatment capacity is proposed in the LTCPU. With this additional treatment in place, the Peak Wet Weather capacity will be at least 128 MGD (refer to the draft LTCP for more discussion).

Section IV: Future Growth and Land Development

Future growth and land development was addressed in the 2014 Act 537 Plan Update for the Crum Creek Watershed. There has been no change in the projections.

Section V: Identify Alternatives

5.0 General

Under guidance from PaDEP, the alternatives to be reviewed in this report were to be (1) to construct a force main from the CDCA Crum Creek Pump Station to the DELCORA Central Diversion Force main or (2) not to construct a force main from the CDCA Crum Creek Pump Station to the DELCORA Central Diversion Force main. The proposed force main would divert flow from the DELCORA Central Delaware Pump Station.

Secondarily, alternate routes of the proposed Crum Creek Pump Station (CCPS) Bypass Force main will be evaluated.

5.1 Crum Creek Pump Station (CCPS) Bypass Force Main

This alternative consists of the construction of a new force main from the CDCA Crum Creek Pump Station to the DELCORA Central Diversion Force main. The CCPS Diversion Force Main map is shown in Figure 5.1.1. The new force main will divert up to 24 MGD from the Crum Creek Pump Station away from the DELCORA Central Delaware Pump Station. Based upon recent metering as part of a CDCA Service Area study, the peak flow to the pump station was approximately 40.2 MGD during a storm event in September of 2018. For the purposes of this study, a conservative factor of safety of 10% was added to that flow to compensate for the limited data period of that study. Therefore, for the purposes of this study, the expected peak hourly flow at the pump station is 44.2 MGD. By diverting the flow from the DELCORA Central Delaware Pump Station, the expected dry weather flow will be 4.2 MGD (current 9.4 MGD at CDPS minus current 5.2 at CCPS) and the peak flow demand will be approximately 30 MGD (44 MGD estimated at CDPS minus 24 MGD at CCPS). The peak flow will be below the 40 MGD pumping capacity of the DELCORA Central Delaware Pump Station. The flow diversion will require design modifications to the CDCA Crum Creek Pump Station project which is in preliminary design and will not affect the overall project schedule. The CCPS Bypass Force Main will be designed to accommodate the total flows flowing from CDCA CCPS as defined in the Part II Permit for the CDCA CCPS upgrade the at an annual average flow of 7.84 MGD and peak capacity of 24 MGD. Improvements to the air release valves on the DELCORA Central Diversion Force Main will also be required.

5.1.1 Alternate Routes – Mapping of the Alternative Routes are shown in Figure 5.1.1.

5.1.1.1 Alternate 1: Chester Pike-Simpson Ave-Saville Ave

Alternate Route 1 follows Chester Pike from Angelo Drive to Simpson Street, continues in Simpson Street to 9th Street, continues in 9th Street to Saville Avenue, and continues in Saville Avenue to Route 291. A stream crossing under Crum Creek will be required near Angelo Drive and a railroad crossing will be required under the AMTRAK railroad at the Saville Avenue underpass.

5.1.1.1A Alternate 1A: Chester Pike-Saville Ave

Alternate Route 2 follows Chester Pike from Angelo Drive to Saville Avenue, and continues in Saville Avenue to Route 291. A stream crossing under Crum Creek will be required near Angelo Drive and a railroad crossing will be required under the AMTRAK railroad at the Saville Avenue underpass.

5.1.1.2 Alternate 2: Crum Creek

Alternate Route 3 generally follows Crum Creek from Chester Pike to Route 291. The route is through private property of Baldwin Towers and Liberty Electric. The proposed route would be along the access drive of Baldwin Towers to an existing utility underpass under the AMTRAK railroad and along the access drive of Liberty Electric to Route 291. A stream crossing under Crum Creek will be required near the access drive bridge and a railroad crossing will be required under the AMTRAK railroad at the utility underpass.



Full size map is located in Appendix 12

Section VI: Evaluation of Alternatives

6.1 Not Construct CCPS Bypass Force Main

The capacity issues at the DELCORA Central Delaware Pump Station need to be addressed. The capacity issues are wet weather peak flow related and therefore occur several times per year. If no action is taken, capacity issues will potentially result in environmental issues, fines from regulatory agencies, moratorium on connections, and other legal actions. The PaDEP fine schedule is based upon a matrix which includes multipliers for repeat offenses and it is expected that additional sanitary sewer overflows will result in increasing fines. Fines resulting from wet weather peak flows are allocated to the overall cost to maintain the system. Failure to address may also result in a PaDEP mandated sewer connection ban. Ultimately, a Consent Order for the correction of the capacity issues can be issued by PaDEP ordering work to be completed within a defined time.

6.2 Construct CCPS Bypass Force main

The CDCA Crum Creek Pump Station Diversion project is feasible to address the wet weather peak flow capacity issues in that it redirects flow from the DELCORA Central Delaware Pump Station. The reduced flow at the DELCORA Central Pump Station can be handled by the existing pumps. The CDCA Crum Creek Pump Station is already planned to be replaced and the timing to include design to divert flows is ideal.

The flow diversion will convey a 24 MGD of flow that currently flows to the DELCORA Central Delaware Pump Station and pump it directly to the DELCORA treatment plant, reducing the flow demand at the DELCORA Central Delaware Pump Station to a peak flow of 30 MGD as explained in Section 5.1. Since the current flow capacity is 40 MGD, no upgrades will be required at the DELCORA Central Delaware Pump Station. In addition, the flow diversion will increase the flow that currently is conveyed to the DELCORA treatment plant from 20 MGD to 24 MGD. The effectiveness of the project will be complete.

Implementation of the project will require permitting from PaDEP for construction of sewage facility, permitting from PaDEP for stream crossing, permitting from PaDOT for work within State Highway Route 291 Industrial Highway and Route 13-Chester Pike, coordination/authorization and occupancy agreement from AMTRAK, PUC approval for railroad crossing, approval from Delaware County Conservation District for erosion control, and local street opening permits from Eddystone Borough and/or Ridley Township. None of the approvals appear to be problematic.

The project schedule is reasonable with an expected completion date within 3 years of Act 537 Special Study Plan approval. A tentative schedule is included in Section 8.3.

The cost of the project includes the additional work required at the CDCA Crum Creek Pump Station, the construction of the new force main, and the improvements required on the DELCORA Central Diversion Force Main. A detailed cost estimate is included in Appendix 8. A summary is as follows:



CDCA Crum Creek Pump Station	\$1,294,000
CCPS Diversion Force Main	\$6,911,600
DELCORA Central Diversion FM Improvements	<u>\$ 414,000</u>
Total	\$8,619,600

Consideration of the expenses for the project should include a cost savings from Philadelphia exceedance charges, and potential reduction in Philadelphia Long Term Control Plan costs. According to an Official Statement for a 2017 City of Philadelphia Water and Wastewater Revenue Bond dated March 28, 2017, the cost of the Long Term Control Plan is estimated at \$4.5 billion. The flow diversion will have a net reduction of approximately 4% of flow to Philadelphia. The 4% reduction is based on an additional 4 MGD being diverted to the DELCORA treatment facility and 100 MGD limit at the Philadelphia plant. If the current agreement is renewed or extended, the DELCORA share of the project can be reduced by the flow reduction. While 4% is a minimal amount, the total value of the LTCP project creates a significant savings. A conservative estimate is as follows:

Exceedance Charges Savings	\$ 100,000
LTCP Charges Savings	\$11,800,000

The estimated savings is based upon Table 6-3 of the 2013 Delaware County Act 537 Sewage Facilities Plan Update – Eastern Service Area. The cost in that table has been adjusted from the original estimated cost of the Long Term Control Plan to the \$4.5 billion. The savings are calculated based upon charges after the expiration of the DELCORA-PWD agreement. A revised version of table is included as Table 6.2.1.

Table 6.2.1: Adjusted Annual LTCP Cost Table

Year	Annual LTCP Cost	Adjusted Annual LTCP Cost	
1	\$ 230,995	\$ 597,401	
2	\$ 687,359	\$ 1,777,653	
3	\$ 1,188,556	\$ 3,073,852	
4	\$ 1,726,102	\$ 4,464,057	
5	\$ 2,337,680	\$ 6,045,724	
6	\$ 2,912,908	\$ 7,533,383	
7	\$ 3,548,720	\$ 9,177,724	
8	\$ 4,184,531	\$ 10,822,063	
9	\$ 4,820,343	\$ 12,466,404	
10	\$ 5,456,154	\$ 14,110,743	
11	\$ 6,091,966	\$ 15,755,084	
12	\$ 6,727,777	\$ 17,399,423	
13	\$ 7,363,589	\$ 19,043,765	
14	\$ 7,999,401	\$ 20,688,106	
15	\$ 8,635,212	\$ 22,332,445	
16	\$ 9,271,024	\$ 23,976,786	<div>2028</div> 
17	\$ 9,906,835	\$ 25,621,125	
18	\$ 10,542,647	\$ 27,265,466	
19	\$ 11,178,458	\$ 28,909,805	
20	\$ 11,687,358	\$ 30,225,926	
21	\$ 11,893,341	\$ 30,758,641	
22	\$ 12,099,324	\$ 31,291,355	
23	\$ 12,305,307	\$ 31,824,070	
24	\$ 12,511,290	\$ 32,356,784	
25	\$ 12,717,273	\$ 32,889,499	
Total for years 16-25		\$ 295,119,458	
4% of years 16-25		\$ 11,804,778	

Section VII: Institutional Evaluation

7.0 General

The Crum Creek Bypass Force main would be constructed, owned and operated by DELCORA. DELCORA has existing legal authority, staff, and financial resources to implement the project.

DELCORA's agreement with the Philadelphia Water Department for the treatment of sewage from DELCORA's Eastern Service Area will not need to be amended due to the diversion of flow from DELCORA's Central Delaware Pump Station. The current agreement does not have any minimum flow requirements for flows from DELCORA's Central Delaware Pump Station. Section IV. Billing, Payments and Change in Rates, specifically section IV.A.5 of the agreement reads as follows:

(5) DELCORA agrees that it shall not bypass or reroute any existing dry weather sanitary flow that is currently coming into the City's Southwest Wastewater Treatment Plant to DELCORA's Western Plant or to any other sewage treatment facility.

—

Currently all dry weather sanitary flow from DELCORA's Central Delaware Pump Station ("CDPS") is sent to DELCORA's Western Regional Treatment Plant.

Under the existing service agreement between DELCORA and CDCA, any improvements to the CDCA system is billed to CDCA. While it may not be apparent that the proposed diversion force main is an improvement to the CDCA system, the project was originally proposed by CDCA and ultimately determined to be a better coordinated with DELCORA's systems if constructed and operated by DELCORA. Under the existing service agreement among CDCA and CDCA's member municipalities, the costs are distributed to each CDCA member municipality based upon percentages established in the service agreement. Therefore, Morton Borough, Ridley Park Borough, Prospect Park Borough, and Rutledge Borough will be charged a percentage of the costs associated with the CDCA CCPS Bypass Force Main. Alternatively, if DELCORA's CDPS was upgraded, Morton Borough, Ridley Park Borough, Prospect Park Borough, and Rutledge Borough would be paying a higher cost. Conversely, Morton Borough, Ridley Park Borough, Prospect Park Borough, and

Rutledge Borough will realize any savings associated with the diversion of flows from PWD.

Section VIII: Implementation Schedule and Justification for Selected Alternative

8.0 General

The Selected Alternative is to construct the Crum Creek Pump Station Bypass Force main. Aside from appearing to be the most economical choice, the CCPS Flow Diversion provides a definitive solution within a reasonable and definitive timeline.

A secondary factor in the decision-making process is the costs associated with the Philadelphia treatment facility. Aside from the normal treatment costs, Philadelphia has exceedance charges for flows over established thresholds, but more ominous are the charges associated with the Philadelphia Long Term Control Plan (LTCP). The Philadelphia LTCP was originally projected to cost \$2.4 billion dollars. Current cost estimates for the LTCP exceed \$4.5 billion and this does not include administration and other charges added by Philadelphia. Based upon the DELCORA-Philadelphia service agreement, the DELCORA share is 9.4% of the cost as each project is completed and operational. That equates to over \$432 million in costs over the next 20 years. However, the Philadelphia-DELCORA service agreement is set to expire in 2028 and alternative treatment options are being reviewed. The diversion of the CDCA Crum Creek Pump Station flows is a relatively low-cost method to reduce the flows to Philadelphia. There is a potential significant savings for a minimal flow reduction.

8.1 Selected Alternate Route

The Preferred Alternate Route is Alternate Route 2. Alternate Route 2 is less expensive than Alternate Route 1/1A by approximately 14% of total cost and has a lesser impact on the surrounding communities. The proximity of multiple petroleum pipelines and uncertainty with acquisition of right of way from private property owners could affect the feasibility of this alternate. The costs for right of way acquisition were assumed based upon best available data and not an appraisal of the properties in question. Actual right of way acquisition costs may vary and affect the cost-effectiveness of Alternate Route 1. Further, Alternate Route 2 goes through several industrial and commercial properties. Private utilities in those properties are unknown and may affect the feasibility. If these issues become unreasonable to address, Alternate 1/1A are reasonable options and should be pursued.

Alternate Routes 1 and 1A are generally the same route. Alternative Route 1 would be the preferred route in that it would create less disruption to the Eddystone residents. The work would be along the Eddystone Crossing Shopping Center, the PECO Baldwin Service Center, Eddystone Elementary School, and Lighthouse Hall Recreation Center, thereby affecting less of the residential homes. However, the same argument can be made to avoid construction activities near those uses. Ultimately, the decision to construct Alternative Route 1 and

Alternative Route 1A will be made after consulting with appropriate officials of Eddystone Borough.

The Preferred Alternate Route and Secondary Route were reviewed for consistency and compliance with the objective and policies of various local, state and federal plans including but not limited to Chapter 94 Municipal Wastewater Load Management Plans, Pennsylvania Municipalities Planning Code, Anti-degradation requirements of PA Code, Title 25, Chapters 93, 94 and 102, Pennsylvania Prime Agricultural Land Policy, County Stormwater Management Plans, Wetlands Protection, Protection of Endangered Plant or Animal Species, and Protection of Historic and Archeological Resources. During design, consistency with Ridley Township and Eddystone Borough Stormwater Management Ordinances and Floodplain Ordinances should be reviewed for compliance. Particular attention to the requirements of stormwater best management practices (BMPs) should be given to the stream crossings.

8.3 Implementation Schedule

	Days	Cumulative Days
PaDEP Act 537 Special Study Plan Approval	0	0
Preliminary Engineering Design	150	150
Final Engineering Design	120	270
PaDEP Part 2 Permit Submission	30	300
PaDEP Part 2 Approval	180	480
Final Plans, Specifications, and Bid Documents	90	570
Project Construction	465	1,035

APPENDIX 1

ACT 537 PLAN CONTENT CHECKLIST

INSTRUCTIONS FOR COMPLETING ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

Remove and recycle these instructions prior to submission.

CHECKLIST INSTRUCTIONS

These instructions are designed to assist the applicant in completing the *Act 537 Plan Content and Environmental Assessment Checklist*.

This checklist is composed of three parts: one for "General Information," one for "Administrative Completeness," and one for "General Plan Content". A plan must be **administratively complete** in order to be formally reviewed by the Department of Environmental Protection (DEP). The "General Plan Content" portion of the checklist identifies each of the issues that must be addressed in your Act 537 Plan Update based on the pre-planning meeting between you and/or your consultant and DEP.

Use the right-hand column blanks in the checklist to identify the page in the plan on which each planning issue is found or to reference a previously approved update or special study (title and page number).

If you determine a planning issue is not applicable even though it was previously thought to be needed, please explain your decision within the text of the plan (or as a footnote) and indicate the page number where this documentation is found.

When information required as part of an official plan update revision has been developed separately or in a previous update revision, incorporate the information by reference to the planning document and page.

For specific details covering the Act 537 planning requirements, refer to 25 Pa. Code Chapters 71 and 73 of DEP's regulations.

Wastewater projects proposing funding through the following sources must prepare an "Environmental Report" as described in the Uniform Environmental Review (UER) process and include it with the plan submission designated as "Plan-Appendix A". The following funding programs use the UER process.

- The Clean Water State Revolving Loan Fund (PENNVEST, DEP, EPA)
- The RUS Water and Waste Disposal Grant and Loan Program (USDA-RD)
- The Community Development Block Grant Program (DCED, HUG)
- Other Federal Funding Efforts (EPA)

The checklist items or portions of checklist items required in the Act 537 Plan Update revision and that are also included in the UER process are indicated by ~~Shading~~. Most of the "Environmental Report" document may be constructed from the Act 537 Official Plan Update revision by using "copy & paste" techniques. The technical guidance document *Guidelines for the Uniform Environmental Review Process in Pennsylvania* (381-5511-111) is available electronically in DEP's eLibrary online at www.dep.pa.gov.

After Municipal Adoption by Resolution, submit 3 copies of the plan, any attachments or addenda and this checklist to DEP.

A copy of this completed checklist must be included with your Act 537 plan. DEP will use the "DEP USE ONLY" column during the completeness evaluation of the plan. This column may also be used by DEP during the pre-planning meeting with the municipality to identify planning elements that are not required to be included in the plan.



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

ACT 537 PLAN CONTENT AND ENVIRONMENTAL ASSESSMENT CHECKLIST

PART 1 GENERAL INFORMATION

A. Project Information

1. Project Name CCPS Diversion Force Main

2. Brief Project Description Construct a diversion force main to take flow from the Crum Creek Pump Station to DELCORA Central Diversion Force Main.

B. Client (Municipality) Information

Municipality Name	County	City	Boro	Twp
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DELCORA - Ridley Township	Delaware	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Municipality Contact Individual - Last Name	First Name	MI	Suffix	Title
---	------------	----	--------	-------

Hurst	Charles			P.E.
-------	---------	--	--	------

Additional Individual Last Name	First Name	MI	Suffix	Title
---------------------------------	------------	----	--------	-------

Municipality Mailing Address Line 1

100 E 5th Street

Mailing Address Line 2

P.O. Box 999

Address Last Line -- City

Chester

State

PA

ZIP+4

19016-0999

Phone + Ext.

(610) 876-5523 Ext. 297

FAX (optional)

Email (optional)

hurstc@delcora.org

C. Site Information

Site (or Project) Name

DELCORA CCPS Diversion Force Main

(Municipal Name) Act 537 Plan

Site Location Line 1

Crum Creek Pump Station

Site Location Line 2

D. Project Consultant Information

Last Name	First Name	MI	Suffix
-----------	------------	----	--------

Catania	Charles	J	Jr
---------	---------	---	----

Title		Consulting Firm Name	
Vice President		Catania Engineering Associates	
Mailing Address Line 1		Mailing Address Line 2	
520 W MacDade Boulevard			
Address Last Line – City	State	ZIP+4	Country
Milmont Park	PA	19033-3311	USA
Email	Phone + Ext.	FAX	
cjcjr@cataniaengineering.com	(610) 532-2884	(610) 532-2923	

PART 2 ADMINISTRATIVE COMPLETENESS CHECKLIST

DEP	Indicate	
Use	Page #(s)	In addition to the main body of the plan, the plan must include items one through eight listed below to be accepted for formal review by DEP. Incomplete plans may be denied unless the municipality is clearly requesting an advisory review.
Only	in Plan	
_____	<u>1</u>	1. Table of Contents
_____	<u>1</u>	2. Plan Summary
_____	<u>24</u>	A. Identify the proposed service areas and major problems evaluated in the plan. (Reference - 25 Pa. Code §71.21(a)(7)(i)).
_____	<u>2</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 - 25 Pa. Code §71.21(a)(7)(ii)).
_____	<u>1</u>	C. Present the estimated cost of implementing the proposed alternative (including the user fees) and the proposed funding method to be used. (Reference - 25 Pa. Code §71.21(a)(7)(ii)).
_____	<u>2</u>	D. Identify the municipal commitments necessary to implement the Plan. (Reference - 25 Pa. Code §71.21(a)(7)(iii)).
_____	<u>2</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 - 25 Pa. Code §71.21(a)(7)(iv)).
_____	<u>49</u>	3. Municipal Adoption: <i>Original</i> , signed and sealed Resolution of Adoption by the municipality which contains, at a minimum, alternatives chosen and a commitment to implement the Plan in accordance with the implementation schedule. (Reference - 25 Pa. Code §71.31(f)) Section V.F. of the Planning Guide.
_____	<u>58</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 - 25 Pa. Code §71.31(b)) Section V.E.1 of the Planning Guide.
_____	<u>96</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 - 25 Pa. Code §71.31(c)) Section V.E.2 of the Planning Guide.
_____	<u>99</u>	6. Comments and Responses: Copies of <i>all</i> written comments received and municipal response to <i>each</i> comment in relation to the proposed plan. (Reference - 25 Pa. Code §71.31(c)) Section V.E.2 of the Planning Guide.
_____	<u>25</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 - 25 Pa. Code §71.31(d)) Section V.F. of the Planning Guide. Include dates for the future initiation of feasibility evaluations in the project's implementation schedule for areas proposing completion of sewage facilities for planning periods in excess of five years. (Reference - 25 Pa. Code §71.21(c)).
_____	<u>93,108</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 25 Pa. Code §71.21.(a)(5)(i-iii). (Reference - 25 Pa. Code §71.31(e)). Appendix B of the Planning Guide.

PART 3 GENERAL PLAN CONTENT CHECKLIST

DEP Use Only	Indicate Page #(s) in Plan	Item Required
_____	<u>3</u>	I. Previous Wastewater Planning
_____	<u>3</u>	A. Identify, describe and briefly analyze all past wastewater planning for its impact on the current planning effort:
_____	<u>n/a</u>	1. Previously undertaken under the Pennsylvania Sewage Facilities Act (Act). (Reference - Act 537, 35 P.S. §750.5(d)(1)).
_____	<u>n/a</u>	2. Has not been carried out according to an approved implementation schedule contained in the plans. (Reference - 25 Pa. Code§71.21(a)(5)(i)(A-D)). Section V.F of the Planning Guide.
_____	<u>n/a</u>	3. Is anticipated or planned by applicable sewer authorities or approved under a Chapter 94 Corrective Action Plan. (Reference - 25 Pa. Code§71.21(a)(5)(i)(A&B)). Section V.D. of the Planning Guide.
_____	<u>n/a</u>	4. Through planning modules for new land development, planning "exemptions" and addenda. (Reference - 25 Pa. Code§71.21(a)(5)(i)(A)).
_____	<u>5</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>5</u>	A. Identification of planning area(s), municipal boundaries, Sewer Authority/Management Agency service area boundaries. (Reference - 25 Pa. Code§71.21(a)(1)(i)).
_____	<u>6</u>	B. Identification of physical characteristics (streams, lakes, impoundments, natural conveyance, channels, drainage basins in the planning area). (Reference - 25 Pa. Code§71.21(a)(1)(ii)).
_____	<u>n/a</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 (IRSIS), and areas unsuitable for soil dependent systems. (Reference - 25 Pa. Code§71.21(a)(1)(iii)). Show Prime Agricultural Soils and any locally protected agricultural soils. (Reference - 25 Pa. Code§71.21(a)(1)(iii)).
_____	<u>n/a</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 - 25 Pa. Code§71.21(a)(1)(iii)).
_____	<u>n/a</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 - 25 Pa. Code§71.21(a)(1)(ii)).
_____	<u>n/a</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 - 25 Pa. Code§71.21(a)(1)(vi)). Section V.C. of the Planning Guide.

DEP Use Only	Indicate Page #(s) in Plan	Item Required
_____	<u>n/a</u>	G. Wetlands-Identify wetlands as defined in 25Pa. CodeChapter 105 by description, analysis and mapping. Include National Wetland Inventory mapping and potential wetland areas per the United States Department of Agricultural (USDA) Natural Resources Conservation Service (NRCS) mapped hydric soils. Proposed collection, conveyance and treatment facilities and lines must be located and labeled, along with the identified wetlands, on the map. (Reference - 25 Pa. Code§71.21(a)(1)(v)). Appendix B, Section II.I of the Planning Guide.
_____	<u>8</u>	III. Existing Sewage Facilities in the Planning Area - Identifying the Existing Needs
_____	<u>9</u>	A. Identify, map and describe municipal and non-municipal, individual and community sewerage systems in the planning area including:
_____	<u>n/a</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 - 25 Pa. Code§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 National Pollutant Discharge Elimination System (NPDES) permitted capacity, and the Clean Streams Law permit number. (Reference - 25 Pa. Code§71.21(a)(2)(i)(A)).
_____	<u>11-12</u>	3. A description of problems with existing facilities (collection, conveyance and/or treatment), including existing or projected overload under 25Pa. CodeChapter 94 (relating to municipal wasteload management) or violations of the NPDES permit, Clean Streams Law permit, or other permit, rule or regulation of DEP. (Reference - 25 Pa. Code§71.21(a)(2)(i)(B)).
_____	<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 - 25 Pa. Code§71.21(a)(4)(i& ii)).
_____	<u>n/a</u>	5. A detailed description of the municipality's operation and maintenance (O & M) requirements for small flow treatment facility systems, including the status of past and present compliance with these requirements and any other requirements relating to sewage management programs (SMPs). (Reference - 25 Pa. Code §71.21(a)(2)(i)(C)).
_____	<u>n/a</u>	6. Disposal areas, if other than stream discharge, and any applicable groundwater limitations. (Reference - 25 Pa. Code§71.21(a)(4)(i& ii)).
_____	<u>n/a</u>	B. Using DEP's publication titled <i>Act 537 Sewage Disposal Needs Identification</i> (3800-BK-DEP1949), identify, map and describe areas that utilize individual and community onlot sewage disposal and, unpermitted

collection and disposal systems ("wildcat" sewers, borehole disposal, etc.) and retaining tank systems in the planning area including:

- | | | |
|-------|------------|---|
| _____ | <u>n/a</u> | 1. The types of onlot systems in use. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(A)). |
| _____ | <u>n/a</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 Act, the Clean Stream Law or regulations promulgated thereunder. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(B)). |
| _____ | <u>n/a</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 25 Pa. CodeChapter 73 (relating to standards for sewage disposal facilities). (Reference - 25Pa. Code§71.21(a)(2)(ii)(C)). |
| _____ | <u>n/a</u> | 4. An individual water supply survey to identify possible contamination by malfunctioning onlot sewage disposal systems consistent with DEP's <i>Act 537 SewageDisposal Needs Identification</i> publication. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(B)). |
| _____ | <u>n/a</u> | 5. Detailed description of O & M requirements of the municipality for individual and small volume community onlot systems, including the status of past and present compliance with these requirements and any other requirements relating to SMPs. (Reference - 25 Pa. Code§71.21(a)(2)(i)(C)). |
| _____ | <u>n/a</u> | C. Identify wastewater sludge and septage generation, transport and disposal methods. Include this information in the sewage facilities alternative analysis including: |
| _____ | <u>n/a</u> | 1. Location of sources of wastewater sludge or septage (Septic tanks, holding tanks, wastewater treatment facilities). (Reference - 25Pa. Code§71.71). |
| _____ | <u>n/a</u> | 2. Quantities of the types of sludges or septage generated. (Reference - 25 Pa. Code §71.71). |
| _____ | <u>n/a</u> | 3. Present disposal methods, locations, capacities and transportation methods. (Reference - 25 Pa. Code§71.71). |

_____ 16 **IV. Future Growth and Land Development**

- | | | |
|-------|------------|--|
| _____ | <u>n/a</u> | A. Identify and briefly summarize all municipal and county planning documents adopted pursuant to the Pennsylvania Municipalities Planning Code (Act 247) including: |
| _____ | <u>n/a</u> | 1. All land use plans and zoning maps that identify residential, commercial, industrial, agricultural, recreational and open space areas. (Reference - 25 Pa. Code§71.21(a)(3)(iv)). |
| _____ | <u>n/a</u> | 2. Zoning or subdivision regulations that establish lot sizes predicated on sewage disposal methods. (Reference - 25 Pa. Code§71.21(a)(3)(iv)). |

_____	<u>n/a</u>	3. All limitations and plans related to floodplain and stormwater management and special protection (25 Pa. Code Chapter 93) areas. (Reference - 25 Pa. Code §71.21(a)(3)(iv)) Appendix B, Section II.F of the Planning Guide.
_____	<u>n/a</u>	B. Delineate and describe the following through map, text and analysis.
_____	<u>n/a</u>	1. Areas with existing development or plotted subdivisions. Include the name, location, description, total number of equivalent dwelling units (EDUs) in development, total number of EDUs currently developed and total number of EDUs remaining to be developed (include time schedule for EDUs remaining to be developed). (Reference - 25 Pa. Code §71.21(a)(3)(i)).
_____	<u>n/a</u>	2. Land use designations established under the Pennsylvania Municipalities Planning Code (35 P.S. 10101-11202), including residential, commercial and industrial areas. (Reference - 25 Pa. Code §71.21(a)(3)(ii)). Include a comparison of proposed land use as allowed by zoning and existing sewage facility planning. (Reference - 25 Pa. Code §71.21(a)(3)(iv)).
_____	<u>n/a</u>	3. Future growth areas with population and EDU projections for these areas using historical, current and future population figures and projections of the municipality. Discuss and evaluate discrepancies between local, county, state and federal projections as they relate to sewage facilities. (Reference - 25 Pa. Code §71.21(a)(1)(iv) and (a)(3)(iii)).
_____	<u>n/a</u>	4. Zoning, and/or subdivision regulations; local, county or regional comprehensive plans; and existing plans of any other agency relating to the development, use and protection of land and water resources with special attention to: (Reference - 25 Pa. Code §71.21(a)(3)(iv)). —public ground/surface water supplies —recreational water use areas —groundwater recharge areas —industrial water use —wetlands
_____	<u>n/a</u>	5. Sewage planning necessary to provide adequate wastewater treatment for 5 and 10-year future planning periods based on projected growth of existing and proposed wastewater collection and treatment facilities. (Reference - 25 Pa. Code §71.21(a)(3)(v)).
_____	<u>n/a</u>	A. Conventional collection, conveyance, treatment and discharge alternatives including:
_____	<u>n/a</u>	1. The potential for regional wastewater treatment. (Reference - 25 Pa. Code §71.21(a)(4)).

