

**Application of Pennsylvania-American Water Company for Acquisition of
the Wastewater Assets of the Township of Sadsbury
66 Pa. C.S. §1329
Application Filing Checklist – Water/Wastewater
Docket No. A-2018-_____**

20. Proof of Compliance. Provide proof of compliance with applicable design, construction and operation standards of DEP or of the county health department, or both, including:
- c. For **wastewater** system acquisitions, provide a copy of the Chapter 94 Municipal Wasteload Management Report that was most recently submitted to DEP.

RESPONSE:

- c. See enclosed Chapter 94 Municipal Wasteload Management 2017 Annual Report for the Township of Sadsbury as provided by the Township.

**CHAPTER 94
MUNICIPAL WASTELOAD MANAGEMENT
2017
ANNUAL REPORT**

SADSBURY TOWNSHIP, CHESTER COUNTY, PA

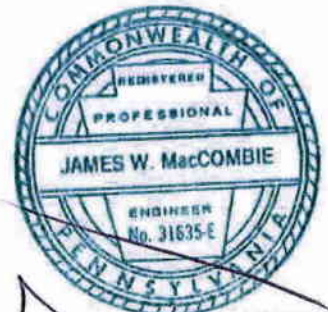
FOR THE

**PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE SEWERAGE SYSTEM**

MARCH 2018

Prepared By:

Herbert E. MacCombie, Jr., P.E.
Consulting Engineers and Surveyors, Inc
P.O. Box 118
Broomall, PA 19008



3/29/18



CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2017

- 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:	Township of Sadsbury	Permit No.:	1599404
Mailing Address:	2920 Lincoln Highway	Effective Date:	N/A
City, State, Zip:	Sadsburyville, PA 19369	Expiration Date:	N/A
Contact Person:	Linda Shank	Renewal Due Date:	N/A
Title:	Township Secretary	Municipality:	Township of Sadsbury
Phone:	610-857-9503	County:	Chester
Email:	lshank@sadsburytwp.org	Consultant Name:	Herbert E. MacCombie, Jr, PE, Consulting Engineers and Surveyors, 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))

Hydraulic loading to Stottsville Pump Station included in Attachment 1.

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 1**)
- List summarizing each extension or project attached (**Attachment**)
- Schedules describing how each project will be completed over time and effects attached (**Attachment**)

Comments:

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))

Sewer System Flow Monitoring:

Pennsylvania American Water Company (PAWC) was under contract with Sadsbury Township to monitor the Pump Station and Meters on a regular basis throughout 2017. The Township Engineer monitors flows on a regular basis. Currently, flow meter readings are obtained from a Mag Meter located along the force main discharge from the pumps at the Pump Station (effluent flow), as well as the newly installed influent meter. It is required by Chapter 94 to report on influent flow to evaluate Pump Station hydraulic loading and for determining peaking factors for projected flows. The influent meter began recording flow in May of 2015. PAWC records flow data while performing regular station maintenance. There is the ability to record and monitor flow remotely. However, telecommunications have not been completed to allow this to occur in 2017. It is anticipated to be functional in 2018. Using the discharge flow readings would yield inaccurately high peaking factors and falsely indicate hydraulic overloading of the pump station, which is a fairly new station. As part of the construction contract for the influent meter, the Township made improvements to reduce I&I. The Township is in the process of evaluating possible Stottsville Pump Station upgrades to meet future demands while at the same time identifying sources of I&I.

Sewer System Maintenance:

For 2017 Sadsbury Township contracted with PAWC for Pump Station maintenance. The Township will contract out with local contractors for major repairs.

Sewer System I&I Program:

The Township and PAWC reviews flows on a regular basis in order to keep a watchful eye on potential I&I. The Township Road Crew is available on a continual basis for routine repairs. Major repairs will be performed by local contractors as the need arises.

Currently, the Lincoln Crest Mobile Home Park has been identified as a source of inflow as well as several manholes along Route 372 due to the relocation of a storm sewer line by PennDOT. Another source of inflow is from the manholes adjacent to Buck Run along Greenbelt Drive. The Township is monitoring the flows from the Lincoln Crest Mobile Home Park on a regular basis and is working with the owner of the mobile home park to identify and remedy an apparent infiltration and inflow issue. Flows from the mobile home park continue to spike during rainfall events greater than one (1) inch. Lincoln Crest has received Conditional Final Land Development approval from the Township to expand the park with an additional 50 units. The park currently has 125 existing connections. Improvements associated with the expansion should curtail inflow issues. The timing of the mobile home expansion is uncertain at this juncture due to litigation. In addition, the Township is in the process of investigating another possible source of additional inflow that may be attributed to users within the Bellaire Business Park. The Township is in the process of monitoring their sewage flow and water usage to determine if there is an inflow issue.

The Township has obtained portable flow meters to isolate and study areas of the Township Sewer System to determine potential sources of I&I. There were no reported Sanitary Sewer Overflows (SSO) during 2017.

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 Sanitary Sewer System is in Good Working Condition and no exceedances are anticipated in the next five years.

The Township is in the process of evaluating the possible need to upgrade the Stottsville Pump Station in order to provide for a capacity increase for flows from developments within West Caln Township.

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 1**)

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).

Linda Shank, Township Secretary

Name of Responsible Official

610-857-9503

Telephone No.

Linda Shank, Secretary

Signature

3/23/18

Date

PREPARER CERTIFICATION

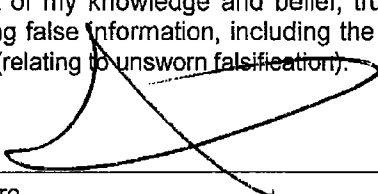
I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to 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).

James W. MacComble, P.E., P.L.S.

Name of Preparer

Signature

610-356-9550



3/23/18

Telephone No.

Date



PADEP Chapter 94 Spread:
Sewage Treatment Pl

Reporting Year:

Facility Name:

Permit No.:

Persons/EDU:

Existing Hydraulic Design Capacity: MGD

Existing Organic Design Capacity: lbs BOD5/day

Upgrade Planned in Next 5 Years? Year:

Upgrade Planned in Next 5 Years? Year:

Future Hydraulic Design Capacity: MGD

Future Organic Design Capacity: lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2013	2014	2015	2016	2017
January	0.192	0.182	0.185	0.142	0.169
February	0.2	0.202	0.188	0.158	0.166
March	0.17	0.207	0.246	0.132	0.173
April	0.154	0.211	0.19	0.168	0.179
May	0.165	0.243	0.159	0.169	0.172
June	0.21	0.18	0.151	0.159	0.172
July	0.173	0.18	0.174	0.135	0.163
August	0.177	0.156	0.158	0.13	0.164
September	0.153	0.166	0.146	0.144	0.161
October	0.14	0.223	0.163	0.154	0.155
November	0.134	0.162	0.161	0.155	0.165
December	0.187	0.176	0.176	0.163	0.167

Annual Avg	0.17	0.191	0.175	0.151	0.167
Max 3-Mo Avg	0.187	0.22	0.208	0.165	0.175
Max : Avg Ratio	1.10	1.15	1.19	1.09	1.05
Existing EDUs					
Flow/EDU (GPD)					
Flow/Capita (GPD)					
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2018	2019	2020	2021	2022
New EDUs	27.0	51.0	103.0	126.0	89.0
New EDU Flow	0.0066096	0.0124848	0.0252144	0.0308448	0.0217872
Proj. Annual Avg	0.177	0.18948	0.2147	0.24554	0.26733
Proj. Max 3-Mo Avg	0.198	0.212	0.24	0.274	0.298
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

Total Monthly Precipitation for Past Five Years (Inches)

Month	2013	2014	2015	2016	2017
January	3.34	3.55	4.52	2.63	2.91
February	2.12	5.12	2.36	4.36	1.3
March	2.42	4.23	5.52	2.01	4.26
April	2.32	6.69	3.58	1.75	3.15
May	2.33	2.91	1.19	6.65	6.33
June	10.58	5.46	8.88	1.87	1.86
July	13.25	4.3	3.16	3.88	5.35
August	5.91	3.55	0.98	1.7	6.05
September	3.26	1.69	6.27	3.52	3.86
October	2.45	2.53	3.76	2.06	3.66
November	2.73	4.07	1.89	2.17	1.3
December	5.2	3.27	5.14	2.72	1.31

