
EXHIBIT E5

2018 CHAPTER 94 REPORT TO DEP
FOR SHEEDER TRACT

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

2018

**Delaware County Regional Water Quality Control Authority
Sheeder Tract Wastewater Treatment Plant
Chester County**

Prepared for:

Delaware County Regional Water Quality Control Authority (DELCORA)

Sheeder Tract Wastewater Treatment Plant

Authority Address: 100 East 5th Street, Chester, PA 19013

Plant Address: 920 Pocopson Road, West Chester, PA

Preparer:

Permittee:

Megan Kawamoto

Megan Kawamoto, EIT

CASTLE VALLEY CONSULTANTS
ENGINEERS • PLANNERS • DESIGN PROFESSIONALS
(215) 318-8257

Robert J. Willert

Robert J. Willert



Executive Director,
DELCORA

March 2019

TABLE OF CONTENTS

List of Tables	1
List of Figures	1
List of Appendices	1
Section 1 – Background.....	1
Section 1.1 - Introduction	1
Section 1.2 – General System Information	1
Section 2 – Hydraulic and Organic Loading.....	1
Section 2.1 – Permit Capacities	1
Section 2.2 – Hydraulic Loading.....	1
Section 2.3 – Organic Loading	2
Section 3 – 5-Year Hydraulic and Organic Loading Projections	5
Section 3.1 – Basis of Projections	5
Section 4 – Sewer Extensions	5
Section 4.1 – Current Year	5
Section 4.2 – Proposed Extensions.....	5
Section 5 – Program for Sewer Monitoring, Maintenance and Repair	6
Section 6 – Condition of the Sewer System.....	6
Section 7 – Sewage Pumping Stations.....	6
Section 8 – Industrial Wastes	6
Section 9 – Corrective Action Plan	6
Section 10 – Calibration Reports	6
Section 11 – Tributary Municipal Reports	6

LIST OF TABLES

Table 1 - Historical Hydraulic Loading.....	2
Table 2 - Current Year Organic Loading	3
Table 3 - Historical Organic Loading	4
Table 4 - Organic Loading Projections	5

LIST OF FIGURES

Figure 1 – Hydraulic Flow Rates
Figure 2 – Organic Loading Rates
Figure 3 – System Map

LIST OF APPENDICES

Appendix A – Projection Calculations
Appendix B – Meter Calibration Reports



SECTION 1 – BACKGROUND

SECTION 1.1 - INTRODUCTION

This report has been prepared for the wastewater collection, treatment and disposal system serving portions of Pocopson Township, in accordance with Title 25, Chapter 94 of the Pennsylvania Code. Aspects of the wastewater system discussed include: general system information, current loading conditions, proposed connections to the treatment system and projected loadings. This report has been prepared for the year 2018.

SECTION 1.2 – GENERAL SYSTEM INFORMATION

Construction of the Sheeder Wastewater Treatment Plant was completed in April 2008 and the facility began receiving sewage influent in July 2008. The treatment facility consists of an influent pump station, influent grinder with bypass, treatment lagoon, storage lagoon, automatic multimedia filters, effluent pump station, chlorine disinfection with 5.76 acres of open area and 3.29 acres of wooded area which is divided into three (3) spray zones. The system is designed to irrigate on a year-round basis. However, during periods of inclement weather not suitable for spray irrigation, treated wastewater is collected in the storage lagoon. The lagoon is designed to provide 111-days of storage volume. The facility was designed to serve residential and retail/commercial facilities.

In March 2010, The Delaware County Regional Water Quality Control Authority (DELCORA) became the operator and took ownership of the Sheeder Tract WWTP. The Permit was transferred to DELCORA in May 2010. No amendments to the permit were made.

SECTION 2 – HYDRAULIC AND ORGANIC LOADING

SECTION 2.1 – PERMIT CAPACITIES

The plant operates under Permit No. 1505419, renewed on April 20, 2015.