_____	<u>n/a</u>	2. The potential for extension of existing municipal or non-municipal sewage facilities to areas in need of new or improved sewage facilities. (Reference - 25 Pa. Code§71.21(a)(4)(i)).
_____	<u>n/a</u>	3. The potential for the continued use of existing municipal or non-municipal sewage facilities through one or more of the following: (Reference - 25 Pa. Code§71.21(a)(4)(ii)).
_____	<u>n/a</u>	a. Repair. (Reference - 25 Pa. Code§71.21(a)(4)(ii)(A)).
_____	<u>n/a</u>	b. Upgrading. (Reference - 25 Pa. Code§71.21(a)(4)(ii)(B)).
_____	<u>n/a</u>	c. Reduction of hydraulic or organic loading to existing facilities. (Reference - 25 Pa. Code§71.71).
_____	<u>n/a</u>	d. Improved O & M. (Reference - 25 Pa. Code§71.21(a)(4)(ii)(C)).
_____	<u>n/a</u>	e. Other applicable actions that will resolve or abate the identified problems. (Reference - 25 Pa. Code§71.21(a)(4)(ii)(D)).
_____	<u>n/a</u>	4. Repair or replacement of existing collection and conveyance system components. (Reference - 25 Pa. Code§71.21(a)(4)(ii)(A)).
_____	<u>n/a</u>	5. The need for construction of new community sewage systems including sewer systems and/or treatment facilities. (Reference - 25 Pa. Code§71.21(a)(4)(iii)).
_____	<u>n/a</u>	6. Use of innovative/alternative methods of collection/conveyance to serve needs areas using existing wastewater treatment facilities. (Reference - 25 Pa. Code§71.21(a)(4)(ii)(B)).
_____	<u>n/a</u>	B. The use of individual sewage disposal systems including IRSIS systems based on:
_____	<u>n/a</u>	1. Soil and slope suitability. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(C)).
_____	<u>n/a</u>	2. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(C)).
_____	<u>n/a</u>	3. The establishment of a SMP. (Reference - 25 Pa. Code§71.21(a)(4)(iv)). See also Part "F" below.
_____	<u>n/a</u>	4. The repair, replacement or upgrading of existing malfunctioning systems in areas suitable for onlot disposal considering: (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	a. Existing technology and sizing requirements of 25 Pa. Code Chapter 73. (Reference - 25 Pa. Code§73.31-§73.72).
_____	<u>n/a</u>	b. Use of expanded absorption areas or alternating absorption areas. (Reference - 25 Pa. Code§73.16).
_____	<u>n/a</u>	c. Use of water conservation devices. (Reference - 25 Pa. Code§71.73(b)(2)(iii)).

_____	<u>n/a</u>	C. The use of small flow sewage treatment facilities or package treatment facilities to serve individual homes or clusters of homes with consideration of: (Reference - 25 Pa. Code§71.64(d)).
_____	<u>n/a</u>	1. Treatment and discharge requirements. (Reference - 25 Pa. Code§71.64(d)).
_____	<u>n/a</u>	2. Soil suitability. (Reference - 25 Pa. Code§71.64(c)(1)).
_____	<u>n/a</u>	3. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code§71.64(c)(2)).
_____	<u>n/a</u>	4. Municipal, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 Pa. Code§71.64(d)). See Part "F" below.
_____	<u>n/a</u>	D. The use of community land disposal alternatives including:
_____	<u>n/a</u>	1. Soil and site suitability. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(C)).
_____	<u>n/a</u>	2. Preliminary hydrogeologic evaluation. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(C)).
_____	<u>n/a</u>	3. Municipality, Local Agency or other controls over O & M requirements through a SMP. (Reference - 25 Pa. Code§71.21(a)(2)(ii)(C)). See Part "F" below.
_____	<u>n/a</u>	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.
_____	<u>n/a</u>	E. The use of retaining tank alternatives on a temporary or permanent basis including: (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	1. Commercial, residential and industrial use. (Reference - 25 Pa. Code§71.63(e)).
_____	<u>n/a</u>	2. Designated conveyance facilities (pumper trucks). (Reference - 25 Pa. Code§71.63(b)(2)).
_____	<u>n/a</u>	3. Designated treatment facilities or disposal site. (Reference - 25 Pa. Code§71.63(b)(2)).
_____	<u>n/a</u>	4. Implementation of a retaining tank ordinance by the municipality. (Reference - 25 Pa. Code§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 - 25 Pa. Code§71.63(c)(2)).
_____	<u>n/a</u>	F. SMPs to assure the future O & M of existing and proposed sewage facilities through:
_____	<u>n/a</u>	1. Municipal ownership or control over the O & M of individual onlot sewage disposal systems, small flow treatment facilities, or other traditionally non-municipal treatment facilities. (Reference - 25 Pa. Code§71.21(a)(4)(iv)).

_____	<u>n/a</u>	2. Required inspection of sewage disposal systems on a schedule established by the municipality. (Reference - 25 Pa. Code§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 - 25 Pa. Code§71.73(b)(2)).
_____	<u>n/a</u>	4. Repair, replacement or upgrading of malfunctioning onlot sewage systems. (Reference - 25 Pa. Code§71.21(a)(4)(iv) and §71.73(b)(5)) through:
_____	<u>n/a</u>	a. Aggressive pro-active enforcement of ordinances that require O & M and prohibit malfunctioning systems. (Reference - 25 Pa. Code§71.73(b)(5)).
_____	<u>n/a</u>	b. Public education programs to encourage proper O & M and repair of sewage disposal systems.
_____	<u>n/a</u>	5. Establishment of joint municipal SMPs. (Reference - 25 Pa. Code§71.73(b)(8)).
_____	<u>n/a</u>	6. Requirements for bonding, escrow accounts, management agencies or associations to assure O & M for non-municipal facilities. (Reference - 25 Pa. Code§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 - 25 Pa. Code§71.21(a)(4)).
		1. Modification of existing comprehensive plans involving:
_____	<u>n/a</u>	a. Land use designations. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	b. Densities. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	c. Municipal ordinances and regulations. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	d. Improved enforcement. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	e. Protection of drinking water sources. (Reference - 25 Pa. Code§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 - 25 Pa. Code§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 - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	4. Evaluation of existing local agency programs and the need for technical or administrative training. (Reference - 25 Pa. Code§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 - 25 Pa. Code§71.21(a)(4)).

_____	<u>n/a</u>	1. Water quality/public health. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	2. Growth potential (residential, commercial, industrial). (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	3. Community economic conditions. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	4. Recreational opportunities. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	5. Drinking water sources. (Reference - 25 Pa. Code§71.21(a)(4)).
_____	<u>n/a</u>	6. Other environmental concerns. (Reference - 25 Pa. Code§71.21(a)(4)).

_____	<u>19</u>	VI. Evaluation of Alternatives
_____		A. Technically feasible alternatives identified in Section V of this checklist must be evaluated for consistency with respect to the following: (Reference - 25 Pa. Code§71.21(a)(5)(i)).
_____	<u>n/a</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 - 25 Pa. Code§71.21(a)(5)(i)(A)). Appendix B, Section II.A of the Planning Guide.
_____	<u>n/a</u>	2. Municipal wasteload management Corrective Action Plans or Annual Reports developed under 25Pa. CodeChapter 94. (Reference - 25 Pa. Code§71.21(a)(5)(i)(B)). The municipality's recent Wasteload Management (25 Pa. CodeChapter 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 - 25 Pa. Code§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 - 25 Pa. Code§71.21(a)(5)(i)(D)). The municipality's comprehensive plan must be examined to assure that the proposed wastewater disposal alternative is consistent with land use and all other requirements stated in the comprehensive plan. Appendix B, Section II.D of the Planning Guide.
_____	<u>n/a</u>	5. Antidegradation requirements as contained in 25Pa. CodeChapters 93, 95 and 102 (relating to water quality standards, wastewater treatment requirements and erosion control) and the Clean Water Act. (Reference - 25 Pa. Code§71.21(a)(5)(i)(E)). Appendix B, Section II.F of the Planning Guide.
_____	<u>n/a</u>	6. State Water Plans developed under the Water Resources Planning Act (42 U.S.C.A. 1962-1962 d-18). (Reference - 25 Pa.

Code§71.21(a)(5)(i)(F)). Appendix B, Section II.C of the Planning Guide.

_____ n/a

7. **Pennsylvania Prime Agricultural Land Policy** contained in Title 4 of the Pennsylvania Code, Chapter 7, Subchapter W. Provide narrative on local municipal policy and an overlay map on prime agricultural soils. (Reference - 25 Pa. Code§71.21(a)(5)(i)(G)). Appendix B, Section II.G of the Planning Guide.

_____ 25

8. **County Stormwater Management Plans** approved by DEP under the Storm Water Management Act (32 P.S. 680.1-680.17). (Reference - 25 Pa. Code§71.21(a)(5)(i)(H)). Conflicts created by the implementation of the proposed wastewater alternative and the existing recommendations for the management of stormwater in the county Stormwater Management Plan must be evaluated and mitigated. If no plan exists, no conflict exists. Appendix B, Section II.H of the Planning Guide.

_____ n/a

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

_____ n/a

10. **Protection of rare, endangered or threatened plant and animal species** as identified by the Pennsylvania Natural Diversity Inventory (PNDI). (Reference - 25 Pa. Code§71.21(a)(5)(i)(J)). Provide DEP with a copy of the completed *PNDI Manual Project Submission Form*. Also provide a copy of the response letters from the 4 jurisdictional agencies regarding the findings of the PNDI search. Appendix B, Section II.J of the Planning Guide.

_____ n/a

11. **Historical and archaeological resource protection** under P.C.S. Title 37, Section 507 relating to cooperation by public officials with the Pennsylvania Historical and Museum Commission (PHMC). (Reference - 25 Pa. Code§71.21(a)(5)(i)(K)). Provide DEP with a completed copy of a *Cultural Resource Notice* and a return receipt for its submission to PHMC. Provide a copy of the response letter or review stamp from the Bureau of Historic Preservation (BHP) indicating the project will have no effect on, or that there may be potential impacts on, known archaeological and historical sites and any avoidance and mitigation measures required. Appendix B, Section II.K of the Planning Guide.

_____ n/a

- B. Provide for the resolution of any inconsistencies in any of the points identified in Section VI.A. of this checklist by submitting a letter from the appropriate agency stating that the agency has received, reviewed and concurred with the resolution of identified inconsistencies. (Reference - 25 Pa. Code§71.21(a)(5)(ii)). Appendix B of the Planning Guide.

_____ n/a

- C. Evaluate alternatives identified in Section V of this checklist with respect to applicable water quality standards, effluent limitations or other technical,

		legislative or legal requirements. (Reference - 25 Pa. Code§71.21(a)(5)(iii)).
_____	<u>23</u>	D. Provide cost estimates using present worth analysis for construction, financing, ongoing administration, O & M and user fees for alternatives identified in Section V of this checklist. Estimates shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of plan submission. (Reference - 25 Pa. Code§71.21(a)(5)(iv)).
_____	<u>n/a</u>	E. Provide an analysis of the funding methods available to finance the proposed alternatives evaluated in Section V of this checklist. Also provide documentation to demonstrate which alternative and financing scheme combination is the most cost-effective; and a contingency financial plan to be used if the preferred method of financing cannot be implemented. The funding analysis shall be limited to areas identified in the plan as needing improved sewage facilities within 5 years from the date of the plan submission. (Reference - 25 Pa. Code§71.21(a)(5)(v)).
_____	<u>n/a</u>	F. Analyze the need for immediate or phased implementation of each alternative proposed in Section V of this checklist including: (Reference - 25 Pa. Code§71.21(a)(5)(vi)).
_____	<u>n/a</u>	1. A description of any activities necessary to abate critical public health hazards pending completion of sewage facilities or implementation of SMPs. (Reference - 25 Pa. Code§71.21(a)(5)(vi)(A)).
_____	<u>n/a</u>	2. A description of the advantages, if any, in phasing construction of the facilities or implementation of a SMP justifying time schedules for each phase. (Reference - 25 Pa. Code§71.21(a)(5)(vi)(B)).
_____	<u>22</u>	G. Evaluate administrative organizations and legal authority necessary for plan implementation. (Reference - 25 Pa. Code§71.21(a)(5)(vi)(D)).
_____	<u>22</u>	VII. Institutional Evaluation
		A. Provide an analysis of all existing wastewater treatment authorities, their past actions and present performance including:
_____	<u>n/a</u>	1. Financial and debt status. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	2. Available staff and administrative resources. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	3. Existing legal authority to:
_____	<u>n/a</u>	a. Implement wastewater planning recommendations. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	b. Implement system-wide O & M activities. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	c. Set user fees and take purchasing actions. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	d. Take enforcement actions against ordinance violators. (Reference - 25 Pa. Code§71.61(d)(2)).

_____	<u>n/a</u>	e. Negotiate agreements with other parties. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	f. Raise capital for construction and O & M of facilities. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	B. Provide an analysis and description of the various institutional alternatives necessary to implement the proposed technical alternatives including:
_____	<u>n/a</u>	1. Need for new municipal departments or municipal authorities. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	2. Functions of existing and proposed organizations (sewer authorities, onlot maintenance agencies, etc.). (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	3. Cost of administration, implementability, and the capability of the authority/agency to react to future needs. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	C. Describe all necessary administrative and legal activities to be completed and adopted to ensure the implementation of the recommended alternative including:
_____	<u>n/a</u>	1. Incorporation of authorities or agencies. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	2. Development of all required ordinances, regulations, standards and inter-municipal agreements. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	3. Description of activities to provide rights-of-way, easements and land transfers. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	4. Adoption of other municipal sewage facilities plans. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	5. Any other legal documents. (Reference - 25 Pa. Code§71.61(d)(2)).
_____	<u>n/a</u>	6. Dates or timeframes for items 1-5 above on the project's implementation schedule.
_____	<u>n/a</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 - 25 Pa. Code§71.61(d)(2)).

_____	<u>24</u>	VIII. Implementation Schedule and Justification for Selected Technical & Institutional Alternatives
_____	<u>n/a</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>n/a</u>	1. Existing wastewater disposal needs. (Reference - 25 Pa. Code§71.21(a)(6)).

_____	<u>n/a</u>	2. Future wastewater disposal needs. (5 and 10 year growth areas). (Reference - 25 Pa. Code§71.21(a)(6)).
_____	<u>n/a</u>	3. O & M considerations. (Reference - 25 Pa. Code§71.21(a)(6)).
_____	<u>n/a</u>	4. Cost-effectiveness. (Reference - 25 Pa. Code§71.21(a)(6)).
_____	<u>n/a</u>	5. Available management and administrative systems. (Reference - 25 Pa. Code§71.21(a)(6)).
_____	<u>n/a</u>	6. Available financing methods. (Reference - 25 Pa. Code§71.21(a)(6)).
_____	<u>n/a</u>	7. Environmental soundness and compliance with natural resource planning and preservation programs. (Reference - 25 Pa. Code§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 - 25 Pa. Code§71.21(a)(6))
_____	<u>n/a</u>	C. Designate and describe the implementation schedule for the recommended alternative, including justification for any proposed phasing of construction or implementation of a SMP. (Reference - 25 Pa. Code§71.31(d))
_____	<u>n/a</u>	IX. Environmental Report (ER) generated from the UER Process
_____	<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: An ER is required only for Wastewater projects proposing funding through any of the funding sources identified in the UER.

ADDITIONAL REQUIREMENTS FOR PENNVEST PROJECTS

Municipalities that propose to implement their official sewage facilities plan updates with PENNVEST funds must meet 6 additional requirements to be eligible for such funds. See *A Guide for Preparing Act 537 Update Revisions* (362-0300-003), Appendix N for greater detail or contact the DEP regional office serving your county listed in Appendix J of the same publication.

DEP Use Only	Indicate Page #(s) in Plan	Item Required
_____	<u>n/a</u>	1. Environmental Impact Assessment. (Planning Phase) The 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, the published annually by the Water Resources Council. Normally, for PENNVEST projects the applicant should select the most cost-effective alternative based upon above analysis. Once the alternative has been selected the user fee estimates should be developed based upon interest rates and loan terms of the selected funding method.
_____		3. Second Opinion Project Review. (Design Phase)
_____		4. Minority Business Enterprise/Women's Business Enterprise (Construction Phase)
_____		5. Civil Rights. (Construction Phase)
_____		6. Initiation of Operation/Performance Certification. (Post-construction Phase)

I/A TECHNOLOGIES

PARTIAL LISTING OF INNOVATIVE AND ALTERNATIVE TECHNOLOGIES

TREATMENT TECHNOLOGIES

Aquaculture
Aquifer Recharge
Biological Aerated Filters
Constructed Wetlands
Direct Reuse (NON-POTABLE)
Horticulture
Overland Flow
Rapid Infiltration
Silviculture
Microscreens
Controlled Release Lagoons
Swirl Concentrator

SLUDGE TREATMENT TECHNOLOGIES

Aerated Static Pile Composting
Enclosed Mechanical Composting (In vessel)
Revegetation of Disturbed Land
Aerated Windrow Composting

ENERGY RECOVERY TECHNOLOGIES

Anaerobic Digestion with more than 90 percent
Methane Recovery
Cogeneration of Electricity
Self-Sustaining Incineration

INDIVIDUAL & SYSTEM-WIDE COLLECTION TECHNOLOGIES

Cluster Systems
Septage Treatment
Small Diameter Gravity Sewers
Step Pressure Sewers
Vacuum Sewers
Variable Grade Sewers
Septic Tank Effluent Pump with
Pressure Sewers

APPENDIX 2

TASK ACTIVITY REPORT

Delcora Central Delaware Pump Station Upgrade
Act 537 Planning Study
Task/Activity Report Narrative

The Central Delaware County Authority (CDCA) has a commitment to its member municipalities to provide sanitary sewer conveyance, as required and approved by the Pa DEP, in accordance with the provisions of the Pennsylvania Sewage Facilities Act. With the addition of Edgmont, Newtown and Upper Providence Townships and in preparation of receiving additional sewage flows being generated (0.35 MGD, 0.976 MGD and 0.479 MGD Average Daily Flow respectively) within the Crum Creek basin increasing the peak flow to 24 MGD. Flow from these towns are conveyed by the local municipal collections systems, the CDCA Crum Creek Interceptor, the CDCA Crum Creek Pump Station (CCPS), the CDCA Chester Pike Forcemain, the CDCA Little Crum Creek Interceptor, and ultimately pumped to the treatment plant by the Delcora Central Delaware Pump Station (CDPS). Sewage can be treated at either the Delcora Western Regional Treatment Plant (WRTP) via the Delcora Central Diversion Forcemain or Philadelphia Southwest Water Pollution Control Plant (PSWPCP) via the Delcora PWD forcemain.

In advance of the anticipated flows, CDCA has completed upgrades to the Crum Creek Interceptor, is currently upgrading the Chester Pike Forcemain and the Little Crum Creek Interceptor, and has a project in design phase to upgrade the Crum Creek Pump Station.

In order to address the increased flows, Delcora has commissioned this study to review alternatives to address the conveyance from the Central Delaware Pump Station. The initial alternatives to be reviewed are:

- Upgrade available pumping capacity and associated piping at Delcora Central Delaware Pump Station.
- Construct a forcemain from CDCA Crum Creek Pump Station to Delcora Central Diversion forcemain, thereby bypassing the Delcora Central Delaware Pump Station
- Develop and implement system-wide inflow and infiltration abatement measures to reduce wet weather peak flows.
- Additional alternatives may be reviewed as the study is developed

The study will consider information on the existing and future flows, existing and future capacity of the Delcora Central Delaware Pump Station, the Delcora Central Diversion Forcemain, and the CDCA Crum Creek Pump Station. The report will include conceptual level design and supporting information on permitting requirements, necessity of land acquisition, conceptual level cost estimates, and tentative project timeline.

TASK/ACTIVITY REPORT

DELCORA Municipality **Delaware** County **Ridley Township, Eddystone Borough** Date of Report
 Proposed Planning Area (Attach Map)

Date completed plan will be submitted to DEP _____ Estimated Cost of Plan _____
 Column Headings May Be Changed To Suit the Needs of the Planning Effort Use Additional Sheets if Necessary Sheet 1 of 1

TASK ACTIVITY NUMBER FROM APPENDIX I	PRINCIPAL		PROJECT ENG.		SR. ENG.		ENGINEER		PLANNER		DRAFTSMAN		CLERICAL		LEGAL		SUB TOTAL
	HR/RATE		HR/RATE		HR/RATE		HR/RATE		HR/RATE		HR/RATE		HR/RATE		HR/RATE		
	HRS.	COST	HRS.	COST	HRS.	COST	HRS.	COST	HRS.	COST	HRS.	COST	HRS.	COST	HRS.	COST	
I	4	540	24	2928			0	0			0	0					3468
II	0	0	16	1952			4	340			0	0					2292
III	4	540	16	1952			8	680			8	560					3732
IV	0	0	16	1952			8	680			12	840					3472
V	16	2160	60	7320			24	2040			32	2240					13760
VI	0	0	10	1220			4	340			0	0					1560
VII	0	0	16	1952			0	0			0	0					1952
VIII	0	0	16	1952			0	0			0	0					1952

Charles J. Catania, Jr. Signature
 Name of Person Completing Report
Vice President Title
Municipal Secretary Signature

APPENDIX 3

MUNICIPAL RESOLUTIONS

**EDGMONT TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA**

RESOLUTION NO. 2019-23

**A RESOLUTION OF EDGMONT TOWNSHIP AMENDING DELCORA'S OFFICIAL SEWAGE FACILITIES PLAN
(ACT 537 PLAN) FOR THE CENTRAL DELAWARE PUMP STATION**

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 there under, Chapter 71 of Title 25 of the **Pennsylvania Code**, requires Edgmont Township (the "**Township**") to adopt an Official Sewage Facilities Plan ("**Act 537 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, DELCORA has prepared an Act 537 special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Edgmont Township, and the alternative of choice to be implemented is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include:

PaDEP Act 537 Special Study Plan Submission	September 2018
PADEP Act 537 Special Study Plan Approval	February 2019
Final Engineering Design	June 2019
PaDEP Part 2 Approval	April 2020
Project Construction	May 2022

WHEREAS, Edgmont 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, IT BE RESOLVED that the Supervisors of the Township of Edgmont 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).

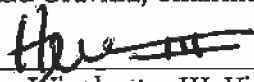
ADOPTED this 14th day of May, 2019, by the Board of Supervisors of Edgmont Township.

**BOARD OF SUPERVISORS
EDGMONT TOWNSHIP**

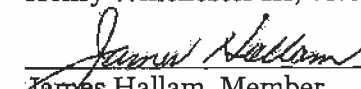




Ronald Gravina, Chairman



Henry Winchester III, Vice Chairman



James Hallam, Member

I, Catherine Ricardo, Secretary, Edgmont Township Board of Supervisors, hereby certify that the forgoing is a true copy of resolution No. 2019-23, on May 14, 2019.

ATTEST:



Catherine Ricardo, Secretary

TOWNSHIP OF MARPLE
DELAWARE COUNTY, PA

RESOLUTION NO. 3927

RESOLUTION FOR PLAN REVISION

RESOLUTION OF THE COMMISSIONERS OF MARPLE TOWNSHIP, DELAWARE COUNTY,
PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted there under, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, DELCORA has prepared an Act 537 Special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Marple Township, and

The alternative of choice to be implemented is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include:

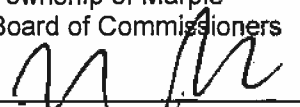
PaDEP Act 537 Special Study Plan Submission	Sept	2018
PaDEP Act 537 Special Study Pan Approval	Feb	2019
Final Engineering Design	June	2019
PaDEP Part 2 Approval	April	2020
Project Construction Completion	May	2022

WHEREAS, Marple 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 Commissioners of the Township of Marple 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).

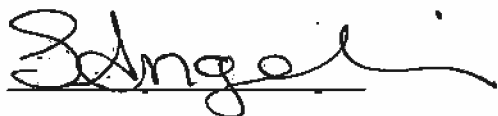
RESOLVED, this 10TH day of September 2018

Attested: 
Sharon Angelaccio
Township Secretary

Township of Marple
Board of Commissioners
By: 
Joseph Rufo, President

I, Sharon Angelaccio, Township Secretary, Marple Township Board of Commissioners hereby certify that the foregoing is a true copy of Resolution No.3927, adopted September 10, 2018.