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

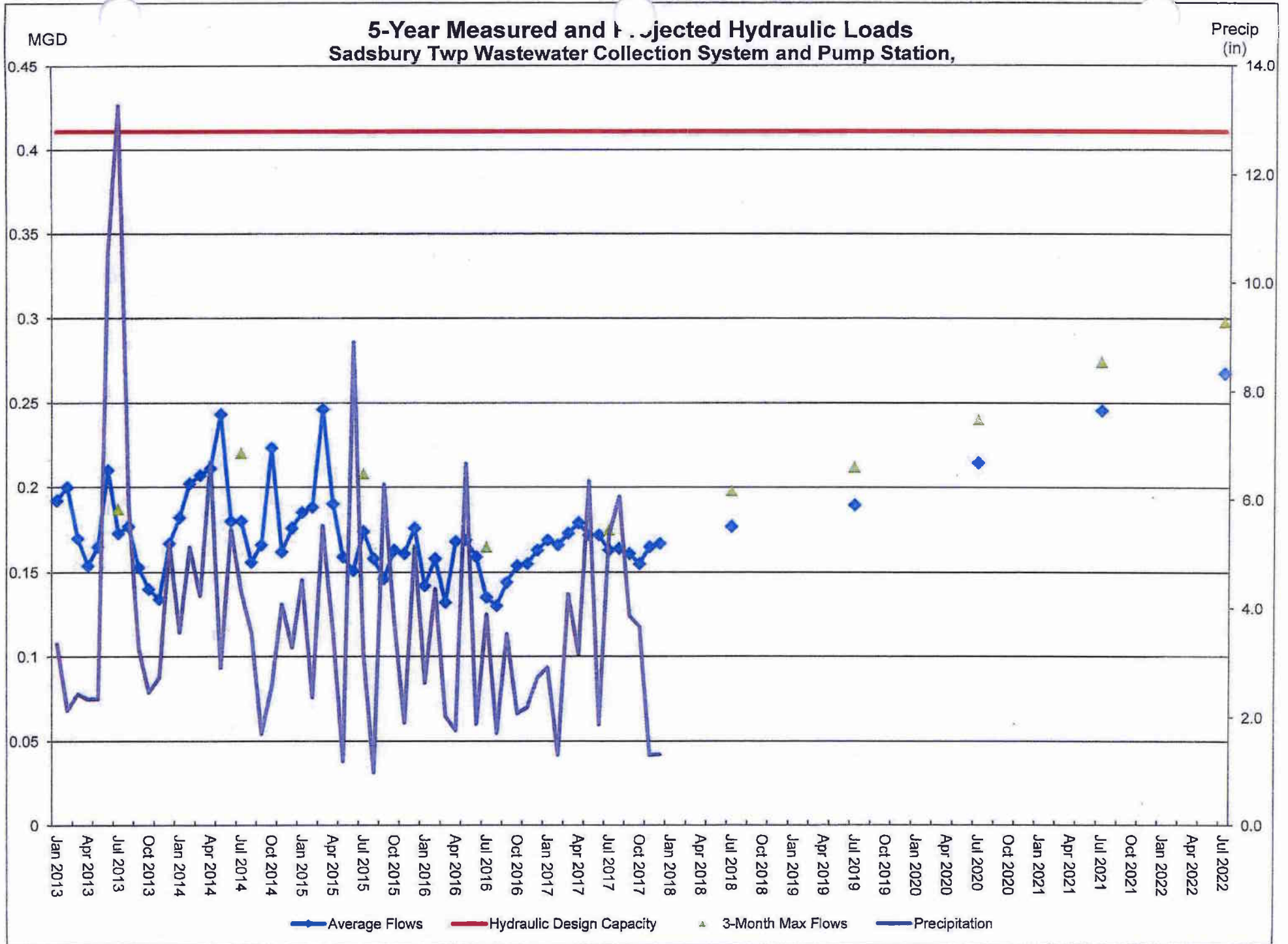
Month	2013	2014	2015	2016	2017
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					

Annual Avg					
Max Mo Avg					
Max : Avg Ratio					
Existing EDUs					
Load/EDU					
Load/Capita					
Exist. Overload?					

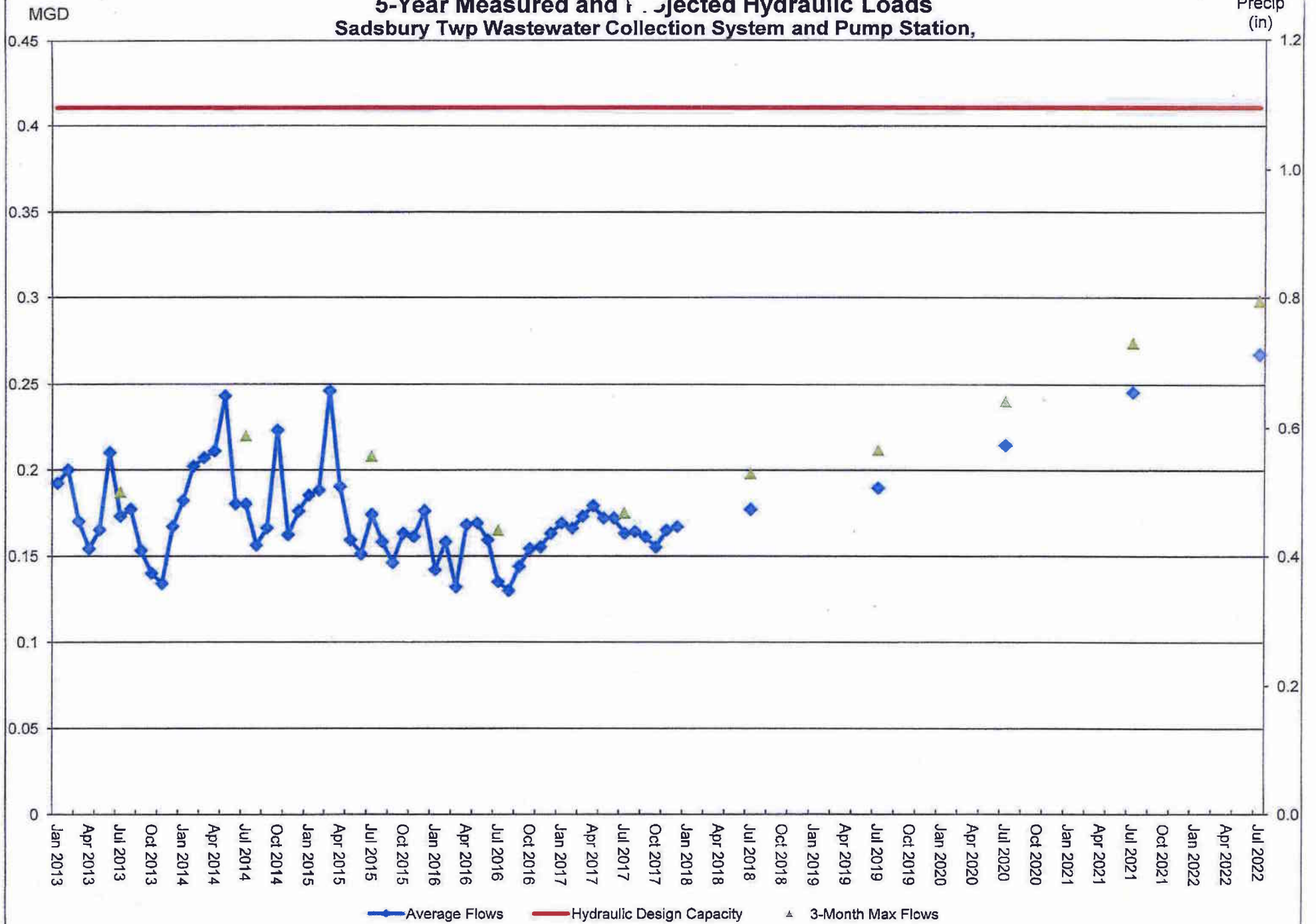
Projected BOD5 Loads for Next Five Years (lbs/day)

	2018	2019	2020	2021	2022
New EDUs	27	51	103	126	89
New EDU Load					
Proj. Annual Avg					
Proj. Max Avg					
Proj. Overload?					

5-Year Measured and Projected Hydraulic Loads Sadsbury Twp Wastewater Collection System and Pump Station,



5-Year Measured and Projected Hydraulic Loads Sadsbury Twp Wastewater Collection System and Pump Station,



PENNSYLVANIA-AMERICAN WATER COMPANY
COATESVILLE DISTRICT
2017 WASTELOAD MANAGEMENT REPORT SURVEY

Municipality: **SADSBURY TOWNSHIP**

Information Furnished By:

Date: March 22, 2018

Municipality / Engineering Company: Herbert E. MacCombie, Jr. P.E.
Consulting Engineers and Surveyors, Inc.

Name: James W. MacCombie, P.E., P.L.S.

Address: P.O. Box 118
Broomall, PA 19008

Phone: 610-356-9550 Fax: 610-356-5032

E-Mail Address: hem.engineers@verizon.net

1. Total Present Number of EDU's connected to PAWC system:

Residential	1,035
Commercial	92
Industrial	0

2. Total EDU's connected to PAWC system during 2017

Residential	32
Commercial	0
Industrial	0

3. Projections for future additional EDU's to be connected to PAWC system. These projections should reflect what is actually anticipated to be constructed and placed in service:

Year	Residential	Commercial	Industrial	Total EDU's
2018	27	0	0	27
2019	51	0	0	51
2020	64	39	0	103
2021	56	70	0	126
2022	37	52	0	89
Beyond 2022	125	58	5	188
Total	1,427	311	5	1,743

4. Sewer extensions constructed during 2016 that contributed flows to PAWC system:

Project / Development Name	Length & Diameter of Sewer Completed	Length and Diameter of Sewer Remaining	Total EDU's Completed	Total EDU's Remaining

5. Proposed Projects which shall require sewer extensions that will contribute flows to PAWC system but are not yet constructed.