The permitted capacities are:

- Annual Average Capacity 0.045 mgd (45,150 gpd)
- Hydraulic Design Capacity (max month) 0.125 mgd
- Organic Design Capacity 135 lb/day

SECTION 2.2 – HYDRAULIC LOADING

Flows entering the treatment plant are metered at the influent pump station. This treatment plant has been permitted to treat up to 0.045 million gallons per day (mgd). The average monthly flow for 2018 was 0.021 mgd which represents 47% of the plant hydraulic design capacity. The highest three (3) month consecutive flow rates occurred from November 2017 to January 2018 and March 2018 to May 2018. The average flow over these months was 0.022 mgd, which does not exceed the plant design. Historic hydraulic loading data are presented in Table 1 and depicted graphically on Figure 1.



Table 1 - Historical Hydraulic Loading

	Hydraulic Loading (mgd)					Precipitation (inches)
Month	2014	2015	2016	2017	2018	2018
January	0.020	0.021	0.021	0.020	0.023	6.1
February	0.019	0.019	0.021	0.020	0.020	5.9
March	0.019	0.020	0.020	0.021	0.019	3.9
April	0.020	0.020	0.021	0.020	0.025	3.2
May	0.020	0.021	0.022	0.020	0.023	8.3
June	0.019	0.020	0.020	0.019	0.019	3.8
July	0.018	0.018	0.019	0.018	0.017	5.9
August	0.019	0.019	0.019	0.017	0.019	9.9
September	0.021	0.020	0.020	0.020	0.022	7.9
October	0.020	0.022	0.020	0.021	0.021	3.4
November	0.021	0.021	0.021	0.021	0.023	8.1
December	0.020	0.022	0.023	0.023	0.023	6.2
Annual Average (AA)	0.020	0.020	0.021	0.020	0.021	
3 Month Max	0.021	0.022	0.021	0.022	0.022	
Ratio (3 Month Max. to AA)	1.051	1.072	1.034	1.079	1.055	
5-year Average Hydraulic Ratio = 1.058						

SECTION 2.3 – ORGANIC LOADING

Influent sampling conducted throughout the year did not indicate an occurrence of organic overload. The influent sample is collected from the raw influent sample line located in the control building.

Calculation of the organic loading for 2018 is presented below in Table 2.



Table 2 - Current Year Organic Loading

	A	B	C = A x B x 8.34	
Date of Sample	BOD₅ (mg/L)	Flow (MGD)	Daily BOD₅ (lb/day)	Monthly Average (lb/day)
January				
1/25/2018	276	0.019	44.68	44.68
February				
2/15/2018	269	0.024	54.95	
2/21/2018	227	0.021	40.67	47.81
March				
3/28/2018	193	0.014	22.12	22.12
April				
4/25/2018	102	0.022	18.31	18.31
May				
5/10/2018	329	0.028	77.61	77.61
June				
6/20/2018	295	0.018	43.18	43.18
July				
7/26/2018	174	0.015	21.82	21.82
August				
8/08/2018	221	0.018	33.37	33.37
September				
9/27/2018	143	0.029	34.21	34.21
October				
10/24/2018	166	0.021	29.44	29.44
November				
11/20/2018	239	0.026	51.34	51.34
December				
12/05/2018	443	0.025	91.69	91.69



Historical organic loading is presented below in Table 3.

Table 3 - Historical Organic Loading

Organic Loading (lb/day)					
Month	2014	2015	2016	2017	2018
January	60.54	51.38	43.35	29.52	44.68
February	18.87	34.62	**	27.62	47.81
March	43.48	29.32	24.53	20.37	22.12
April	57.25	36.92	33.75	21.47	18.31
May	38.43	225.12	63.40	28.34	77.61
June	24.52	37.36	40.86	14.68	43.18
July	32.86	31.70	33.03	23.61	21.82
August	40.03	*	22.79	26.22	33.37
September	20.12	29.60	19.13	66.46	34.21
October	25.52	26.64	15.21	16.20	29.44
November	26.69	35.72	29.59	25.17	51.34
December	33.98	44.60	38.38	33.55	91.69
Annual Average	35.19	53.00	33.09	27.77	42.97
Ratio (Max. Month to Annual Average)	1.72	4.25	1.92	2.39	2.13
5-year Average Organic Ratio = 2.48					

*Since there was no spray discharge during August 2015 due to low storage lagoon levels, no samples were taken. Moving forward, the operator will be taking influent samples regardless of whether or not there is spray discharge.

**Due to a laboratory error, there was no influent data during February of 2016.

The data indicate the plant did not experience an organic overload.