AUTHORIZED SIGNATURE





RESOLUTION FOR PLAN REVISION NØ 2018-9

RESOLUTION OF THE COMMISSIONERS OF NETHER PROVIDENCE TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted there under, Chapter 71 of Title 25 of the **Pennsylvania Code**, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and WHEREAS, DELCORA has prepared an Act 537 Special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Nether Providence Township, and

The alternative of choice to be implemented is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include

PaDEP Act 537 Special Study Plan Submission	Sept	2018
PaDEP Act 537 Special Study Pan Approval	Feb	2019
Final Engineering Design	June	2019
PaDEP Part 2 Approval	April	2020
Project Construction Completion	May	2022

WHEREAS, Nether Providence 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 Commissioners of the Township of Nether Providence 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).

I, GARY J. CUMMINGS, Secretary, Nether Providence Township Board of Commissioners hereby certify that the foregoing is a true copy of Resolution No. 2018-9, adopted SEPTEMBER 27, 2018.

AUTHORIZED SIGNATURE



MUNICIPAL SEAL



RESOLUTION 2018-31 537 PLAN REVISION

RESOLUTION OF THE SUPERVISORS OF NEWTOWN TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted there under, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, DELCORA has prepared an Act 537 Special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Newtown Township, and

The alternative of choice to be implemented is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include

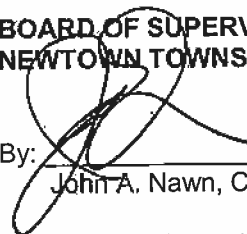
PaDEP Act 537 Special Study Plan Submission	Sept 2018
PaDEP Act 537 Special Study Pan Approval	Feb 2019
Final Engineering Design	June 2019
PaDEP Part 2 Approval	April 2020
Project Construction Completion	May 2022

WHEREAS, Newtown 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 Supervisors of the Township of Newtown 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).

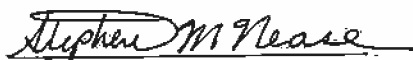
RESOLVED, this 10th day of September, 2018.

**BOARD OF SUPERVISORS
NEWTOWN TOWNSHIP**

By: 
John A. Nawn, Chairman

I, Stephen M. Nease, Secretary, Newtown Township Board of Supervisors hereby certify that the foregoing is a true copy of Resolution No. 2018-31, adopted September 10, 2018.

ATTEST:



Stephen M. Nease, Secretary



Township of Ridley

RESOLUTION

A RESOLUTION OF THE BOARD OF COMMISSIONERS OF RIDLEY TOWNSHIP,
DELAWARE COUNTY, PENNSYLVANIA (hereinafter "the municipality")

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act", as amended, and the Rules and Regulations of the Department of Environmental Protection (hereinafter the "Department") adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, DELCORA has prepared an Act 537 Special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Ridley Township, and

WHEREAS, the alternative of choice to be implemented is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include:

PA DEP Act 537 Special Study Plan Submission	September 2018
PA DEP Act 537 Special Study Plan Approval	February 2019
Final Engineering Design	June 2019
PA DEP Part 2 Approval	April 2020
Project Construction Completion	May 2022

WHEREAS, Ridley 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 Commissioners of the Township of Ridley 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).

ADOPTED this 26th day of September, 2018.

TOWNSHIP OF RIDLEY
BOARD OF COMMISSIONERS

ATTEST:


Edmond J. Pisani
Township Manager/Secretary

BY:


Robert J. Willett
President

I, Edmond J. Pisani, Township Manager/Secretary, of the Township of Ridley, hereby certify that the foregoing is a true copy of the Resolution adopted September 26, 2018.


Edmond J. Pisani
Township Manager/Secretary

(SEAL)

SPRINGFIELD TOWNSHIP

RESOLUTION FOR PLAN REVISION

RESOLUTION #16-18

RESOLUTION OF THE COMMISSIONERS OF SPRINGFIELD TOWNSHIP,
DELAWARE COUNTY, PENNSYLVANIA (hereinafter "the Municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted there under, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the Municipality, and

WHEREAS, DELCORA has prepared an Act 537 Special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Springfield Township, and

The alternative of choice to be implemented is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include

PaDEP Act 537 Special Study Plan Submission	Sept 2018
PaDEP Act 537 Special Study Pan Approval	Feb 2019
Final Engineering Design	June 2019
PaDEP Part 2 Approval	April 2020
Project Construction Completion	May 2022

WHEREAS, Springfield 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 Commissioners of the Township of Springfield 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).

I, J. Lee Fulton, Township Manager, of Springfield Township hereby certify that the foregoing is a true copy of Resolution No. 16-18, adopted September 11, 2018.

(SEAL)

Attest:


Township Manager

By:


President, Board of Commissioners

BOROUGH OF SWARTHMORE
RESOLUTION 2018-07

RESOLUTION OF THE BOROUGH COUNCIL OF THE BOROUGH OF SWARTHMORE, DELAWARE COUNTY, PENNSYLVANIA (hereinafter "the Municipality")

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted there under, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and WHEREAS, DELCORA has prepared an Act 537 Special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Swarthmore Borough, and

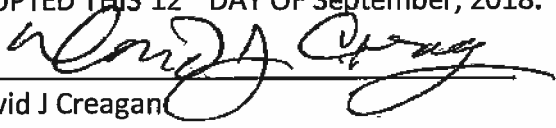
The alternative recommended by DELCORA is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include

PaDEP Act 537 Special Study Plan Submission	Sept 2018
PaDEP Act 537 Special Study Pan Approval	Feb 2019
Final Engineering Design	June 2019
PaDEP Part 2 Approval	April 2020
Project Construction Completion	May 2022

WHEREAS, the Borough of Swarthmore 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 Borough Council of the Borough of Swarthmore 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 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).

ADOPTED THIS 12th DAY OF September, 2018.



David J Creagan
Council President

I, Jane C. Billings, Manager/Secretary, Swarthmore Borough, do hereby certify that the foregoing is a true copy of Resolution 2018-07, adopted September 12, 2018.



MUNICIPAL SEAL

**UPPER PROVIDENCE TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA
RESOLUTION NO 2018 - 17**

A Resolution of Upper Providence Township, Delaware County, Pennsylvania
(hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted there under, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, DELCORA has prepared an Act 537 Special Study Plan of DELCORA Central Delaware Pump Station which provides for sewage facilities in a portion of Upper Providence Township, and

The alternative of choice to be implemented is construction of a new Crum Creek Pump Station Diversion Force Main. The key implementation activities/dates include

PaDEP Act 537 Special Study Plan Submission	September	2018
PaDEP Act 537 Special Study Plan Approval	February	2019
Final Engineering Design	June	2019
PaDEP Part 2 Approval	April	2020
Project Construction Completion	May	2022

WHEREAS, Upper Providence Township finds that the Facility Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Township Council of Upper Providence Township 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 11th day of October, 2018.

TOWNSHIP OF UPPER PROVIDENCE
TOWNSHIP COUNCIL:

By: 
Timothy Broadhurst, Chairman

Attest:


Gregory C. Lebold
Township Secretary

APPENDIX 4
MUNICIPAL PLANNING COMMISSION REVIEWS

EDGMONT TOWNSHIP PLANNING COMMISSION
REGULAR MEETING MINUTES
August 27, 2018

Work Session — Members of the Planning Commission, Township Engineer, Township Manager, and Township Administrative Assistant attended an advertised Work Session at 6:30 p.m. Those in attendance generally discussed items on the agenda. No action was taken.

1. **Open Meeting & Pledge of Allegiance:** Mr. Miller called the meeting to order at 7:00 p.m. with the Pledge of Allegiance. In attendance were Chip Miller, Chairman; Joseph Raspa, Vice-Chairman; John Kusturiss, Member; Eleanor Tickner, Member; Michael Conrad, P.E., Township Engineer; Catherine Ricardo, Township Manager; and Lacey Faber, Township Administrative Assistant. Ira Dunoff, Member; Patrick McKenna, Esq., Planning Commissioner Solicitor; and Thomas Comitta, AICP, Township Land Planner, were absent. There were three (3) guests.
2. **Public Comment:**
 - **Stuart Rosenberg, a resident of Green Lane**, asked the Planning Commission to post the website when the monthly meeting has been cancelled. Mrs. Ricardo stated the Township posts the front door but would be happy to send Mr. Rosenberg an e-mail when meetings are cancelled. Mr. Rosenberg thanked Mrs. Ricardo. There was no further discussion.
3. **Approve Agenda:** Mr. Raspa made a motion to approve the agenda as presented. Mrs. Tickner seconded the motion. There was no further discussion and the motion passed unanimously.
4. **Meeting Minutes:** Mrs. Tickner made a motion to approve the minutes from the June 25, 2018, Regular Meeting incorporating the corrections made to the announcement dates. Mr. Raspa seconded the motion. There was no further discussion and the motion passed unanimously.
5. **Manager's Report:** Mrs. Ricardo presented the Manager's Report as follows:
 - **SUNOCO Pipeline Mariner East I and II Pipelines:** Remediation work on Valley Road: Sunoco began remediation of contaminated soils related to the April 2015 release on Valley Road. First reports indicate that they were pleased to find hydrocarbon at levels much lower than expected within the soils. Work consists of removing contaminated soils and replacing with clean fill and also extracting contaminated water from the aquifer, filtering it through carbon filters, and discharging directly to the stream. The Township and DEP have issued permits for these activities, which are being closely monitored for compliance. Mariner East II Construction: The Township has received notice that a portion of the 12-inch Point Breeze to Montello pipeline will be used as an interim solution to transport natural gas liquids as a result of numerous delays with the Mariner East II project. In 2016 this line underwent a substantial upgrade and inline and hydrostatic testing, which now exceeds PUC and PHMSA requirements for transmission. Mariner East II construction is also still ongoing. Only concerns of property owners on or near the pipeline construction project may be directed to the SUNOCO 24-hour HOTLINE. All nonemergency calls, complaints, questions, claims to **855-430-4491**. This is a Sunoco HOTLINE to operate and be answered 24 hours a day, 7 days a week, and all calls are recorded and answered. **In emergency, call 911.** Edgmont is maintaining up-to-date information for resident's information on the website at www.edgmont.org.
 - **Traffic Signal at Middletown and Valley Roads:** Township officials are happy to announce that the intersection is now fully signalized and shall be up and running on red, green, and amber within the next few weeks.
 - **Edgmont Township Summer Newsletter:** The Summer 2018 Edgmont Township

Newsletter was mailed in mid-July. If you have not received one, please contact the Township Office or stop by during regular business hours to pick one up.

- **Runnymede Phase VII Development Update:** Township representatives recently met with GMH Developers regarding proposed development of the Phase VII Runnymede Farms site. It is anticipated that GMH will re-submit revised plans in early Fall with a revised design concept for the site. This matter will come back before the Planning Commission, scheduled at a time and venue to accommodate the significant public interest, which will be advertised via the Township website and sent directly to those who have asked to be notified. If you would like to be added to the distribution list, please email cricardo@edgmont.org.
- **Edgmont Township Fire Company 75th Anniversary Celebration:** The Edgmont Township Fire Company is celebrating its 75th year and they are excited to share this accomplishment of service with the community. Mark your calendars for September 29th for a community celebration which will be held at the firehouse. All public is invited to attend. More information to come.

Mr. Miller thanked Mrs. Ricardo for the report. There was no further discussion.

6. New Business:

a. **Planning Commission Organization:**

- i. **Chairman:** Mr. Raspa made a motion to nominate Chip Miller for the Planning Commission Chairman. Mrs. Tickner seconded the motion. There was no further discussion and the motion passed unanimously.
- ii. **Vice-Chairman:** Mr. Miller made a motion to nominate Joseph Raspa for the Planning Commission Vice-Chairman. Mrs. Tickner seconded the motion. There was no further discussion and the motion passed unanimously.

b. **Proposed DELCORA Act 537 Amendment:**

Present: Michael Ciocco, P.E., DELCORA's Engineer
Charlie Hurst, Vice President of DELCORA

Mrs. Ricardo stated Edgmont Township recently received Sewage Facility Planning documents from Catania Engineering on behalf of DELCORA, which show portions of the DELCORA Central Delaware Pump Station diverting flows from CDCA to the Philadelphia Water Department Southwest Pollution Control Plant. Mrs. Ricardo continued that the pump station has significant wet weather events with high flows carrying financial penalties for treatment. Mrs. Ricardo stated DELCORA and Catania Engineering are here to give a presentation of the report.

Mr. Ciocco stated Catania Engineering prepared the Act 537 Plan for DELCORA and he and Mr. Hurst are here to receive public comments on the report. Mr. Ciocco presented a slide show report that showed the service area in which eight (8) municipalities collect to the Central Delaware Pump Station (CDPS). Mr. Ciocco stated the flows from these eight (8) municipalities all end up at DELCORA's Central Pump Station. Mr. Ciocco continued to say that the central station is experiencing high wet weather flows. Mr. Ciocco stated they have come up with a solution to relieve the wet weather flows by diverting the overflow to the Philadelphia Water Department Southwest Pollution Control Plant. Mr. Raspa asked where the overflow is currently going. Mr. Ciocco stated that the CDPS is rated for 40 million gallons per day of flow

and during times of dry weather flows are approximately ten million gallons per day. Mr. Ciocco stated that anything over 20 million gallons per day go to Philadelphia. Mr. Conrad asked about the frequency of flows going to Philadelphia. Mr. Ciocco stated typically this occurs when an inch of rain in a day or more is incurred. Mr. Hurst stated this happens about twenty (20) times a year. Mr. Ciocco stated that they have met with DEP and there have unfortunately been numerous violations for overflows into the creek over the last several years. Mr. Miller stated that Edgmont has a brand-new sewer system and asked if the trouble spots have been identified. Mr. Ciocco stated they are hard to pinpoint. Mr. Raspa stated there are other municipalities that have problems with their pipes and because Edgmont is a new system and not significantly contributing to the issue, they shouldn't have to pay to fix it.

Mr. Miller asked if the Act 537 Plan Amendment is implemented, would the flows to Philadelphia decrease. Mr. Ciocco stated it would be a cost savings to all users of approximately \$11.8 million which represents a 4% reduction of all flows to Philadelphia. Mr. Kusturiss asked within what period the savings would take place. Mr. Ciocco stated there is a Delaware County Act 537 Sewage Facilities Plan Update that outlines the savings over time. Mr. Raspa asked what the benefit is to put in the new diversion pipe. Mr. Ciocco stated it will reduce overflow and satisfy DEP for the current overages. Mr. Raspa stated the way the plan is structured now, Edgmont users would be expected to pay a proportionate share of expenses to construct the diversion pipe and it doesn't address the issue of wet weather flow into the system. Mr. Raspa asked how many municipalities will be paying for the \$8.6 million force main. Mr. Hurst stated all twelve (12) municipalities will be paying for the force main on a proportionate basis. Mr. Raspa stated to ignore the infiltration and inflow (I & I) issue by creating more flow storage then DELCORA is essentially utilizing a temporary fix. Mr. Raspa stated that the issue of infiltration and inflow needs to be addressed to create a more long-term resolution. Mr. Ciocco stated that the alternative to implement the I & I corrections are much costlier than this alternative, but they do recommend the preparation of a systemwide I&I reduction plan. Mr. Conrad asked if there are any costs associated to Western Regional. Mr. Hurst stated they have the capacity at Western Regional. Mr. Raspa stated implementing a plan that offers a long-term solution will satisfy DEP more than just fixing the issue temporarily. Mr. Hurst stated that they are concerned that DEP might put a moratorium on them if they solely address I&I without the diversion pipe because they need an immediate solution to control the overages.

Mr. Miller stated that the I&I problems need to be fixed in order to address the overall issue. Mr. Hurst stated the most recent data isn't clear enough to pinpoint the problem areas and it would take years to prepare something to reduce the flows. Mrs. Ricardo stated that the Feasibility Study notes that in 1996 a comprehensive I&I reduction plan was prepared which indicates this isn't a new issue and has been ongoing without resolution for many years. Mr. Raspa asked what the reduction would be if they implemented the projected \$34 million I&I reduction alternative. Mr. Ciocco stated there would be a ten percent (10%) reduction which is projected to relieve DELCORA's system of reliance on Philadelphia. Mr. Conrad stated they should focus on some of the issues that would be easier to address such as: repairing terracotta pipes, brick manholes, etc. and start there to address the I & I problems. Mr. Ciocco stated they have started to do that and every year the central pump station lines are videoed and cleared.

Stuart Rosenberg, a resident of Green Lane, stated for DELCORA not to be able to track where the problems are coming from is unacceptable. Mr. Rosenberg stated they should be able to see where the flows are coming. Mr. Rosenberg continued that there are sensors and other technology out today that they can use to track the problem. Mr. Rosenberg stated the issue needs a long-term solution, not a band-aid.

Mr. Raspa stated I & I resale requirements need to be implemented in other municipalities to start to address the issue. Mr. Kusturiss asked how diverting the flows satisfies DEP if it is not fixing the underlying problem. Mr. Ciocco stated because this gives us the ability to divert the flows and this will address the current overflows. Mr. Kusturiss stated his concern is that they do not know where the issues are as they have stated several times this evening. Mr. Kusturiss continued that he had to get an internal inspection of his house when he was put on the public sewer system and would have to hire a contractor to inspect his private sewer lateral when he sells his home. Mr. Hurst stated that most municipalities do not have that same re-sale requirement and it can be challenging to get them to implement it. Mrs. Ricardo stated they should be working with the municipalities to adopt one given the overages discussed this evening.

Mr. Miller stated the Planning Commission will not be giving a recommendation for the Act 537 Plan Amendment this evening. Mr. Miller stated there is not enough information and he recommends looking at the I&I issue more and coming back when they have more definitive answers and information to share. Mr. Hurst stated they know what the problem is, but they cannot pinpoint exactly where it is coming from. Mr. Hurst continued that they understand from the letter they received from the Board of Supervisors that they would not be getting a recommendation. Mr. Conrad suggested that they outline the specific plans they plan to take to address the I&I issue at the next meeting. Mr. Miller thanked Mr. Ciocco and Mr. Hurst for their presentation.

There was no further discussion. No action was taken.

7. **Old Business:** There were no 'Old Business' items to discuss.

8. **Miscellaneous Discussion:**

a. **Delaware County Transportation Improvements Inventory (TII):** The Planning Commission generally discussed The Delaware County Planning Department's project to develop a Transportation Improvements Inventory (TII) to identify unfunded transportation projects throughout Edgmont. The Planning Commission identified the following signal upgrades as a high priority: Crum Creek Road and West Chester Pike, Middletown Road and Gradyville Road, and Rock Ridge Road and West Chester Pike; the following intersection improvements as a high priority: Delchester Road and Gradyville Road, Providence Road (across from Canter Drive) Shoulder/Intersection Improvement, and Providence Road and West Chester Pike; the following shoulder improvements as high priority: Delchester Road, Gradyville Road, Middletown Road, and Stackhouse Mill Road (at the intersection with Delchester Road). Mr. Miller directed Mrs. Ricardo to give the Planning Commission's feedback to the County as discussed this evening. There was no further discussion.

9. **Announcements:**

- a. The **Board of Supervisors** will meet on **Tuesday, September 11, 2018, at 7:30 p.m.** with a work session beginning at **6:30 p.m.**
- b. The **Planning Commission** will meet **Monday, September 24, 2018, at 7:00 p.m.**, with a work session at **6:30 p.m.**
- c. The **Zoning Hearing Board** will not meet in August as the application for 7 Knights Way has been tabled pending submission of the associated Conditional Use Application.

10. **Adjournment:** At 8:25 p.m., Mr. Raspa made a motion to adjourn the meeting. Mr. Miller seconded the motion. There was no further discussion and the motion passed unanimously.

Respectfully submitted,

Catherine Ricardo, Planning Commission Secretary
Township Manager

Chip Miller, Chairman
Planning Commission



TOWNSHIP OF MARPLE
227 S. SPROUL ROAD
BROOMALL, PENNSYLVANIA

AGENDA

Planning Commission
Marple Township
July 26, 2018

1. Pledge of Allegiance
2. Roll Call
3. Approval of Minutes from March 22, 2018
4. **Land Development – 820 Springfield Road - VCA Animal Hospital** – proposes to partially redevelop the existing site to include replacement of the kennel facility, parking lot modifications and site landscaping. The existing site is non-conforming and is in the B-1 Zoning District.
5. **Review Act 537 Plan for DELCORA**



Planning Commission Committee
July 26th, 2018
7:00 p.m.

1. PLEDGE OF ALLEGIANCE

Chairperson, Pat Henigan, led the room in the Pledge of Allegiance.

2. ROLL CALL

Present was, Chairperson, Pat Henigan, Vice Chairperson, Nick Siano and Board Members Tom Tobin, Tim Moore, Patricia Fanelli and Jack Savage. Also present was Township Engineer Joe Mastronardo, and Recording Secretary Lauren Crudele. Absent but excused was Director of Code Enforcement, Joe Romano and Mike Noonan.

3. APPROVAL OF MINUTES – MARCH 22ND, 2018

A motion was made by Nick Siano and 2nd by Jack Savage to approve the March 22nd, 2018 Planning Commission Minutes. Board Member, Patricia Fanelli abstained.

4. VCA ANIMAL HOSPITAL – 820 SPRINGFIELD ROAD

VCA Animal hospital was before the board for a Sketch Plan approval. Present for the case was Senior Engineer, Linda Layer from Momenée, Inc. The applicant is proposing to partially redevelop the existing site including replacement of the kennel facility, parking lot modifications, and site landscaping. The existing site is zoned B-1 Business. The hospital is 1.22 acres of land. VCA would like to demolish and redo the kennel portion at the rear of the site, keeping the original carriage site (875sq.st). The site currently has 100 kennels; the new facility will have 64 larger, more pleasant housing for animals. They will also be adding an outdoor patio run for the dogs. The applicant will have to attend the Zoning Hearing Board for lot size and building and parking setbacks and will comply with all the comments in the Engineer's letter.

BOARD COMMENTS

- *Were there any issues in the Engineer letter that weren't addressed? No*
- *The brown fence in the back does the animal hospital own that? The bowling alley actually does but they a good relationship with the animal hospital.*
- *The cats are boarded in the main house? Yes*
- *The kennel is just for dogs? Yes*
- *There isn't much green area to walk the dogs? They actually walk them all the way around; it's a pretty long walk. With the new open space they will be able to bring a couple dogs out at a time.*
- *What are your plans for the animals when the building is under construction? The carriage house currently has kennels they will house them in there until they are done.*

ENGINEERS COMMENTS

No comment at this time.

CODE ENFORCEMENT COMMENTS

No comment at this time.

PUBLIC COMMENTS

No public comment.

5. **MOTION**

A motion was made by Patricia Fanelli and 2nd by Tim Tobin to approve VCA Animal hospital plans going forward provided the applicant conforms to July 16th, 2018 engineering review letter.

6. **REVIEW ACT 537 PLAN FOR DELCORA**

Act 537 Plan is being prepared to review wet weather capacity issues at the DELCORA central pump station. It is a municipal plan for 8 townships within the DELCORA service area. Present to answer questions was Dan Archdeacon from Catania Engineers.

See the attached Act 537 Special Study Plan.

BOARD COMMENTS

- *What is the relationship of Philadelphia to the townships involved? During regular flow everything from the Crum Creek service area gets pumped to DELCORA's pump station, when the flow goes above the regular amount it gets pumped to Philly.*
- *That's how it's engineered right now? Yes, right now*
- *If it's an extreme flow Philadelphia is going to charge for the extra amount? That is correct*
- *This fix will eliminate Philadelphia? It will take everything from the Crum Creek service area and take it to DELCORA.*
- *Is there a freeze on tie-ins in certain areas? Yes*
- *Will this plan help free up more tie-ins? No, I don't think you will be able to add new ones.*
- *Is the Don Guanella property in this? No, they are served by R.H.M*
- *Part of Marple is on R.H.M? All of Marple is on DELCORA some get there via RHM some get there CDCA*
- *What action is expected to tonight? Just recommending acceptance of the study to move forward*
- *The \$14.25 per household is paid in the sewer tax? Yes*

7. **MOTION**

A motion was made by Tim Moore and 2nd by Patricia Fanelli to recommend DELCORA continue with the study; the board understands the plan before them.

8. **REVIEW ORDINANCE AMENDING CHAPTER 300, SECTION 300-15**

Proposed Ordinance amending Chapter 300, Section 300-15 of the Township Code to define classification of animals and to further prohibit the use of animals in special events. The Delaware County Planning Commission has recommended approval.

BOARD COMMENTS

- *This expands what's already in the Zoning code? Yes it just adds another layer of protection for animals in performance*
- *What is different? They added the definition for companion, domestic, live stock and wild or exotic animal.*
- *Does this include petting zoos? I don't think it does, but the commissioners have the ability to review that*
- *Is this an exclusion of circus? Yes I think that is okay*

9. **MOTION**

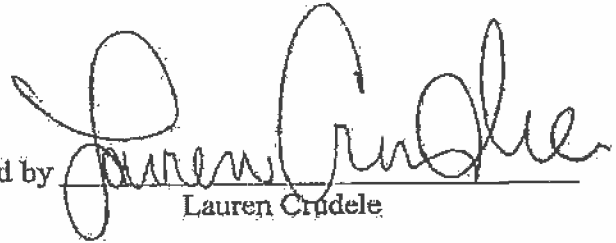
A motion was made by Nick Siano and 2nd by Jack Savage to approve prohibiting the use of animals during special events.

10. **ADJOURNMENT**

A motion was made by Tom Tobin and 2nd by Nick Sinao to adjourn.

Meeting was adjourned 7:40pm

Respectfully submitted by

A handwritten signature in cursive script, appearing to read "Lauren Crudele", written over a horizontal line.

Lauren Crudele

MEETING MINUTES
August 6, 2018
PLANNING COMMISSION MEETING
NETHER PROVIDENCE TOWNSHIP

Agenda Item 1

Conceptual Sketch Plan

Proposed 5 Lot Subdivision

Wallingford Realty Partners c/o D'Anjolell

Present for Planning Commission:

Robert Bode – Chairman

Dan Green- Vice Chairman

John Dickerson

Bob Linn

Maureen Feyas- Zoning Officer

Township Engineer:

Not in attendance (Sketch plan)

Applicant:

Mr. D'Anjolell, Wallingford Realty Partners, LP

Represented by: Alex Rodriguez, Catania Engineering Associates, Inc.

Other Attendance:

Owner (not resident) of house on parcel B, Joseph & Diane Moderski

Action: None

PLANNING COMMISSION DIALOGUE of August 6, 2018

Mr. D'Anjolell appeared and gave a brief history of his acquisition of the funeral Home. He cited improvements made and made a point that the director was a resident on the second floor (a requirement of certification/licensure) and that no crematory was permitted on the site.

Alex Rodriguez appeared presenting the plan to combine two parcels and subdivide them into five (5) lots. Access to the new lots would be provided by upgrading the existing 20' easement to a 50' easement/right of way with a 20' cartway. He noted that lot 1 would have a 37% impervious cover and would require a variance. The plan adds additional parking on lot 1 to offset spaces lost by the wider access way. There was a suggestion by the Planning Commission that pervious pavers be considered for the new paving. Mr. Rodriguez felt that managing the storm water would be a more reliably permanent option.