Project / Development Name	Length & Diameter of Sewer Proposed	Total EDU's Proposed	Start of Construction (Year)
Western Sewer District/ Sadsbury Commons	Combination Gravity, Pump Station, & Force Main	234	2019
Lafayette Square	Gravity	85	2019

6. Please provide discussion on the following:

a.) Sewer System Flow Monitoring:

Pennsylvania American Water Company (PAWC) was under contract with Sadsbury Township to monitor the Pump Station and Meters on a regular basis throughout 2017. The Township Engineer monitors flows on a regular basis. Currently, flow meter readings are obtained from a Mag Meter located along the force main discharge from the pumps at the Pump Station (effluent flow), as well as the newly installed influent meter. It is required by Chapter 94 to report on influent flow to evaluate Pump Station hydraulic loading and for determining peaking factors for projected flows. The influent meter began recording flow in May of 2015. PAWC records flow data while performing regular station maintenance. There is the ability to record and monitor flow remotely. However, telecommunications have not been completed to allow this to occur in 2017. It is anticipated to be functional in 2018. Using the discharge flow readings would yield inaccurately high peaking factors and falsely indicate hydraulic overloading of the pump station, which is a fairly new station. As part of the construction contract for the influent meter, the Township made improvements to reduce I&I. The Township is in the process of evaluating possible Stottsville Pump Station upgrades to meet future demands while at the same time identifying sources of I&I.

b.) Sewer System Maintenance:

For 2017 Sadsbury Township contracted with PAWC for Pump Station maintenance. The Township will contract out with local contractors for major repairs.

c.) Sewer System I&I Program:

The Township and PAWC reviews flows on a regular basis in order to keep a watchful eye on potential I&I. The Township Road Crew is available on a continual basis for routine repairs. Major repairs will be performed by local contractors as the need arises.

Currently, the Lincoln Crest Mobile Home Park has been identified as a source of inflow as well as several manholes along Route 372 due to the relocation of a storm sewer line by PennDOT. Another suspected sourced of inflow is from the manholes adjacent to Buck Run along Greenbelt Drive. The Township is monitoring the flows from the Lincoln Crest Mobile Home Park on a regular basis and is working with the owner of the mobile home park to identify and remedy an apparent inflow issue. Flows from the mobile home park continue to spike during rainfall events greater than one (1) inch. Lincoln Crest has received Conditional Final Land Development approval from the Township to expand the park with additional 50 units. The park currently has 125 existing connections. Improvements associated with the expansion should curtail inflow issues. The timing of the mobile home expansion is uncertain at this juncture due to litigation. In Addition, the Township is in the process of investigating another possible source of additional inflow that may be attributed to users within the Bellaire Business Park. The Township is in the process of monitoring their sewage flow and water usage to determine if there is an inflow issue.

The Township has obtained portable flow meters to isolate and study areas of the Township Sewer System to determine potential sources of I&I. There were no reported Sanitary Sewer Overflows (SSO) during 2017.

7. Please provide discussion of the condition of your sewer system:

a.) Portions where conveyance capacity is being exceeded or will be exceeded in the next 5 years:

The Sanitary Sewer System is in Good Working Condition and no exceedances are anticipated in the next five years.

b.) Proposed projects to increase conveyance capacity, i.e. repair, rehabilitation, new construction:

As stated in 6(a), the Township is in the process of evaluating the possible need to upgrade the Stottsville Pump Station in order to provide for a capacity increase for flows from developments within West Caln Township.

8. Please provide data and discussion of your sewer flow:

Metering Point or Pump Station Name	Agreement or Rated Capacity ¹ (gpm)	2017 Average Daily Flow (gpm)*	2019 Projected Average Daily Flow (gpm)*	2022 Projected Average Daily Flow (gpm)*
Stottsville Pump Station	1,008,000 gpd (700 gpm)	167,145 gpd (116 gpm)	186,239 gpd (129 gpm)	221,246 gpd (142 gpm)

* Based on Average Annual Flow

1. Excluding Capacity of Backup Pump = Maximum Pump Rate

a.) Other discussion or information:

The existing Stottsville Pump Station has two (2) alternating pumps with a rated capacity of 700 gpm each. The pump station is in good condition and is more than capable of handling the projected 5-year flow of 154 gpm. Comparison of rainfall events greater than one (1) inch and flow at the pump station seem to indicate a direct correlation at times, yet at other times the station appears to be unaffected by significant rainfall events.

The Township anticipates completing their "Act 537" update in 2018. The Western Sewer District Component 3m Planning Module (DEP Code No. 1-15947-121-3m) is anticipated to be approved in 2018 as well.

THIS SECTION IS NOT APPLICABLE TO SADBURY TOWNSHIP

9. Please provide a discussion of the industrial waste discharged into your system:

a.) Date of adoption of the ordinance or regulation governing industrial waste discharges into your system:

b.) Discussion of program for the surveillance and monitoring of the industrial waste discharges into your system:

c.) Discussion of specific problems in your sewer system, known or suspected to be caused by industrial waste discharges within the past 5 years:

PAWC Municipal Flows 2017

	January	February	March	April	May	June	July	August	September	October	November	December	Total	GPD/365
Sadsbury Township														
Pump Station	5,241,907	4,655,790	5,369,091	5,363,197	5,323,888	5,156,052	5,044,822	5,091,307	4,825,122	4,807,814	4,961,160	5,167,868	61,008,018	167,145
Sadsbury Crossing/Valley Rd.	128,383	114,904	131,750	137,220	135,900	132,187	135,315	133,196	121,636	131,750	118,545	140,585	1,561,371	4,278
Sandy Hill	(983,570)	(837,559)	(1,023,120)	(1,077,660)	(1,051,716)	(955,437)	(943,410)	(829,606)	(808,601)	(786,754)	(779,210)	(821,294)	(10,897,937)	(29,857)
Total	4,386,720	3,933,135	4,477,721	4,422,757	4,408,072	4,332,802	4,236,727	4,394,897	4,136,157	4,152,810	4,300,495	4,487,159	51,671,452	
GPD	141,507	140,469	144,443	147,425	142,196	144,427	136,669	141,771	137,939	133,962	143,350	144,747		141,566

Stottsville Pump Station

	Volume (Gallons)	ADF (GPD)
Jan-17	5,241,907	169,094
Feb-17	4,655,790	166,278
Mar-17	5,369,091	173,196
Apr-17	5,363,197	178,773
May-17	5,323,888	171,738
Jun-17	5,156,052	171,868
Jul-17	5,044,822	162,736
Aug-17	5,091,307	164,236
Sep-17	4,825,122	160,837
Oct-17	4,807,814	155,091
Nov-17	4,961,160	165,372
Dec-17	5,167,868	166,705
TOTAL	61,008,018	167,145 GPD
		116.1 GPM

167,145	GPD - Annual Average Daily Flow (ADF)
6,964	GPH - Annual Average Hourly Flow (AHF)
116	GPM - Annual Average Flow per Minute (AFM)

317,225	GPD - Maximum Daily Flow (MDF) March 31, 2017
26,745	GPH - Peak Hourly Flow (PHF) March 31, 2017 between 2:00 PM and 3:00 PM
449	GPM - Peak Instantaneous Flow (PIF) March 31, 2017 @ 2:30 PM

1.90	Current MDF Peaking Factor = (MDF/ADF)
3.84	Current PHF Peaking Factor = (PHF/AHF)
3.87	Current Instantaneous Flow Peaking Factor = (PIF/AFM)

Stottsville Pump Station

	Volume (Gallons)	ADF (GPD)
Jan-17	5,241,907	169,094
Feb-17	4,655,790	166,278
Mar-17	5,369,091	173,196
Apr-17	5,363,197	178,773
May-17	5,323,888	171,738
Jun-17	5,156,052	171,868
Jul-17	5,044,822	162,736
Aug-17	5,091,307	164,236
Sep-17	4,825,122	160,837
Oct-17	4,807,814	155,091
Nov-17	4,961,160	165,372
Dec-17	5,167,868	166,705
TOTAL	61,008,018	167,145 GPD
		116.1 GPM

167,145	GPD - Annual Average Daily Flow (ADF)
6,964	GPH - Annual Average Hourly Flow (AHF)
116	GPM - Annual Average Flow per Minute (AFM)

317,225 GPD - Maximum Daily Flow (MDF)