SECTION 3 – 5-YEAR HYDRAULIC AND ORGANIC LOADING PROJECTIONS

SECTION 3.1 – BASIS OF PROJECTIONS

Riverside, the residential development served by the Plant, was completed in 2010. The Plant was designed to treat 178 EDUs of flow, at this time 22 EDUs remain undeveloped and are not connected to the Plant. Two force mains were permitted in 2007, Permit WQG02-150707, which will provide conveyance for 19 EDUs, which were included in the original 178 EDU design. At this time, there is no projected time frame for construction of the off-site force mains. For the projections below, connection of the remaining EDUs is distributed over the five-year projection period.

Organic loading projections have been calculated based on the 5-year average annual flow, calculated from Table 1. Projected hydraulic and organic loadings are depicted graphically on Figure 1 and Figure 2, respectively.

Table 4 - Organic Loading Projections

Year	Annual Average BOD ₅ Loading Projection (lb/day)	Maximum Monthly BOD ₅ Loading Projections (lb/day)
2019	38.78	96.16
2020	40.62	100.74
2021	42.47	105.32
2022	44.32	109.90
2023	46.16	114.48

The average annual loading projections over the next five (5) years do not indicate an organic overload. The maximum monthly loading projections utilize the Historic Organic Ratio calculated in Table 3.

Detailed calculations which were used to derive the data presented in Table 4 are provided as Appendix A to this report.

SECTION 4 – SEWER EXTENSIONS

SECTION 4.1 – CURRENT YEAR

No extensions were constructed in 2018.

SECTION 4.2 – PROPOSED EXTENSIONS

The offsite force mains, which were permitted in 2007, have not been constructed. There is currently no specific time frame for construction of the force mains. The location of the proposed force mains are indicated on the System Map included as Figure 3 to this report.



SECTION 5 – PROGRAM FOR SEWER MONITORING, MAINTENANCE AND REPAIR

During 2014, 8,645-feet (approximately 95%) of the collection system was cleaned and inspected. The inspection did not identify any problems which required repairs. Influent flows are monitored on an ongoing basis to identify potential inflow and infiltration issues. Future sewer monitoring will be conducted as the collection system is in operation in order to identify maintenance and repair issues that may arise. No repairs were needed on the collection system in 2018.

SECTION 6 – CONDITION OF THE SEWER SYSTEM

The PVC sewer collection system was installed in 2008. The collection system was sized to accommodate the plant design flow and there is no indication that the system is hydraulically overloaded. During the 2014 cleaning and inspection, the collection system was found to be in good condition.

The collection system continues to be in good condition with no sanitary sewer overflows (SSO) and no surcharging occurring in 2018.

SECTION 7 – SEWAGE PUMPING STATIONS

There are no pump stations in the collection system for this treatment plant.

SECTION 8 – INDUSTRIAL WASTES

This treatment facility does not receive industrial wastes. There are no plans to connect industrial facilities at this time.

SECTION 9 – CORRECTIVE ACTION PLAN

No system problems have been identified that require the development of a Corrective Action Plan (CAP).

SECTION 10 – CALIBRATION REPORTS

The Plant's influent flow meter was calibrated on April 06, June 15, September 20, and December 10 of 2018. A copy of the calibration reports is provided as Appendix B to this report.

SECTION 11 – TRIBUTARY MUNICIPAL REPORTS

This plant does not receive wastewater from another treatment facility. There are no Tributary Municipal reports to include with this report.