The Planning Commission responded that lots 3 and 4 require 110' of frontage on a right of way to be considered conforming lots. Suggestions were made how to achieve this. Also when using an accessway to reach lots behind the front tier, per section 289-7(c)(3), a 50' right of way must be provided all the way to Providence Road; that an access easement across lot 1 would not be sufficient. This raised the issue of the closeness of the existing building to the new right of way, 0.75'. Mr. Rodriguez said he would look at the possibility of moving the accessway away from the Funeral Home. The question was also raised whether a right of way can cross a lot without dividing it into two lots, and if so does a building need to be a set distance from a right of way within a lot as it does from a right of way at the edge of a lot? One commission member noted that they were aware of r.o.w. crossing properties in rural areas but unsure about suburban areas. Mr. Rodriguez was asked if the easements for the force main were netted out of the lot areas. He responded that he would have to check. He also noted that the new lots will have individual grinder pumps that will move sewage out to the main in Providence Road. They will apply for PennDOT HOP for the new accessway

There was discussion around parking.

- Whether moving the accessway away from the building would impact spaces in the lot but potentially open up the possibility of spaces closer to the building.
- Whether there was a prescribed amount of parking required by the code
- What the occupancy of the building was during a funeral (50 – 80 average, 120 high, beyond capacity for a prominent individual per Mr. D'Anjolell)

Next step for the Applicant will be to go before the Zoning Hearing Board to apply for relief from impervious cover limitation on lot 1.

END OF August 6, 2018 PC MINUTES Item 1

Agenda Item 2

Sewage Facilities Planning -Draft Act 537 Special Study Plan

Central Delaware Pump Station, Sellers Avenue, Ridley Township Delaware County, PA

Present for Planning Commission:

Robert Bode – Chairman

Dan Green- Vice Chairman

John Dickerson

Bob Linn

Maureen Feyas- Zoning Officer

Township Engineer:

Not in attendance

Delaware County Planning Review:

None

Applicant:

DELCORA

Represented by: Charles Catania, Jr., Catania Engineering Associates, Inc.

Other Attendance:

Christine Reuther, Nether Providence appointed member on the Sewer Authority

Action:

Motion Approved:

The Planning Commission recommends that the Board of Commissioners approve the Act 537

Plan Application, following alternative no. 2 of the Catania Engineering Feasibility Study for Central Delaware Pump Station, of June 28, 2018. Alternate no. 2 is to divert 24 MGD of the flow from the CDCA Crum Creek Pump Station, with the construction of a new force main to pump flow to the DELCORA Central Diversion Force Main in Route 291.

Furthermore, it is recommended that proposed route 2, running past the Baldwin Towers be the pursuit of first choice, with option 1 or 1A being fall back positions, should the cost of obtaining easements for option 2 be cost prohibitive relative to budget projections.

PLANNING COMMISSION DIALOGUE of August 6, 2018

Background:

The Central Delaware County Authority (CDCA) Crum Creek pump Station flow usually goes to the Chester plant via the Central Delaware Pump Station (CDPS). Ten times, in the recent past, during rain events, flows have exceeded the 40 MGD capacity of the CDPS and had to be diverted to Philadelphia (a more costly option).

Mr. Catania reviewed the Feasibility Study for, and the Act 537 Special Study Plan of DELCORA Central Delaware Pump Station, of June 28, 2018 which the planning commission found thorough and clearly presented. The four options include:

1. Upgrade DELCORA Central Delaware Pump Station Estimated Cost: \$11.4 Million
2. Divert flow from CDCA Crum Creek Pump Station Estimated cost: \$7.733 Million (based on information gained, since the completion of the Feasibility Study, from Aqua encountering rock in the area when boring under the creek, they increased this estimate to \$8.6 million.)
3. Reduce Inflow/Infiltration Estimated Cost: \$34.2 million
4. Do Nothing Estimated cost: Indeterminate (more than 0)

Mr. Catania was asked, since the excessive flow is intermittent (around heavy rain events) and normal flow is well within capacity, is it possible to somehow “buffer” the heavy flow and then catch up? He stated that storage tanks could be used for that purpose and the cost would be marginally lower than the proposed option but because of the approach of State regulators, installing tanks is considered a sign that the system is not functioning and triggers a connection moratorium. This situation renders this strategy a non-starter. There can also be political issues with tank location.

Because of myriad variables and the complexity of the upstream system previous attempts to reduce I&I have yielded less than projected results.

Of the projected \$4.5 billion Philadelphia long term plan, \$15 million will come from Nether Providence over the next 25 years. Reducing CDCA flow to Philadelphia, currently 4%, will save \$11 million over that period.

Discussion of the proposed routes included:

- 1 and 1A are through more densely populated areas causing greater disruption to residents.
- 1A has a concentration of underground utilities that could complicate the process.
- 2 is most direct, and mostly under private access roads and would seem to have the least population disruption, and lowest estimated cost. This was selected as the more desirable route provided easements could be obtained near the study estimates.
- 1 and 1A are viable options that should be kept as fall back positions. Having options may strengthen the negotiating position with regard to obtaining easements for option

2.

- Included In option 2 are Improvements to the DELCORA Central Diversion Force Main in Route 291 to increase usable capacity, and modifications to the Crum Creek Pump Station.

END OF August 6, 2018 PC MINUTES Agenda item 2

John Dickerson

John Dickerson Design Group
610 .368 . 2075

**Township of
COMMISSION**

209 Bishop Hollow Road **BOARD**

Newtown Square, PA 19073

610-356-0200 **Public Meeting: 7:00 PM** www.newtowntownship.org



Newtown PLANNING

July 26, 2018

Proposed Minutes

IN ATTENDANCE

BOARD MEMBERS:

Chairman Silva
Vice-Chairman Guy
Member Altieri
Member French
Member Frissora

STAFF/CONSULTANTS:

Engineer - Iacono
Manager - Nease
Director of Codes- Reczek

NOT IN ATTENDANCE:

Member Stephanou
Member Evans

1. CALL TO ORDER:

2. ROLL CALL:

3. MOMENT OF SILENCE AND PLEDGE OF ALLEGIANCE:

4. AGENDA:

4.1 Consider approving the agenda.

5. MINUTES:

5.1 Consider approving the minutes from June 28, 2018.

Motion to approve was made by Mr. Silva, Approved by a vote of 5 to 0.

5.2 Minutes from February 2018 pending.

6. PLAN REVIEW:

6.1 **p2018-08** MNHS Athletic Fields Sketch Plan

Mr. Altieri recused himself from this discussion since he is a sitting school board member. Mr. Gallagher, Director of Operations for Marple Newtown School District, represented the school administration for the presentation of the proposed sketch plan for the athletic fields at the high school. Mr. Danley, presented the engineered plans for the School District on behalf of Pennoni, the engineer for the school district. Mr. Danley reviewed the project and indicated that the school district has obtained an NPDES permit. There will be a regrading of the fields to flatten them out. Improvements include new turf fields for two of the fields, new dugouts, batting cages and field house along with new ADA accessible paths. Stormwater is located under the fields. Zoning issues include the dugouts being treated as accessory structures, and buffer strips along property lines. The school district will be requesting waivers for infiltration, water quality, and minimum pipe sizes. Conditional use approval will be required to steep slope disturbance for the retaining wall. Lighting will also need to be approved.

6.2 **P2018-07**: The Applicant, BPG Real Estate Investors, Straw Party-2 L.P., 3843 West Chester Pike, Newtown Square, PA 19073, is seeking approval for the Final PRD plan for the Ellis Preserve Town Center for the development of a 5-story, 378,000SF office building, and a 3-level parking structure.

Final PRD plan, following the tentative plan. Nothing has changed regarding the footprint and layout for the office building footprint and parking garage. The engineering details have been fine-tuned and updated renderings for the office building. While the planning commission requested renderings for the parking garage, they have not been completed yet. The applicant proposed if in favor of moving forward that a condition be imposed on the final plan approval that the applicant come before the planning commission again to show them the renderings for the garage prior to building permit issuance. The building will be 60% glass and 40% metal panel. The applicant will also return to show the planning commission the final landscape plan. No major issues associated with the latest review letter dated 7/19/18 except for the usual waiver for the HDPE pipe. There is an additional waiver to allow 11 parking spaces in a row instead of 10. The design guidelines call for what would amount to 51 benches based upon the size of the proposed office building, the applicant is proposing 25 benches. The applicant is willing to do fee in lieu for benches elsewhere throughout the township.

Public Comment: None

Motion to recommend approval for Final PRD plan for the Ellis Preserve Town Center for the development of a 5 story, 378,000sf office building with a 3 level parking structure subject to the applicants indication they will comply with all aspect of the July 19th Stantec letter, additionally they have requested two waivers: one to allow the HDPE stormpipe to be in lieu of the concrete and one additional to allow eleven parking spaces in a row within the modified parking area to the east of the proposed office building was made by Mr. Silva, seconded by Mr. Guy Approved by a vote of 5 to 0.

7. ADDITIONAL BUSINESS:

7.1 Ellis Stacked Townhouses Rendering update- information pending

Ordinance allows for 65ft, the proposed buildings will be 62ft; however, what the renderings shown in the original approval for the multifamily, showed buildings that were 52ft. The buildings are actually below 52ft, but the height comes from an architectural feature- a false front (13.5ft), that serves to hide the mechanical equipment. They are 4 story buildings, 2 units stacked on top of each other where they tried to blend elements of very modern with more traditional; building that is on the campus. They are requesting now changes to the approved plans. Parking is in the rear with each unit having a 1-car garage. The builder, Rockwell Development Group, reviewed the layout of the stacked townhouses, indicating the lower levels are 1600sf house and the upper levels are a 3000sf house. The Planning Commission generally endorsed the architectural massing, materiality, and vocabulary depicted in the renderings presented by Rockwell, with an expectation that the completion of the design, specifically the rear and side building elevations, will be consistent with that same architectural vocabulary. No review from Stantec was available.

7.2 Draft Act 537 Special Study Plan of DELCORA Central Delaware Pump State - a plan to review wet weather capacity issues at DELCORA's Central Delaware Pump Station and alternatives to correct the same.

When changes are made to the 537 Plan in the CDCA sewer district to handle the flow that is generated by Newtown and goes to the CDCA, it still requires an action by us to change our 537 Plan. This requires planning commission review and recommendation. There are no physical changes happening within the Township regarding the handling of the sewer. Catania Engineering completed a Special Act 537 Plan to address wet weather issues and identify alternatives to correct the issues for the DELCORA pump station located by Boeing in Ridley Township. The planning commission reviewed the ACT 537 Special Study plan, the Feasibility Study, the associated maps, and presentation from Catania Engineering.

Public Comment:

Nate Glazier, 3538 Caley Rd - this is a no-brainer as the sewage needs to go somewhere.

Motion to recommend approval and adoption of the Draft Act 537 Special Study of option number two was made by Mr. Shimon, seconded by Mr. French Approved by a vote of 6 to 0.

8. PUBLIC COMMENT:

9. ADJOURNMENT:

**TOWNSHIP OF RIDLEY
PLANNING COMMISSION
MINUTES**

AUGUST 7, 2018

**** ALL MEMBERS PRESENT****

MEMBERS:

Drew Baum
Louis DePietro Jr.
George Buckley
Kenneth Wochele
David A. Marofsky

James Tomaino
Joseph Calamita
James Cartafalsa
Tony Calise

A. OLD BUSINESS

B. NEW BUSINESS

1. Zoning Hearing Notice #18-13 – Felicia Ritter - 345 Sylvania Avenue, Folsom, PA – Front yard fencing.

Committee: _____
Comments: _____

Approved XXXX Rejected _____
Author George Buckley Seconded Kenneth Wochele

2. Zoning Hearing Notice #18-14 – Nancy Bair – 341 Lincoln Street, Folsom, PA – In-Law Quarters.

Committee: _____
Comments: Applicant had petition stating neighbors were
not opposed.

Approved XXXX Rejected _____
Author Joseph Calamita Seconded James Cartafalsa

3. Zoning Hearing Notice #18-15 – Nassif Samarani – 1011 Kedron Avenue, Morton, PA – Use Variance.

Committee _____
Comments: _____

Approved XXXX Rejected _____
Author George Buckley Seconded Joseph Calamita

4. Township of Ridley – Sewage Facilities Planning- Draft Act 537 Special Study Plan.

Committee: _____
Comments: _____

Approved XXXX Rejected _____
Author George Buckley Seconded Tony Calise

SPRINGFIELD TOWNSHIP PLANNING COMMISSION

Meeting Minutes

Meeting Date: August 16, 2018

Meeting Time: 7:30 P.M. (E.D.T.)

Meeting Place: Township Municipal Building, 50 Powell Road, Springfield PA 19064

Members Present: Mr. Gorgone, Mr. Arrell, Mr. McGann, Mr. Gagliardi and Mr. Cortese.

Also Present: Eric Johnson, P.E., Pennoni Engineers, William J. Cervino, Zoning Officer
James J. Byrne, Jr., Esq. and Joseph Mastronardo, PE

Approval of Minutes: A motion was made by Mr. McGann second by Mr. Arrell to approve the June 7th minutes.

Roll Call Vote on

Motion:

Mr. Gorgone	■ AYE	□ NAY
Mr. Arrell	■ AYE	□ NAY
Mr. McGann	■ AYE	□ NAY
Mr. Gagliardi	■ AYE	□ NAY
Mr. Cortese	■ AYE	□ NAY

THE MOTION WAS APPROVED.

- The first order of business was the Delcora Act 537 Update-Crum Creek Pump Station Diversion. Mr. Charles Catania was present to represent Delcora and gave an overview of the plan update and indicated the following:
 - Central Delaware County Authority Pump Station
 - Capacity Issues-Overflows
 - Met with DEP and they told them the process they had to do
 - Feasibility Study to address overflows.
 - Looked at different alternatives to upgrade Central Delaware County Authority Pump Station. Diverting flow from Crum Creek Pump station west or south to Delcora's plant in Chester the cost for this was \$8.6 million.
 - The least cost would be the Crum Creek Pump diversion at 8.6 million. This solves the problem in a definitive time period and puts an end to the problem.
 - It averages out to about \$14.00 a user over the twenty five year debt service.
-

- The diversion will take 24 million gallons of flow away from the pump station.

Planning Commission Comment and concerns:

- Will the Diversion adequately take care of the problem immediately?

Motion: Mr. Arrell made a motion second by Mr. McGann to recommend to the Board of Commissioners approval of the Delcora Act 537 Plan Update and to make sure that the Act 537 Special Study Plan conforms to the applicable zoning, subdivision, other municipal ordinances and plans, and to the comprehensive program of pollution control and water quality management.

- The second order of business was the Conditional Use Application and the Preliminary/Final Plan for the Estates at Coventry Woods, LLP: Mr. Joseph Damico, Mr. Tom Committa, Mr. Chris Williams, Traffic Engineer and Mr. Joseph Platt's, Traffic Study, were all present to represent the applicant.

Mr. Joseph Damico gave an overview of the plans submitted and indicated the following:

- All abutting landowners have been notified.
- The TND-5 Active Adult Village Ordinance #1586 was adopted on July 10, 2018.
- Phase 1 A will need Zoning Relief from the following TND Amendments.
 - Parking Reductions up to 30% to cut down on Impervious Surface. If zoning relief is not granted then as a backup we have asked for a variance to permit that amount of parking.
 - 50 ft. Setbacks from the top of bank is a Zoning Ordinance requirement. It's not located in the flood plain area.
 - The area between Alberts Run which is in the middle of the two tracks of land will be dedicated to Springfield Township if the Township is willing to accept.
 - Alberts Run is not on the Flood Plain Map for Springfield Township. Will comply with the Engineers comments and add to the Flood Plain Map as per FEMA rules.

Mr. Tom Committa was present to represent the applicant. Mr. Committa gave an overview of the plans as submitted and indicated the following:

- The applicant will comply with all comments noted in the Township Engineers reports dated July 12, July 16, 2018 and the Delaware County

Planning Department report dated July 19, 2018.

- Revised the landscape plan.
- Extend sidewalks.
- Open space is increased from 40% to 46.3%
- Removed nine townhomes.
- Reduced impervious coverage.
- The Medical Office Building site will include the open space to the west as part of Phase 1A.
- In Phase 1A, there is one access proposed across from Weymouth Road and another one further down slope.
- Asking for approval recommendation by the Planning Commission.

Mr. Chris Williams with McMahon Associates gave an overview of the parking study performed and indicated the following:

- Table 1 summarizes the parking spaces allowed by Springfield Township Ordinance. Phase 1A proposes 125 spaces, which is 15 spaces in excess of what is required.
- Table 2 elevates same three land uses based on transportation and planning industry data, peak parking demand rates. The Institute of Transportation Engineers would suggest 110 parking spaces.
- American Planning Associates is 20% lower. 88 parking spaces are needed. There is adequate parking for phase 1A.
- Looked at truck circulation with regards to fire trucks and delivery trucks and the figures show that both trucks can turn effectively on the site.

Mr. Joe Platt's gave an overview of the traffic study performed and indicated the following:

- Early July a traffic study was done.
- Will go back in September and do another study. Traffic counts are scheduled for the second week of September.
- The present study looks at site access and Weymouth Road across the street.
- Future studies will look at Rolling and Springfield Roads as far as signal timing.
- The study recommends a left turn lane into the site off of Route 1 as well as a right turn lane.
- Increasing the left turn lane onto Weymouth.
- Only traffic count that was done was done at the site access.

Planning Commission Comments and Concerns:

- Traffic concerns
- Seeking Zoning relief.

Eric Johnson's Comments and Concerns:

- Stated that they have to review the plans that were submitted on August 16, 2018 to confirm the amount of open space is sufficient and will send their comments.

Bill Cervino's comments and concerns:

- The conservation easement dedication and Letter of Map Amendment for Alberts Run regarding the first two phases of Coventry Woods is to be supplemented with the conditional use.

Public Comment :

- Pamela Ficorella, 112 Broadview Road, concerns will there be one access road into the proposed development.

Motion:

Mr. Gagliardi made a motion second by Mr. McGann to recommend approval of the Conditional Use application for the Estates at Coventry Woods subject to the following conditions:

- Resolution of comments provided by the Township Engineer's report dated July 12, 2018.
- The density of the residential units and nonresidential gross floor area may be subject to change upon submission of final plan for each phase; however, the density is not to exceed what is provided on the Conditional use/Sketch Plan.
- A Final Plan for each phase of the project is to be submitted to the Township Board of Commissioners for review and approval.
- Development is not to encroach into required riparian buffers with the exception of minor road/ pedestrian crossings and underground utilities unless given relief by the Zoning Hearing Board.
- Interconnected open space areas and required open space amenities are to be reserved in the amount necessary to support development not less than on the open space plan dated 8-16-2018.

- The developer is responsible for acquiring the necessary sanitary sewer capacity from the appropriate downstream collection, conveyance and treatment authorities for the overall development.
- The Transportation Impact Study is to be supplemented with field measured traffic counts during the normal school year. Traffic improvements are to be provided to the satisfaction of the Township Engineer along the State Road corridor p to and including the Meetinghouse Road to Rolling Road intersections, as required to support the overall development. All required traffic improvements are to be constructed and completed prior to issuance of the first certificate of occupancy for the site.
- A Floodplain Study for the Alberts Run tributary to Darby Creek is to be completed and submitted to the Federal Emergency Management Agency (FEMA) to acquire a Letter of Map Amendment (LOMA) for the stream corridor through the development property to the confluence with Darby Creek.
- The Conservation Easement identified on the Coventry Woods Subdivision and referenced in the related Land Development Agreement (December 30, 2004) is to be completed and recorded upon approval of the Conditional Use Plan.

Roll Call Vote on

Motion:	Mr. Gorgone	■ AYE	■ AYE
	Mr. Arrell	■ AYE	■ AYE
	Mr. McGann	■ AYE	■ AYE
	Mr. Gagliardi	■ AYE	■ AYE
	Mr. Cortese	■ AYE	■ AYE

THE MOTION WAS APPROVED.

Motion: Mr. McGann made a motion second by Mr. Gagliardi to recommend approval of the Preliminary/Final Plan for the Estates of Coventry Woods Phase 1A; waiver of §123.41.1, steep slopes; §123-10.A, preliminary plan; and §119-17.C riparian buffers, subject to the following conditions:

- Resolution of comments provided by the Township Engineer's report dated July 16, 2018.
- Compliance with any of the Board of Commissioner's conditions of Conditional Use approval for the property.
- The applicant acquiring approval of requested variances and Special Exception by the Zoning Hearing Board and compliance with any conditions imposed by the Board.
- The development is not to encroach the required riparian buffers with the exception necessary road/pedestrian crossings and underground utilities unless given relief by the Zoning Hearing Board.

- Compliance with the Delaware County Planning Commission comments dated July 19, 2018.
- Open space and required open space amenities are to be reserved to support Phase 1A.
- The developer is responsible for purchasing and/or reserving the necessary sanitary sewer capacity from the appropriate downstream collection, conveyance and treatment authorities; and, obtaining Sewage Facilities Planning Module approval from PA Department of Environmental Protection for Phase 1A.
- An easement is to be provided for the existing and proposed Township sanitary sewer main and the sanitary sewer facilities are to be constructed and protected from damage due to proposed structures within the easement.
- The developer is responsible for obtaining an NPDES Permit for construction activities and all other environmental permits from PA DEP necessary for Phase 1A construction.
- Providing a fee-in-lieu of recreational land and facilities or confirmation of the required land and facilities is provided.
- The applicant is responsible for obtaining a Highway Occupancy Permit and traffic signal permit from the Pennsylvania Department of Transportation for the proposed State Road intersection and any other required traffic improvement, subject to PennDOT approval.
- The approval is for Phase 1A only and all subsequent Phases of development are to be submitted to the Planning Commission and Board of Commissioners for Final Plan approval.

Roll Call Vote on

Motion:	Mr. Gorgone	■ AYE	□ NAY
	Mr. Arrell	■ AYE	□ NAY
	Mr. McGann	■ AYE	□ NAY
	Mr. Gagliardi	■ AYE	□ NAY
	Mr. Cortese	■ AYE	□ NAY

THE MOTION WAS APPROVED.

- Mr. Gorgone entertained a motion to adjourn.

Motion: Mr. Arrell made a motion second by Mr. Cortese to adjourn the meeting.

Roll Call Vote on

Motion:	Mr. Gorgone	■ AYE	□ NAY
	Mr. Arrell	■ AYE	□ NAY
	Mr. McGann	■ AYE	□ NAY
	Mr. Gagliardi	■ AYE	□ NAY
	Mr. Cortese	■ AYE	□ NAY

THE MOTION WAS APPROVED.

Meeting

Planning Commission Meeting Minutes
July 18, 2018

Present: Denise Disney, Elizabeth Jenkins, Chris DeBruyn (Chair), Steve Minton, Nancy Templeton

Not Present: Rex Brien, Don Jones, James LeVine, Laura Poltronieri, David Virgil

Act 537 Presentation – DELCORA’s Feasibility Study for the Central Delaware Pump Station

Summary: Motion was made to approve the proposal with the recommended alternative (Option #2) so long as steps were also taken to address inflow and infiltration (e.g. do updated studies, provide recommendations on best practices to municipalities).

- Representatives from the Delaware County Regional Water Quality Control Authority (DELCORA) were present to discuss the approval of alternatives to address capacity issues at the Central Delaware Sewage Pump Station
- Central Delaware Pump Station has had a series of overflow events during peak wet weather
 - Act 537 – Each town must plan how to treat and collection their sewage. Plan must be approved by PaDEP. Once you have overflows, fines increase for every overflow. We are one of 12 towns whose sewage flows through this location.
- Options to address overflow:
 - 1: Upgrade DELCORA Central Delaware pumping station ■ Install additional and larger pumps.
 - Est. Cost: \$11.4M
 - 2: Divert flow from Central Delaware Pumping Station to the Crum Creek Pump Station.
 - Would require the construction of a new force main and adding capacity to the Crum Creek Pumping station.
 - More sewage would be pumped to the Western Regional Treatment Plant (Chester) vs. Philadelphia Southwest Treatment Plant.
 - Est. Cost: \$8.6M
 - 3: Fix inflow and infiltration issues
 - Reduce stormwater inflow and infiltration into the sanitary sewage lines.
 - Est. Cost: \$34.2M
 - 4: Do nothing
 - Est. Cost: Indeterminate
- Option 2:
 - Preferred option of DELCORA consultants
 - Already planning on upgrading capacity of Crum Creek Pumping station; can piggyback on that project
 - Philadelphia SW Plant is going to have increasing costs for DELCORA based on their PaDEP requirements over time (Philly is being required to reduce I&I).
Option 2 would send more to the Chester treatment plant and so reduce volume sent to Philly.

- Inflow and Infiltration ○ Isn't likely to be a "smoking gun" institution. Probably small-scale residential problems (e.g. sewer curb traps, sump pumps connected to sewer lines) on a massive scale
 - Based on other studies: \$34M would be the likely cost to study and achieve a roughly 10% reduction. Hard to predict the actual amount that will be able to be changed and when.
 - Storm events over 2 inches seems to be the point where the overflows start.
 - No towns in this study have combined sewer systems.
- Option 2's New Forced Main Pipe has 3 Proposed Routes:
 - Routes 1, 1A, 2 - all located in Eddystone ○ 1A: Would include more residential construction areas
 - 1: Lots of utility buildings, don't know what they're going to hit when they start digging
 - Preferred Route: #2
 - Less cost (if everything goes well when acquiring right of way), more commercial properties and fewer residential
- Planning Commission Recommendation ○ Approve but ask that DELCORA put together inflow and infiltration (I&I) plan and take action toward reducing I&I as well.
 - Focus on I&I is important. Need to address the long-term problem.
 - I&I issue in residential homes mostly addressed at point of sale. Is there something that could be done for homeowners in the meantime? Information advertised by town & EACs etc.?
 - Can also reduce some capacity in homes (low flow showerheads, etc) but that is planned use (dry weather flow rates) and overflow problems are due to rainwater events (stormwater).
- Motion: Motion was made to approve the proposal with the recommended alternative (Option #2) so long as steps were also taken to address inflow and infiltration (e.g. do updated studies, provide recommendations on best practices to municipalities).
 - All in favor

Review of Draft Family/Caregiver Suite Ordinance for Swarthmore Borough

- Some members thought that we should just define kitchen and not the additional requirements around who can live in the suite (i.e. a family member or caregiver for an elderly individual or a person with a disability) because it would be too hard to enforce. Cited the Aging in Place report's recommendation around having the ability to rent out a space as an extra income stream. ○ Basically, enhance the lodger/border requirement (currently, you can have up to 2 unrelated persons) by allowing homeowners to put in an efficiency kitchen.
 - Planning Commission had moved away from accessory dwelling units (i.e. separate structures) because of all of the restrictions that we felt we'd need to include.
- A majority of members wanted to keep the spirit of the requirement (i.e. a family or caregiver suite) clear.
 - Would be a Special Exception.