1.90	Current MDF Peaking Factor = (MDF/ADF)
3.00	Current Instantaneous Flow Peaking Factor = (PIF/AFM)

348.2 GPM - Peak Instantaneous Flow (PIF)

**Sadsbury Township 2017 Chapter 94 Annual Report
Projection of EDU Connections and Flows (gpd)**

Project Name	Proposed Use	Location	Plan Status	Current EDUs	Remaining EDUs	TOTAL EDUs	Prior to 2017	2017	2018	2019	2020	2021	2022
Constable LD	4 SFDUs on Lg. Lots - ON LOT Sewage Disposal	Limestone Road	Approved Mar. 2009	N.A.	N.A.	N.A.							
Sadsburyville Fire Company	Fire Station Expansion	Old Wilmington Rd	ON HOLD - NO EDUs	N.A.	N.A.	N.A.							
Chester County Airport		Rt 30 & Washington Ln	Pending Approval										
Art Herling	2 Existing Residential EDUs, 1 Proposed	Maple Avenue	Planning Module Approved - 2 Existing Connected 27 W. Maple Ave Connected 11/17/14	3	0	3	3						
Bellaire Business Center - CTDI (formerly EB Games)	9 EDUs	200 W. Stewart Huston Drive	Seeking Preliminary Subdivision Plan Approval and Sewage Planning Exemption	15	11	26	15						
Valley View Business Center Lots 2 & 3 (National Guard)	National Guard Armory	Waverly Blvd. & Washington Ln.	Connected & Occupied	3	0	3	3						
Vietri (Lot 2 Independence Way)	3 EDUs	103 Independence Way	Connected & Occupied 2015	3	0	3	3						
Wiltmer Fire Store (Lot 5 Independence Way)	30,000 s.f. Building Expansion	Independence Way	Approved Feb. 2009 - BUILT										
York Equity (Lot 6 Independence Way)	Office Building	Morris Farm/ Independence Way	Vacant - ON HOLD										
Rock Holdings (Lot 7B Independence Way)	9 EDUs	103 Independence Way	Seeking Preliminary Subdivision Plan Approval and Sewage Planning Exemption	0	9	9	0						
Lafayette Square - Phase 1	4 Bldgs (40 Units) of Total 13 Bldgs (125 Units)	Old Wilmington Rd North of Rt 30	Approved Oct 2010 - Construction Complete (4 Bldgs Complete @ 10 Units EA)	40	0	40	40						
Lafayette Square - Phase 2	7 Bldgs (65 Units) of Total 13 Bldgs (125 Units)	Old Wilmington Rd North of Rt 30	Approved Oct 2010 - Not Started	0	65	65	0			25	40		
Lafayette Square - Phase 3	2 Bldgs (20 Units) of Total 13 Bldgs (125 Units)	Old Wilmington Rd North of Rt 30	Approved Oct 2010 - Not Started	0	20	20	0					20	
Lincoln Crest Mobile Home Park*	90 Unit Expansion of 125 Existing Unit Park	Rt 30 & Sharon Ln	Conditional Final Approval - Awaiting Posting of Escrow*	0	50	50	0						
Sadsbury Park - Phase 2A	67 EDUs (52 SFD, 15 SFA)+ 2 EDUs for Cabana = 69 TOTAL EDUs	Old Wilmington Rd south of Rt 30	All Units Connected & Occupied	69	0	69	54	15					
Sadsbury Park - Phase 4C	48 Townhouse Units (SFA) - including 6 from Phase 2B	Old Wilmington Rd south of Rt 30	Approved & Under Construction	43	5	48	34	9	3	2			
Sadsbury Park - Phase 4A	57 EDUs (All SFD)	Old Wilmington Rd south of Rt 30	Approved & Under Construction	5	51	57	0	6	10	10	10	10	11
Sadsbury Park - Phase 3B	80 EDUs (All SFD)	Old Wilmington Rd south of Rt 30	Approved	0	80	80	0		10	10	10	15	15
Sadsbury Park - Phase 4B	7 EDUs (All SFD)	Old Wilmington Rd south of Rt 30	Not submitted	0	7	7	0						
Sadsbury Park - Phase 2B	64 EDUs (22 SFD, 42 SFA+ 6 SFA Accounted for in Ph 4C)	Old Wilmington Rd south of Rt 30	Not submitted	0	64	64	0						
Sadsbury Park - Phase 3A	42 EDUs (All SFD)	Old Wilmington Rd south of Rt 30	Not submitted	0	42	42	0						
Sadsbury Park - Phase 1	41 EDUs (All SFD)	Old Wilmington Rd south of Rt 30	Not submitted	0	41	41	0						
Sadsbury Township - Phase 1 Sewers	Existing Residence	28 Chestnut Street	Connected	1	0	1	1						
Sadsbury Township - Phase 1 Sewers	Existing Residence	32 Chestnut Street	Connected 2015	1	0	1	1						
Sadsbury Township - Phase 2A Sewers	Existing Residence	784 Old Wilmington Road	Connected 2016	1	0	1	1						
Sadsbury Township - Phase 2B Sewers	Existing Residence	827 Old Wilmington Road	Connected 2017	1	0	1		1					
Sadsbury Township - Phase 3A Sewers	House and Apartment (2 EDUs)	31 Morris Lane	Connected	2	0	2	2						
Sadsbury Township - Phase 3A Sewers	Existing Residence	2907 Lincoln Highway	Connected	1	0	1	1						
Sadsbury Township - Phase 3A Sewers	Existing Residence	2915 Lincoln Highway	Connected 2015	1	0	1	1						
Sadsbury Township - Phase 3A Sewers	Existing Residence	2919 Lincoln Highway	Connected 2015	1	0	1	1						
Sadsbury Township - Phase 4 Sewers	Existing Residential EDUs	Valley Road	Phase 4 Sewer Construction Complete - Not all EDUs connected	14	66	80	14		4	4	4	4	4
		2054 Virginia Avenue	Connected 2016										
Sadsbury Township Misc	Existing Residence	Renovated Farmhouse at Sads Park Development	Completed & Connected	1	0	1	1						
Sadsbury Township Misc	Existing Residence	2931 Lincoln Highway	Connected	1	0	1	1						
Sadsbury Township Misc	Existing Residence	913 Old Wilmington Rd	Connected 2015	1	0	1	1						
Sadsbury Township Misc (Zing Sushi Restaurant)	Existing Commercial	2952 Lincoln Highway	Existing Lateral retrofitted with Grease Trap	1	0	1	1						

**Sadsbury Township 2017 Chapter 94 Annual Report
Projection of EDU Connections and Flows (gpd)**

Project Name	Proposed Use	Location	Plan Status	Current EDUs	Remaining EDUs	TOTAL EDUs	Prior to 2017	2017	2018	2019	2020	2021	2022
Western Sewer District (WSD)	Total WSD Flow 57,010 gpd (234 EDUs)		Special Study Component 3m Sewage Facilities Planning Module Pending PADEP Approval (DEP Code No. 1-15947-121-3m)	0	234	234	0				39	77	59
WSD - Sadsbury Commons (43,407 gpd)	500,000 s.f. Shopping Center	Rt 30 & Rt 10	Pending WSD Approval & Act 537 Plan Update	0	178	178	0				25	50	50
WSD - Sadsbury Commons Medical Office Building (736 gpd)	40,000 sf Medical Office Facility - ON LOT Sewage Disposal	Rt 10 Across from WalMart	Approved & Occupied - Currently On-lot Disposal pending approval of WSD Special Study & Act 537 Plan Approval	0	3	3	0				3		
WSD - Sadsbury Commons Reserve (698 gpd)				0	3	3	0						
WSD - Sadsbury Commons Misc. Flow (6,272 gpd)	Existing and Future Residential and Commercial Uses	Tax Parcel #37-1-30 (400 gpd), Hershey Motors (400 gpd), Hershey Homestead (245 gpd), Tractor Supply Store (400 gpd), Hershey Farm Market (1,000 gpd), Tax Parcel #37-3-1.1 (400 gpd), Hershey Lane Residences (14) (3,427 gpd)	Pending WSD Approval & Act 537 Plan Update	0	26	26	0				9	7	7
WSD - CVS Total Development (5,897 gpd)	CVS (400 gpd), Restaurant Pad (5,030 gpd), Building "A" Retail (264 gpd), Building "B" Retail (203 gpd)	NE Corner of Rt 10 & Rt 30	Pending WSD Approval & Act 537 Plan Update	0	24	24	0				2	20	2
* - Improvements should curtail Inflow													
TOTAL EDUs				209	745	954	178	31	27	51	103	126	89
TOTAL FLOW (GPD) @ 244.8 GPD/EDU				51,163	182,376	233,539	43,574	7,589	6,610	12,485	25,214	30,845	21,787
TOTAL EDUs (To Stottsville PS)				209	511	720	178	31	27	51	64	49	30
TOTAL FLOW (GPD) @ 244.8 GPD/EDU (To Stottsville PS)				51,163	125,093	176,256	43,574	7,589	6,610	12,485	15,667	11,995	7,344

	Sandy Hill (W Caln)		Sandy Hill Percentage	
	Volume (Gallons)	ADF (GPD)	of Stottsville PS Flow	
Jan-17	983,570	31,728	5,241,907	18.8%
Feb-17	837,559	29,913	4,655,790	18.0%
Mar-17	1,023,120	33,004	5,369,091	19.1%
Apr-17	1,077,660	35,922	5,363,197	20.1%
May-17	1,051,716	33,926	5,323,888	19.8%
Jun-17	955,437	31,848	5,156,052	18.5%
Jul-17	943,410	30,433	5,044,822	18.7%
Aug-17	829,606	26,761	5,091,307	16.3%
Sep-17	808,601	26,953	4,825,122	16.8%
Oct-17	786,754	25,379	4,807,814	16.4%
Nov-17	779,210	25,974	4,961,160	15.7%
Dec-17	821,294	26,493	5,167,868	15.9%
TOTAL	10,897,937	29,857 GPD	61,008,018	17.9%

20.7 GPM

29,857	GPD - Annual Average Daily Flow (ADF)
1,244.1	GPH - Annual Average Hourly Flow (AHF)
20.7	GPM - Annual Average Flow per Minute (AFM)

70,167	GPD - Maximum Daily Flow (MDF) March 31, 2017
5,632	GPH - Peak Hourly Flow (PHF) March 31, 2017 between 6:00 PM and 7:00 PM
130	GPM - Peak Instantaneous Flow (PIF) October 30, 2017 @ 5:15 PM

2.35	Current MDF Peaking Factor = (MDF/ADF)
4.53	Current PHF Peaking Factor = (PHF/AHF)
6.29	Current Instantaneous Flow Peaking Factor = (PIF/AFM)

