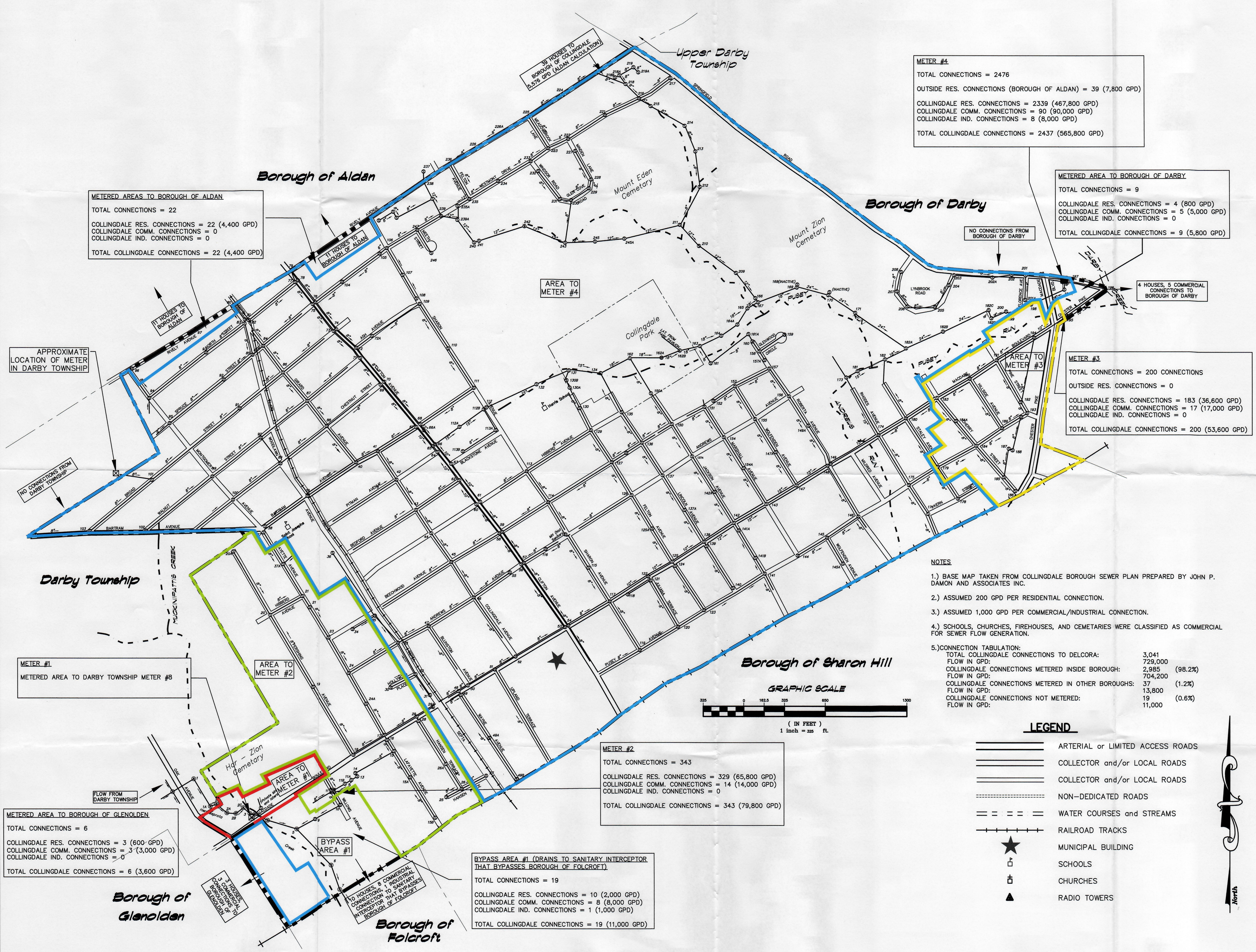


NOTES

1.) BASE MAP TAKEN FROM COLLINGDALE BOROUGH SEWER PLAN PREPARED BY JOHN P. DAMON AND ASSOCIATES INC.

2.) ASSUMED 200 GPD PER RESIDENTIAL CONNECTION.

3.) ASSUMED 1,000 GPD PER COMMERCIAL/INDUSTRIAL CONNECTION.

4.) SCHOOLS, CHURCHES, FIREHOUSES, AND CEMETARIES WERE CLASSIFIED AS COMMERCIAL FOR SEWER FLOW GENERATION.

5.) CONNECTION TABULATION:

TOTAL COLLINGDALE CONNECTIONS TO DELCORA:	3,041	
FLOW IN GPD:	729,000	
COLLINGDALE CONNECTIONS METERED INSIDE BOROUGH:	2,985	(98.2%)
FLOW IN GPD:	704,200	
COLLINGDALE CONNECTIONS METERED IN OTHER BOROUGHS:	37	(1.2%)
FLOW IN GPD:	13,800	
COLLINGDALE CONNECTIONS NOT METERED:	19	(0.6%)
FLOW IN GPD:	11,000	

LEGEND

- ARTERIAL or LIMITED ACCESS ROADS
- COLLECTOR and/or LOCAL ROADS
- COLLECTOR and/or LOCAL ROADS
- NON-DEDICATED ROADS
- WATER COURSES and STREAMS
- RAILROAD TRACKS
- MUNICIPAL BUILDING
- SCHOOLS
- CHURCHES
- RADIO TOWERS

V:\1907\active\176710004\dwgs\SEWMAP2018.dwg
2019/02/14 2:10 PM By: Kolva, Geoffrey

ORIGINAL SHEET – ARCH D

Stantec
1060 Andrew Drive Suite 140
West Chester PA 19380
Tel. 610.840.2500
www.stantec.com

Legend

Notes

Revision	By	Appd.	YY.MM.DD
1 2018 CHAP 94 REPORT	GKK	MJK	19.02.14

File Name: sewmap2018.dwg

Dwn.	Chkd.	Dsgn.	YY.MM.DD

Permit-Seal

Client/Project
BOROUGH OF COLLINGDALE

COLLINGDALE, PA

Title
METER AND EDU MAP

Project No.
176710204

Scale

Drawing No.

Sheet
1 of 1

Revision

Colwyn Borough

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2018

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

GENERAL INFORMATION			
Permittee Name:	**Borough of Colwyn**	Permit No.:	**PAN/A**
Mailing Address:	**221 Spruce Street**	Effective Date:	**N/A**
City, State, Zip:	**Colwyn, PA 19023**	Expiration Date:	**N/A**
Contact Person:	**Christine Mason**	Renewal Due Date:	**N/A**
Title:	**Borough Manager**	Municipality:	**Borough of Colwyn**
Phone:	**610-461-2000**	County:	**Delaware**
Email:	**tmason@colwynboro.com**	Consultant Name:	**NDI Engineering Company**

CHAPTER 94 REPORT COMPONENTS

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

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

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

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

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

   N/A

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

Check the appropriate boxes:

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

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

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

Comments:

No sewer extensions were constructed, or approved/exempted but not yet constructed in 2018.

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

Borough personnel observe conditions of the manhole frames and coverse and look for evidend of overlows while performing routine Borough business.

During annual rental and commercial building permit inspections, BCO inspects for evidence of foundation floor drains, sump pumps, and RWCs connected to the sanitary sewer collection system. Sewers are cleaned when reports of backups are investigated and found to be a collection system blockage.

Sump pumps removed from system (3) - 411 S. 4th Street; 27 S. 3rd Street; 430 S. 3rd Street
Lateral Replacement (House) (6) - 223 S. 3rd Street; 117 Chestnut Street; 530 S. 3rd Street; 502 S. 2nd Street; 117 S. 4th Street; 516 S. 3rd Street

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

Check the appropriate boxes:

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

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

Comments:

The Borough's system is mostly constructed of terracotta. With the age of the collection system, it is likely in need of replacement due to root infiltration, offset joints, and fractures. A section of sewer main on Apple Street between Colwyn Ave and the train tracks is known to require replacement and the Borough will be utilizing a PA Small Water and Sewer Grant to address this condition. We expect this work to be completed in 2019, and will include replacement of the main, street laterals, and manhole rehabilitations.

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

Check the appropriate boxes:

☒ The collection system does not contain pump stations

☐ The collection system does contain pump stations (Number –)

☐ Discussion of condition of each pump station attached (**Attachment**)

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

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

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

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

Check the appropriate boxes:

☐ Industrial waste report as described in 8 a., b. and c. attached (**Attachment**)

☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

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

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

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

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

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

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

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

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

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

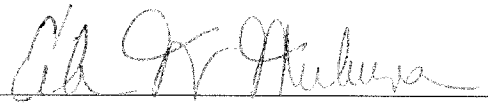
RESPONSIBLE OFFICIAL CERTIFICATION

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

Christine M.T. Mason	Christine M.T. Mason
Name of Responsible Official	Signature
(610) 461-2000	2/14/19
Telephone No.	Date

PREPARER CERTIFICATION

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

Eileen W. Mulvena, PE	
Name of Preparer	Signature
(856) 848-0033	2/14/19
Telephone No.	Date

Colwyn - DCJA

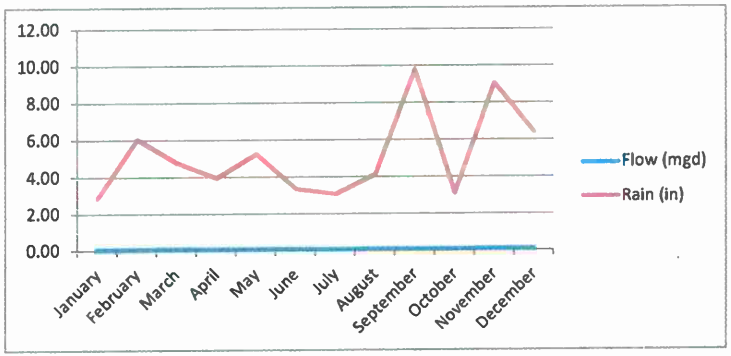
Meter Location: Meter 1 - MH02 - End of Walnut - 12" line