- Current homeowner would be asked to annually register who is occupying the space.
- Provides some leverage for neighbors to address their concerns to the Borough (if necessary).
- If sold, new homeowners would still need to meet requirements or take out the efficiency kitchen. Clear language would hopefully help keep real estate agents and prospective home buyers on the same page.
- Jane Billings, Borough Manager: “Mother-In-Law” suites are what I have been asked the most questions about by residents. This draft would meet that need.
- Carol Meneke, Aging in Place representative: This is good first step.
- Is it ready to go to Borough Council’s Planning and Zoning Committee? Jane and Betsy will bring two drafts (Chris’s and Jane’s) with edits indicated below for review and comment.
- Edits to document:
 - Edited “Preamble” to reflect “Providing alternative living arrangements...for an age friendly community.”
 - Take out 500 sq. ft, just have percentage. ○Change the code reference to special exception (incorrect in current doc) ○Edit efficiency kitchen definition: Change to something like “can’t have built in appliances” vs. limited to microwave oven, etc.
 - Goal: Can’t have an oven or a stovetop with more than 2 burners
- Motion: Send drafts of ordinance to Planning and Zoning for review and comment?
 - All in favor.
- Motion to adjourn the meeting.

Upper Providence Township

Planning Commission

Regular Meeting

September 24, 2018

The Upper Providence Township Planning Commission held its regular monthly business meeting on Monday, September 24, 2018 in the Township Council room. The meeting was called to order at 7:00 PM. The meeting was opened with the Pledge of Allegiance. PC members present were Michael Crotty, Joseph Maylish, Dr. David Thomas, Brianna Schehr, Jackie Larkin, Brian Carr and James Zaccaria. Also present were: Elizabeth Naughton-Beck, Esq., Township Solicitor; James P. Kelly, P.E., Township Engineer; Gregory Lebold, Township Manager and Kim McCloskey, Administrative Assistant

Approval of Minutes

Mr. Crotty made a motion seconded by Ms. Schehr to approve the minutes of June 25, 2018.

Mr. Carr – Yes

Ms. Schehr– Yes

Ms. Larkin – Yes

Mr. Zaccaria - Abstain

Mr. Maylish – Yes

Mr. Crotty - Yes

Dr. Thomas – Yes

Motion passed 7-0

Public Comments and Questions

Liz Linton of 14 Spring Street inquired about the status of the proposed hotel on State Road. She was advised that no action has been taken and the Township has not received anything new regarding the project.

Communications

None

Special Reports by Officers or Committees

None

Old Business

Comprehensive Plan

New Business

923-923 N. Orange Street Preliminary Subdivision/Land Development

Mr. Lee Stivale gave a brief background on the proposed project. Plans were previously submitted two years ago, initially as five dwellings and then revised to four dwellings during that review process. Planning did give a recommendation on the last submitted plans for four homes to be presented to Council for approval subject to zoning compliance. Attorney Stivale noted that the Zoning Hearing Board did not grant the applicant's request, and, due to riparian buffer and net out issues Applicant is back with a 3 dwelling land development. The proposed plan has a total impervious surface of approximately 12,000 to 13,000 sq. ft. They must still go to the ZHB to obtain certain required zoning relief. Two forms of relief will be required. The total area is 2.65 acres of which 50 % is riparian buffer.

According to the applicant, the project includes three lots situated in a manner designed to minimize impact on the steep slopes, very steep slopes and prohibited steep slopes. The homes will be craftsman style approximately 3500 sq. ft. with a design consistent with architecture in this area.

Michael Ciocco from Catania Engineering commented on the review from JP Kelly dated September 2, 2018. They will comply with and address the items in the review letter.

JP Addressed an issue with lot 1 the driveway it is 20' which will fit 1 car – Catania will look into at pushing the garage back or shift it to accommodate additional parking – this can be satisfied.

There was a discussion on how the mail will be delivered. The mailboxes will be at the bottom of the common drive with room for people to stop to get the mail. They can

also widen the entrance. The school bus stop will mirror exactly what is across the street where there are 5 houses on a private drive. They can install a bench for the kids to sit for the bus if it is recommended. Plans for lighting were discussed. They don't want lighting to disturb the current neighboring residents, but will install lamp post at each driveway on timers so that there is adequate lighting for the shared driveway. They will establish an HOA or other agreement between the homeowners, which will be responsible for all common improvements (including stormwater improvements).

Ms. Beck questioned the status of the 4 lot plan that is at the County for review. Attorney Stivale stated that this 3 lot plan will replace the 4 lot plan (which will be nullity if this plan is approved).

Mr. Crotty made a Motion, seconded by Mr. Carr to recommend that Council approve the Preliminary 3 lot Subdivision/Land Development application for 923-925 N. Orange Street prepared by Catania Engineering Associates, Inc. dated July 25, 2018, subject to:

1. Satisfaction of all open comments in the Township Engineer's review letter dated September 21, 2018, including but not limited to those related to:
 - a. The planning, design and operation of the stormwater management facilities;
 - b. Ensuring that clear sight triangles are provided;
 - c. Applicant obtaining all required zoning relief from the ZHB;
 - d. Applicant establishing a shared driveway agreement for maintenance of the same between the lot owners, as well as all appropriate agreements for the long-term maintenance of the storm water management facilities and other public improvements;
2. Installation of light posts at the ends of each of the proposed driveways in order to provide some minimal amount of lighting for the shared driveway;
3. Clean up/correction to the plan notes on Sheet 3 of the plans (referencing 5 lots and a private road – instead of 3 lots and a shared driveway); and
4. Review/revise the driveway length on lot 1.

Mr. Carr – Yes

Ms. Schehr– Yes

Ms. Larkin – Yes

Mr. Zaccaria - Abstain

Mr. Maylish – Yes

Mr. Crotty - Yes

Dr. Thomas – Yes

Motion passed 7-0

DELCORA – Sewage Facilities Planning – ACT 537

Mr. Crotty explained that DELCORA provides sewage treatment and disposal for the Township as well as 12 other municipalities in the region. The pump station in Ridley Township which services Upper Providence where all of our sewage goes – whenever it rains it gets overloaded (under its permitted capacity), which could potentially cause the water to push back into basements. Infiltration and inflow (water seeping into the pipes when there are heavy rains) which could be caused by a combination of people that have their sump pumps hooked up illegally to the sewer lines, cracks in the pipes, or a host of other issues. DELCORA needs to address it. Whenever they go above and have these overload, they get fined by the DEP. They have come up with four options.

1. Increase their Central Pump Station; Upgrade from 40 million gallons a day to 50 million gallons a day at a cost of \$11.4 Million.
2. Increase the DELCORA Pump Station in Ridley Township; Upgrade from 16 million gallons per day to 24 and would reroute those flows away from the central pump station at a cost of \$7.4 million.
3. Undertake a project to reduce the infiltration inflow \$34.2 Million
4. Do nothing, which will cost nothing until they start getting fined by the DEP and hit with lawsuits.

DELCORA's recommendation in the 537 Plan is #2 to upgrade the Ridley Township Station.

Mr. Ciocco from Catania Engineering stated that DELCORA is putting together a steering committee to address the I&I issues. They have started test metering programs in some areas to take a look to see if they can target some of the I&I issues in some of the neighborhoods. I&I reduction is not a quick fix, it happens over years and can be costly. The Central Pump Station in Ridley Township is on the DEP's radar because they have had a number of overflow events.

The Crum Creek Pump Station now pumps to the central Delaware pump station – we will now take 24 million gallons a day instead of just 20 million and take it out of Philadelphia and send it to DELCORA. Philadelphia has many charges so the more flow they can take out of Philadelphia the better. It will be a cost savings not having

to pay the City of Philadelphia. This proposal will increase the flow to DELCORA as it will reinforce Crum creek and avoid flow charges into Philadelphia. They want to take as much as they can out of Philadelphia.

Mr. Kelly added that in option #1, to upgrade the DELCORA Central Pump Station for 11.4 million, the end user would end up paying for that, the municipalities, and it will essentially send more flow to Philadelphia which is what they want to avoid. The CDCA consists of 12 member municipalities – 8 of which flow into the Crum Creek Station. DELCORA would do the project and then bill the CDCA for the total project cost and that would be split up based on the current agreement. Upper Providence is 5%. Mr. Ciocchi stated that an addendum was sent and the cost for #2 may be potentially be in the 8.4 or 8.5 million range. DELCORA will issue a 20 year bond based on all users in CDCA will be approximately an increase of \$15 - \$20 per user.

Mr. Kelly advised that Upper Providence has zero I&I because it is all low pressure sewer. JP agrees with the recommended option #2.

Mr. Crotty made a motion that the Planning Commission recommend approval of the 537 Study Plan pursuing diversion from the CDCA Crum Creek Pump Station seconded by Mr. Carr. Mr. Lebold stated that the Resolution regarding this would be announced at the October 11, 2018 Council meeting.

Mr. Carr – Yes

Ms. Schehr– Yes

Ms. Larkin – Yes

Mr. Zaccaria - Abstain

Mr. Maylish – Yes

Mr. Crotty - Yes

Dr. Thomas – Yes

Motion passed 7-0

Adjournment

With no further business to conduct, Mr. Crotty adjourned the meeting at 7:58 PM.

Submitted by:

Kim McCloskey

Administrative Assistant

APPENDIX 5

DELAWARE COUNTY PLANNING DEPARTMENT REVIEW



DELAWARE COUNTY PLANNING DEPARTMENT

1055 E. Baltimore Pike

Media, PA 19063

Phone: (610) 891-5200

Email: planning_department@co.delaware.pa.us

COUNCIL

JOHN P. McBLAIN
CHAIRMAN

COLLEEN P. MORRONE
VICE CHAIRMAN

MICHAEL F. CULP
KEVIN M. MADDEN
BRIAN P. ZIDEK

LINDA F. HILL
DIRECTOR

November 2, 2018

Charles J. Catania, Jr. P.E.
Vice President,
Catania Engineering Associates, Inc.
520 W. MacDade Boulevard
Milmont Park, PA 19033

RE: Sewage Facilities Planning – Draft Act 537
Special Study Plan DELCORA's Central
Delaware Pump Station

Dear Mr. Catania:

The Delaware County Planning Department (DCPD) has completed a review of the DELCORA's Draft Act 537 Special Study Plan. The following comments are submitted for your consideration.

Section 2.2 describes Crum Creek as a Warm Water Fishery and migratory fishery under PA Code Chapter 93. While this may be true for the section of Crum Creek in the proposed Study Area, according to the Crum Creek Watershed Act 167 Stormwater Management Plan (2011), "Title 25, Chapter 93 of the Pennsylvania code designates the Crum Creek from its headwaters to the boundary of Newtown, Edgmont, and Willistown Townships as High Quality Cold Water Fishery (HQ-CWF). The furthest downstream segment in the non-tidal portion of the basin is designated a Warm Water Fishery (WWF)." By further distinguishing that the Study Area is within the "WWF portion of Crum Creek" further confusion may be avoided as HQ-CWF and WWF follow different regulations.

Section 5.1.1.1 identifies the need for a stream crossing under Crum Creek. While Eddystone Borough does designate utility right-of-ways as a permitted use within a stream buffer in Section 306. Ordinance #640 (2012), it is suggested that BMP's are emphasized in this aspect of construction. Additionally, we suggest the review of Eddystone Borough Ordinance #640 (2012) also known as the Crum Creek Watershed Stormwater Management Ordinance to ensure that exemptions for Stormwater Management techniques during construction are not required.

Section 8.1, after corresponding with our transportation planners, we are in agreement with your preference for Alternate Route 2 in the construction of the Bypass Force Main. It is recognized that routes diverting away from Chester Pike are preferred, as Chester Pike serves as a major thoroughfare for local residents and commuters; however, if Route 2 is not feasible due to right-of-way difficulties, it is our suggestion that Route 1 A be the preferred alternative. While it may be less than ideal for residents, we believe that it would be a larger hindrance on the neighborhood by disrupting access to locations such as the Elementary School, Recreation Center, and Shopping Center that are more frequented by larger traffic flows during the middle of the day, rather than residential homes. We suggest consultation with local officials before decided on a primary route.

Received

NOV 08 2018

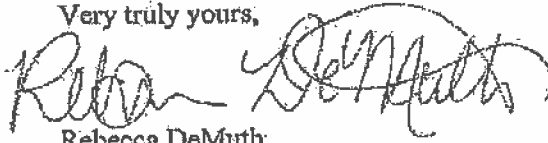
Catania Engineering Assoc., Inc.



Thank you for allowing DCPD the opportunity to comment on this plan. Upon consideration of the above-mentioned issues, DCPD has no objection to the proposed plan.

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

Very truly yours,

A handwritten signature in dark ink, appearing to read 'Rebecca DeMuth', is written over a circular stamp or seal.

Rebecca DeMuth
Associate Environmental Planner

Cc: Elizabeth Mahoney, PA Department of Environmental Protection

APPENDIX 6

PROOF OF PUBLICATION

PHILADELPHIA GROUP - PUBLISHERS OF:

The Delaware County Daily Times, a newspaper of general circulation, established September 7, 1876

AFFIDAVIT OF PUBLICATION
639 S. Chester Rd. • Swarthmore, PA 19081

DELCORA ELECTRIC
100 E 6TH STREET
CHESTER, PA 19013
Attention:

STATE OF PENNSYLVANIA,
COUNTY OF DELAWARE

The undersigned Devin A. Brice, being duly sworn, he/she is the principal clerk of Daily Times and Sunday Times, Daily & Sunday Times Digital, published in the English language for the dissemination of local or transmitted news and intelligence of a general character, which are duly qualified newspapers, and the annexed hereto is a copy of certain order, notice, publication or advertisement of:

DELCORA ELECTRIC

Published in the following edition(s):

Daily Times and Sunday Times	07/30/18
Daily & Sunday Times Digital	07/30/18

[illegible]

Affiant further deposes that she/he is not interested in the subject matter of the aforesaid notice of advertisement, and that all allegations in the foregoing statements as to time, place and character of publication are true:

Sworn to the subscribed before me this July 30, 2018

Rosine McCormick
Notary Public, State of Pennsylvania
Acting in County of Delaware

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Dianne McCormick, Notary Public
Ridley Twp., Delaware County
My Commission Expires April 20, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Advertisement Information

Client Id: 882225

Ad Id: 1626479

PQ:

Sales Person: 066305

Ad ID: 1626479
Cost: \$275.23
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Stop: 07/30/18
Class: 1201, Legal Notices

Public Notice

On behalf of the townships of Newtown, Edgmont, Upper Providence, Marple, Springfield, Nether Providence, Ridley, and Swarthmore Borough, DELCORA has proposed a revision to the 537 Official Sewage Plan for these municipalities. This revision is the Crum Creek Pump Station Flow Diversion. The project includes the construction of a force main to divert flow from the DELCORA Central Delaware Pump Station. Sewage flows from the eight (8) towns listed above are conveyed by the CDCA Crum Creek Pump Station Plan to the Central Delaware Pump Station and the proposed flow diversion will divert all flows, including peak flows to the Delcra Western Regional Treatment Plant. The proposed force main will generally run from Crum Creek near Chester Pike in Ridley Township to Route 291 in Eddystone Borough. Copies are available at, and written comments concerning the same, should be directed to the offices below within 30 days.

Edgmont Township
1060 Gradyville Road
P.O. Box 267
Gradyville, PA 19039

Upper Providence Township
935 N. Providence Road
Media, PA 19063

Marple Township
227 South Spraul Road
Broomall, PA 19008

Springfield Township
50 Powell Road
Springfield, PA 19064

Swarthmore Borough
121 Park Avenue
Swarthmore, PA 19081

Nether Providence Township
214 Sykes Lane
Wallingford, PA 19086

Newtown Township
209 Bishop Hollow Road
Newtown Square, PA 19079
DCT, July 30, a-2

Ridley Township
100 E. MacDade Boulevard
Folsom, PA 19033

APPENDIX 7

COMMENTS& RESPONSES

1. Edgmont Township letter August 23, 2018
2. Edgmont Township Response September 19, 2018
3. DCPD Response November 13, 2018

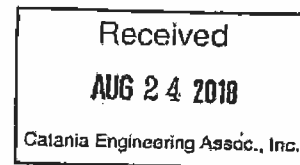


TOWNSHIP OF EDGMONT

1000 Gradyville Road
PO Box 267
Gradyville, Pennsylvania 19039
610-459-1662 phone 610-459-3760 fax

August 23, 2018

Catania Engineering
Attn: Michael Ciocco, P.E.
520 W. MacDade Boulevard
Milmont Park, PA 19033



**RE: Proposed DELCORA Act 537 Plan Amendment
Feasibility Study for Central Delaware Pump Station**

Dear Mr. Ciocco,

Edgmont Township is in receipt of the proposed Act 537 Plan Amendment prepared by Catania Engineering, dated June 28, 2018, which explores several alternatives to address wet weather flow issues at DELCORA's Central Delaware Pump Station located on Sellers Avenue in Ridley Park. Specifically, the proposal indicates that the Pump Station is rated to pump 40 million gallons per day (MGD) with average flows of approximately 9 MGD on dry weather days and well over 40 MGD on wet weather days. Overflows are also noted to have occurred on wet weather days per the Feasibility Study.

The Board of Supervisors has considered the recommendation of Catania Engineering to explore Alternative #2, i.e. to construct a new force main to bypass the CDCA Crum Creek Pump Station and divert 24 MGD from the DELCORA Central Delaware Pump Station to the DELCORA Central Diversion Force Main in Route 291 for an anticipated cost of \$7.73 million. The Feasibility Study also recommends that this Alternative not be considered by itself, but in conjunction with Alternative #3 which is a Comprehensive Infiltration and Inflow (I & I) Reduction Plan.

As DELCORA is aware, Edgmont's public sanitary sewer system has only recently been completed, being placed in service on or about February 1, 2016. As a result, there is currently little to no I & I emanating from this system, as is demonstrated by the monthly flow meter data from Edgmont's pump stations since the system went on line. In addition, Edgmont Township continues to actively pursue I & I reduction via its Duty to Connect Ordinance (Edgmont Township Ordinance #227), requiring time of sale lateral inspection and repair requirements.

At this time, the Township is requesting additional information regarding how the costs amongst DELCORA's users will be shared, as it is the Township's position that the most equitable distribution of costs for construction of the new force main should be paid in proportion to the I & I contributions to the Pump Station. Additionally, the Township would like a timeline for implementation of a system-wide I & I reduction plan, consistent with the recommendation of the Feasibility Study.

Finally, the Township would like copies of DELCORA's Chapter 94 report for 2016 and 2017 and the I & I Reduction Study prepared by Arcadis referenced in the Feasibility Study to allow it to further evaluate the necessity and feasibility of the alternatives set forth in the Feasibility Study.

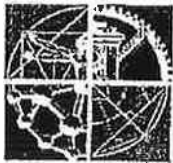
Please contact Catherine Ricardo, Township Manager, to provide the requested information or with any questions.

Very Truly Yours,

A handwritten signature in cursive script, appearing to read "Ronald Gravina".

Ronald Gravina
Chairman, Board of Supervisors

cc: DELCORA
CDCA
Ken Kynett, Esq., Township Solicitor



CATANIA ENGINEERING ASSOCIATES, INC.

Consulting Engineers & Land Surveyors

September 19, 2018
File No. 81600-CDPS-2018

Ronald Gravino, Chairman
Edgmont Township
1000 Gradyville Road
PO Box 267
Edgmont, Pennsylvania 19039

Re: Act 537 Special Study Plan
DELCORA Central Delaware Pump Station

Dear Mr. Gravino:

Please accept this letter as a response to your comments dated August 23, 2018 on the proposed Act 537 Special Study Plan for DELCORA Central Delaware Pump Station. Our comments are as follows:

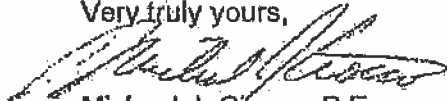
1. The costs for the project will be distributed in accordance with the current agreements between DELCORA and Central Delaware County Authority and between Central Delaware County Authority and its member municipalities. While open to any suggestion on cost sharing, any deviation will require amendments to those agreements.
2. The system-wide I&I reduction plan is a supplementary recommendation of the Feasibility Study and not the Act 537 Special Study Plan. DELCORA has long been a proponent of inflow and infiltration reduction and is committed to continuing that effort. Consistent with PA DEP and EPA requirements, DELCORA will continue a program to identify and address such peak excess flows in the sanitary sewer systems. In your letter, you state that Edgmont has little to no I&I emanating from its system. Please review the attached flow chart from Edgmont's Runnymede Farms Pump Station and note the increase in flow during the August 13 rain event. This is not meant to dispute the statement. It is meant to demonstrate the difficulty and elusiveness of quantifiable I&I reduction.
3. Copies of DELCORA's Chapter 94 reports for 2016 and 2017 are voluminous and are available for inspection at the DELCORA office. Please contact the DELCORA administration office to set up a time to review. Copies of sections can be made upon request.
4. The Arcadis cost data was generated as a component of a flow alternatives study performed on DELCORA's system. It was not an I&I Reduction Study. The I&I effectiveness table is an excerpt of that work-product and is used to demonstrate the magnitude of the cost of I&I reduction. The source citation for the cost table will be updated in the final version of the Feasibility Study. The larger scale flow alternatives study is not completed at this time.

520 W. MacDade Boulevard, Millmont Park, Pennsylvania 19033-3311
Phone (610) 532-2884 • Fax (610) 532-2923 • E-Mail office10@cataniaengineering.com

In addition to your letter, the Edgmont Township Planning Commission expressed similar concerns and had similar questions. As part of this process, it is important to understand the severity of the current issue at Central Delaware Pump Station and the need to address in the short term. There have been ten (10) capacity exceedances since 2013. It would be irresponsible and frankly negligent to continue operating the pump station without a plan to address the issue in a short term manner and the Crum Creek Pump Station Diversion provides that solution. While we appreciate the need to address peak wet weather flows, history has taught us that I&I reduction does not provide a definitive short-term solution to the problem. Unfortunately, the capacity issues at Central Delaware Pump Station will affect DELCORA's ability to accept new flows into the system.

Should you have any further comments or questions, please feel free to contact me.

Very truly yours,



Michael J. Ciocco, P.E.
for Catania Engineering Assoc., Inc.

Enclosure(s)

Cc: Catherine Ricardo, Edgmont Township Manager
Charles Hurst, P.E., DELCORA
Fernando Mascioli, CDCA



CATANIA ENGINEERING ASSOCIATES, INC.

Consulting Engineers & Land Surveyors

November 13, 2018
File No. 81600-CDPS-2018'

Rebecca DeMuth
Delaware County Planning Department
1055 E. Baltimore Pike
Media, PA 19063

Re: Act 537 Special Study Plan
DELCORA Central Delaware Pump Station

Dear Ms. DeMuth:

Thank you for your review of the proposed Act 537 Special Study Plan for DELCORA Central Delaware Pump Station. Our response are as follows:

1. Section 2.2 has been revised.
The Planning Area is within the Crum Creek Watershed. Crum Creek is designated as a warm water fishery, migratory fishery under Pa Code Chapter 93. It should be noted that Crum Creek from its headwaters to the boundary of Newtown, Edgmont and Willistown Township is designated as High Quality Cold Water Fishery. However, the study area and proposed work is within the segment of Crum Creek designated as Warm Water Fishery. The proposed force main route will require a crossing of Crum Creek. The majority of the proposed force main route will be within existing paved roads and driveways. The Crum Creek Watershed and potential stream crossing are shown in Figure 2.2.1.
2. Section 5.1.1.1 has not been edited to address this comment. However, additional language has been added to Section 8.1 to discuss the stormwater requirements of the Eddystone Stormwater Ordinance. Section 8.1 seemed to be a better location for this comment since stream crossings are required along all alternate routes and Section 8.1 included discussion of consistency with various local, state and federal plans.
During design, consistency with Ridley Township and Eddystone Borough Stormwater Management Ordinances and Floodplain Ordinances should be reviewed for compliance. Particular attention to the requirements of stormwater best management practices (BMPs) should be given to the stream crossings.
3. Section 8.1 is agreed as mentioned.

Once again, thank you for your comments and please contact me if you have any further comments or questions.

Very truly yours,


Charles J. Catania, Jr., P.E.
for Catania Engineering Assoc., Inc.