JANUARY 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
1/1/2017	110.8	159,611	18.5	26,655	0.00
1/2/2017	123.1	177,280	22.7	32,694	0.40
1/3/2017	127.7	183,845	26.2	37,734	0.32
1/4/2017	113.4	163,325	20.5	29,569	0.01
1/5/2017	109.2	157,265	18.2	26,197	0.02
1/6/2017	108.6	156,357	18.2	26,145	0.06
1/7/2017	115.3	165,973	19.9	28,652	0.14
1/8/2017	128.1	184,505	21.8	31,463	0.00
1/9/2017	110.2	158,643	17.6	25,378	0.00
1/10/2017	117.9	169,785	18.0	25,914	0.00
1/11/2017	114.2	164,449	20.9	30,119	0.37
1/12/2017	118.1	169,996	23.1	33,242	0.05
1/13/2017	109.8	158,076	19.1	27,473	0.00
1/14/2017	121.4	174,763	20.8	29,892	0.01
1/15/2017	126.4	182,072	21.5	31,024	0.00
1/16/2017	124.3	178,978	21.4	30,777	0.00
1/17/2017	110.6	159,327	20.0	28,788	0.15
1/18/2017	122.9	176,935	27.3	39,287	0.22
1/19/2017	109.9	158,219	20.7	29,783	0.00
1/20/2017	111.4	160,374	22.1	31,791	0.16
1/21/2017	119.3	171,839	24.0	34,581	0.00
1/22/2017	130.2	187,461	27.9	40,114	0.17
1/23/2017	131.6	189,444	28.3	40,804	0.60
1/24/2017	121.4	174,878	25.3	36,422	0.17
1/25/2017	112.4	161,844	22.5	32,429	0.00
1/26/2017	109.7	158,039	22.5	32,468	0.04
1/27/2017	112.0	161,313	21.3	30,633	0.00
1/28/2017	120.4	173,436	24.6	35,371	0.00
1/29/2017	127.0	182,829	25.5	36,769	0.00
1/30/2017	111.7	160,786	21.3	30,603	0.02
1/31/2017	110.7	159,410	20.7	29,862	0.00
Peak/Max		189,444		40,804	0.60
1/23/2017 19:00	284.3				
1/23/2017 18:15			84.5		

= Water Equivalent of Snowfall

FEBRUARY 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
2/1/2017	119.3	171,748	20.6	29,666	0.00
2/2/2017	109.1	157,155	20.0	28,856	0.00
2/3/2017	107.2	154,424	19.7	28,332	0.00
2/4/2017	118.2	170,187	23.1	33,214	0.00
2/5/2017	129.0	185,820	25.0	35,945	0.00
2/6/2017	114.4	164,768	19.8	28,461	0.00
2/7/2017	109.3	157,330	20.2	29,036	0.04
2/8/2017	103.6	149,122	19.8	28,545	0.00
2/9/2017	128.2	184,552	25.7	36,950	0.54
2/10/2017	116.0	167,055	19.5	28,051	0.00
2/11/2017	120.5	173,549	22.1	31,864	0.00
2/12/2017	133.3	191,945	26.6	38,304	0.21
2/13/2017	119.6	172,194	21.1	30,426	0.00
2/14/2017	119.4	171,876	20.2	29,131	0.00
2/15/2017	120.0	172,780	22.4	32,277	0.00
2/16/2017	111.7	160,869	19.0	27,309	0.00
2/17/2017	111.0	159,897	18.9	27,263	0.00
2/18/2017	117.3	168,960	21.6	31,045	0.00
2/19/2017	119.6	172,156	22.2	31,930	0.00
2/20/2017	121.0	174,204	20.0	28,858	0.00
2/21/2017	108.5	156,269	18.4	26,553	0.00
2/22/2017	106.8	153,781	18.5	26,588	0.00
2/23/2017	106.4	153,275	18.5	26,636	0.00
2/24/2017	107.0	154,071	16.9	24,330	0.00
2/25/2017	117.0	168,529	22.9	32,945	0.33
2/26/2017	129.2	186,012	22.5	32,422	0.00
2/27/2017	106.8	153,745	18.7	26,879	0.00
2/28/2017	103.8	149,516	17.9	25,745	0.18
Peak/Max		191,945		38,304	0.54
2/19/2017 11:30	235.6				
2/15/2017 8:30			113.2		

= Water Equivalent of Snowfall

MARCH 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
3/1/2017	106.3	153,040	18.2	26,236	0.03
3/2/2017	104.8	150,958	17.7	25,520	0.00
3/3/2017	103.4	148,896	17.4	24,997	0.00
3/4/2017	111.7	160,824	20.5	29,495	0.00
3/5/2017	126.2	181,765	22.8	32,834	0.00
3/6/2017	109.7	157,942	17.6	25,405	0.00
3/7/2017	108.5	156,280	17.9	25,788	0.02
3/8/2017	106.6	153,476	17.7	25,533	0.01
3/9/2017	105.7	152,245	16.9	24,366	0.00
3/10/2017	110.5	159,157	19.0	27,374	0.30
3/11/2017	116.6	167,838	20.7	29,814	0.00
3/12/2017	127.9	184,203	21.7	31,304	0.00
3/13/2017	108.3	155,927	17.4	25,021	0.13
3/14/2017	113.7	163,765	22.3	32,172	1.54
3/15/2017	114.5	164,848	20.3	29,276	0.00
3/16/2017	109.7	157,957	18.2	26,237	0.00
3/17/2017	107.0	154,043	18.1	26,043	0.00
3/18/2017	118.6	170,852	22.2	31,969	0.01
3/19/2017	142.7	205,474	33.0	47,484	0.00
3/20/2017	131.0	188,689	29.3	42,238	0.00
3/21/2017	138.9	200,084	35.1	50,555	0.02
3/22/2017	123.4	177,765	24.6	35,414	0.00
3/23/2017	116.1	167,225	23.3	33,595	0.00
3/24/2017	115.8	166,699	21.4	30,882	0.00
3/25/2017	123.8	178,253	24.9	35,846	0.02
3/26/2017	132.9	191,448	27.1	38,987	0.00
3/27/2017	119.3	171,857	22.7	32,736	0.09
3/28/2017	123.4	177,707	27.1	39,031	0.45
3/29/2017	117.9	169,848	23.5	33,871	0.00
3/30/2017	113.1	162,800	22.9	32,932	0.11
3/31/2017	220.3	317,225	48.7	70,167	1.53
Peak/Max		317,225		70,167	1.54
3/31/2017 14:30	449.4				
3/31/2017 18:45			102.2		

APRIL 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
4/1/2017	161.1	232,044	33.1	47,711	0.00
4/2/2017	143.1	206,123	28.7	41,396	0.00
4/3/2017	126.3	181,919	24.3	35,049	0.23
4/4/2017	123.9	178,461	25.8	37,207	0.17
4/5/2017	116.4	167,617	23.0	33,058	0.00
4/6/2017	155.5	223,972	36.8	52,958	1.53
4/7/2017	135.7	195,455	25.9	37,229	0.00
4/8/2017	134.8	194,116	25.9	37,284	0.00
4/9/2017	136.3	196,284	27.8	40,056	0.00
4/10/2017	121.2	174,537	23.3	33,516	0.00
4/11/2017	115.6	166,422	22.0	31,723	0.00
4/12/2017	114.7	165,235	23.0	33,134	0.00
4/13/2017	118.1	170,006	22.5	32,465	0.00
4/14/2017	115.1	165,805	23.2	33,378	0.00
4/15/2017	121.8	175,451	25.3	36,431	0.00
4/16/2017	119.7	172,437	25.8	37,201	0.00
4/17/2017	120.1	172,964	23.8	34,274	0.06
4/18/2017	113.4	163,288	21.4	30,761	0.00
4/19/2017	113.0	162,708	21.2	30,482	0.00
4/20/2017	112.9	162,646	22.2	31,962	0.06
4/21/2017	115.2	165,855	22.9	33,032	0.31
4/22/2017	119.5	172,017	24.2	34,794	0.09
4/23/2017	131.7	189,622	26.7	38,438	0.00
4/24/2017	114.9	165,503	21.4	30,832	0.02
4/25/2017	122.7	176,648	26.1	37,585	0.60
4/26/2017	120.9	174,118	27.3	39,272	0.04
4/27/2017	116.1	167,158	22.1	31,764	0.00
4/28/2017	114.1	164,250	21.2	30,537	0.02
4/29/2017	119.3	171,746	25.0	35,932	0.02
4/30/2017	131.1	188,792	26.5	38,201	0.00
Peak/Max		232,044		52,958	1.53
4/6/2017 15:45	338.2				
4/24/2017 8:15			128.1		