Month	2014	2015	2016	2017	2018
January	0.10	0.10	0.08	0.08	0.08
February	0.13	0.08	0.11	0.07	0.11
March	0.10	0.12	0.08	0.09	0.13
April	0.11	0.09	0.08	0.10	0.10
May	0.10	0.07	0.10	0.11	0.11
June	0.09	0.08	0.08	0.10	0.10
July	0.08	0.07	0.08	0.09	0.08
August	0.08	0.07	0.07	0.10	0.10
September	0.08	0.07	0.07	0.08	0.11
October	0.08	0.08	0.07	0.07	0.10
November	0.09	0.07	0.07	0.07	0.13
December	0.10	0.08	0.07	0.07	0.12
Annual Average	0.10	0.08	0.08	0.09	0.11
3 Month Max. Average	0.11	0.10	0.09	0.10	0.12
Ratio (3 mon Max to AA Ratio)	1.19	1.18	1.13	1.20	1.10
5-YR Average Hydraulic Ratio			1.16		

Rainfall (in) 2014	Rainfall (in) 2015	Rainfall (in) 2016	2017	2018
6.63	5	5.17	2.57	2.85
7.61	3.54	4.45	1.52	6.02
5.35	6.85	2.12	3.49	4.74
6.69	3.58	1.78	3.15	3.94
2.91	1.19	6.65	6.27	5.21
5.46	8.88	1.87	1.86	3.34
4.3	3.16	3.88	5.35	3.06
3.55	0.98	1.7	6.05	4.11
1.69	6.27	3.52	3.86	9.76
2.53	3.51	2.06	3.66	3.08
4.07	1.89	2.17	1.31	9.03
3.28	5.41	2.72	2.27	6.38
Total 54.07	50.26	38.09	41.36	61.52

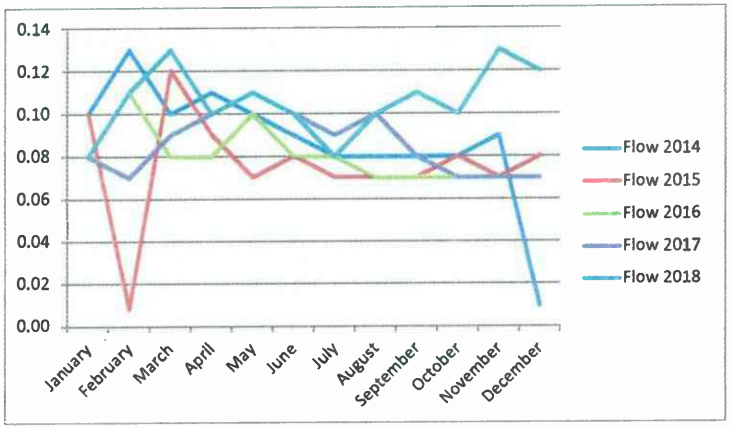
2018 Monthly Flow / Rain

	Flow (mg	Rain (in)
January	0.08	2.85
February	0.11	6.02
March	0.13	4.74
April	0.10	3.94
May	0.11	5.21
June	0.10	3.34
July	0.08	3.06
August	0.10	4.11
September	0.11	9.76
October	0.10	3.08
November	0.13	9.03
December	0.12	6.38



5 year Average Monthly Flow

	Flow 201	Flow 201	Flow 201	Flow 201	Flow 2018
January	0.10	0.10	0.08	0.08	0.08
February	0.13	0.01	0.11	0.07	0.11
March	0.10	0.12	0.08	0.09	0.13
April	0.11	0.09	0.08	0.10	0.10
May	0.10	0.07	0.10	0.11	0.11
June	0.09	0.08	0.08	0.10	0.10
July	0.08	0.07	0.08	0.09	0.08
August	0.08	0.07	0.07	0.10	0.10
September	0.08	0.07	0.07	0.08	0.11
October	0.08	0.08	0.07	0.07	0.10
November	0.09	0.07	0.07	0.07	0.13
December	0.01	0.08	0.07	0.07	0.12



Colwyn - DCJA

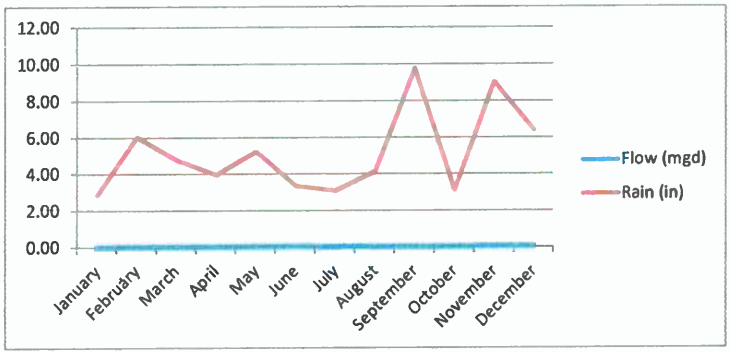
Meter Location: Meter 2 - MH04 - End of 5th (30' into weeds), 10" line

Month	2014	2015	2016	2017	2018
January	0.06	0.06	0.06	0.05	0.06
February	0.07	0.05	0.08	0.05	0.07
March	0.06	0.07	0.07	0.06	0.08
April	0.06	0.06	0.06	0.06	0.08
May	0.05	0.05	0.07	0.06	0.07
June	0.05	0.06	0.07	0.05	0.07
July	0.04	0.06	0.05	0.06	0.06
August	0.04	0.05	0.05	0.05	0.06
September	0.03	0.06	0.04	0.05	0.06
October	0.04	0.05	0.04	0.05	0.06
November	0.04	0.05	0.04	0.05	0.08
December	0.05	0.05	0.04	0.05	0.08
Annual Average	0.05	0.06	0.06	0.05	0.07
3 Month Max. Average	0.06	0.06	0.07	0.06	0.08
Ratio (3 mon Max to AA Ratio)	1.29	1.07	1.25	1.13	1.11
5-YR Average Hydraulic Ratio		1.17			
Total					

Rainfall (in) 2014	Rainfall (in) 2015	Rainfall (in) 2016	Rainfall (in) 2017	Rainfall (in) 2018
6.63	5	5.17	2.57	2.85
7.61	3.54	4.45	1.52	6.02
5.35	6.85	2.12	3.49	4.74
6.69	3.58	1.78	3.15	3.94
2.91	1.19	6.65	6.27	5.21
5.46	8.88	1.87	1.86	3.34
4.3	3.16	3.88	5.35	3.06
3.55	0.98	1.7	6.05	4.11
1.69	6.27	3.52	3.86	9.76
2.53	3.51	2.06	3.66	3.08
4.07	1.89	2.17	1.31	9.03
3.28	5.14	2.72	2.27	6.38
54.07	49.99	38.09	41.36	61.52

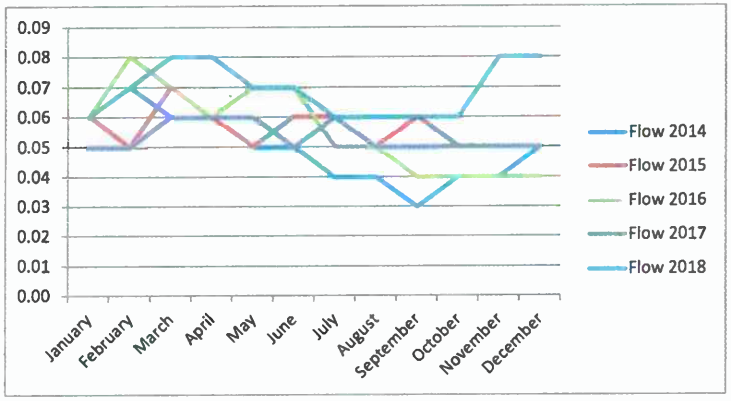
2018 Monthly Flow / Rain

	Flow (mg	Rain (in)
January	0.06	2.85
February	0.07	6.02
March	0.08	4.74
April	0.08	3.94
May	0.07	5.21
June	0.07	3.34
July	0.06	3.06
August	0.06	4.11
September	0.06	9.76
October	0.06	3.08
November	0.08	9.03
December	0.08	6.38



5 year Average Monthly Flow

	Flow 201	Flow 201	Flow 201	Flow 201	Flow 2018
January	0.06	0.06	0.06	0.05	0.06
February	0.07	0.05	0.08	0.05	0.07
March	0.06	0.07	0.07	0.06	0.08
April	0.06	0.06	0.06	0.06	0.08
May	0.05	0.05	0.07	0.06	0.07
June	0.05	0.06	0.07	0.05	0.07
July	0.04	0.06	0.05	0.06	0.06
August	0.04	0.05	0.05	0.05	0.06
September	0.03	0.06	0.04	0.05	0.06
October	0.04	0.05	0.04	0.05	0.06
November	0.04	0.05	0.04	0.05	0.08
December	0.05	0.05	0.04	0.05	0.08



NO.	DATE	REVISION	DWN BY	CKD BY

DARBY BOROUGH

VERIFY IF A LINE EXISTS HERE

VERIFY WHERE THESE GO

VERIFY IF A MH EXISTS HERE

House lateral replaced.