Cc: Charles Hurst, P.E., DELCORA

APPENDIX 8
COST ANALYSIS

Delcora									
CCPS Bypass Forcemain									
Alt 1 A- Chester Pike/Saville Ave									
1	Mobilization/Demobilization	Lump	Sum					=	\$ 75,000
2	Erosion & Sediment Control	Lump	Sum					=	\$ 2,000
3	36" Forcemain Pipe	5100	LF	@	\$ 650	/LF		=	\$ 3,315,000
4	Stream Crossing - Boring	200	LF	@	\$ 2,000	/LF		=	\$ 400,000
5	Railroad Crossing - Boring	200	LF	@	\$ 2,000	/LF		=	\$ 400,000
6	Paving Restoration	19500	SY	@	\$ 20	/SY		=	\$ 390,000
7	Fittings	14	EA	@	\$ 12,000	/EA			\$ 168,000
							Construction Subtotal		\$ 4,750,000
							15% Contingency		\$ 712,500
							Design		\$ 783,300
							Construction Inspection/Coordination		\$ 545,800
							Utility Conflict Allowance		\$ 120,000
							CCPS BYPASS FORCEMAIN TOTAL		\$ 6,911,600
	*Alt 1- Chester Pike/Saville Ave - costs \$90,000 less for paving restoration								
CCPS UPGRADE									
							Construction Subtotal		\$ 1,141,000
							Administrative and Bonds		\$ 22,000
							Engineering, Permitting and Survey Services		\$ 97,000
							Construction Management		\$ 91,000
							Reduction in Contingency 25% to 20%		\$ (57,000)
							CCPS UPGRADE TOTAL (ROUNDED)		\$ 1,294,000
CENTRAL DIVERSION FORCEMAIN UPGRADE									
1	Air Release Valves	10	EA	@	29000	/EA		=	\$ 290,000.00
							Construction Subtotal		\$ 290,000
							15% Contingency		\$ 43,500
							Design		\$ 47,500
							Construction Inspection/Coordination		\$ 33,000
							CENTRAL DIVERSION FORCEMAIN UPGRADE TOTAL		\$ 414,000
							PROJECT TOTAL		\$ 8,619,600
	*Alt 1- Chester Pike/Saville Ave - Project Total costs \$128,000 less								

Crum Creek Pump Station Force Main Diversion

Alternative 2 – Baldwin Towers/FPL Site

Delcora							
CCPS Bypass Forcemain							
Alt 2 - Baldwin Towers/FPL Site							
CCPS BYPASS FORCEMAIN							
1	Mobilization/Demobilization	Lump	Sum			= \$	75,000
2	Erosion & Sediment Control	Lump	Sum			= \$	25,000
3	36" Forcemain Pipe	4000	LF	@	\$ 650 /LF	= \$	2,600,000
4	Stream Crossing - Boring	150	LF	@	\$ 2,000 /LF	= \$	300,000
5	Railroad Crossing - Boring	200	LF	@	\$ 2,000 /LF	= \$	400,000
6	Paving Restoration	6500	SY	@	\$ 20 /SY	= \$	130,000
7	Fittings	15	EA	@	\$ 12,000 /EA	= \$	180,000
					Construction Subtotal	\$	3,710,000
					15% Contingency	\$	556,500
					Design	\$	611,850
					Construction Inspection/Coordination	\$	426,425
					Right of Way Allowance	\$	473,000
					Utility Conflict Allowance	\$	120,000
					CCPS BYPASS FORCEMAIN TOTAL	\$	5,897,775
CCPS UPGRADE							
					Construction Subtotal	\$	1,141,000
					Administrative and Bonds	\$	22,000
					Engineering, Permitting and Survey Services	\$	97,000
					Construction Management	\$	91,000
					Reduction in Contingency 25% to 20%	\$	(57,000)
					CCPS UPGRADE TOTAL (ROUNDED)	\$	1,294,000
CENTRAL DIVERSION FORCEMAIN UPGRADE							
1	Air Release Valves	10	each	@	29000 /ea	= \$	290,000.00
					Construction Subtotal	\$	290,000
					15% Contingency	\$	43,500
					Design	\$	47,500
					Construction Inspection/Coordination	\$	33,000
					CENTRAL DIVERSION FORCEMAIN UPGRADE TOTAL	\$	414,000
					PROJECT TOTAL	\$	7,605,775

APPENDIX 9
PNDI RECEIPT

1. PROJECT INFORMATION

Project Name: DELCORA Crum Creek Pump Station Bypass FM Alternate 1
Date of Review: 1/24/2019 09:03:57 AM
Project Category: Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewer line (new - construction in new location)
Project Area: 8.86 acres
County(s): Delaware
Township/Municipality(s): EDDYSTONE; RIDLEY
ZIP Code: 19013; 19022; 19094
Quadrangle Name(s): BRIDGEPORT
Watersheds HUC 8: Lower Delaware
Watersheds HUC 12: Crum Creek; Ridley Creek
Decimal Degrees: 39.859984, -75.341216
Degrees Minutes Seconds: 39° 51' 35.9431" N, 75° 20' 28.3767" W

2. SEARCH RESULTS

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

DELCORA Crum Creek Pump Station Bypass FM Alternate 1

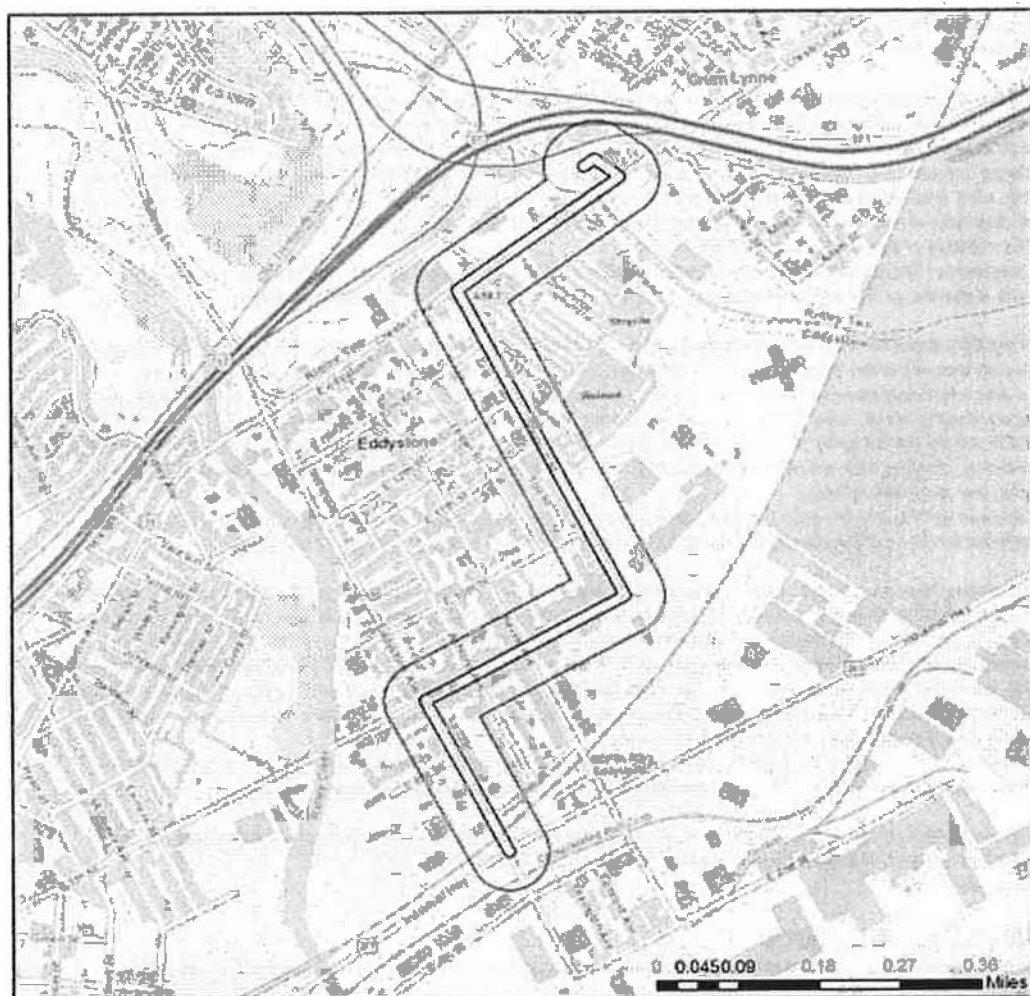


- ☐ Project Boundary
- ☐ Buffered Project Boundary

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



DELCORA Crum Creek Pump Station Bypass FM Alternate 1



- ☐ 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

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS,



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: Yes

Q2: 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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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: Yes

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:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: <https://conservationexplorer.dcnr.pa.gov/content/survey-protocols>)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
<i>Zizania aquatica</i>	Indian Wild Rice	Special Concern Species*	Special Concern Species*	Flowers late May - early September

PA Fish and Boat Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

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

Scientific Name	Common Name	Current Status
<i>Alosa mediocris</i>	Hickory Shad	Endangered
Sensitive Species**		Endangered
Sensitive Species**		Threatened

U.S. Fish and Wildlife Service

RESPONSE:

Information Request: Conduct a Bog Turtle Habitat (Phase 1) Survey in accordance with USFWS Guidelines for Bog Turtle Surveys (April 2006). Evaluate all wetlands within 300 feet of the project area, which includes all areas that will be impacted by earth disturbance or project features (e.g. roads, structures, utility lines, lawns, detention basins, staging areas, etc.). IF THE PHASE 1 SURVEY IS DONE BY A QUALIFIED BOG TURTLE SURVEYOR (see <https://www.fws.gov/northeast/pato/endangered/surveys.html>): 1) Send positive results to USFWS for concurrence, along with a project description documenting how impacts will be avoided. OR, conduct a Phase 2 survey and send Phase 1 and 2 results to USFWS for concurrence. 2) Send a courtesy copy of negative results to USFWS (label as "Negative Phase 1 Survey Results by Qualified Bog Turtle Surveyor: USFWS Courtesy Copy"). USFWS approval of negative results is not necessary when a qualified surveyor does the survey in full accordance with USFWS guidelines. IF THE PHASE 1 SURVEY IS NOT DONE BY A QUALIFIED SURVEYOR: Send ALL Phase 1 results to USFWS for concurrence, and if potential habitat is found, also send a project description documenting how impacts will be avoided. As a qualified bog turtle surveyor, I _____ (name) certify that I conducted a Phase 1 survey of all wetlands in and within 300 feet of the project area on _____ (date) and determined that bog turtle habitat is absent.

(Signature)

* **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, **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

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 Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

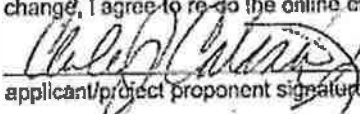
PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: CHARLES CATANEA
Company/Business Name: CATANEA ENGINEERING ASSOCIATES
Address: 520 MacDade Boulevard
City, State, Zip: MILFORD PARK, PENNSYLVANIA, 19022
Phone: (610) 532-2864 Fax: (610) 532-2423
Email: CSCJr@CATANEAENGINEERING.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

1/24/14
date



BUREAU OF FORESTRY

January 30, 2019

PNDI Number: 658334
Version: Final_1; 1/24/19

Charles Catania
Catania Engineering Associates, Inc.
520 W. MacDade Blvd
City, PA 17325
Email: cjcjr@cataniaengineering.com (hard copy will not follow)

Re: DELCORA Crum Creek Pump Station Bypass FM Alternate 1
Eddystone, Ridley; Delaware, PA

Dear Mr. Catania,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 658334 (Final_1) for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated with Conservation Measure

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. Numerous records of *Zizania aquatica* (Indian Wild Rice: PA Special Concern) exist within and around the project footprint. Please take precautions to ensure that the aquatic resources which this species inhabits are not disturbed by project activities. This includes minimizing earth disturbance of Crum Creek shore habitat to the greatest extent practicable and preventing the introduction and dispersal of invasive species to the project area. Invasive species guidelines can be found below. With compliance to these conservation measures, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

Recommended Actions:

- Design the project to minimize the area of disturbance to the fullest extent that would allow for construction. This will help to lessen the area of soil and vegetation disturbance associated with this project.
- Clean boot treads, construction equipment, and vehicles thoroughly (especially the undercarriage and wheels) before they are brought on site. This will remove invasive plant seeds and invasive earthworms/cocoons that may have been picked up at other sites.
- Do not transport untreated leaves, mulch, compost, or soil to the site from another location.
- Do not use seed mixes that include invasive species. Please also use weed-free straw or hay mixes. More information about invasive species in Pennsylvania can be found at the following link: <http://www.dcnr.pa.gov/Conservation/WildPlants/InvasivePlants/Pages/default.aspx>
- Use habitat appropriate seed mixes. For example, when reseeded along a waterway, utilize a riparian seed mix. The Bureau of Forestry Planting & Seeding Guidelines can be found here for recommendations: http://www.dcnr.pa.gov/fs/groups/public/documents/document/dcnr_20031083.pdf
- Report occurrences of invasive species to [Invasives.org](http://www.invasives.org/). Focus on large infestations and species that are not yet well established in the region or in Pennsylvania (<http://www.painvasives.org/be-on-the-lookout>).

conserve sustain enjoy

P.O. Box 8552, Harrisburg, PA 17015-8552 717-787-3444 (fax) 717-772-0271

For Equal Opportunity Information

dcnr.state.pa.us

Printed on Recycled Paper

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Alexander Dogonziuck, Ecological Information Specialist, by phone (717-783-3913) or via email (c-adogonni@pa.gov).

Sincerely



Greg Podnietinski, Section Chief
Natural Heritage Section



Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
595 E Rolling Ridge Dr.
Bellefonte, PA 16823
814-359-5237

February 4, 2019

IN REPLY REFER TO
SIR# 50668

Catania Engineering Associates, Inc.
Charles Catania
520 W. MacDade Blvd.
Millmont Park, Pennsylvania 19033

RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 658334_1
DELCORA Crum Creek Pump Station Bypass FM Alternate 1
DELAWARE County: Eddystone Borough, Ridley Township

Dear Charles Catania:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code.

An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

Our Mission:

www.fish.state.pa.us

To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.

If you have any questions regarding this review, please contact Kathy Gipe at 814-359-5186 and refer to the SIR # 50668. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in cursive script, reading "Christopher A. Urban".

Christopher A. Urban, Chief
Natural Diversity Section

CAU/KDG/dm

PNDI # 658334, 658335, 658338

USFWS Project # 2019-0471

U.S. FISH AND WILDLIFE SERVICE
110 Radnor Road, Suite 101, State College, PA 16801

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

PROJECT LOCATION INFORMATION

County: Delaware
Township: Eddystone, Ridley

MISC INFORMATION

Date received by FWS: January 28, 2019
☐ ACTIVE ☐ ARCHIVE

USFWS COMMENTS ☒ EMAILED ☐ MAILEDEmail: CJCJr@Cataniaengineering.comTo: Charles CataniaAffiliation: Catania Engineering Associates**SPECIFIC PROJECT:** DELCORA Crum Creek Pump Station Bypass Force Main Alternates 1, 1A & 2**FISH AND WILDLIFE SERVICE COMMENT(S)**☒ **NOT LIKELY TO ADVERSELY AFFECT**

The federally listed hog turtle occurs or may occur in or near the project area. However, based on our review of the information provided, including the project description and location (No wetlands are present. Projects are located in a highly developed urban location.) The force main will be directionally drilled under Chester Creek. Construction will occur in existing paved surfaces.

no adverse effects to this species are likely to occur. If there is any change in the location, scale, scope, layout or design of the project, further consultation or coordination with the Service will be necessary.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. Consequently, comments on this form are not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other authorities. *Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.*

This review was conducted by the biologist listed below. He/she can be contacted at 814-234-4090.

☐ Bonnie Dershem (x7453)
☐ Melinda Turner (x7449)

☐ Brian Scofield (x7471)
☐ Nicole Ranalli (x7455)

☒ Jennifer Kagel (x7451)
☐ Pamela Shellenberger (x7459)

ROBERT ANDERSON
Digitally signed by
ROBERT ANDERSON
Date: 2019.04.12
11:02:31 -04'00'

SIGNATURE: _____

Supervisor, Pennsylvania Field Office

1. PROJECT INFORMATION

Project Name: DELCORA Crum Creek Pump Station Bypass FM Alternate 1A
Date of Review: 1/24/2019 09:30:54 AM
Project Category: Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewer line (new - construction in new location)
Project Area: 7.37 acres
County(s): Delaware
Township/Municipality(s): EDDYSTONE; RIDLEY
ZIP Code: 19022
Quadrangle Name(s): BRIDGEPORT
Watersheds HUC 8: Lower Delaware
Watersheds HUC 12: Crum Creek; Repaupo Creek-Delaware River; Ridley Creek
Decimal Degrees: 39.862786, -75.344708
Degrees Minutes Seconds: 39° 51' 46.299" N, 75° 20' 40.9477" W

2. SEARCH RESULTS

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

DELCORA Crum Creek Pump Station Bypass FM Alternate 1A

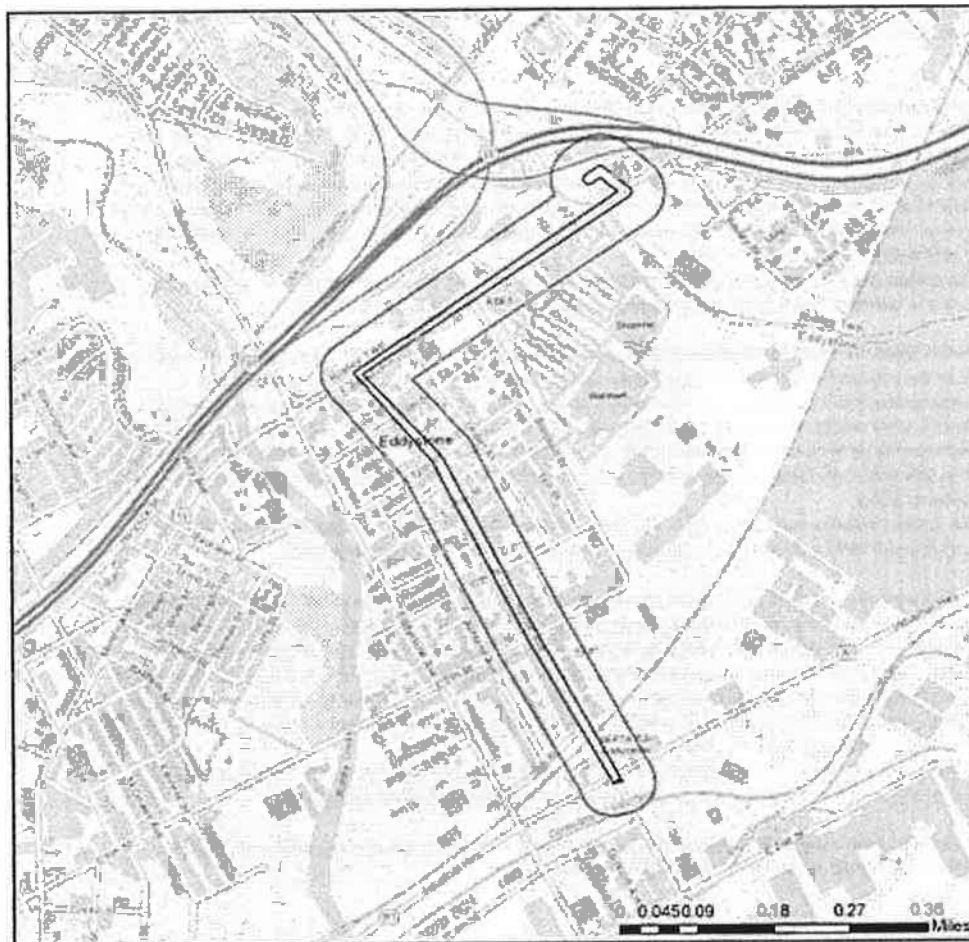


- ☐ Project Boundary
- ☐ Buffered Project Boundary

Source Layer Credits: Source: 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, Garmin, © OpenStreetMap contributors, and the GIS user community



DELCORA Crum Creek Pump Station Bypass FM Alternate 1A



- ☐ Project Boundary
- ☐ Buffered Project Boundary

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



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: Yes

Q2: 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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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: Yes

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:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: <https://conservationexplorer.dcnr.pa.gov/content/survey-protocols>)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
<i>Zizania aquatica</i>	Indian Wild Rice	Special Concern Species	Special Concern Species	Flowers late May - early September

PA Fish and Boat Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

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

Scientific Name	Common Name	Current Status
Sensitive Species		Endangered
Sensitive Species		Threatened

U.S. Fish and Wildlife Service

RESPONSE:

Information Request: Conduct a Bog Turtle Habitat (Phase 1) Survey in accordance with USFWS Guidelines for Bog Turtle Surveys (April 2008). Evaluate all wetlands within 300 feet of the project area, which includes all areas that will be impacted by earth disturbance or project features (e.g., roads, structures, utility lines, lawns, detention basins, staging areas, etc.). IF THE PHASE 1 SURVEY IS DONE BY A QUALIFIED BOG TURTLE SURVEYOR (see <https://www.fws.gov/northeast/pato/endangered/surveys.html>): 1) Send positive results to USFWS for concurrence, along with a project description documenting how impacts will be avoided. OR, conduct a Phase 2 survey and send Phase 1 and 2 results to USFWS for concurrence. 2) Send a courtesy copy of negative results to USFWS (label as "Negative Phase 1 Survey Results by Qualified Bog Turtle Surveyor; USFWS Courtesy Copy"). USFWS approval of negative results is not necessary when a qualified surveyor does the survey in full accordance with USFWS guidelines. IF THE PHASE 1 SURVEY IS NOT DONE BY A QUALIFIED SURVEYOR: Send ALL Phase 1 results to USFWS for concurrence, and if potential habitat is found, also send a project description documenting how impacts will be avoided. As a qualified bog turtle surveyor, I _____ (name) certify that I conducted a Phase 1 survey of all wetlands in and within 300 feet of the project area on _____ (date) and determined that bog turtle habitat is absent.

_____(Signature)

* **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, 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

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 Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

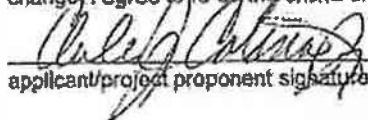
PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: Charles Catania
Company/Business Name: Catania Engineering Associates
Address: 520 Macdade Boulevard
City, State, Zip: MELMONT PARK PENNSYLVANIA 17033
Phone: (610) 532-2884 Fax: (610) 532-2923
Email: C3C3r@CATANIAENGINEERING.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

1/04/14
date

January 30, 2019

PNDI Number: 658335
Version: Final_1; 1/24/19

Charles Catania
Catania Engineering Associates, Inc.
520 W. MacDade Blvd
Milmont Park, PA 19033
Email: cjcjr@cataniaengineering.com (hard copy will not follow)

Re: DELCORA Crum Creek Pump Station Bypass FM Alternate 1A
Eddystone, Ridley; Delaware, PA

Dear Mr. Catania,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 658335 (Final_1) for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated with Conservation Measure

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. Numerous records of *Zizania aquatica* (Indian Wild Rice; PA Special Concern) exist within and around the project footprint. Please take precautions to ensure that the aquatic resources which this species inhabits are not disturbed by project activities. This includes minimizing earth disturbance of Crum Creek shore habitat to the greatest extent practicable and preventing the introduction and dispersal of invasive species to the project area. Invasive species guidelines can be found below. With compliance to these conservation measures, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

Recommended Actions:

- Design the project to minimize the area of disturbance to the fullest extent that would allow for construction. This will help to lessen the area of soil and vegetation disturbance associated with this project.
- Clean boot treads, construction equipment, and vehicles thoroughly (especially the undercarriage and wheels) before they are brought on site. This will remove invasive plant seeds and invasive earthworms/cocoons that may have been picked up at other sites.
- Do not transport unsterilized leaves, mulch, compost, or soil to the site from another location.
- Do not use seed mixes that include invasive species. Please also use weed-free straw or hay mixes. More information about invasive species in Pennsylvania can be found at the following link: <http://www.dcnr.pa.gov/Conservation/WildPlants/InvasivePlants/Pages/default.aspx>
- Use habitat appropriate seed mixes. For example, when reseeded along a waterway, utilize a riparian seed mix. The Bureau of Forestry Planting & Seeding Guidelines can be found here for recommendations: http://www.docs.dcnr.pa.gov/cs/groups/public/documents/document/dcnr_20031083.pdf
- Report occurrences of invasive species to iMapInvasives at <https://www.imapinvasives.org/>. Focus on large infestations and species that are not yet well established in the region or in Pennsylvania (<https://www.paimapinvasives.org/be-on-the-lookout>).

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNHP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Alexander Dogonniuck, Ecological Information Specialist, by phone (717-783-3913) or via email (a-dogonni@pa.gov).

Sincerely



Greg Podnieszinski, Section Chief
Natural Heritage Section



Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
595 E Rolling Ridge Dr.
Bellefonte, PA 16823
814-359-5237

February 4, 2019

**IN REPLY REFER TO
SIR# 50670**

Catania Engineering Associates, Inc.
Charles Catania
520 W. MacDade Blvd
Millmont Park, PA 19033

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 658335 1
DELCORA Crum Creek Pump Station Bypass FM Alternate 1A
DELAWARE County: Eddystone Borough**

Dear Charles Catania:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code.

An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

Our Mission:

www.fish.state.pa.us

To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.

If you have any questions regarding this review, please contact Kathy Gipe at 814-359-5186 and refer to the SIR # 50670. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher A. Urban". The signature is fluid and cursive, with the first name "Christopher" being more prominent than the last name "Urban".

Christopher A. Urban, Chief
Natural Diversity Section

CAU/KDG/dn

PNDI # 658334, 658335, 658338

USFWS Project # 2019-0471

U.S. FISH AND WILDLIFE SERVICE
110 Radnor Road, Suite 101, State College, PA 16801

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

PROJECT LOCATION INFORMATION

County: Delaware
Township: Eddystone; Ridley

MISC INFORMATION

Date received by FWS: January 28, 2019
☐ ACTIVE ☐ ARCHIVE

USFWS COMMENTS ☒ EMAILED ☐ MAILEDEmail: CJCJr@Cataniaengineering.comTo: Charles CataniaAffiliation: Catania Engineering AssociatesSPECIFIC PROJECT: DELCORA Crum Creek Pump Station Bypass Force Main Alternates 1, 1A & 2**FISH AND WILDLIFE SERVICE COMMENT(S):**☒ **NOT LIKELY TO ADVERSELY AFFECT**

The federally listed, bog turtle occurs or may occur in or near the project area. However, based on our review of the information provided, including the project description and location (No wetlands are present. Projects are located in a highly developed urban location.

The force main will be directionally drilled under Chester Creek. Construction will occur in existing paved surfaces.

no adverse effects to this species are likely to occur. If there is any change in the location, scale, scope, layout or design of the project, further consultation or coordination with the Service will be necessary.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. Consequently, comments on this form are not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other authorities. Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.

This review was conducted by the biologist listed below. He/she can be contacted at 814-234-4090.

☐ Bonnie Dershem (x7453)
☐ Melinda Turner (x7449)

☐ Brian Scofield (x7471)
☐ Nicole Ranalli (x7455)

☒ Jennifer Kagel (x7451)
☐ Pamela Shellenberger (x7459)

ROBERT ANDERSON
Digitally signed by
ROBERT ANDERSON
Date: 2019.04.12
11:02:31 -04'00'

SIGNATURE:

Supervisor, Pennsylvania Field Office

1. PROJECT INFORMATION

Project Name: DELCORA Crum Creek Pump Station Bypass FM Alternate 2
Date of Review: 1/24/2019 09:26:52 AM
Project Category: Waste Transfer, Treatment, and Disposal, Liquid waste/Effluent, Sewer line (new - construction in new location)
Project Area: 6.09 acres
County(s): Delaware
Township/Municipality(s): EDDYSTONE; RIDLEY
ZIP Code: 19022
Quadrangle Name(s): BRIDGEPORT
Watersheds HUC 8: Lower Delaware
Watersheds HUC 12: Crum Creek
Decimal Degrees: 39.864041, -75.336194
Degrees Minutes Seconds: 39° 51' 50.5491" N, 75° 20' 10.2985" W

2. SEARCH RESULTS

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

DELCORA Crum Creek Pump Station Bypass FM Alternate 2

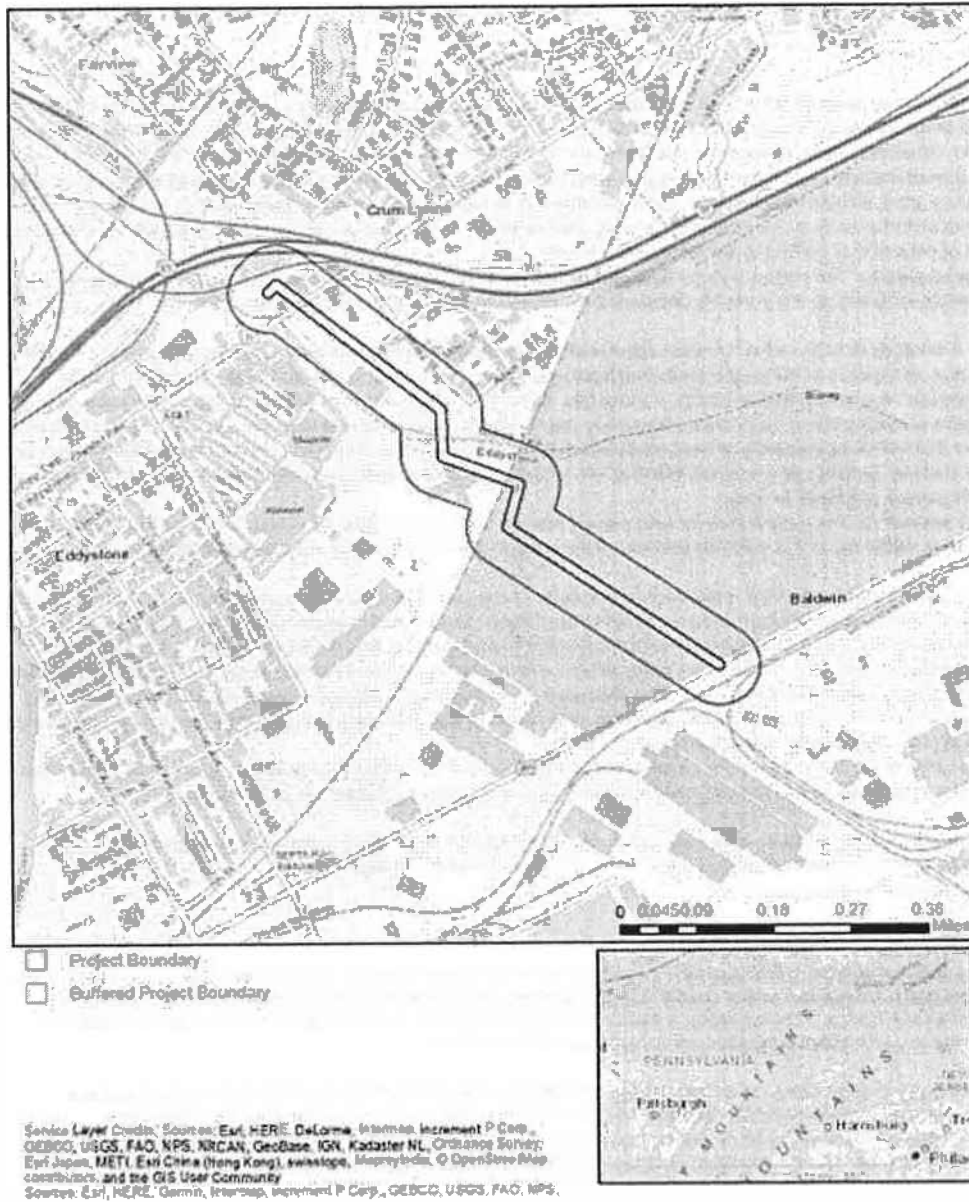


- ☐ Project Boundary
- ☐ Buffered Project Boundary



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

DELCORA Crum Creek Pump Station Bypass FM Alternate 2



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: Yes.