MAY 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
5/1/2017	114.4	164,688	21.8	31,365	0.00
5/2/2017	112.5	162,034	21.3	30,731	0.00
5/3/2017	111.6	160,718	20.7	29,748	0.00
5/4/2017	112.7	162,301	21.4	30,868	0.00
5/5/2017	119.0	171,294	24.9	35,793	1.47
5/6/2017	123.2	177,393	25.6	36,918	0.00
5/7/2017	127.3	183,359	26.2	37,682	0.03
5/8/2017	114.2	164,420	20.8	29,901	0.00
5/9/2017	113.8	163,899	20.7	29,861	0.00
5/10/2017	108.7	156,574	20.6	29,627	0.00
5/11/2017	109.2	157,246	19.8	28,548	0.00
5/12/2017	108.0	155,475	20.4	29,365	0.00
5/13/2017	156.0	224,584	38.1	54,867	1.79
5/14/2017	133.0	191,475	29.5	42,425	0.00
5/15/2017	120.6	173,634	22.3	32,160	0.00
5/16/2017	116.7	167,977	21.6	31,080	0.00
5/17/2017	116.2	167,351	23.2	33,398	0.00
5/18/2017	118.2	170,198	21.4	30,799	0.00
5/19/2017	112.1	161,371	21.3	30,711	0.00
5/20/2017	113.7	163,724	24.1	34,706	0.00
5/21/2017	125.7	180,998	25.5	36,680	0.00
5/22/2017	115.5	166,297	23.2	33,369	0.51
5/23/2017	111.6	160,692	20.8	30,009	0.00
5/24/2017	112.7	162,292	21.5	30,890	0.00
5/25/2017	137.5	197,977	26.7	38,517	2.29
5/26/2017	131.3	189,119	26.4	37,980	0.03
5/27/2017	116.7	168,068	23.4	33,667	0.00
5/28/2017	119.0	171,299	25.1	36,179	0.05
5/29/2017	132.8	191,179	28.4	40,896	0.10
5/30/2017	117.2	168,802	22.1	31,844	0.06
5/31/2017	116.3	167,450	21.6	31,135	0.00
Peak/Max		224,584		54,867	2.29
5/13/2017 10:00	362.8				
5/13/2017 7:00			95.5		

JUNE 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
6/1/2017	115.4	166,147	21.1	30,403	0.00
6/2/2017	119.5	172,015	20.6	29,605	0.00
6/3/2017	125.6	180,917	24.0	34,565	0.01
6/4/2017	135.4	195,043	26.4	38,008	0.00
6/5/2017	119.8	172,448	23.1	33,222	0.02
6/6/2017	119.4	171,943	25.2	36,352	0.23
6/7/2017	115.0	165,556	22.3	32,176	0.00
6/8/2017	113.9	164,037	21.4	30,848	0.00
6/9/2017	111.1	159,944	22.2	31,939	0.00
6/10/2017	113.3	163,208	23.5	33,832	0.00
6/11/2017	120.2	173,032	23.0	33,050	0.00
6/12/2017	112.5	161,963	21.3	30,654	0.00
6/13/2017	112.0	161,318	20.6	29,731	0.00
6/14/2017	112.3	161,662	20.6	29,695	0.00
6/15/2017	111.1	159,983	20.3	29,285	0.00
6/16/2017	111.5	160,538	20.4	29,329	0.00
6/17/2017	123.7	178,160	21.2	30,593	0.09
6/18/2017	137.0	197,308	22.6	32,485	0.00
6/19/2017	131.3	189,086	24.7	35,515	0.56
6/20/2017	129.0	185,781	20.4	29,431	0.00
6/21/2017	125.9	181,248	20.1	28,979	0.01
6/22/2017	118.5	170,670	19.6	28,173	0.00
6/23/2017	110.5	159,050	20.1	29,002	0.02
6/24/2017	143.1	206,056	32.5	46,836	0.67
6/25/2017	127.7	183,846	22.2	32,007	0.00
6/26/2017	115.4	166,244	21.1	30,354	0.00
6/27/2017	114.6	165,049	21.1	30,390	0.25
6/28/2017	110.9	159,746	20.2	29,078	0.00
6/29/2017	112.7	162,277	21.2	30,513	0.00
6/30/2017	112.3	161,778	20.4	29,384	0.00
Peak/Max		206,056		46,836	0.67
6/18/2017 21:45	283.6				
6/19/2017 15:30			97.9		

JULY 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
7/1/2017	114.6	164,993	23.9	34,372	0.63
7/2/2017	118.1	170,049	22.2	31,993	0.00
7/3/2017	113.6	163,629	22.2	32,009	0.00
7/4/2017	110.7	159,448	22.8	32,782	0.33
7/5/2017	106.6	153,565	19.6	28,161	0.00
7/6/2017	112.1	161,438	20.1	28,902	0.26
7/7/2017	117.1	168,658	23.0	33,059	0.51
7/8/2017	111.2	160,087	22.0	31,706	0.01
7/9/2017	119.0	171,391	22.3	32,115	0.00
7/10/2017	114.2	164,424	21.1	30,400	0.00
7/11/2017	109.8	158,041	20.5	29,468	0.00
7/12/2017	110.8	159,614	19.6	28,286	0.00
7/13/2017	108.7	156,522	20.4	29,365	0.00
7/14/2017	125.1	180,115	24.1	34,659	0.41
7/15/2017	112.3	161,693	23.2	33,460	0.01
7/16/2017	118.2	170,178	24.7	35,517	0.00
7/17/2017	109.8	158,085	21.3	30,603	0.01
7/18/2017	110.2	158,687	20.4	29,408	0.00
7/19/2017	110.0	158,348	20.3	29,208	0.00
7/20/2017	110.4	158,955	20.6	29,698	0.00
7/21/2017	107.3	154,560	20.3	29,238	0.00
7/22/2017	109.2	157,236	21.3	30,641	0.00
7/23/2017	121.1	174,355	22.8	32,875	0.31
7/24/2017	117.1	168,621	21.6	31,079	2.46
7/25/2017	108.3	155,987	18.6	26,845	0.01
7/26/2017	108.7	156,486	19.2	27,612	0.00
7/27/2017	108.6	156,313	18.2	26,215	0.00
7/28/2017	105.4	151,776	18.7	26,982	0.01
7/29/2017	118.9	171,219	20.3	29,255	0.39
7/30/2017	124.0	178,588	21.9	31,596	0.00
7/31/2017	112.3	161,761	18.0	25,902	0.00
Peak/Max		180,115		35,517	2.46
7/14/2017 14:45	385.5				
7/7/2017 19:00			86.2		

AUGUST 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
8/1/2017	110.6	159,240	17.0	24,475	0.00
8/2/2017	116.2	167,396	17.0	24,528	1.37
8/3/2017	112.1	161,377	17.8	25,598	0.00
8/4/2017	113.3	163,197	17.1	24,563	0.00
8/5/2017	117.9	169,806	21.7	31,202	0.84
8/6/2017	117.0	168,428	20.6	29,603	0.00
8/7/2017	118.9	171,173	21.0	30,311	0.54
8/8/2017	112.7	162,359	19.3	27,745	0.00
8/9/2017	108.2	155,834	18.5	26,595	0.00
8/10/2017	108.0	155,503	17.8	25,584	0.00
8/11/2017	107.6	154,949	18.6	26,832	0.04
8/12/2017	111.7	160,801	18.7	26,873	0.06
8/13/2017	120.6	173,680	20.6	29,608	0.00
8/14/2017	110.1	158,480	17.0	24,536	0.00
8/15/2017	115.8	166,792	17.0	24,423	0.14
8/16/2017	113.7	163,799	17.2	24,745	0.00
8/17/2017	107.9	155,356	17.0	24,478	0.00
8/18/2017	113.4	163,250	20.6	29,646	0.16
8/19/2017	113.5	163,414	19.7	28,300	0.00
8/20/2017	123.9	178,432	20.8	29,939	0.00
8/21/2017	116.5	167,691	17.8	25,647	0.00
8/22/2017	112.1	161,396	17.9	25,839	2.06
8/23/2017	109.9	158,273	17.8	25,652	0.10
8/24/2017	117.2	168,775	17.1	24,643	0.00
8/25/2017	111.5	160,617	17.5	25,200	0.00
8/26/2017	119.7	172,360	19.7	28,335	0.00
8/27/2017	125.2	180,246	21.8	31,331	0.00
8/28/2017	114.1	164,267	17.8	25,704	0.00
8/29/2017	112.2	161,566	18.7	26,955	0.74
8/30/2017	113.3	163,174	17.7	25,547	0.00
8/31/2017	110.9	159,679	17.5	25,168	0.00
Peak/Max		180,246		31,331	2.06
8/26/2017 9:30	245.2				
8/27/2017 8:45			82.3		

SEPTEMBER 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
9/1/2017	112.8	162,461	17.1	24,574	0.00
9/2/2017	119.1	171,508	21.4	30,845	0.48
9/3/2017	113.8	163,923	19.4	27,999	0.01
9/4/2017	124.6	179,384	22.5	32,396	0.00
9/5/2017	115.5	166,363	19.6	28,241	0.11
9/6/2017	126.0	181,487	24.7	35,547	0.54
9/7/2017	116.6	167,939	21.2	30,460	0.03
9/8/2017	107.7	155,111	18.8	27,020	0.00
9/9/2017	113.9	164,020	21.2	30,475	0.00
9/10/2017	122.7	176,745	23.3	33,511	0.00
9/11/2017	113.5	163,403	19.6	28,252	0.00
9/12/2017	114.0	164,208	18.1	26,012	0.00
9/13/2017	111.4	160,484	18.3	26,344	0.04
9/14/2017	110.3	158,792	17.3	24,842	0.00
9/15/2017	108.5	156,182	16.8	24,256	0.00
9/16/2017	113.2	163,053	19.7	28,346	2.58
9/17/2017	121.0	174,243	20.8	29,976	0.00
9/18/2017	108.1	155,649	18.0	25,879	0.00
9/19/2017	107.8	155,282	17.2	24,724	0.07
9/20/2017	107.0	154,070	17.2	24,775	0.00
9/21/2017	104.1	149,959	17.2	24,720	0.00
9/22/2017	101.9	146,783	16.3	23,469	0.00
9/23/2017	105.9	152,559	17.9	25,831	0.00
9/24/2017	120.4	173,350	20.6	29,669	0.00
9/25/2017	111.1	159,967	16.4	23,625	0.00
9/26/2017	102.9	148,118	15.7	22,572	0.00
9/27/2017	104.4	150,341	15.8	22,721	0.00
9/28/2017	105.2	151,457	16.4	23,636	0.00
9/29/2017	101.0	145,401	15.4	22,245	0.00
9/30/2017	106.2	152,884	17.8	25,639	0.00
Peak/Max		181,487		35,547	2.58
9/12/2017 19:15	250.2				
9/25/2017 17:45			90.1		