FIGURES



Figure 1 - Hydraulic Flow Rates

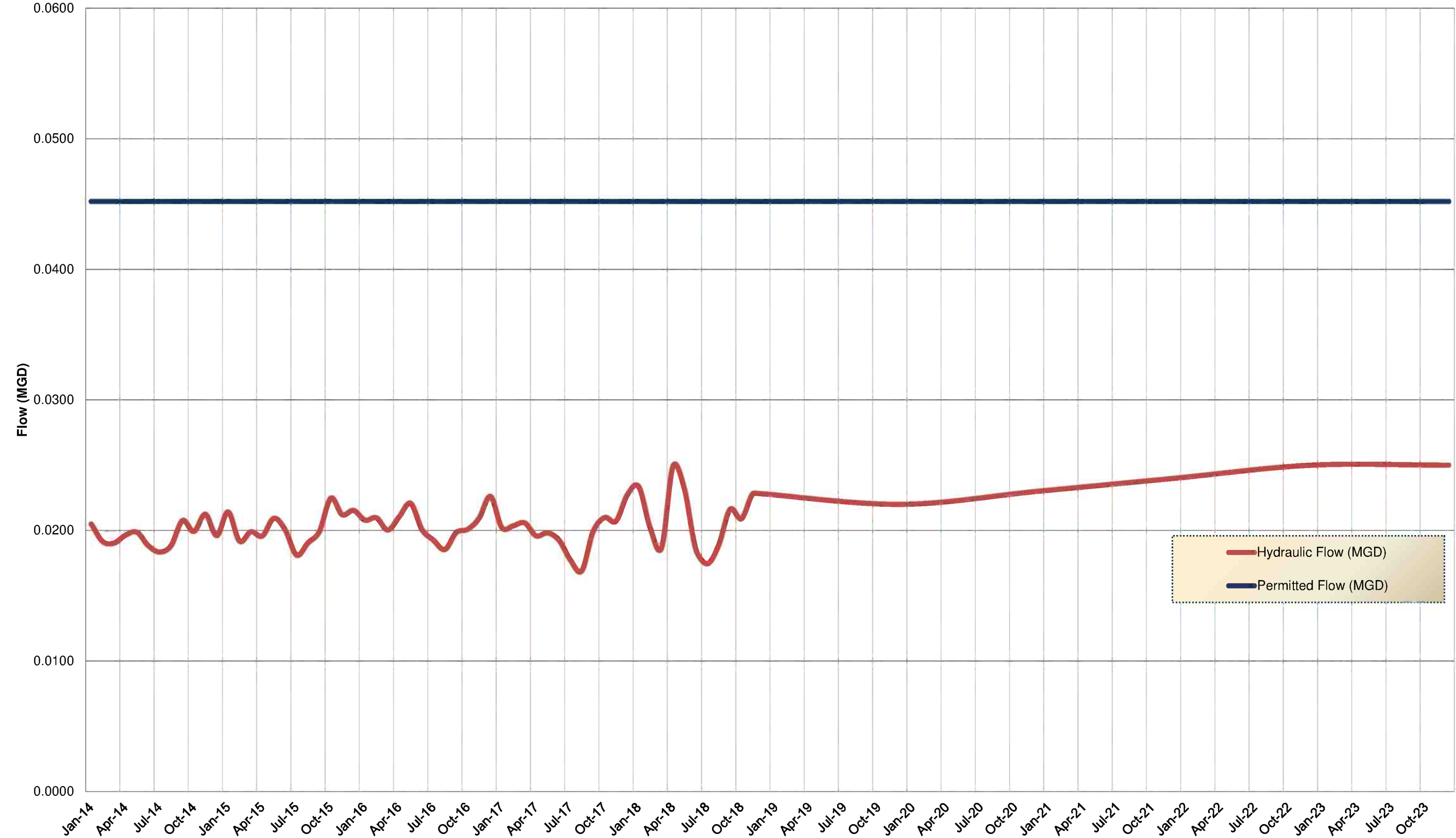