Q2: 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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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 project area (or land parcel) has not been investigated by someone qualified to identify and delineate wetlands, or it is currently unknown if the project or project activities will affect wetlands.

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: Yes

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:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here: <https://conservationexplorer.dcnr.pa.gov/content/survey-protocols>)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
<i>Zizania aquatica</i>	Indian Wild Rice	Special Concern Species*	Special Concern Species*	Flowers late May - early September

PA Fish and Boat Commission

RESPONSE:

Further review of this project is necessary to resolve the potential impact(s). Please send project information to this agency for review (see WHAT TO SEND).

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

Scientific Name	Common Name	Current Status
<i>Alosa mediocris</i>	Hickory Shad	Endangered
<i>Erneacanthus obesus</i>	Banded Sunfish*	Endangered
Sensitive Species**		Endangered?
Sensitive Species***		Threatened

U.S. Fish and Wildlife Service

RESPONSE:

Information Request: Conduct a Bog Turtle Habitat (Phase 1) Survey in accordance with USFWS Guidelines for Bog Turtle Surveys (April 2006). Evaluate all wetlands within 300 feet of the project area, which includes all areas that will be impacted by earth disturbance or project features (e.g., roads, structures, utility lines, lawns, detention basins, staging areas, etc.). IF THE PHASE 1 SURVEY IS DONE BY A QUALIFIED BOG TURTLE SURVEYOR (see <https://www.fws.gov/northeast/osfo/endangered/surveys.html>): 1) Send positive results to USFWS for concurrence, along with a project description documenting how impacts will be avoided. OR, conduct a Phase 2 survey and send Phase 1 and 2 results to USFWS for concurrence. 2) Send a courtesy copy of negative results to USFWS (label as "Negative Phase 1 Survey Results by Qualified Bog Turtle Surveyor; USFWS Courtesy Copy"). USFWS approval of negative results is not necessary when a qualified surveyor does the survey in full accordance with USFWS guidelines. IF THE PHASE 1 SURVEY IS NOT DONE BY A QUALIFIED SURVEYOR: Send ALL Phase 1 results to USFWS for concurrence, and if potential habitat is found, also send a project description documenting how impacts will be avoided. As a qualified bog turtle surveyor, I _____ (name) certify that I conducted a Phase 1 survey of all wetlands in and within 300 feet of the project area on _____ (date) and determined that bog turtle habitat is absent.

(Signature)

* 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, **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

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 Fish and Boat Commission
Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

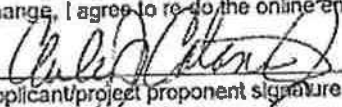
PA Game Commission
Bureau of Wildlife Habitat Management
Division of Environmental Planning and Habitat Protection
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: CHARLES CATANER
Company/Business Name: CATANER ENGINEERING ASSOCIATES
Address: 520 MALDEN BOULEVARD
City, State, Zip: MILFORD PA 18301
Phone: (610) 532-2884 Fax: (610) 532-2423
Email: CJ23r@CATANERENGINEERING.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

1/24/09
date

BUREAU OF FORESTRY

January 30, 2019

PNDI Number: 658338

Version: Final_1; 1/24/19

Charles Catania
Catania Engineering Associates, Inc.
520 W. MacDade Blvd
Milmont Park, PA 19033
Email: cjcir@cataniaengineering.com (hard copy will not follow)

Re: DELCORA Crum Creek Pump Station Bypass FM Alternate 2
Eddystone, Ridley; Delaware, PA

Dear Mr. Catania,

Thank you for the submission of the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 658338 (Final_1) for review. PA Department of Conservation and Natural Resources screened this project for potential impacts to species and resources under DCNR's responsibility, which includes plants, terrestrial invertebrates, natural communities, and geologic features only.

No Impact Anticipated with Conservation Measure

PNDI records indicate species or resources under DCNR's jurisdiction are located in the vicinity of the project. Numerous records of *Zizania aquatica* (Indian Wild Rice; PA Special Concern) exist within and around the project footprint. Please take precautions to ensure that the aquatic resources which this species inhabits are not disturbed by project activities. This includes minimizing earth disturbance of Crum Creek shore habitat to the greatest extent practicable and preventing the introduction and dispersal of invasive species to the project area. Invasive species guidelines can be found below. With compliance to these conservation measures, DCNR has determined that no impact is likely. No further coordination with our agency is needed for this project.

Recommended Actions:

- Design the project to minimize the area of disturbance to the fullest extent that would allow for construction. This will help to lessen the area of soil and vegetation disturbance associated with this project.
- Clean boot treads, construction equipment, and vehicles thoroughly (especially the undercarriage and wheels) before they are brought on site. This will remove invasive plant seeds and invasive earthworms/cocoons that may have been picked up at other sites.
- Do not transport unsterilized leaves, mulch, compost, or soil to the site from another location.
- Do not use seed mixes that include invasive species. Please also use weed-free straw or hay mixes. More information about invasive species in Pennsylvania can be found at the following link: <http://www.dcnr.pa.gov/Conservation/WildPlants/InvasivePlants/Pages/default.aspx>
- Use habitat appropriate seed mixes. For example, when reseeding along a waterway, utilize a riparian seed mix. The Bureau of Forestry Planting & Seeding Guidelines can be found here for recommendations: http://www.docs.dcnr.pa.gov/fcs/groups/public/documents/document/dcnr_20031083.pdf
- Report occurrences of invasive species to iMapInvasives at <https://www.imapinvasives.org/>. Focus on large infestations and species that are not yet well established in the region or in Pennsylvania (<https://www.painmapinvasives.org/be-on-the-lookout>).

This response represents the most up-to-date review of the PNDI data files and is valid for two (2) years only. If project plans change or more information on listed or proposed species becomes available, our determination may be reconsidered. Should the proposed work continue beyond the period covered by this letter and a permit has not been acquired, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative, description of project changes and accurate map). As a reminder, this finding applies to potential impacts under DCNR's jurisdiction only. Visit the PNIIP website for directions on contacting the Commonwealth's other resource agencies for environmental review.

Should you have any questions or concerns, please contact Alexander Dogonnuck, Ecological Information Specialist, by phone (717-783-3913) or via email (c-adogonni@pa.gov).

Sincerely



Greg Podnieszinski, Section Chief
Natural Heritage Section



Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
595 E Rolling Ridge Dr.
Belleville, PA 16823
814-359-5237

February 4, 2019

IN REPLY REFER TO
SIR# 50669

Catania Engineering Associates, Inc.
Charles Catania
520 W. MacDade Blvd.
Milmont Park, Pennsylvania 19033

RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 658338 1
DELCORA Crum Creek Pump Station Bypass FM Alternate 2
DELAWARE County: Eddystone Borough, Ridley Township

Dear Charles Catania:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code.

An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

Our Mission:

www.fish.state.pa.us

To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.

If you have any questions regarding this review, please contact Kathy Gipe at 814-359-5186 and refer to the SIR # 50669. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher A. Urban". The signature is fluid and cursive, with the first name "Christopher" being more legible than the last name "Urban".

Christopher A. Urban, Chief
Natural Diversity Section

CAU/KDG/dm

PNDI # 658334, 658335, 658338

USFWS Project # 2019-0471

U.S. FISH AND WILDLIFE SERVICE
110 Radnor Road, Suite 101, State College, PA 16801

This responds to your inquiry about a PNDI Internet Database search that resulted in a potential conflict with a federally listed, proposed or candidate species.

PROJECT LOCATION INFORMATIONCounty: DelawareTownship: Eddystone, Ridley**MISC INFORMATION**Date received by FWS: January 28, 2019☐ ACTIVE ☐ ARCHIVEUSFWS COMMENTS ☒ EMAILED ☐ MAILEDEmail: CJCJr@Cataniaengineering.comTo: Charles CataniaAffiliation: Catania Engineering AssociatesSPECIFIC PROJECT: DELCORA Creek Pump Station Bypass Force Main Alternates 1, 1A & 2**FISH AND WILDLIFE SERVICE COMMENT(S)**☒ **NOT LIKELY TO ADVERSELY AFFECT**

The federally listed bog turtle occurs or may occur in or near the project area. However, based on our review of the information provided, including the project description and location (No wetlands are present. Projects are located in a highly developed urban location.), the force main will be directionally drilled under Chester Creek. Construction will occur in existing, paved surfaces.

no adverse effects to this species are likely to occur. If there is any change in the location, scale, scope, layout or design of the project, further consultation or coordination with the Service will be necessary.

The above determination is valid for two years from the date of this letter. In addition, this response relates only to federally listed, proposed, and candidate species under our jurisdiction, based on an office review of the proposed project's location and anticipated impacts. No field inspection of the project area has been conducted by this office. Consequently, comments on this form are not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other authorities. Please reference the above PNDI # and USFWS Project # in any future correspondence regarding this project.

This review was conducted by the biologist listed below. He/she can be contacted at 814-234-4090.

☐ Bonnie Dershem (x7453)
☐ Melinda Turner (x7449)

☐ Brian Scofield (x7471)
☐ Nicole Ranalli (x7455)

☒ Jennifer Kage! (x7451)
☐ Pamela Shellenberger (x7459)

ROBERT ANDERSON
Digitally signed by
ROBERT ANDERSON
Date: 2019.04.12
11:02:31 -04'00'

SIGNATURE: _____

Supervisor, Pennsylvania Field Office

APPENDIX 10
SERVICE AREA MAPS

Figure 1.0.1
DELCORA Eastern Service Area Map

Date: 7/18/2018

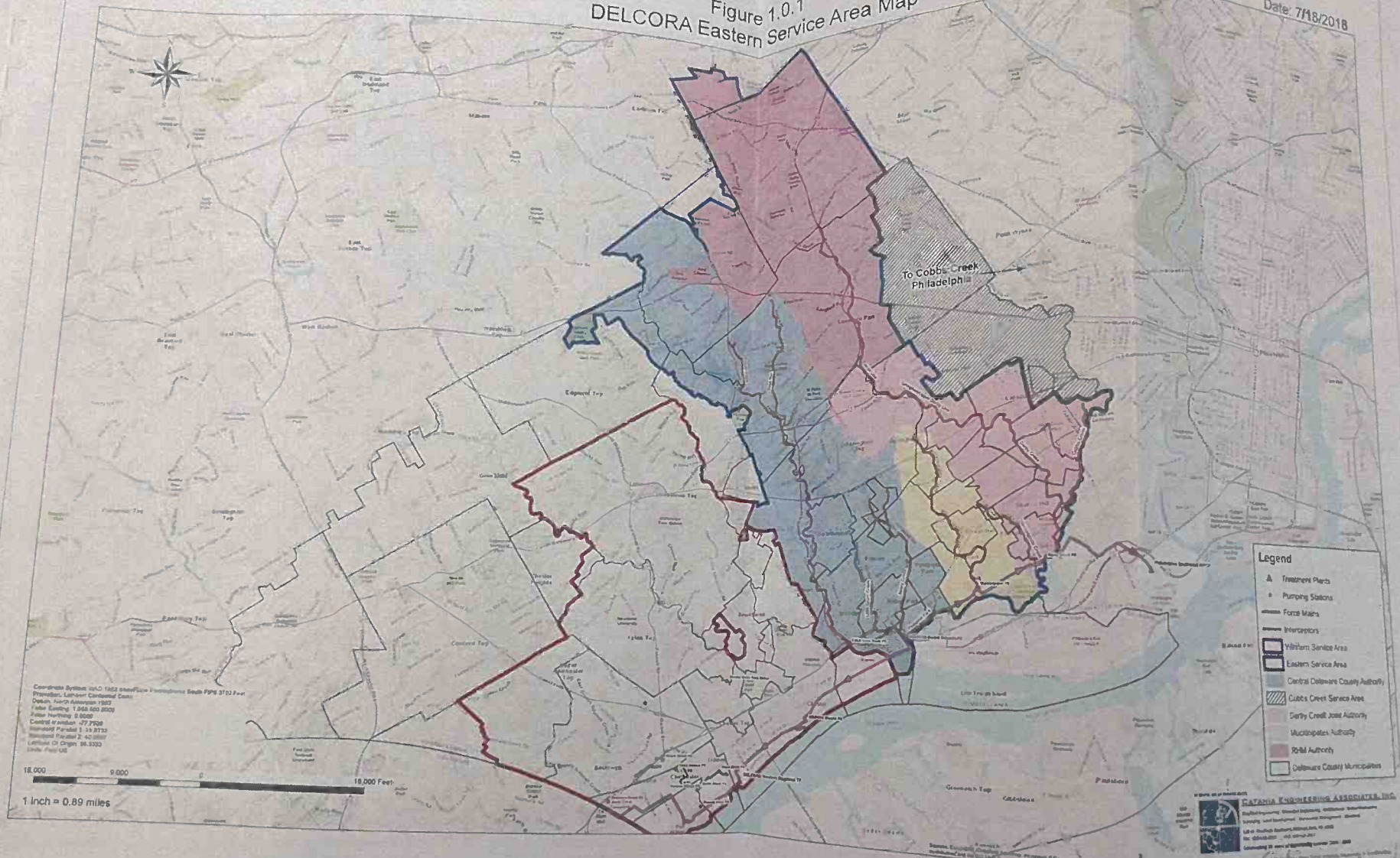
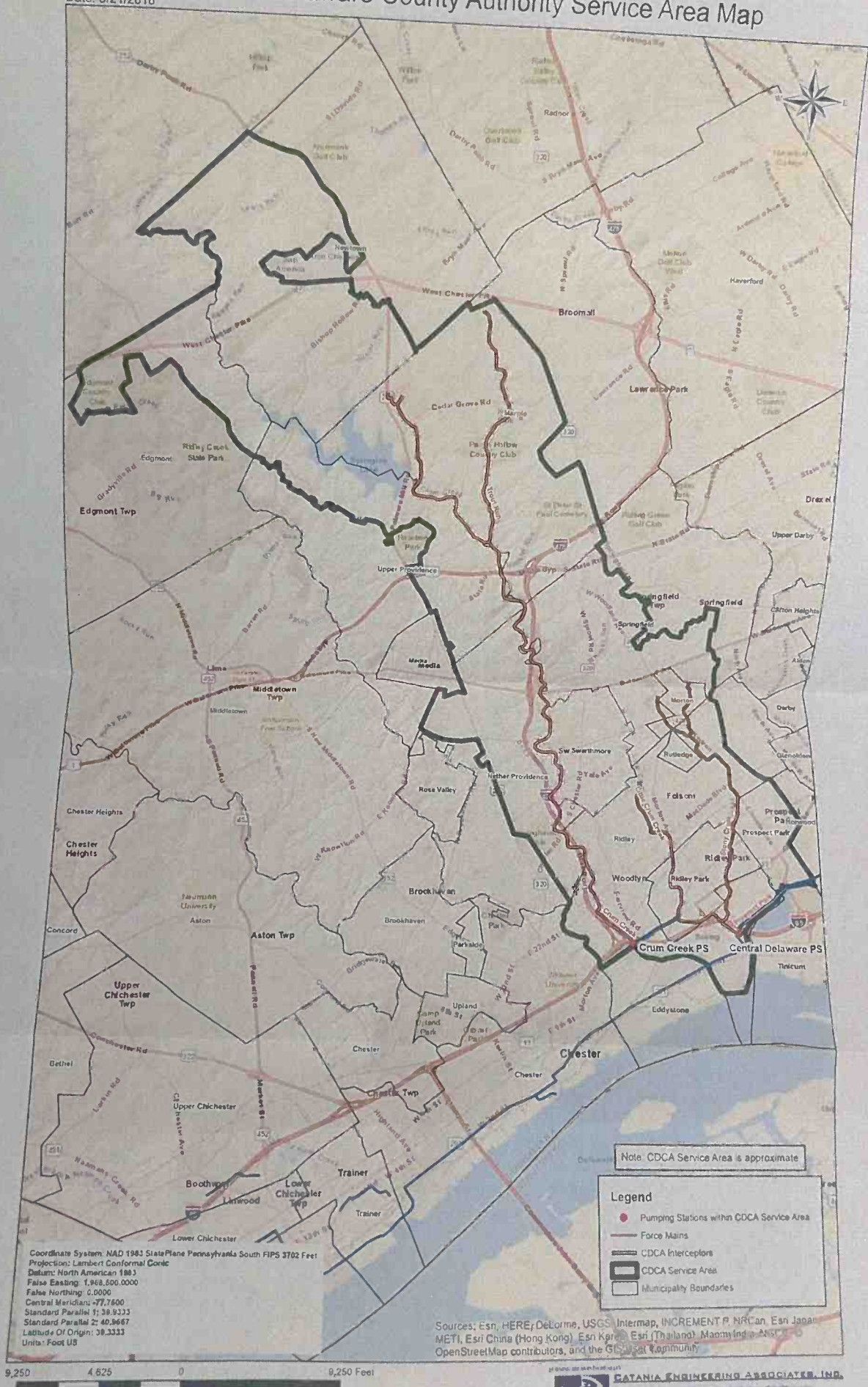


Figure 1.0.2 Central Delaware County Authority Service Area Map

Date: 6/21/2018



APPENDIX 11
ALTERNATIVE MAPS

Appendix 11
Alternative Routes Map

Date: 6/27/2018

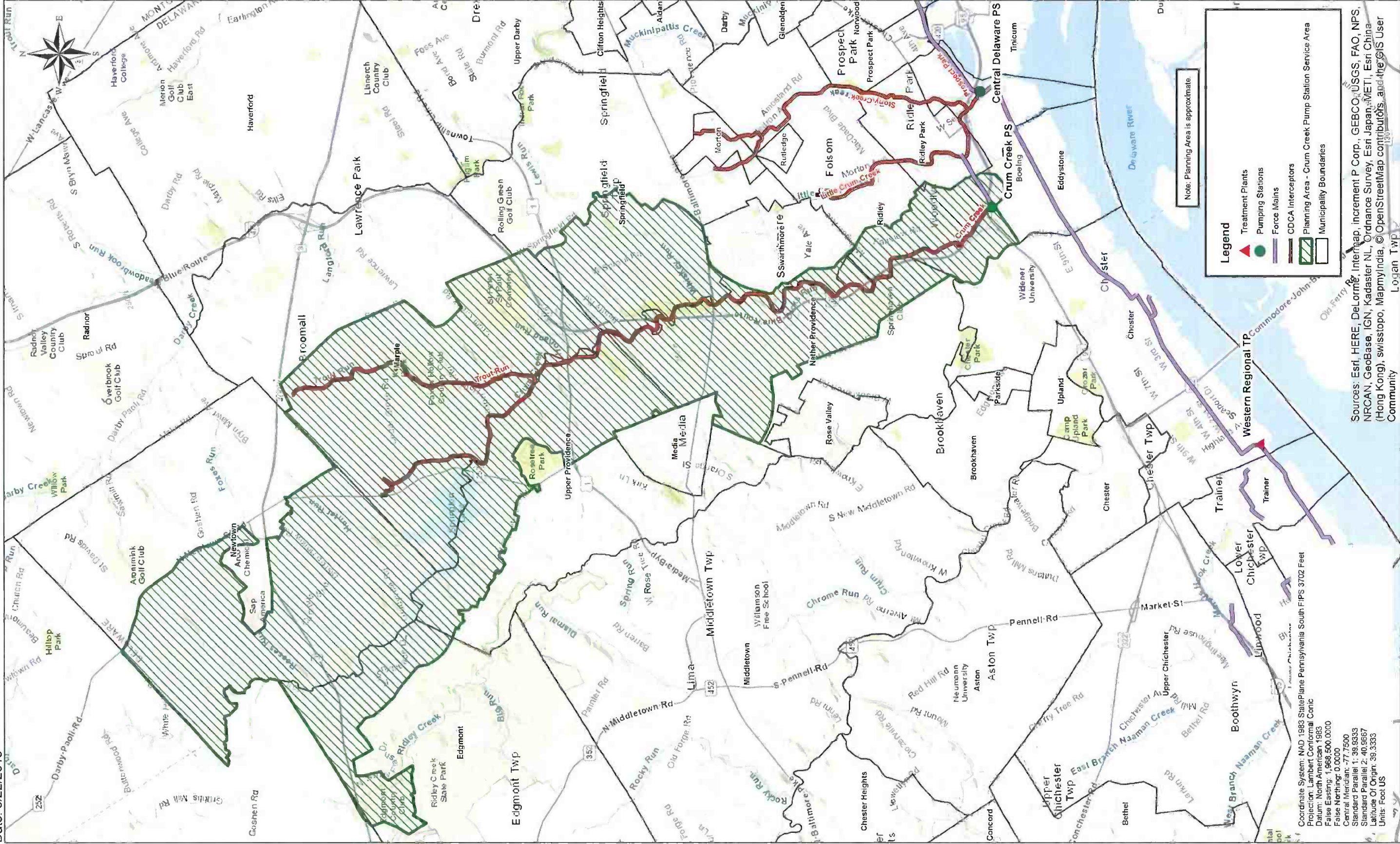


APPENDIX 12

FULL SIZE FIGURES

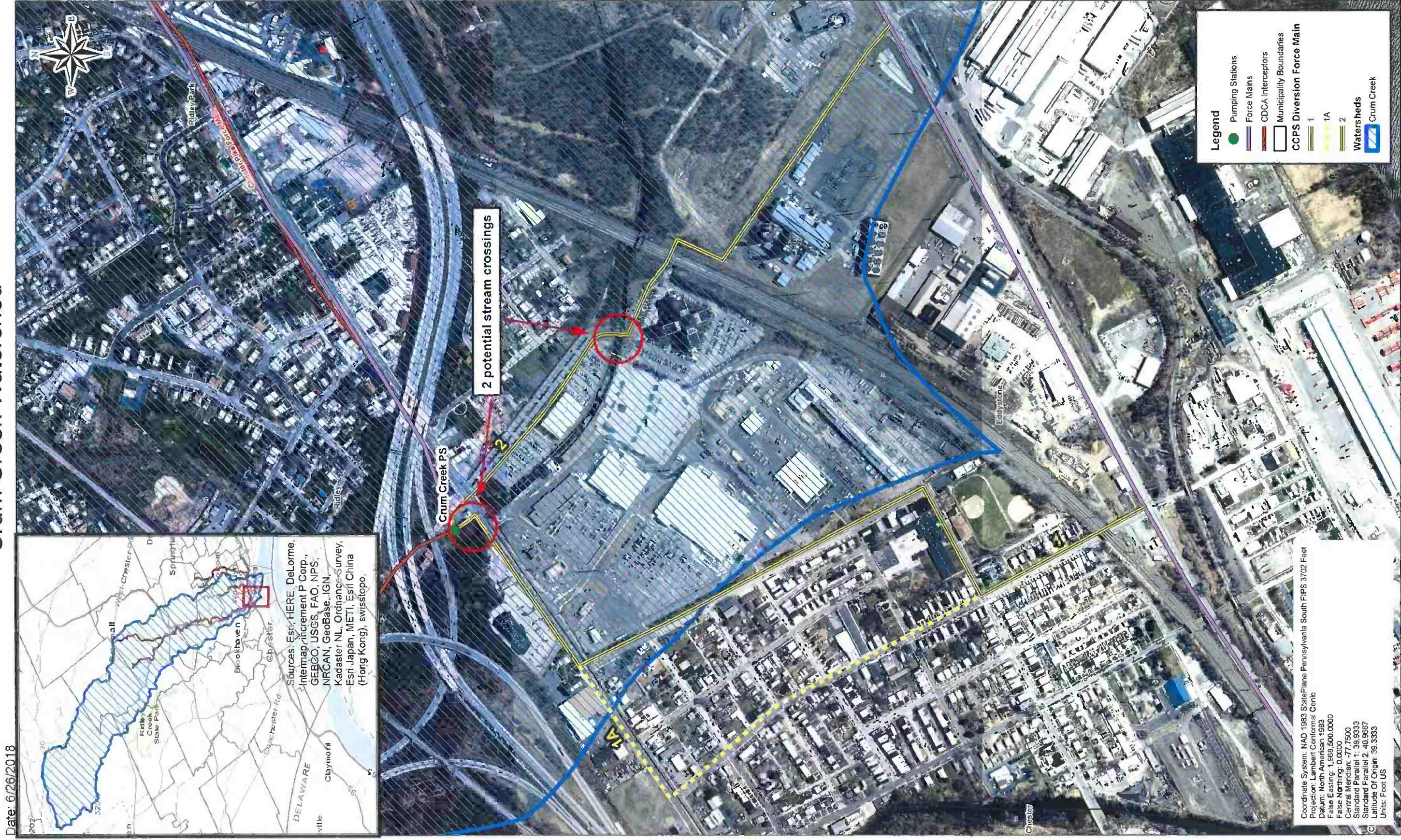
Figure 2.1.1
Planning Area Map

Date: 6/22/2018



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

Figure 2.2.1
Crum Creek Watershed

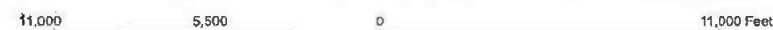


Date: 6/28/2018



CATANIA ENGINEERING ASSOCIATES, INC.
 Mechanical Engineering • Architectural • Water/Wastewater
 Surveying • Land Development • Stormwater Management • Structural
 520 W. Northgate Boulevard, Millmonte Park, PA 19033
 TEL: 610-532-2884 FAX: 610-532-2923
 Celebrating 50 years of community service! 1964 - 2014

Date: 6/28/2018



CATANIA ENGINEERING ASSOCIATES, INC.
 5104 Chisholm Road • Municipal Engineering • Architectural • Water/Wastewater
 Surveying • Land Development • Stormwater Management • Structural
 570 W. State Street Boulevard, Midland Park, FL 33053
 TEL: 616-517-2884 FAX: 616-512-2923
 Celebrating 50 years of community service! 1964-2014