OCTOBER 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
10/1/2017	116.4	167,573	20.4	29,342	0.00
10/2/2017	106.6	153,448	16.0	23,018	0.00
10/3/2017	102.4	147,405	16.2	23,385	0.00
10/4/2017	100.4	144,509	15.8	22,703	0.00
10/5/2017	100.9	145,296	16.7	24,063	0.00
10/6/2017	95.7	137,845	15.6	22,400	0.00
10/7/2017	104.8	150,899	18.0	25,938	0.00
10/8/2017	113.6	163,548	18.6	26,713	0.02
10/9/2017	113.7	163,663	20.0	28,810	0.66
10/10/2017	100.8	145,148	16.0	22,985	0.00
10/11/2017	103.0	148,379	16.6	23,957	0.00
10/12/2017	103.6	149,186	16.2	23,298	0.20
10/13/2017	101.0	145,395	16.4	23,597	0.01
10/14/2017	105.2	151,507	18.1	26,065	0.00
10/15/2017	120.6	173,699	20.0	28,812	0.01
10/16/2017	107.3	154,571	17.9	25,783	0.06
10/17/2017	105.1	151,299	16.9	24,276	0.00
10/18/2017	106.8	153,852	15.8	22,715	0.00
10/19/2017	106.3	153,011	16.5	23,746	0.00
10/20/2017	98.9	142,357	14.9	21,440	0.00
10/21/2017	110.6	159,288	17.9	25,843	0.00
10/22/2017	112.7	162,248	18.5	26,687	0.00
10/23/2017	101.7	146,392	16.6	23,935	0.00
10/24/2017	104.6	150,662	16.7	24,020	0.33
10/25/2017	106.0	152,617	15.2	21,956	0.00
10/26/2017	104.7	150,781	16.4	23,641	0.00
10/27/2017	100.3	144,491	14.8	21,276	0.00
10/28/2017	106.0	152,683	17.2	24,831	0.00
10/29/2017	137.9	198,509	27.0	38,892	1.96
10/30/2017	133.6	192,315	26.0	37,510	0.41
10/31/2017	107.8	155,234	17.4	25,117	0.00
Peak/Max		198,509		38,892	1.96
10/29/2017 19:45	235.1				
10/31/2017 7:15			130.5		

NOVEMBER 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
11/1/2017	109.0	156,974	16.5	23,705	0.00
11/2/2017	106.0	152,682	16.5	23,746	0.00
11/3/2017	107.2	154,320	16.3	23,420	0.00
11/4/2017	113.7	163,738	18.5	26,569	0.03
11/5/2017	121.3	174,692	19.9	28,630	0.13
11/6/2017	108.0	155,529	17.2	24,699	0.00
11/7/2017	112.5	162,072	17.8	25,565	0.40
11/8/2017	107.6	154,939	16.9	24,299	0.01
11/9/2017	108.0	155,588	18.2	26,202	0.01
11/10/2017	107.4	154,707	15.8	22,713	0.00
11/11/2017	114.3	164,541	18.1	26,101	0.00
11/12/2017	126.8	182,600	19.5	28,102	0.00
11/13/2017	113.3	163,108	18.1	26,090	0.24
11/14/2017	115.7	166,623	16.9	24,277	0.00
11/15/2017	110.0	158,448	15.6	22,459	0.00
11/16/2017	113.8	163,924	16.7	24,045	0.01
11/17/2017	108.1	155,653	16.8	24,244	0.00
11/18/2017	123.4	177,735	21.8	31,462	0.03
11/19/2017	138.2	199,038	26.7	38,405	0.33
11/20/2017	117.6	169,410	17.2	24,700	0.00
11/21/2017	113.8	163,870	17.0	24,525	0.00
11/22/2017	124.8	179,739	18.3	26,347	0.09
11/23/2017	128.2	184,593	22.2	32,016	0.00
11/24/2017	114.9	165,452	18.2	26,248	0.00
11/25/2017	118.0	169,871	17.7	25,551	0.00
11/26/2017	129.7	186,798	21.3	30,653	0.00
11/27/2017	113.8	163,873	17.6	25,273	0.00
11/28/2017	108.1	155,660	15.5	22,374	0.00
11/29/2017	106.4	153,233	16.0	22,976	0.00
11/30/2017	105.4	151,752	16.5	23,815	0.02
Peak/Max		199,038		38,405	0.40
11/23/2017 11:15	244.4				
11/17/2017 6:15			90.0		

DECEMBER 2017					
Date	Sadsbury P.S. Average Flow (gpm)	Sadsbury P.S. TOTAL Flow (Gallons)	Sandy Hill P.S. Average Flow (gpm)	Sandy Hill P.S. TOTAL Flow (Gallons)	Rainfall (in)
12/1/2017	102.4	147,500	15.5	22,297	0.00
12/2/2017	115.5	166,334	17.9	25,806	0.00
12/3/2017	128.7	185,375	20.4	29,329	0.00
12/4/2017	111.8	160,934	16.1	23,214	0.00
12/5/2017	106.1	152,766	16.0	23,052	0.16
12/6/2017	107.1	154,274	16.6	23,894	0.00
12/7/2017	109.7	157,973	16.1	23,175	0.00
12/8/2017	106.0	152,705	15.3	22,046	0.00
12/9/2017	114.4	164,682	19.1	27,488	0.37
12/10/2017	127.7	183,901	22.0	31,727	0.00
12/11/2017	111.0	159,897	16.5	23,820	0.00
12/12/2017	106.7	153,584	16.2	23,290	0.00
12/13/2017	109.2	157,224	16.7	24,093	0.06
12/14/2017	112.4	161,855	17.2	24,832	0.00
12/15/2017	107.3	154,497	18.0	25,892	0.16
12/16/2017	115.3	166,099	18.6	26,757	0.00
12/17/2017	122.4	176,292	20.6	29,654	0.00
12/18/2017	112.6	162,146	16.6	23,859	0.00
12/19/2017	107.0	154,066	16.5	23,697	0.00
12/20/2017	110.4	159,043	16.0	23,110	0.00
12/21/2017	107.8	155,198	16.0	23,015	0.00
12/22/2017	115.3	166,084	17.4	25,123	0.00
12/23/2017	134.3	193,342	26.9	38,798	0.37
12/24/2017	131.4	189,196	23.3	33,573	0.13
12/25/2017	126.4	182,000	23.2	33,338	0.02
12/26/2017	125.1	180,107	19.6	28,280	0.00
12/27/2017	120.1	173,014	19.0	27,337	0.00
12/28/2017	117.9	169,845	17.8	25,617	0.00
12/29/2017	117.6	169,412	19.0	27,375	0.00
12/30/2017	123.8	178,209	20.0	28,870	0.04
12/31/2017	125.2	180,314	20.1	28,938	0.00
Peak/Max		193,342		38,798	0.37
12/23/2017 12:30	275.2				
12/19/2017 9:15			79.3		

= Water Equivalent of Snowfall

	Sadsbury PS Max		Sandy Hill Max	
3/31/2017 14:30	449.4			
10/31/2017 7:15			130.5	
Max GPD (3/31)		317,225		
Max GPD (3/31)				70,167

NOAA Local Climatological Data for Philadelphia International Airport

Summary of Hourly Data

Days >1" Rainfall

Water Equivalent of Snowfall

Date	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
1	0.00	0.00	0.03	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00
2	0.40	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.48	0.00	0.00	0.00
3	0.32	0.00	0.00	0.23	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
4	0.01	0.00	0.00	0.17	0.00	0.00	0.33	0.00	0.00	0.00	0.03	0.00
5	0.02	0.00	0.00	0.00	1.47	0.02	0.00	0.84	0.11	0.00	0.13	0.16
6	0.06	0.00	0.00	1.53	0.00	0.23	0.26	0.00	0.54	0.00	0.00	0.00
7	0.14	0.04	0.02	0.00	0.03	0.00	0.51	0.54	0.03	0.00	0.40	0.00
8	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.01	0.00
9	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.01	0.37
10	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
12	0.05	0.21	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.20	0.00	0.00
13	0.00	0.00	0.13	0.00	1.79	0.00	0.00	0.00	0.04	0.01	0.24	0.06
14	0.01	0.00	1.54	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.14	0.00	0.01	0.00	0.16
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.58	0.06	0.01	0.00
17	0.15	0.00	0.00	0.06	0.00	0.09	0.01	0.00	0.00	0.00	0.00	0.00
18	0.22	0.00	0.01	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.03	0.00
19	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.07	0.00	0.33	0.00
20	0.16	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.02	0.31	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
22	0.17	0.00	0.00	0.09	0.51	0.00	0.00	2.06	0.00	0.00	0.09	0.00
23	0.60	0.00	0.00	0.00	0.00	0.02	0.31	0.10	0.00	0.00	0.00	0.37
24	0.17	0.00	0.00	0.02	0.00	0.67	2.46	0.00	0.00	0.33	0.00	0.13
25	0.00	0.33	0.02	0.60	2.29	0.00	0.01	0.00	0.00	0.00	0.00	0.02
26	0.04	0.00	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.09	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.18	0.45	0.02	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00
29	0.00		0.00	0.02	0.10	0.00	0.39	0.74	0.00	1.96	0.00	0.00
30	0.02		0.11	0.00	0.06	0.00	0.00	0.00	0.00	0.41	0.02	0.04
31	0.00		1.53		0.00		0.00	0.00		0.00		0.00
TOTAL	2.91	1.30	4.26	3.15	6.33	1.86	5.35	6.05	3.86	3.66	1.30	1.31
MAX	0.60	0.54	1.54	1.53	2.29	0.67	2.46	2.06	2.58	1.96	0.40	0.37