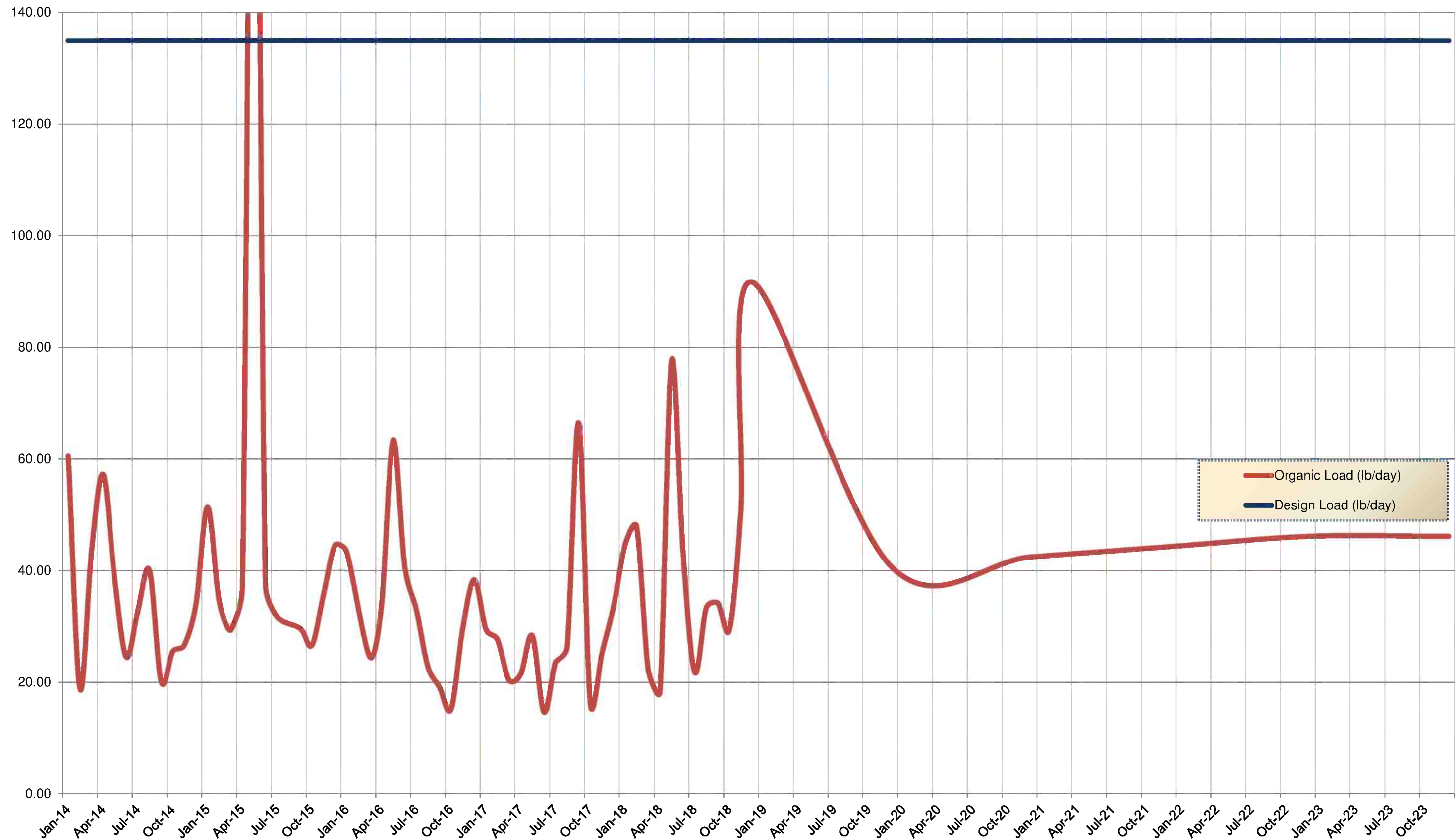
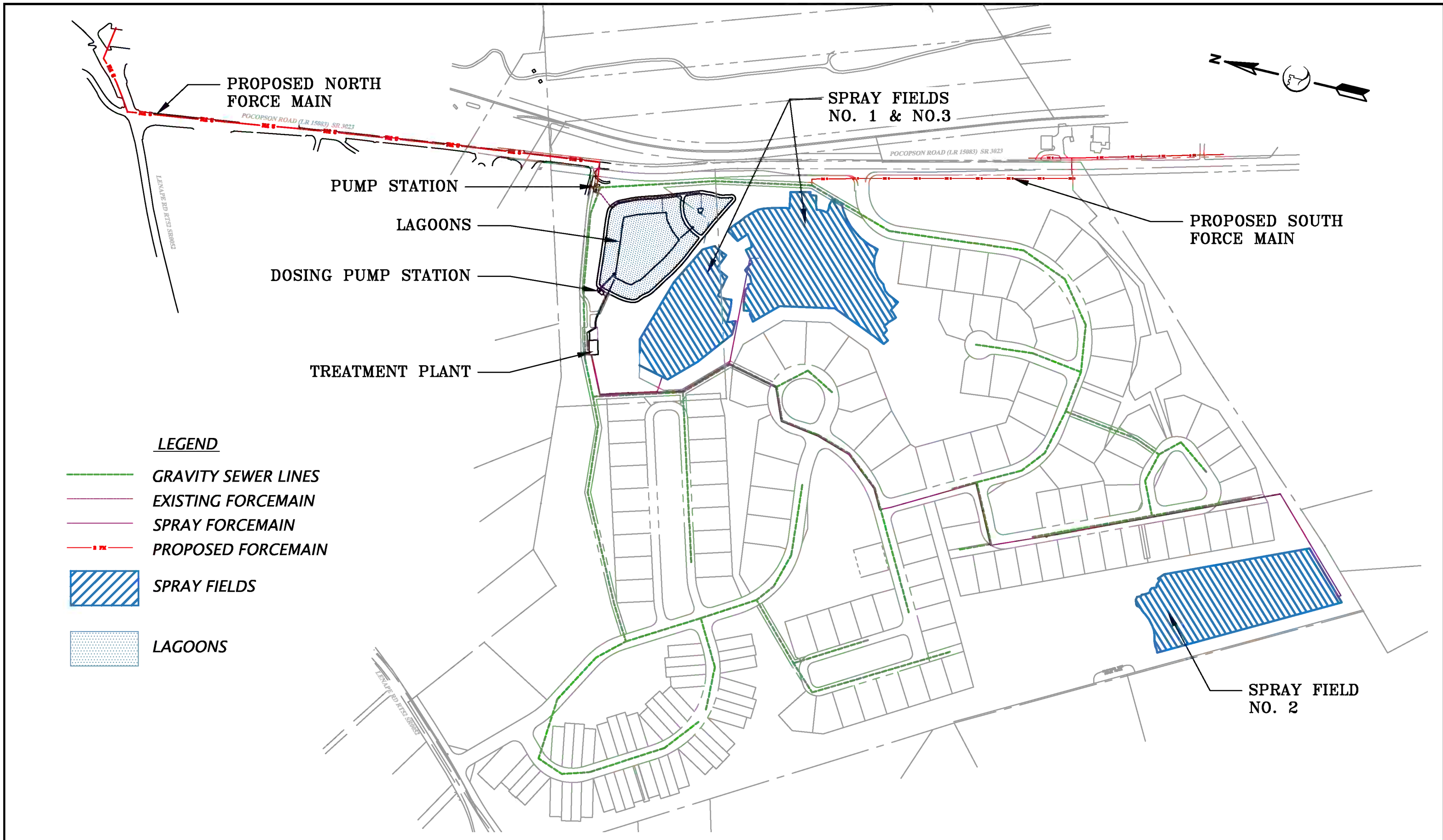