Sump Pump removed

CITY OF PHILADELPHIA

VERIFY IF A LINE EXISTS HERE

DARBY TOWNSHIP

GRAPHIC SCALE

0 100 200 400 800

1 INCH = 200 FEET

SANITARY SEWER MAP
OF
COLWYN BOROUGH
DELAWARE COUNTY, PENNSYLVANIA

CATANIA ENGINEERING ASSOCIATES, APRIL 2004
WALTON, MULVENA & ASSOCIATES, MAY 2011
CATANIA ENGINEERING ASSOCIATES, JULY 2017

DO NOT SCALE DRAWING

Darby Borough

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2018

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

GENERAL INFORMATION			
Permittee Name:	**Borough of Darby**	Permit No.:	**PAN/A**
Mailing Address:	**1020 Ridge Avenue**	Effective Date:	**N/A**
City, State, Zip:	**Darby, PA 19023**	Expiration Date:	**N/A**
Contact Person:	**Mark Possenti**	Renewal Due Date:	**N/A**
Title:	**Borough Manager**	Municipality:	**Borough of Darby**
Phone:	**(610) 586-1102**	County:	**Delaware**
Email:	**markpossenti@comcast.net**	Consultant Name:	**NDI Engineering Company**

CHAPTER 94 REPORT COMPONENTS

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

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

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

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

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

   N/A

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

Check the appropriate boxes:

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

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

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

Comments:

No sewer extensions were constructed or approved/exempted but not yet constructed in 2018.

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

Borough personnel observe conditions of the manhole frames and covers and look for evidence of overflows while performing routine Borough business.

During annual rental and commercial buildign permit inspections, BCO inspects for evidence of foundation floor drains, sump pumps, and RWCs connected to the sanitary sewer collection system. The Borough reports that none of the above conditions were found during inspectrions.

During 2018 the following system work was completed:

Street Lateral New Wye Connection - (0)
House Lateral Replacement - (0)
Trap Replacement - (6) 213 N. 6th, 414 Shetland, 1337 Edgehill, 903 Pine, 1341 Edgehill, 209 S. 5th
Collection System Cleaning - 12th Street at Main Street, toward Chestnut Street
Collection System Televising - (0)
Collection System Main Replacement - no main replacement done during 2018

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

Check the appropriate boxes:

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

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

Comments:

The Borough Manager reported no SSOs for 2018.

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

Check the appropriate boxes:

☐ The collection system does not contain pump stations

☐ The collection system does contain pump stations (Number –)

☐ Discussion of condition of each pump station attached (**Attachment**)

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

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

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

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

Check the appropriate boxes:

☐ Industrial waste report as described in 8 a., b. and c. attached (**Attachment**)

☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

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

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

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

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

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

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

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

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

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

RESPONSIBLE OFFICIAL CERTIFICATION

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

Mark Possenti	
Name of Responsible Official	Signature
(610) 586-1102	2-14-19
Telephone No.	Date

PREPARER CERTIFICATION

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

Eileen W. Mulvena, PE	Eileen W. Mulvena
Name of Preparer	Signature
(856) 284-1102	2/15/19
Telephone No.	Date

Darby Meter MH#1 Location: End of 12th Street

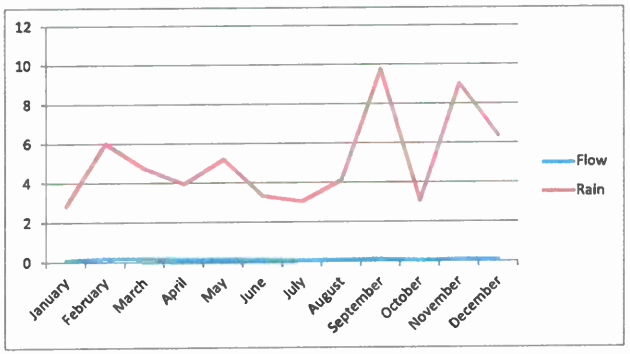
Month	2014	2015	2016	2017	2018
January	0.11	0.1	0.08	0.07	0.09
February	0.17	0.1	0.12	0.08	0.17
March	0.12	0.14	0.09	0.09	0.18
April	0.09	0.09	0.09	0.09	0.14
May	0.08	0.06	0.1	0.1	0.14
June	0.06	0.09	0.08	0.07	0.13
July	0.06	0.08	0.07	0.08	0.08
August	0.06	0.06	0.08	0.07	0.09
September	0.06	0.06	0.07	0.06	0.13
October	0.07	0.07	0.07	0.08	0.07
November	0.08	0.06	0.07	0.05	0.11
December	0.1	0.09	0.07	0.07	0.1
Annual Average	0.088	0.083	0.0825	0.076	0.119
3 Month Max. Average	0.133	0.110	0.100	0.093	0.163
Ratio (3 month Max to AA Ratio)	1.509	1.320	1.212	1.231	1.371
5-Year Average Hydraulic Ratio			1.328591		

Rainfall (in)

	2014	2015	2016	2017	2018
January	6.63	5	5.17	2.57	2.85
February	7.61	3.54	4.45	1.52	6.02
March	5.35	6.85	2.12	3.49	4.74
April	6.69	3.58	1.78	3.15	3.94
May	2.91	1.19	6.65	6.27	5.21
June	5.46	8.88	1.87	1.86	3.34
July	4.3	3.16	3.88	5.35	3.06
August	3.55	0.98	1.7	6.05	4.11
September	1.69	6.27	3.52	3.86	9.76
October	2.53	3.51	2.06	3.66	3.08
November	4.07	1.89	2.17	1.31	9.03
December	3.28	5.14	2.72	2.27	6.38
Total Rainfall, in.	54.07	49.99	38.09	41.36	61.52

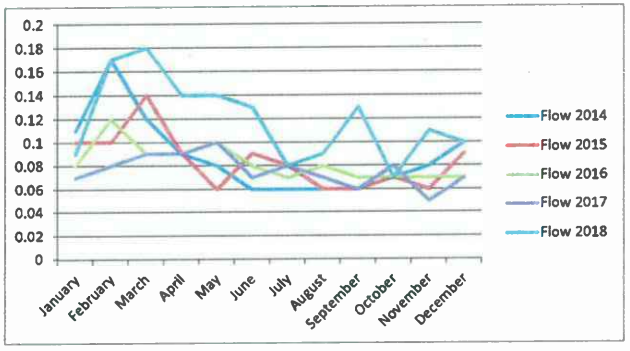
2018 Monthly Flow/Rain

	Flow	Rain
January	0.09	2.85
February	0.17	6.02
March	0.18	4.74
April	0.14	3.94
May	0.14	5.21
June	0.13	3.34
July	0.08	3.06
August	0.09	4.11
September	0.13	9.76
October	0.07	3.08
November	0.11	9.03
December	0.1	6.38



5-Year Average Flow

	Flow 2014	Flow 2015	Flow 2016	Flow 2017	Flow 2018
January	0.11	0.1	0.08	0.07	0.09
February	0.17	0.1	0.12	0.08	0.17
March	0.12	0.14	0.09	0.09	0.18
April	0.09	0.09	0.09	0.09	0.14
May	0.08	0.06	0.1	0.1	0.14
June	0.06	0.09	0.08	0.07	0.13
July	0.06	0.08	0.07	0.08	0.08
August	0.06	0.06	0.08	0.07	0.09
September	0.06	0.06	0.07	0.06	0.13
October	0.07	0.07	0.07	0.08	0.07
November	0.08	0.06	0.07	0.05	0.11
December	0.1	0.09	0.07	0.07	0.1

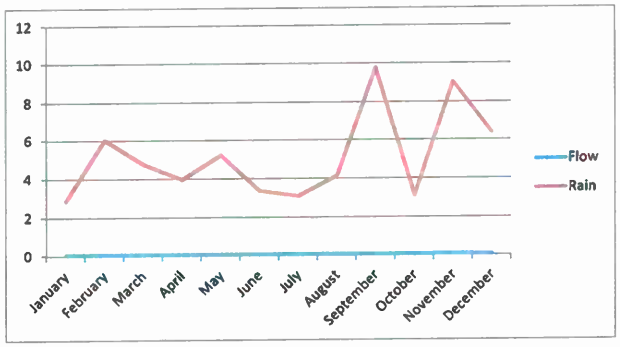


Darby Meter MH#2 Location: Intersection Creek and Tyler

Month	2014 ADF	2015	2016	2017	2018	2014	2015	2016	2017	2018
January	0.03	0.04	0.04	0.04	0.04	6.63	5	5.17	2.57	2.85
February	0.04	0.03	0.04	0.04	0.04	7.61	3.54	4.45	1.52	6.02
March	0.04	0.04	0.04	0.04	0.04	5.35	6.85	2.12	3.49	4.74
April	0.04	0.04	0.03	0.05	0.03	6.69	3.58	1.78	3.15	3.94
May	0.04	0.04	0.04	0.05	0.04	2.91	1.19	6.65	6.27	5.21
June	0.04	0.04	0.03	0.04	0.04	5.46	8.88	1.87	1.86	3.34
July	0.03	0.04	0.04	0.04	0.04	4.3	3.16	3.88	5.35	3.06
August	0.03	0.03	0.03	0.04	0.04	3.55	0.98	1.7	6.05	4.11
September	0.03	0.04	0.03	0.04	0.04	1.69	6.27	3.52	3.86	9.76
October	0.03	0.04	0.02	0.04	0.04	2.53	3.51	2.08	3.66	3.08
November	0.03	0.04	0.03	0.04	0.05	4.07	1.89	2.17	1.31	9.03
December	0.04	0.04	0.04	0.04	0.04	3.28	5.14	2.72	2.27	6.38
Annual Average	0.035	0.038	0.040	0.042	0.040					
3 Month Max. Average	0.040	0.040	0.040	0.047	0.043					
Ratio (3 month Max to AA Ratio)	1.14	1.04	1.00	1.12	1.08					
5-Year Average Hydraulic Ratio				1.08						
Total Rainfall, in.						54.07	49.99	38.09	41.36	61.52