MAX 24HR

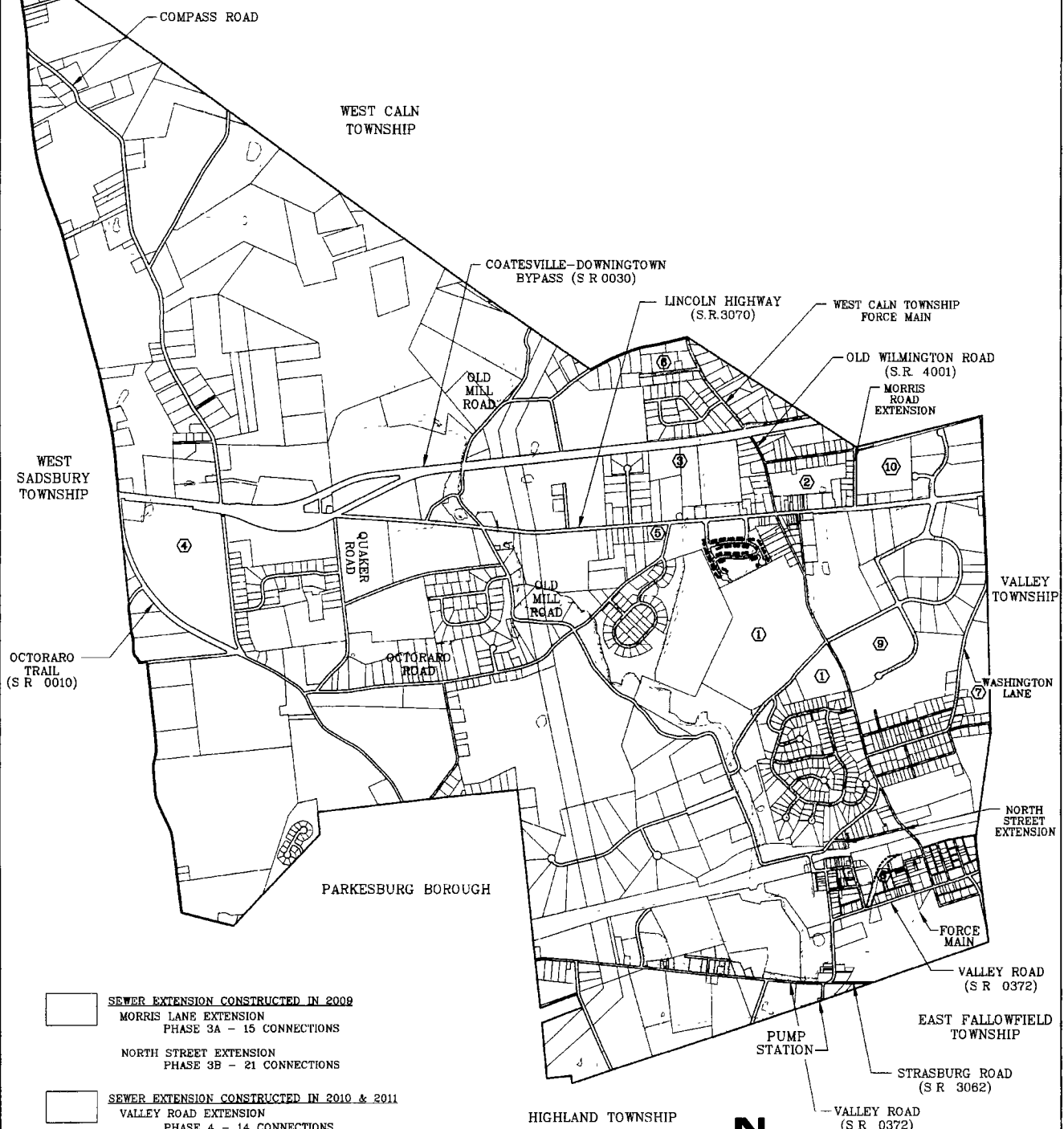
SADSBURY TOWNSHIP
CHESTER COUNTY
SANITARY SEWER PROJECTS

March 26, 2018

PLAN ID NO.	PROJECT NAME	DEP CODE NO.	PROJECT	STATUS
1	Sadsbury Park	1-15947-104-3J	441 EDUs (183 TH, 256 SFD, & 2 EDUs for Cabana/Clubhouse)	Phase 2A and 4C Under Construction
2	Lafayette Square	1-15947-107-3J	125 EDUs (125 Apt Units)	All 3 Phases Approved; Phase 1 Built (40 EDUs)
3	Lincoln Crest Mobile Home Park	1-15947-123-3J	50 Mobile Home Units	Conditional Final Approval
4	Sadsbury Commons	1-15947-121-3J	500,000 SF Commercial + 40,000 SF Medical Office Bldg	LGH Med Office Bldg Currently On-lot Sewage Disposal - Pending Western Sewer District Act 537 Plan Approval
5	Black Walnut Winery	To be Submitted	Winery (500 gpd)	Existing Use
6	Art Herling	1-15947-118-X, 1-15947-120-X, & 1-15947-127-3J	3 EDUs (2 Ex + 1 Prop)	Planning Exemption Approval for 2 Existing Dwellings & Planning Module Approval for 1 Proposed Dwelling - All 3 EDUs Connected
7	Valley View Business Center Lots 2 & 3 (National Guard)	Approved Under Valley View Business Center	3 EDUs (National Guard Armory)	Connected & Occupied
8	DiSciullo Tracts	Pending	3 EDUs (Residential Subdivision)	Currently seeking Preliminary Subdivision Plan Approval
9	CTDI	Pending	11 EDUs for Additional 117,600 s.f. of Warehouse and 40,000 s.f. of Office to Existing 314,521 s.f. Warehouse/Office (15 EDUs)	Currently seeking Preliminary Land Development Plan Approval; Have not filed Sewage Facilities Planning Module Application Mailer
10	Rock Holdings (Morris Farm - Lot 7B; DEP Code No. 1-15947-092-3J)	1-15947-132-3J	9 EDUs	Currently seeking Preliminary Subdivision Plan Approval and Sewage Facilities Planning Exemption

These projects will serve their own proposed development with the possible exception of the Sadsbury Commons Commercial development, for which a determination has not been made on how it will be serviced by public sewer.

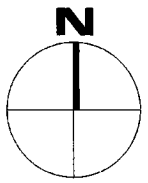
SANITARY SEWER EXTENSION MAP FOR SADSBURY TOWNSHIP CHESTER COUNTY, PENNSYLVANIA



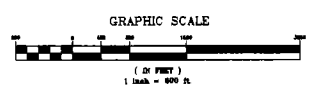
- SEWER EXTENSION CONSTRUCTED IN 2009
MORRIS LANE EXTENSION
PHASE 3A - 15 CONNECTIONS
- NORTH STREET EXTENSION
PHASE 3B - 21 CONNECTIONS
- SEWER EXTENSION CONSTRUCTED IN 2010 & 2011
VALLEY ROAD EXTENSION
PHASE 4 - 14 CONNECTIONS

PROPOSED PROJECTS IN PLANNING STAGES

PLAN #	PROJECT NAME	REP. ADDRESS	PROJECT	STATUS
1	Sanitary Main	1-10000-100-01	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Phase 3A and 3B Construction
2	Sanitary Main	1-10000-100-02	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	All 3 Phases Approved, Plans & Bids (2010)
3	Sanitary Main	1-10000-100-03	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway
4	Sanitary Main	1-10000-100-04	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway
5	Sanitary Main	1-10000-100-05	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway
6	Sanitary Main	1-10000-100-06	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway
7	Sanitary Main	1-10000-100-07	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway
8	Sanitary Main	1-10000-100-08	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway
9	Sanitary Main	1-10000-100-09	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway
10	Sanitary Main	1-10000-100-10	100' Dia. (20' Dia. 100' Dia. & 2' Dia. per 100' Dia. Section)	Construction Underway



LEGEND	
---	EXISTING GRAVITY SEWER
---	EXISTING FORCE MAIN



MAP SOURCE REFERENCE: CHESTER COUNTY GIS DEPARTMENT FROM AERIAL PHOTOGRAPHY DATED SPRING 2000. PLANNING COORDINATES BASED ON PA STATE PLANE COORDINATE SYSTEMS SOUTH ZONE AND NORTH AMERICAN DATUM 1983.

REVISION	DATE
SANITARY SEWER EXTENSION MAP	
SADSBURY TOWNSHIP	
SADSBURY TOWNSHIP	CHESTER COUNTY, PA.
SCALE 1"=800'	MARCH 22, 2018
HERBERT E. MacCOMBIE, JR., P.E. CONSULTING ENGINEERS AND SURVEYORS, INC. P.O. BOX 118 BROOKHALL, PA. 19008	
SHEET 1 OF 1	