Figure 2 - Organic Loading Rates





CHAPTER 94 REPORT		<div>WARNING</div> <div></div> <div>IF THIS MAP DOES NOT MEASURE 1/2" = 100' NOT TO SCALE</div>	<div></div> <div>FORSEVERA ONE CALL SERVICE 800-452-4525</div>	<div></div> <div>Castle Valley Consultants, Inc. Engineers • Planners • Design Professionals 10 Beulah Road, New Britain Pa 18901 Telephone (215) 348-8257 Fax (215) 348-8267 Web www.casval.com</div>	APPROVED BY: <div>SCALE 1" = 350'</div> <div>DESIGNED GJW</div> <div>DRAWN GJW</div> <div>CHECKED</div> <div>PEER REVIEWED</div> <div>DATE:</div>	SYSTEM MAP – PROPOSED EXTENSIONS		DRAWING FIGURE_3
REV	DESCRIPTION OF REVISION					CHAPTER 94 REPORT POCOPSON TOWNSHIP CHESTER COUNTY, PA		

APPENDICES



APPENDIX A – PROJECTION CALCULATIONS



APPENDIX A – PROJECTION CALCULATIONS**ORIGINAL PLANT DESIGN DATA**

The Engineer's report, prepared and reviewed at permitting, included a total of 178 EDU for treatment at this facility as indicated below:

Table A1 – Design Connection Data

USE	EDU's	FLOW / EDU	FLOW (GPD)
Sheeder Tract	42 Townhouses	225	9,450
	108 Singles	262.5	28,350
Simon Pearce	12	262.5	3,150
Lenape Forge	2	262.5	525
Hardware Store	2	262.5	525
Pocopson Road Dwellings	6	262.5	1,575
Route 52 Commercial Complex	6	262.5	1,575
TOTAL	178*		45,150

*The table shown above is taken from the Engineer's Design Report. A mathematical error was found in the original table, and has been corrected in the table above. The error does not impact the design flow of the plant.