Figure 3.2.1
Central Delaware County Authority Facilities

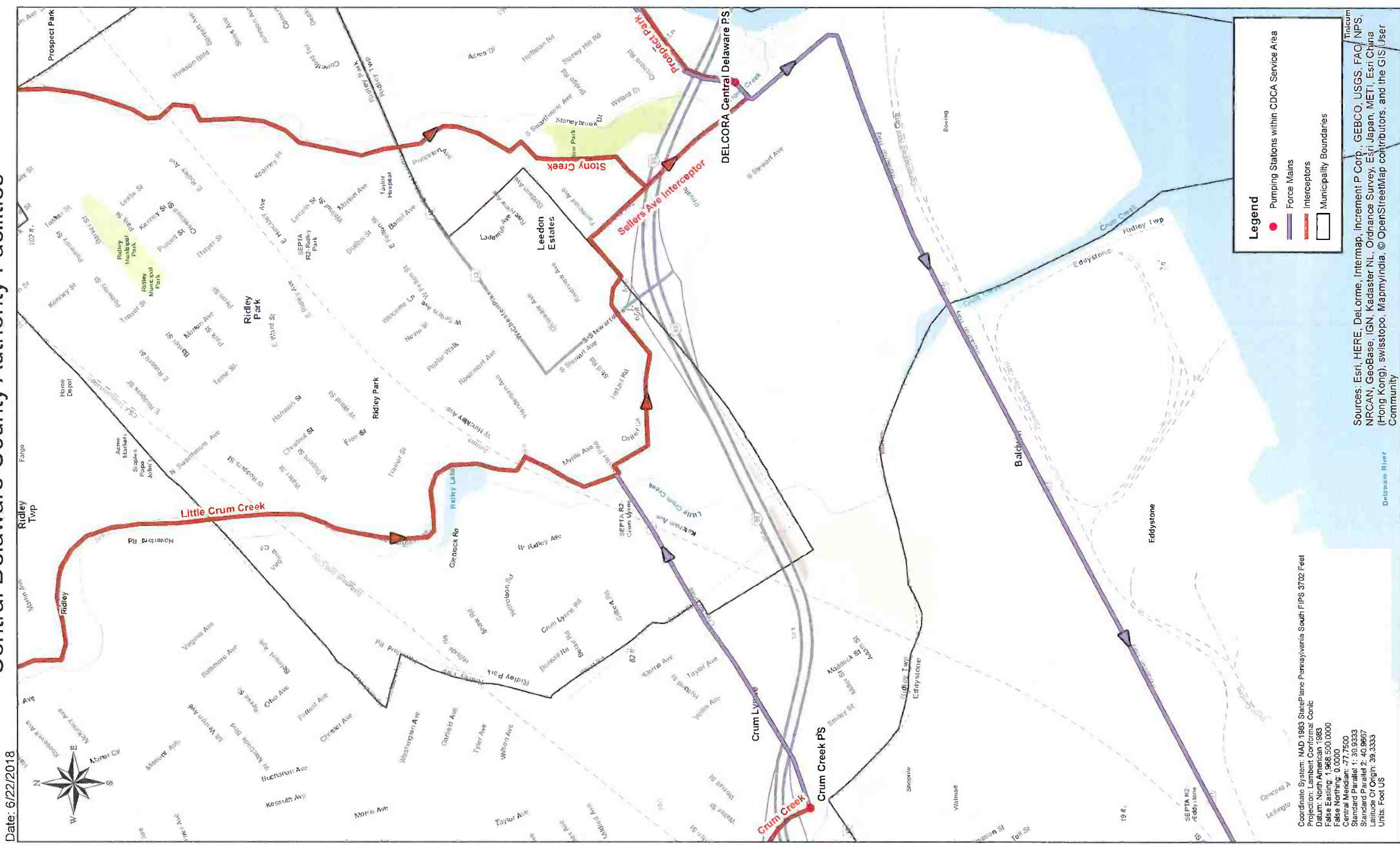


Figure 3.2.2
DELCORA Sewage Facilities

Date: 6/28/2018

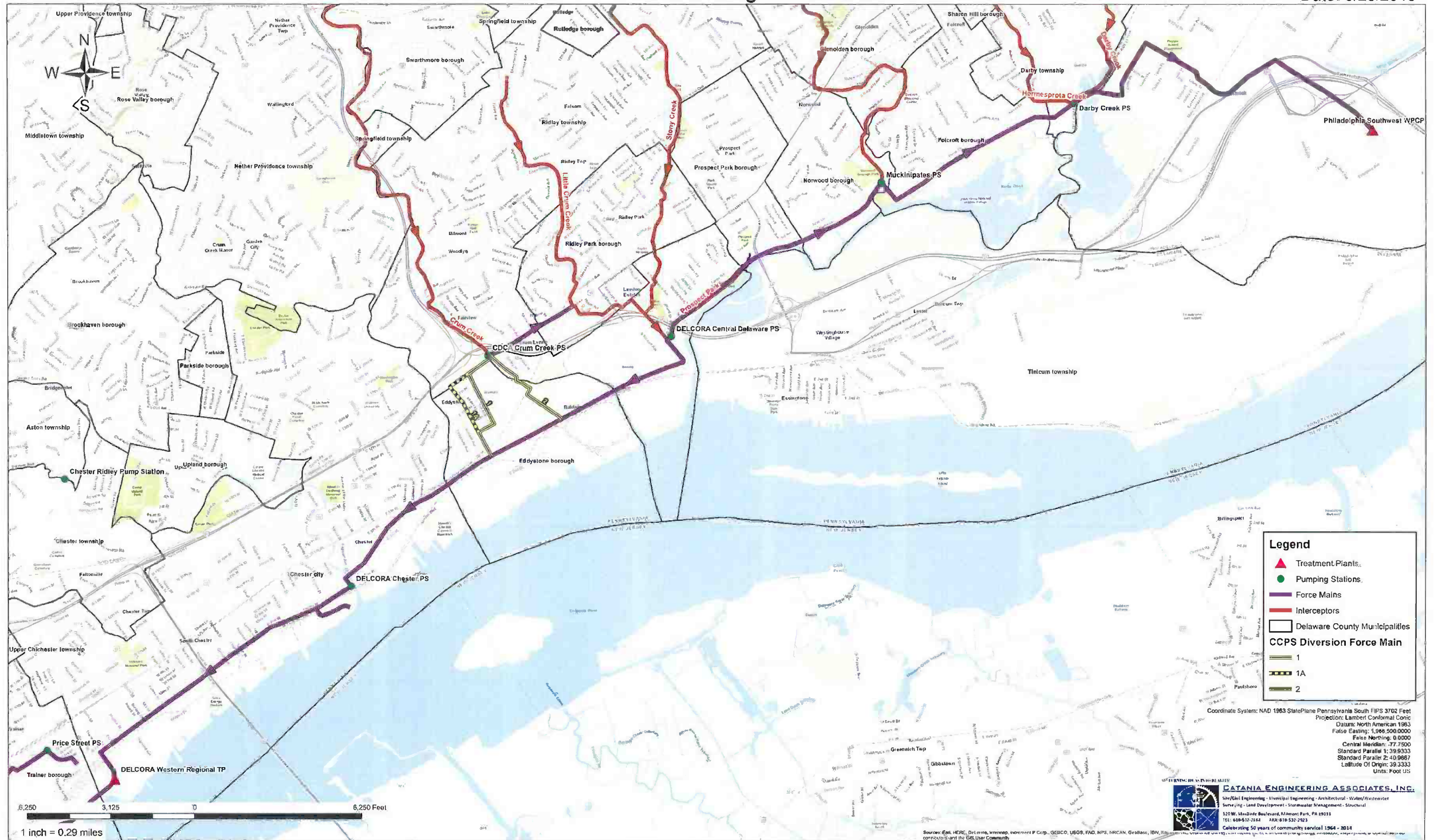
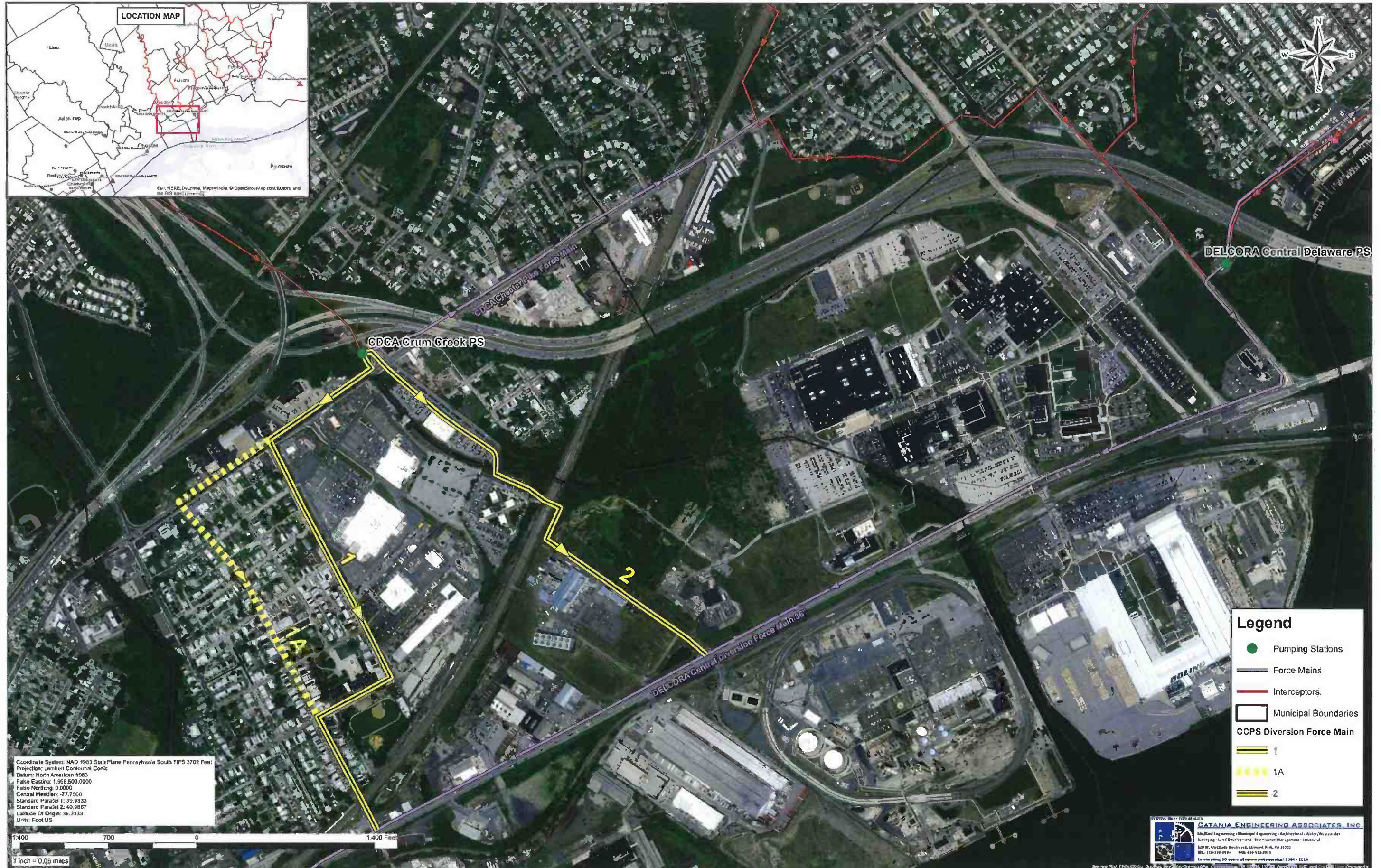


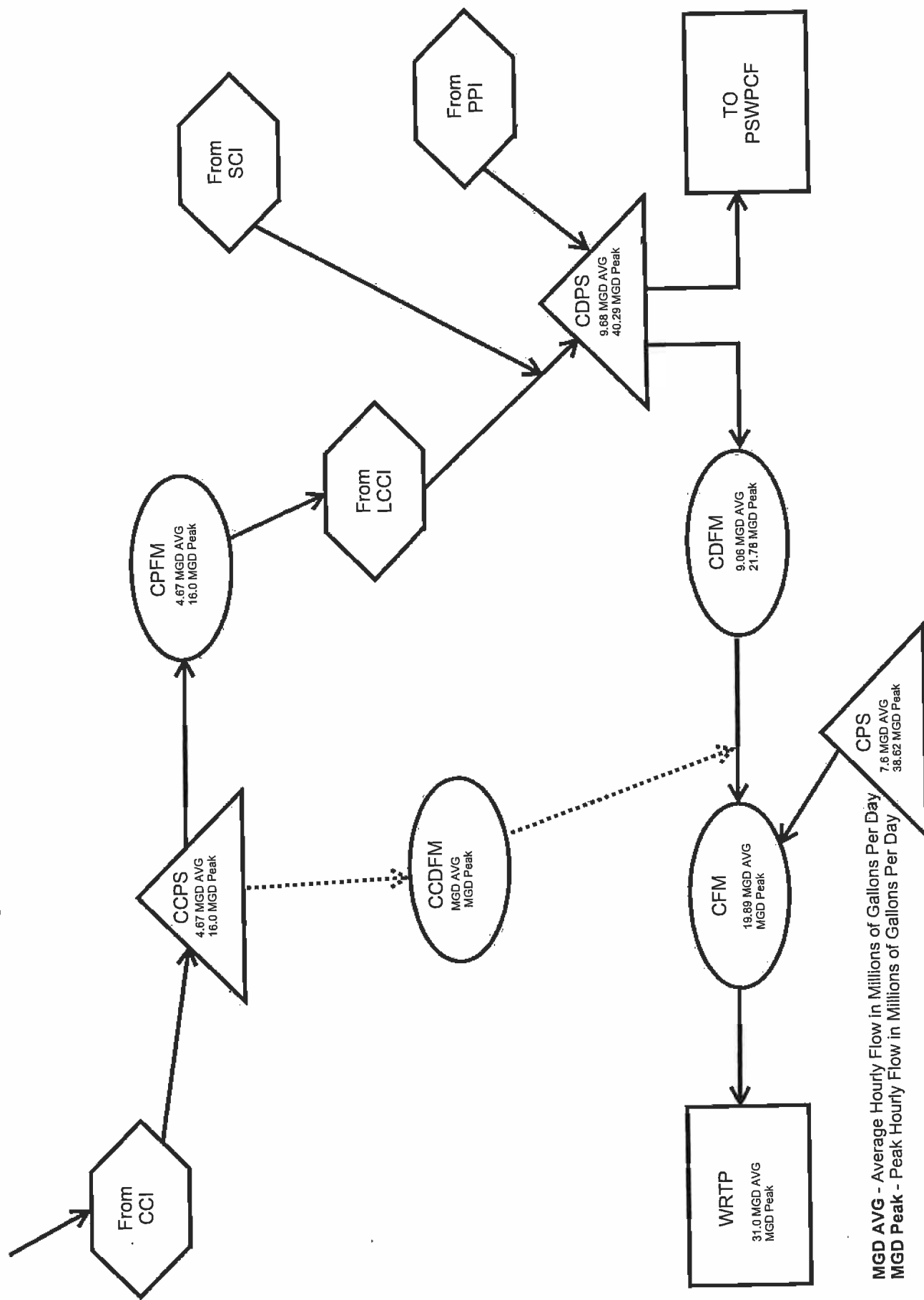
Figure 5.1.1
CCPS Diversion Force Main

Date: 6/27/2018



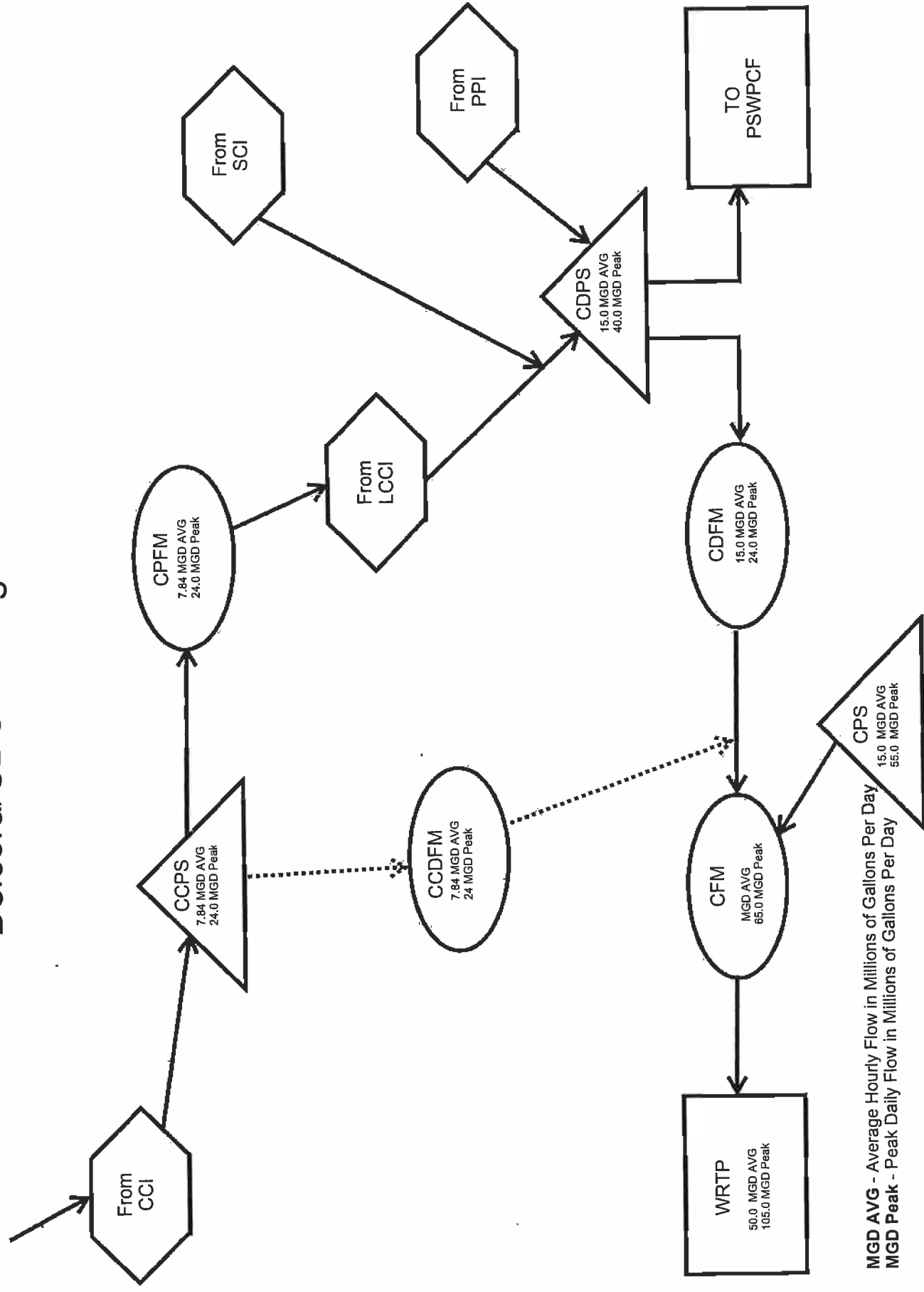
APPENDIX 13
DELCORA/ CDCA FLOW CHART

Delcora/CDCA Present Flow Chart



MGD AVG - Average Hourly Flow in Millions of Gallons Per Day
MGD Peak - Peak Hourly Flow in Millions of Gallons Per Day

Delcora/CDCA Design Flow Chart



APPENDIX 14

DELCORA I&I REDUCTION ACTIVITIES

1. Select I/I Reduction Activities Undertaken by DELCORA
 - a. Investigated inflow and infiltration (I&I) control options through PADEP's Act 537 plan process and recommended an aggressive elimination of I&I to the collection systems.
 - b. Developed sample ordinance for private-side sewer lateral and illicit connection inspections.
 - c. Above two items were included in the Draft 2013 Act 537 plan. The plan was not approved by some municipalities and PaDEP requested that it be withdrawn in 2018.
 - d. Purchased and distributed manhole lid inserts which are effective at limiting inflow into manholes during wet weather events.
 - e. Numerous municipalities adopted ordinances and/or have been implementing programs to disconnect roof drains and sump pumps for several years. Additional towns are adopting the ordinances.
 - f. Implemented a public education program about sump pumps and roof leaders.
 - g. Deployed an extensive metering program which supports a better understand where excessive inflow and infiltration is entering the system.
 - h. Routinely share meter data with customer municipalities to facilitate their I&I control efforts.
 - i. DELCORA's technical consultant performed data analysis to determine peak wet weather flows from within the service area.
 - j. Meter data collection has continued at a cost of approximately \$650,000/yr
 - k. DELCORA, Municipalities, and Authorities have complete miles of sewer and manhole rehab/renewal including:
 - i. Pipe grouting
 - ii. Pipe lining
 - iii. Pipe enlarging/replacing
 - iv. Parallel pipe installation
 - v. Manhole rehabilitation
 - l. Performing data analysis pilot program by EmNet to further characterize the I&I (fractions of inflow vs. infiltration). DELCORA hired EmNet to analyze the flow meter data which has been collected over a several year period. EmNet is a national firm that specializes analysis of wet-weather data particularly as it relates to collection system real time controls. The project was approved by the DELCORA board on September 18, 2018. The pilot program is kicked off and results are expected in November 2018.

APPENDIX 15

CDCA I&I REDUCTION ACTIVITIES

CDCA I/I ABATEMENT ACTIVITIES

1. **System Metering:** Under an agreement with DELCORA, flow meters are permanently installed at municipal connection points into the CDCA interceptor. The meter data is used for billing purposes and municipalities are billed for operation and maintenance costs based upon the percentage of flow into the system. CDCA Board is considering amending the distribution of capital cost based upon the past 5-year metered flow data.
2. **System Metering Review:** CDCA Maintenance Committee conducts an annual review of the flow data of the metering program. The review consists of the analysis of flow/EDU for each meter in the system. Metering areas with higher than expected flow/EDU are flagged and towns are notified of the findings.
3. **Meter Loaner Program:** CDCA has portable flow meters available for loan to member municipalities. The intent is to assist towns in identifying areas of excess I/I. The towns need to install the meters, but CDCA provides the meters and technical assistance.
4. **Flow Allocations:** Under a resolution approved by the CDCA Board, approval of any new flow connections into the system are considered only if that town has demonstrated a good faith effort to address the I/I issue
5. **Line Cleaning & Video Inspection:** CDCA has an eight (8) phase cycle to clean and video-inspect the interceptor system. Areas upstream of the public water supply are on an accelerated schedule. In itself, the line cleaning and video inspection program is a maintenance activity, but data collected from the video inspection are used for I/I Abatement in the CDCA interceptors. Reports from each year's inspection include recommended repairs, categorized as high priority, low priority and I/I abatement.
6. **Annual Interceptor Maintenance:** CDCA Maintenance Committee has developed a Strategic Plan for the maintenance and rehabilitation of the interceptors. The Strategic Plan is categorized into 2-year Plan, 3-5 Year Plan, and 6-25 Year Plan. Capital projects are implemented based upon the Strategic Plan. In addition, CDCA budgets a certain amount for normal maintenance of the interceptors. This is the budget line item that high priority findings of the annual video inspection are included. In the 3rd quarter of each year, the CDCA Maintenance Committee reviews the actual normal maintenance expenses and authorizes additional low priority or I/I abatement work to be completed.
7. **Interceptor Rehabilitation:** A list of interceptor maintenance work completed specifically to address I/I issues is attached
8. **Operation & Capital Charges:** CDCA operation charges to member municipalities are based upon the previous year metered flow data as an incentive to reduce flow. CDCA recently adjusted capital charges based upon the previous 5-year metered flows as an additional incentive to reduce flow.
9. **Municipal Collection System Rehabilitation:** a partial list of activities undertaken by member municipalities is attached. The list is generated based upon information received by CDCA and may not be a comprehensive list of all work completed by member municipalities.

CDCA Interceptor Rehabilitation Work History

Pipe Relining

Crum Creek Interceptor

MH 9-11	42" – 600 ft
MH 15-17	42" – 650 ft
MH 19-23	42" – 1300 ft
MH 34-38	42" – 840 ft
MH 42-47	36" – 1080 ft
MH 51-53	36" – 685 ft
MH 56-59	36" – 1000 ft
MH 62-64	36" – 570 ft
MH 65-67	36" – 275 ft
MH 76-78	36" – 665 ft
MH 83-84	36" – 215 ft
MH 86-94	36" – 2100 ft
MH 99-100	36" – 40 ft
MH 110-114	33" – 820 ft
MH 118-119	33" – 110 ft
MH 123-124	33" – 250 ft
MH 159-160	33" – 230 ft
MH 163-164	33" – 250 ft
MH 229-230	12" – 360 ft
MH CCE2-CCE3	8" – 300 ft
MH CCE6-CCE7	8" – 180 ft

Little Crum Creek Interceptor

MH 24-27	30" – 905 ft
MH 29-30	30" – 105 ft
MH 31-33	30" – 400 ft
MH 35-37	30" – 550 ft
MH 63-64	24" – 200 ft
MH 70-71	24" – 170 ft

Stoney Creek Interceptor

MH 18-20	42" – 150 ft
MH 32-33	30" – 50 ft
MH 64-65	30" – 270 ft
MH 78-79	30" – 300 ft
MH 85-86	20" – 200 ft
MH 93-94	20" – 150 ft
MH 99-102	18" – 980 ft

Prospect Park Interceptor

MH 1-16 (entire interceptor)	18" – 95 ft
	27" – 3350 ft
	33" – 250 ft
	36" – 700 ft

Manhole Rehabilitation

Water-tight frame & covers – all manhole converted to water-tight frames and covers due to proximity to streams

Liners – ongoing program to install cementitious liners in manholes with infiltration

Member Municipality Rehabilitation Work History

Rutledge Borough

- Complete relining of collection system and rehabilitation of manholes
- Flow metering
- Video inspection is done as necessary

Morton Borough

- Flow metering
- Implemented a 4 year line cleaning program
- Completed comprehensive relining program

Ridley Township

- Flow metering
- Implemented a 4 year line cleaning program
- Implemented a 7-year video inspection program
- Relined 4,300 ft of system

Swarthmore Borough

- Revised use and occupancy requirements to include visual inspection of laterals, cleanouts etc.
- 14,000 ft of the system was inspected in 2017
- 3,500 ft of the system was treated in 2017
- Relined 2,000 ft of sewer
- \$20,000 of root control was done in 2018

Nether Providence Twp

- Adopted time of sale private lateral inspection requirement
- Chemical grouted 1,500 ft of sewer
- Relined 2,000 ft of sewer
- Flow metering

Springfield Twp

- Flow meters
- 10-20 miles of the system are inspected annually

Prospect Park Borough

- Flow metering

- Relined 250 ft of sewer
- Replaced 150 ft of sewer

Ridley Park Borough

- Flow metering
- Relined 1,050 ft of sewer

Marple Twp

- 40,200 ft of system was televised in 2017
- 29,000 ft of root control was completed in 2017
- 128 manholes were repaired or rehabilitated in 2017

Edgmont Twp

- Adopted time of sale private lateral inspection requirement
- 34,500 of the system was televised in 2016
- 4,400 ft of the system was cleaned in 2017
- \$200,000 worth of rehabilitation and inspection was completed in 2018
- Manhole inserts and odor control was used in 3 manholes

Upper Providence Twp

- Flow metering
- Implemented a 4 year television inspection and cleaning program
- All future and public sewers will be low pressure systems
- Low pressure systems in 2 existing roads and several private laterals

Newtown Twp

- Adopted grease trap ordinance