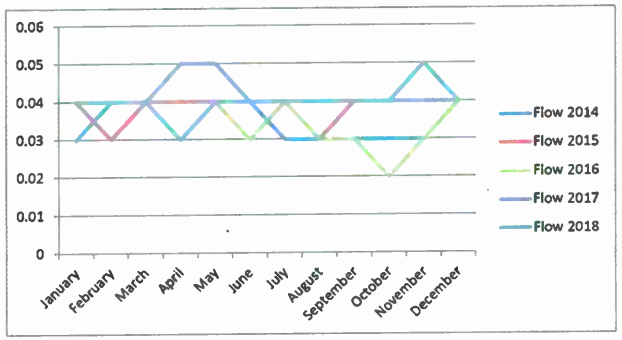
2018 Monthly Flow/Rain

	Flow	Rain
January	0.04	2.85
February	0.04	6.02
March	0.04	4.74
April	0.03	3.94
May	0.04	5.21
June	0.04	3.34
July	0.04	3.06
August	0.04	4.11
September	0.04	9.76
October	0.04	3.08
November	0.05	9.03
December	0.04	6.38



5-Year Average Flow

	Flow 2014	Flow 2015	Flow 2016	Flow 2017	Flow 2018
January	0.03	0.04	0.04	0.04	0.04
February	0.04	0.03	0.04	0.04	0.04
March	0.04	0.04	0.04	0.04	0.04
April	0.04	0.04	0.03	0.05	0.03
May	0.04	0.04	0.04	0.05	0.04
June	0.04	0.04	0.03	0.04	0.04
July	0.03	0.04	0.04	0.04	0.04
August	0.03	0.03	0.03	0.04	0.04
September	0.03	0.04	0.03	0.04	0.04
October	0.03	0.04	0.02	0.04	0.04
November	0.03	0.04	0.03	0.04	0.05
December	0.04	0.04	0.04	0.04	0.04

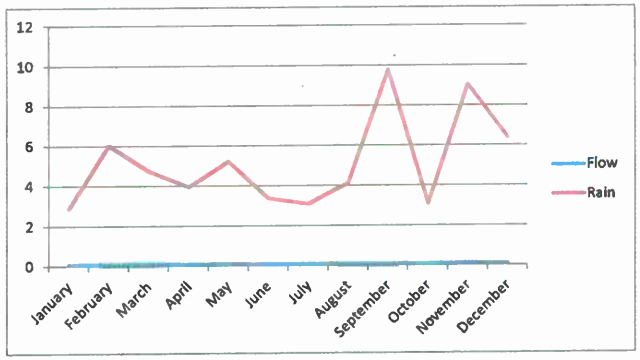


Darby Meter MH#6 Location: Walnut St. at RR tracks

Month	2014 ADF	2015 ADF	2016	2017	2018	2014	2015	2016	2017	2018
January	0.08	0.08	0.07	0.06	0.06	6.63	5	5.17	2.57	2.85
February	0.12	0.07	0.07	0.05	0.09	7.61	3.54	4.45	1.52	6.02
March	0.11	0.09	0.05	0.06	0.1	5.35	6.85	2.12	3.49	4.74
April	0.1	0.07	0.05	0.05	0.08	6.69	3.58	1.78	3.15	3.94
May	0.08	0.06	0.06	0.06	0.09	2.91	1.19	6.65	6.27	5.21
June	0.07	0.07	0.05	0.05	0.08	5.46	8.88	1.87	1.86	3.34
July	0.07	0.06	0.05	0.05	0.07	4.3	3.16	3.88	5.35	3.06
August	0.06	0.05	0.05	0.06	0.09	3.55	0.98	1.7	6.05	4.11
September	0.06	0.05	0.05	0.05	0.09	1.69	6.27	3.52	3.86	9.76
October	0.07	0.06	0.05	0.06	0.08	2.53	3.51	2.06	3.66	3.08
November	0.08	0.06	0.05	0.06	0.11	4.07	1.89	2.17	1.31	9.03
December	0.08	0.08	0.06	0.06	0.08	3.28	5.14	2.72	2.27	6.38
Annual Average	0.08	0.07	0.06	0.06	0.09					
3 Month Max. Average	0.110	0.080	0.063	0.060	0.093					
Ratio (3 month Max to AA Ratio)	1.35	1.20	1.15	1.07	1.10					
5-Year Average Hydraulic Ratio					1.17					
Total						54.07	49.99	38.09	41.36	61.52

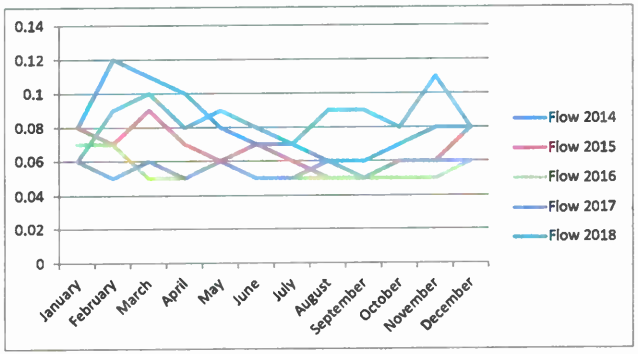
2018 Monthly Flow/Rain

	Flow	Rain
January	0.06	2.85
February	0.09	6.02
March	0.1	4.74
April	0.08	3.94
May	0.09	5.21
June	0.08	3.34
July	0.07	3.06
August	0.09	4.11
September	0.09	9.76
October	0.08	3.08
November	0.11	9.03
December	0.08	6.38



5-Year Average Flow

	Flow 2014	Flow 2015	Flow 2016	Flow 2017	Flow 2018
January	0.08	0.08	0.07	0.06	0.06
February	0.12	0.07	0.07	0.05	0.09
March	0.11	0.09	0.05	0.06	0.1
April	0.1	0.07	0.05	0.05	0.08
May	0.08	0.06	0.06	0.06	0.09
June	0.07	0.07	0.05	0.05	0.08
July	0.07	0.06	0.05	0.05	0.07
August	0.06	0.05	0.05	0.06	0.09
September	0.06	0.05	0.05	0.05	0.09
October	0.07	0.06	0.05	0.06	0.08
November	0.08	0.06	0.05	0.06	0.11
December	0.08	0.08	0.06	0.06	0.08



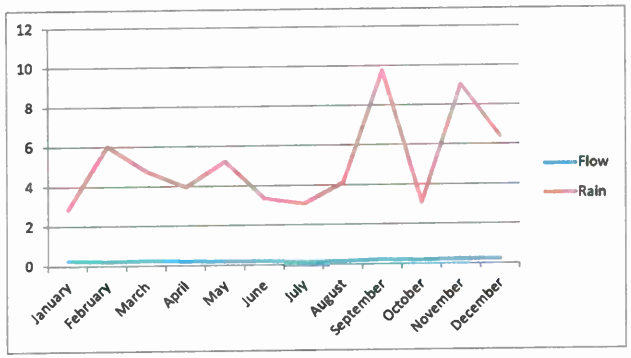
Darby Meter MH#7 Location: 716 Pine

Month	2014 ADF	2015 ADF	2016	2017	2018
January	0.27	0.22	0.18	0.13	0.24
February	0.37	0.2	0.2	0.13	0.19
March	0.26	0.27	0.15	0.14	0.24
April	0.26	0.2	0.14	0.18	0.19
May	0.25	0.14	0.17	0.17	0.18
June	0.17	0.16	0.16	0.13	0.18
July	0.15	0.16	0.12	0.13	0.13
August	0.15	0.14	0.13	0.13	0.15
September	0.14	0.14	0.12	0.13	0.21
October	0.15	0.09	0.11	0.14	0.18
November	0.19	0.09	0.12	0.1	0.23
December	0.2	0.17	0.11	0.12	0.23
Annual Average	0.213	0.165	0.143	0.136	0.196
3 Month Max. Average	0.300	0.153	0.180	0.163	0.223
Ratio (3 month Max to AA Ratio)	1.41	0.93	1.26	1.20	1.14
5-Year Average Hydraulic Ratio					1.19

2014	2015	2016	2017	2018
6.63	5	5.17	2.57	2.85
7.61	3.54	4.45	1.52	6.02
5.35	6.85	2.12	3.49	4.74
6.69	3.58	1.78	3.15	3.94
2.91	1.19	6.65	6.27	5.21
5.46	8.88	1.87	1.86	3.34
4.3	3.16	3.88	5.35	3.06
3.55	0.98	1.7	6.05	4.11
1.69	6.27	3.52	3.86	9.76
2.53	3.51	2.06	3.66	3.08
4.07	1.89	2.17	1.31	9.03
3.28	5.14	2.72	2.27	6.38
Total Rainfall, in.	54.07	49.99	38.09	41.36	61.52

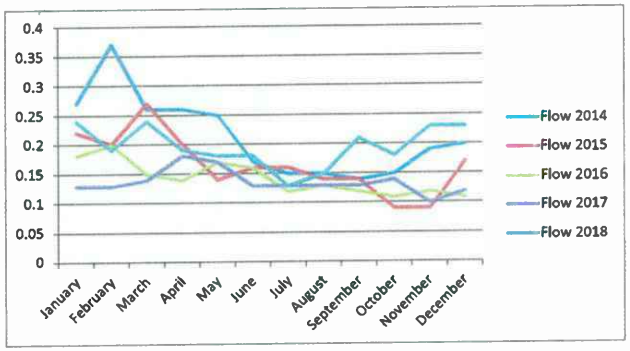
2017 Monthly Flow/Rain

	Flow	Rain
January	0.24	2.85
February	0.19	6.02
March	0.24	4.74
April	0.19	3.94
May	0.18	5.21
June	0.18	3.34
July	0.13	3.06
August	0.15	4.11
September	0.21	9.76
October	0.18	3.08
November	0.23	9.03
December	0.23	6.38



5-Year Average Flow

	Flow 2014	Flow 2015	Flow 2016	Flow 2017	Flow 2018
January	0.27	0.22	0.18	0.13	0.24
February	0.37	0.2	0.2	0.13	0.19
March	0.26	0.27	0.15	0.14	0.24
April	0.26	0.2	0.14	0.18	0.19
May	0.25	0.14	0.17	0.17	0.18
June	0.17	0.16	0.16	0.13	0.18
July	0.15	0.16	0.12	0.13	0.13
August	0.15	0.14	0.13	0.13	0.15
September	0.14	0.14	0.12	0.13	0.21
October	0.15	0.09	0.11	0.14	0.18
November	0.19	0.09	0.12	0.1	0.23
December	0.2	0.17	0.11	0.12	0.23

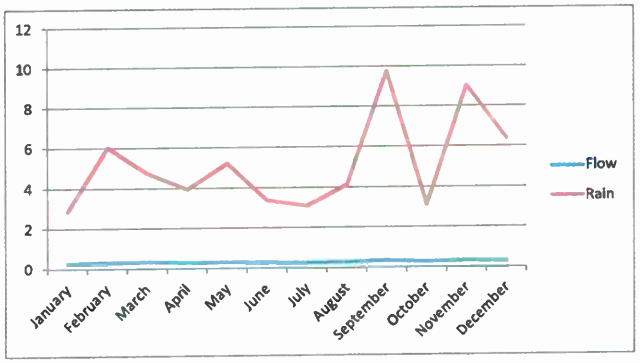


Darby Meter MH#8 Location: 231 N. Second St.

Month	2014 ADF	2015 ADF	2016	2017	2018	2014	2015	2016	2017	2018
January	0.22	0.19	0.25	0.26	0.24	6.63	5	5.17	2.57	2.85
February	0.22	0.18	0.29	0.27	0.3	7.61	3.54	4.45	1.52	6.02
March	0.19	0.26	0.22	0.32	0.33	5.35	6.85	2.12	3.49	4.74
April	0.2	0.21	0.22	0.28	0.3	6.69	3.58	1.78	3.15	3.94
May	0.21	0.2	0.25	0.41	0.29	2.91	1.19	6.65	6.27	5.21
June	0.19	0.23	0.24	0.37	0.28	5.46	8.88	1.87	1.86	3.34
July	0.16	0.23	0.23	0.33	0.25	4.3	3.16	3.88	5.35	3.06
August	0.14	0.18	0.21	0.26	0.27	3.55	0.98	1.7	6.05	4.11
September	0.13	0.2	0.21	0.22	0.34	1.69	6.27	3.52	3.86	9.76
October	0.14	0.19	0.22	0.22	0.27	2.53	3.51	2.06	3.66	3.08
November	0.15	0.32	0.23	0.2	0.32	4.07	1.89	2.17	1.31	9.03
December	0.19	0.35	0.39	0.22	0.3	3.28	5.14	2.72	2.27	6.38
Annual Average	0.178	0.228	0.247	0.240	0.270					
3 Month Max. Average	0.210	0.287	0.310	0.370	0.310					
Ratio (3 month Max to AA Ratio)	1.18	1.26	1.26	1.54	1.15					
5-Year Average Hydraulic Ratio					1.28					
Total Rainfall, in.						54.07	49.99	38.09	41.36	61.52

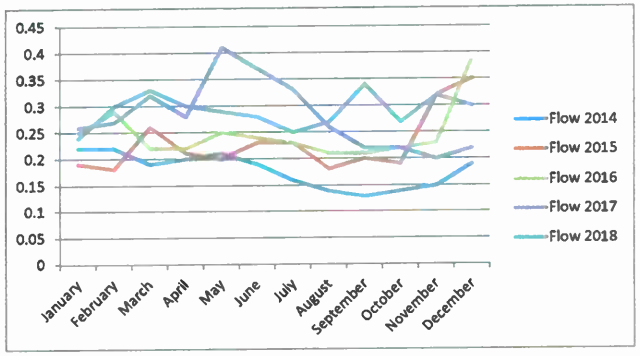
2018 Monthly Flow/Rain

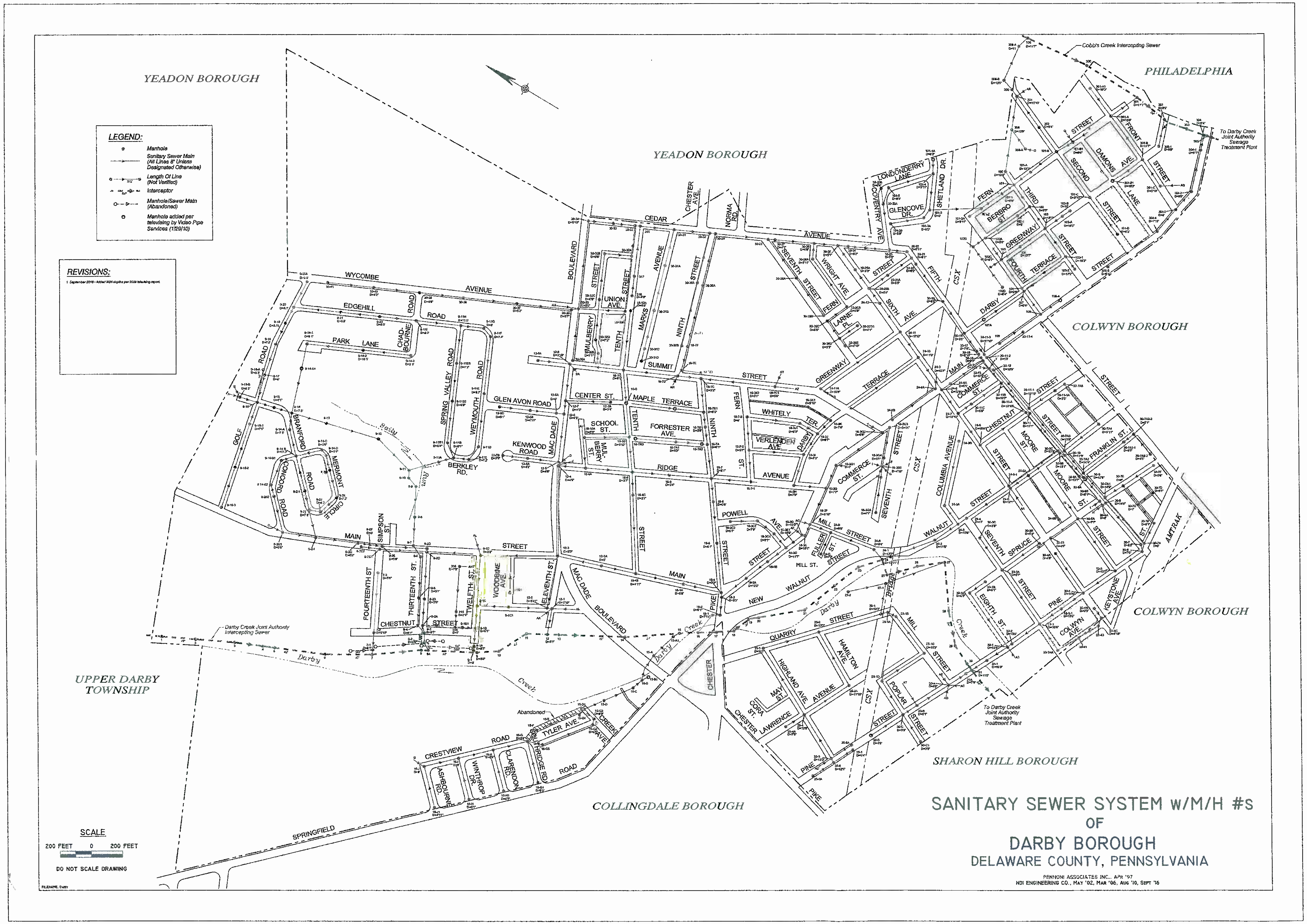
	Flow	Rain
January	0.24	2.85
February	0.3	6.02
March	0.33	4.74
April	0.3	3.94
May	0.29	5.21
June	0.28	3.34
July	0.25	3.06
August	0.27	4.11
September	0.34	9.76
October	0.27	3.08
November	0.32	9.03
December	0.3	6.38



5-Year Average Flow

	Flow 2014	Flow 2015	Flow 2016	Flow 2017	Flow 2018
January	0.22	0.19	0.25	0.26	0.24
February	0.22	0.18	0.29	0.27	0.3
March	0.19	0.26	0.22	0.32	0.33
April	0.2	0.21	0.22	0.28	0.3
May	0.21	0.2	0.25	0.41	0.29
June	0.19	0.23	0.24	0.37	0.28
July	0.16	0.23	0.23	0.33	0.25
August	0.14	0.18	0.21	0.26	0.27
September	0.13	0.2	0.21	0.22	0.34
October	0.14	0.19	0.22	0.22	0.27
November	0.15	0.32	0.23	0.2	0.32
December	0.19	0.35	0.39	0.22	0.3




YEADON BOROUGH
PHILADELPHIA
COLWYN BOROUGH
UPPER DARBY TOWNSHIP
COLLINGDALE BOROUGH
SHARON HILL BOROUGH
LEGEND:
Manhole
Sanitary Sewer Main (All Lines 8" Unless Designated Otherwise)
Length Of Line (Not Verified)
Interceptor
Manhole/Sewer Main (Abandoned)
REVISIONS:
Cobb's Creek Intercepting Sewer
To Darby Creek Joint Authority Sewage Treatment Plant
Darby Creek Joint Authority Intercepting Sewer
SCALE
200 FEET 0 200 FEET
DO NOT SCALE DRAWING
SANITARY SEWER SYSTEM w/M/H #s
OF
DARBY BOROUGH
DELAWARE COUNTY, PENNSYLVANIA
PENNONI ASSOCIATES INC., APR '97
NDI ENGINEERING CO., MAY '02, MAR '06, AUG '10, SEPT '16

Main Cleaning

Darby Township

Darby Township

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2018

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

GENERAL INFORMATION			
Permittee Name:	**Darby Township**	Permit No.:	**PA N/A**
Mailing Address:	**21 Bartram Avenue**	Effective Date:	**N/A**
City, State, Zip:	**Glenolden, PA 19036**	Expiration Date:	**N/A**
Contact Person:	**Matthew Judge**	Renewal Due Date:	**N/A**
Title:	**Assistant Township Manager**	Municipality:	**Darby Township**
Phone:	**610-586-1514**	County:	**Delaware**
Email:	**matt.judge@darbytwp.org**	Consultant Name:	**Catania Engineering Associates, Inc.**

CHAPTER 94 REPORT COMPONENTS

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

   Check the appropriate boxes:

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

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

   Check the appropriate boxes:

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

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

Please note that the Chapter 94 Spreadsheet was used to show monthly average flows and projections; it is understood that this report is for a collection system only.

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

Check the appropriate boxes:

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

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

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

Comments:

No sewer extensions were constructed or approved within the past calendar year. A copy of the sanitary sewer system map is attached.

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

Township personnel and equipment are utilized for sewer system operation and maintenance on an "as-needed" basis. The Township, in coordination with DELCORA has flow metering equipment to monitor flows through the sanitary system. CSL Services, Inc. was contracted by DELCORA to calibrate and maintain the flow monitoring equipment throughout 2018. Calibration reports are maintained by DELCORA. Darby Township utilizes flow data to assist in the identification of areas that require attention.

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

Check the appropriate boxes:

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

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

Comments:

There are no known areas of capacity exceedance and no areas of capacity exceedance expected in the next five years. No SSOs were reported for the 2018 calendar year.

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

Check the appropriate boxes:

☒ The collection system does not contain pump stations

☐ The collection system does contain pump stations (Number –)

☐ Discussion of condition of each pump station attached (**Attachment**)

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

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

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

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

Check the appropriate boxes:

☒ Industrial waste report as described in 8 a., b. and c. attached (**Attachment**)

☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

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

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

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

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

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

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

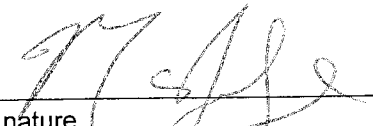
☐ Annual CSO Report attached (**Attachment**)

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

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

RESPONSIBLE OFFICIAL CERTIFICATION

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

Matthew Judge	
Name of Responsible Official	Signature
610-586-1514	2/19/19
Telephone No.	Date

PREPARER CERTIFICATION

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

Elizabeth A. Catania	Elizabeth A Catania, RG.
Name of Preparer	Signature
610-532-2884	2/7/19
Telephone No.	Date

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreads
Sewage Treatment Pl

Reporting Year: 2018

Facility Name: Darby Township - DCJA

Permit No.:

Persons/EDU: 3.5

Existing Hydraulic Design Capacity: MGD
Upgrade Planned in Next 5 Years? Year:
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: lbs BOD5/day
Upgrade Planned in Next 5 Years? Year:
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2014	2015	2016	2017	2018
January	0.55905	0.49797	0.45068	0.44942	0.50038
February	0.67866	0.45361	0.56605	0.43606	0.6305
March	0.55065	0.61	0.47932	0.52498	0.6333
April	0.57924	0.49736	0.46568	0.52368	0.56852
May	0.54007	0.41132	0.47957	0.52957	0.56887
June	0.4696	0.44622	0.40543	0.47364	0.48282
July	0.4246	0.4158	0.40035	0.47089	0.38531
August	0.39376	0.35335	0.37869	0.46825	0.39551
September	0.38635	0.33673	0.3845	0.42541	0.4803
October	0.38668	0.37921	0.39234	0.45525	0.46419
November	0.44099	0.36069	0.39215	0.43392	0.58753
December	0.48652	0.45567	0.42879	0.44405	0.59783
Annual Avg	0.49134716	0.43482745	0.43529638	0.46959318	0.52458675
Max 3-Mo Avg	0.60284856	0.52052898	0.50368209	0.52607447	0.61077274
Max : Avg Ratio	1.23	1.20	1.16	1.12	1.16
Existing EDUs	1,423.0	1,423.0	1,423.0	1,423.0	1,423.0
Flow/EDU (GPD)	345.3	305.6	305.9	330.0	368.6
Flow/Capita (GPD)	98.7	87.3	87.4	94.3	105.3
Exist. Overload?					

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

Month	2014	2015	2016	2017	2018
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Annual Avg					
Max Mo Avg					
Max : Avg Ratio					
Existing EDUs	1,423	1,423	1,423	1,423	1,423
Load/EDU					
Load/Capita					
Exist. Overload?					

Projected Flows for Next Five Years (MGD)

	2019	2020	2021	2022	2023
New EDUs	1.0	1.0	1.0	1.0	1.0
New EDU Flow	0.0003	0.0003	0.0003	0.0003	0.0003
Proj. Annual Avg	0.47143	0.47173	0.47203	0.47233	0.47263
Proj. Max 3-Mo Avg	0.55305	0.55341	0.55376	0.55411	0.55446
Proj. Overload?					

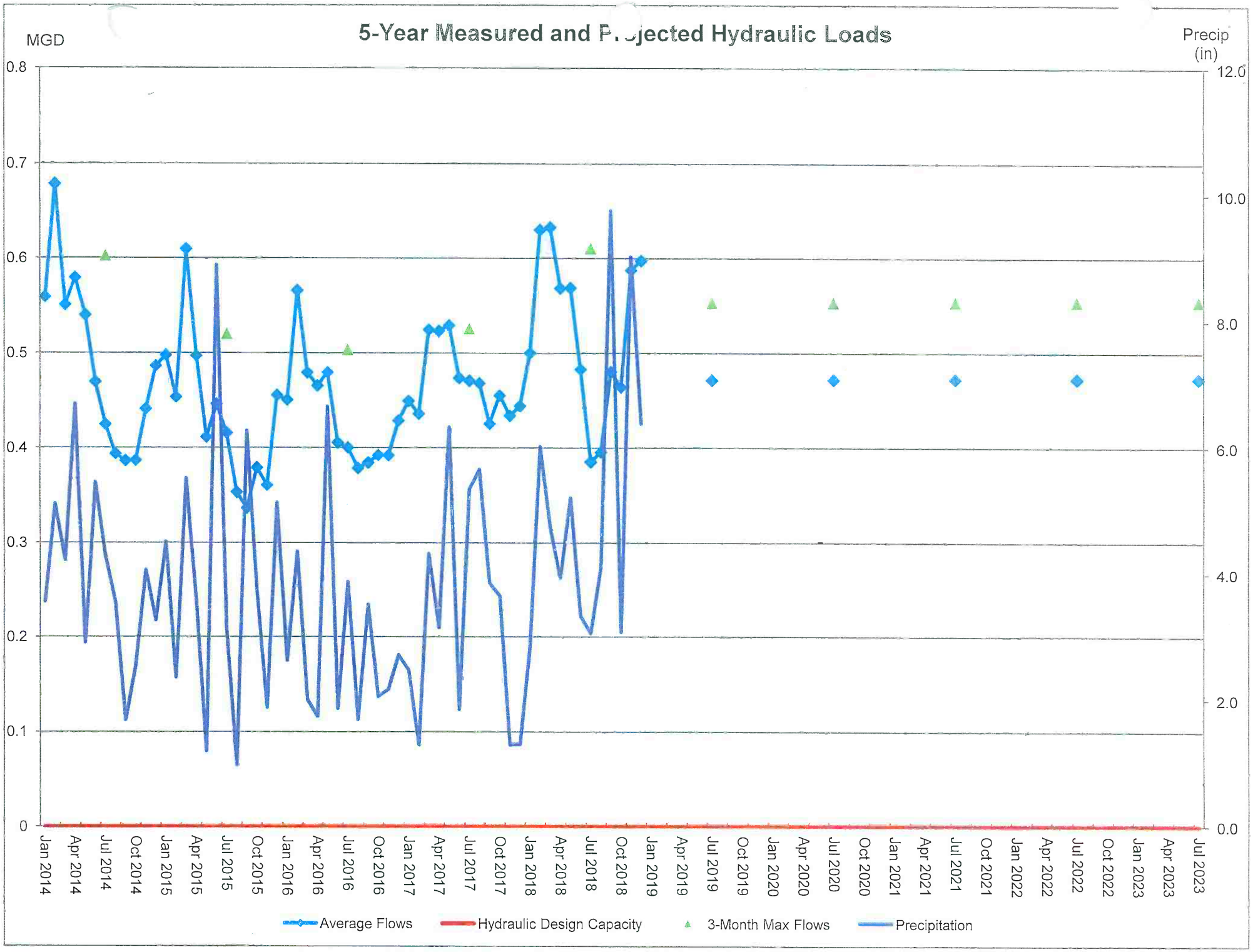
Projected BOD5 Loads for Next Five Years (lbs/day)

	2019	2020	2021	2022	2023
New EDUs	1	1	1	1	1
New EDU Load	0.584	0.584	0.584	0.584	0.584
Proj. Annual Avg	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Proj. Max Avg	#DIV/0!				
Proj. Overload?	#DIV/0!				

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2014	2015	2016	2017	2018
January	3.56	4.52	2.63	2.48	2.85
February	5.12	2.36	4.36	1.3	6.02
March	4.23	5.52	2.01	4.33	4.74
April	6.69	3.58	1.75	3.15	3.94
May	2.91	1.2	6.65	6.33	5.21
June	5.46	8.89	1.87	1.86	3.34
July	4.3	3.16	3.88	5.35	3.06
August	3.55	0.98	1.7	5.66	4.11
September	1.69	6.27	3.52	3.86	9.76
October	2.54	3.76	2.06	3.66	3.08
November	4.07	1.89	2.17	1.3	9.03
December	3.27	5.14	2.72	1.31	6.38


5-Year Measured and Projected Hydraulic Loads
MGD
Precip (in)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jan 2014
Apr 2014
Jul 2014
Oct 2014
Jan 2015
Apr 2015
Jul 2015
Oct 2015
Jan 2016
Apr 2016
Jul 2016
Oct 2016
Jan 2017
Apr 2017
Jul 2017
Oct 2017
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Jan 2019
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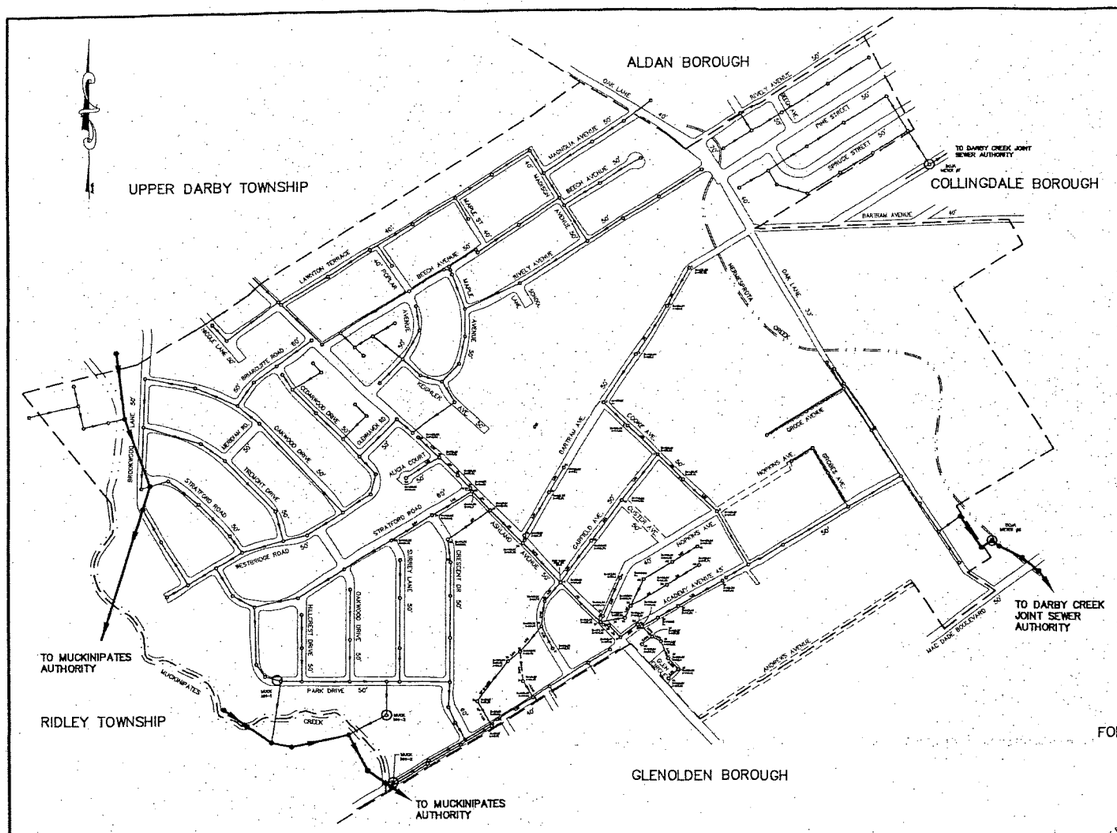
Jan 2020
Apr 2020
Jul 2020
Oct 2020
Jan 2021
Apr 2021
Jul 2021
Oct 2021
Jan 2022
Apr 2022
Jul 2022
Oct 2022
Jan 2023
Apr 2023
Jul 2023
Average Flows
Hydraulic Design Capacity
3-Month Max Flows
Precipitation

DARBY TOWNSHIP MONTHLY FLOW METER DATA

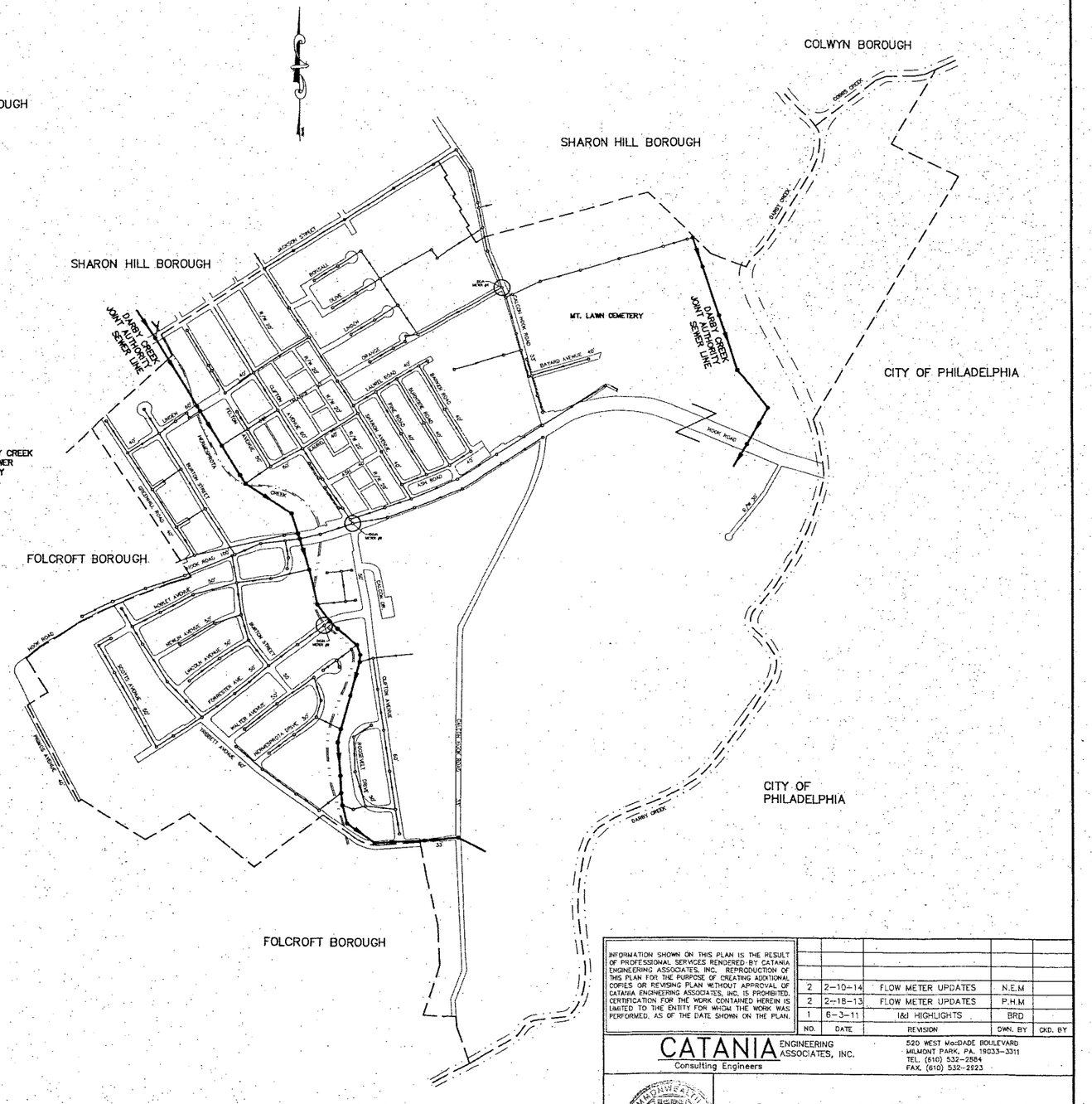
Meter No.	Meter Location	Total EDUs	Outside EDUs	January			February			March			April			May			June			Comments
				Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	
4	Calcon Hook Road (Cemetery driveway)	53		856,526	521		929,146	626		1,068,052	650		825,332	519		830,222	505		761,359	479		
5	Forrester Avenue (adjacent to the Hermesprota Run)	415		3,257,832	253		3,736,353	322		4,114,063	320		3,387,663	272		3,568,223	277		2,955,620	237		
6	Hook Road (at Hermesprota Run)	223		3,480,432	503		3,604,363	577		4,002,256	579		3,707,265	554		3,884,407	562		3,268,372	489		
7	1113 Broad Street (in alley)	147		1,226,157	269		1,403,640	341		1,499,988	329		1,196,431	271		1,180,979	259		1,031,902	234		Flows thru Collingdale Borough's Meter No.: 4
8	Near MacDade Blvd, and Oak Avenue (Hermesprota Int.)	160	25	2,178,454	472	*-203,321*	2,831,352	691	*-218,191*	3,215,944	712	*-236,295*	2,980,656	680	*-226,793*	3,061,120	671	*-251,197*	2,290,434	510	*-226,450*	Includes 5 Comm from Collingdale Borough. Uses average EDU from all CB meters.
	Unmetered Areas (average volume from all meters)	425		4,715,657	358		5,366,734	451		5,968,349	453		5,184,980	407		5,361,095	407		4,403,418	345		Use average EDU from all Propsect meters for estimate
	TOTAL	**1,423**	**25**	**15,511,737**			**17,653,396**			**19,632,357**			**17,055,534**			**17,634,850**			**14,484,655**			

Meter No.	Meter Location	Total EDUs	Outside EDUs	July			August			September			October			November			December			Comments
				Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	Recorded Volume	Gallons EDU/Day	Outside EDUs	
4	Calcon Hook Road (Cemetery driveway)	53		603,435	367		692,786	422		831,014	523		727,918	443		1,231,009	774		1,133,119	690		
5	Forrester Avenue (adjacent to the Hermesprota Run)	415		2,449,030	190		2,628,802	204		3,295,886	265		3,292,467	256		3,898,644	313		3,820,110	297		
6	Hook Road (at Hermesprota Run)	223		2,559,123	370		2,603,395	377		2,804,118	419		3,012,694	436		3,875,617	579		3,949,892	571		
7	1113 Broad Street (in alley)	147		1,042,222	229		1,014,957	223		1,002,342	227		1,009,366	221		1,114,403	253		1,105,751	243		Flows thru Collingdale Borough's Meter No.: 4
8	Near MacDade Blvd, and Oak Avenue (Hermesprota Int.)	160	25	1,878,494	397	*-219,011*	1,829,771	381	*-236,248*	2,338,301	517	*-243,174*	2,218,149	471	*-245,375*	2,408,604	530	*-260,717*	3,158,232	690	*-268,526*	Includes 5 Comm from Collingdale Borough. Uses average EDU from all CB meters.
	Unmetered Areas (average volume from all meters)	425		3,631,192	276		3,727,361	283		4,380,377	344		4,374,582	332		5,358,390	420		5,634,014	428		Use average EDU from all Propsect meters for estimate
	TOTAL	**1,423**	**25**	**11,944,484**			**12,260,824**			**14,408,864**			**14,389,800**			**17,625,950**			**18,532,593**			



GRAPHIC SCALE

(IN FEET)
1 inch = 400 ft.



GRAPHIC SCALE

(IN FEET)
1 inch = 400 ft.

NO.	DATE	REVISION	DWN. BY	CKD. BY
2	2-10-14	FLOW METER UPDATES	N.E.M	
2	2-18-13	FLOW METER UPDATES	P.H.M	
1	6-3-11	I&I HIGHLIGHTS	BRD	

CATANIA ENGINEERING ASSOCIATES, INC.
Consulting Engineers
520 WEST MacDADE BOULEVARD
WILMONT PARK, PA. 19033-3311
TEL. (610) 532-2584
FAX. (610) 532-2923

SANITARY SEWER MAP
TOWNSHIP OF DARBY

DWN. BY M.N.G.	DSG. BY C.	FIELD BOOK/PAGE C.	SCALE 1" = 400'
CKD. BY C.J.C.			DATE 06/03/04

DRAWING NO. 81675-112
SHEET 1 OF 1 SHEETS

Industrial Waste Report

DELCORA is currently responsible for issuance of Industrial Waste Permits to companies discharging into Township Sewers. The regulation governing discharge of the industrial wastes as well as any program for surveillance and monitoring of industrial waste discharges is maintained by DELCORA.

There are no known industrial permits for the Township system.

Folcroft Borough

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2018

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

GENERAL INFORMATION			
Permittee Name:	**Folcroft Borough**	Permit No.:	**PA N/A**
Mailing Address:	**1555 Elmwood Ave.**	Effective Date:	**N/A**
City, State, Zip:	**Folcroft, PA 19032**	Expiration Date:	**N/A**
Contact Person:	**Lisa McGuigan**	Renewal Due Date:	**N/A**
Title:	**Borough Administrator**	Municipality:	**Folcroft Borough**
Phone:	**610-522-1305**	County:	**Delaware**
Email:	**folcroftmanager@comcast.net**	Consultant Name:	**Catania Engineering Associates, Inc.**

CHAPTER 94 REPORT COMPONENTS

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

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

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

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

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

Please note that the Chapter 94 Spreadsheet was used to show monthly average flows and projections; it is understood that this report is for a collection system only.

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

Check the appropriate boxes:

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

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

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

Comments:

No sewer extensions were constructed or approved within the past calendar year. A copy of the sanitary sewer system map is attached.

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

Borough forces are used for inspection and troubleshooting of the sanitary sewer system. Contract forces are used for routine maintenance.

DELCORA just recently completed a total system video inspection which will be utilized (and has been) to identify deficencies. The Borough is currently preparing a bid package for upgrades to the pump station.

Folcroft Borough, in coordination with DELCORA has flow metering equipment to monitor flows through the sanitary system. CSL Services, Inc. was contracted by DELCORA to calibrate and maintain the flow monitoring equipment throughout 2018. Calibration reports are maintained by DELCORA. Folcroft currently has 6 flow meters installed that monitor approximately 93% of the total flow throughout the Borough.

Flow data is utilized to assist in the identification of areas that require attention.

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

Check the appropriate boxes:

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

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

Comments:

Based upon previous video inspections, the system is in fair to good condition.

There are no known areas of capacity exceedance and no areas of capacity exceedance expected in the next five years.

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

Check the appropriate boxes:

☐ The collection system does not contain pump stations

☒ The collection system does contain pump stations (Number – **1**)

☐ Discussion of condition of each pump station attached (**Attachment**)

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

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

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

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

Check the appropriate boxes:

☒ Industrial waste report as described in 8 a., b. and c. attached (**Attachment**)

☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

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

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

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

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

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

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

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

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

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

RESPONSIBLE OFFICIAL CERTIFICATION

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

Joseph Possenti, Jr., Manager	
Name of Responsible Official	Signature
610-522-1305	2/19/19
Telephone No.	Date

PREPARER CERTIFICATION

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

Elizabeth A. Catania	Elizabeth A Catania P.E.
Name of Preparer	Signature
610-532-2884	2/7/19
Telephone No.	Date

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PADEP Chapter 94 Spreads
Sewage Treatment Pl

Reporting Year: 2018

Facility Name: Folcroft Borough - DCJA

Permit No.:

Persons/EDU: 3.5

Existing Hydraulic Design Capacity: MGD
Upgrade Planned in Next 5 Years? Year:
Future Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: lbs BOD5/day
Upgrade Planned in Next 5 Years? Year:
Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2014	2015	2016	2017	2018
January	0.52165	0.54281	0.44572	0.48495	0.51378
February	0.69636	0.48924	0.54367	0.44986	0.66036
March	0.59308	0.61282	0.44887	0.55207	0.70763
April	0.62485	0.48989	0.41491	0.55145	0.60243
May	0.54322	0.43053	0.45994	0.55172	0.60429
June	0.44354	0.51886	0.4046	0.48	0.50868
July	0.42239	0.44229	0.44057	0.48581	0.4117
August	0.39231	0.38803	0.4148	0.46208	0.41114
September	0.38721	0.37698	0.43404	0.44609	0.48044
October	0.41307	0.41989	0.44171	0.48216	0.47024
November	0.47419	0.39178	0.4444	0.4521	0.58827
December	0.52786	0.48754	0.47242	0.47934	0.57013
Annual Avg	0.50330975	0.46588822	0.44713694	0.48980192	0.54408971
Max 3-Mo Avg	0.6380965	0.54828713	0.49231185	0.55174567	0.65680512
Max : Avg Ratio	1.27	1.18	1.10	1.13	1.21
Existing EDUs	509.0	509.0	509.0	509.0	509.0
Flow/EDU (GPD)	988.8	915.3	878.5	962.3	1068.9
Flow/Capita (GPD)	282.5	261.5	251.0	274.9	305.4
Exist. Overload?					

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

Month	2014	2015	2016	2017	2018
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
Annual Avg					
Max Mo Avg					
Max : Avg Ratio					
Existing EDUs	509	509	509	509	509
Load/EDU					
Load/Capita					
Exist. Overload?					

Projected Flows for Next Five Years (MGD)

	2019	2020	2021	2022	2023
New EDUs	1.0	1.0	1.0	1.0	1.0
New EDU Flow	0.001	0.001	0.001	0.001	0.001
Proj. Annual Avg	0.49105	0.49205	0.49305	0.49405	0.49505
Proj. Max 3-Mo Avg	0.5774	0.57858	0.57975	0.58093	0.58211
Proj. Overload?					

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

	2019	2020	2021	2022	2023
New EDUs	1	1	1	1	1
New EDU Load	0.584	0.584	0.584	0.584	0.584
Proj. Annual Avg	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Proj. Max Avg	#DIV/0!				
Proj. Overload?	#DIV/0!				

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2014	2015	2016	2017	2018
January	3.56	4.52	2.63	2.48	2.85
February	5.12	2.36	4.36	1.3	6.02
March	4.23	5.52	2.01	4.33	4.74
April	6.69	3.58	1.75	3.15	3.94
May	2.91	1.2	6.65	6.33	5.21
June	5.46	8.89	1.87	1.86	3.34
July	4.3	3.16	3.88	5.35	3.06
August	3.55	0.98	1.7	5.66	4.11
September	1.69	6.27	3.52	3.86	9.76
October	2.54	3.76	2.06	3.66	3.08
November	4.07	1.89	2.17	1.3	9.03
December	3.27	5.14	2.72	1.31	6.38