Currently, the residential EDUs on the Sheeder Tract and the commercial EDUs for the Commercial Complex have connected to the treatment plant. The additional 22 EDUs have not connected to the plant. These remaining connections are included in the projection calculations, assuming that all will be connected within the next five (5) years. This assumption is made in order to present an estimate of the plant performance when complete design build-out is reached.

An organic concentration of 360 mg/L was utilized as the design concentration for this plant, as indicated in the Engineer's Design Report, prepared and reviewed at permitting. When this concentration is applied to the plant hydraulic capacity, the plant organic loading capacity is obtained.

$$0.045150(\text{mgd}) \times 360 \left(\frac{\text{mg}}{\text{L}} \right) \times 8.34 = 135 \left(\frac{\text{lb}}{\text{day}} \right)$$



FLOW PROJECTIONS

Flow projections have been prepared based on 5-year average flows, and 22 EDUs from the original plant design which remain to be connected. At this time, there is no formal timeline for the connection of the remaining EDUs, so they have been distributed among the 5-year projection period.

Table A2 – Projection Details

A	B	C	D	E	F
Year	Previous Year's AA Flow (mgd)	EDU Added	Increased Flow (gpd/EDU)	Projected AA Flow (mgd)	Projected Max. Monthly Flow (mgd)
2019	0.020	4	262.5	0.021	0.022
2020	0.021	4	262.5	0.022	0.023
2021	0.022	4	262.5	0.023	0.024
2022	0.023	5	262.5	0.024	0.025
2023	0.024	5	262.5	0.025	0.026

The “Previous Year’s AA Flow” for 2019 is equal to the 5-Year Annual Average, as calculated from Table 1. Adjusted Annual Average flow has not been calculated for this projection. An annual record of new connections to the system was not kept prior to 2011. There have been no new connections to the plant since this information has been monitored.

Column F, “Projected Max. Monthly Flow” is calculated by multiplying Column E “Projected AA Flow” by the 5-Year Hydraulic Ratio of 1.058, presented in Table 1 of this Annual Report.

The following equations were used to compile Table A2.

$$B(mgd) + \frac{(C \times D)(gpd)}{1,000,000} = E(mgd)$$



ORGANIC LOADING PROJECTIONS

The organic loading projections have been prepared based on the projected flow rates and an average observed BOD loading rate.

Table A3 – Average BOD Loading

Year	Average BOD (mg/l)
2014	220
2015	304
2016	189
2017	158
2018	236
5-Year Avg	221

Organic loading projections, as presented in Table 4 of this Annual Report, were calculated with the following equation.

$$AA_{Pr}(mgd) \times BOD_{Avg} \left(\frac{mg}{L} \right) \times 8.34 = L \left(\frac{lb}{day} \right)$$

Where:

AA_{Pr} is the Projected Annual Average Flow, from Column E of Table A2

BOD_{Avg} is the 5-year average BOD concentration from Table A3

L is projected organic loading



APPENDIX B – METER CALIBRATION REPORTS



Calibration Report



ICEA

Instrument Contracting
and Engineering Association

Smith Instrument Company, Inc.
P.O. Box 404
Downingtown, PA 19335
Phone: 610-594-6650
Fax: 610-594-6658
e-mail: bdoleski@smithservice.com

Riverside Pocopson Flow Recorder

Instrument Data

Customer Name: Delcora
Instrument Tag: Riverside Pocopson Flow Recorder
Manufacturer: Chesell
Model Number: 392
Serial Number: UR36439-001
Calibrated Range: 4-20 Ma
Description: Riverside Pocopson Flow Recorder
Instrument Accuracy: 0.5000%

Test Results

Cal. Date: 04/06/18
Next Due: 06/06/18

	As Found	As Left
Zero Error	0.1800%	0.1800%
Span Error	0.3300%	0.3300%
Max. Error	0.2000%	0.2000%
Min. Error	0.1500%	0.1500%

Calibration Data

	Low	High	Unit	Calibrator	Serial #
Input Value	4.0000	20.0000	mA	Martel MC1200	9474060
Output Value	0.0000	500.0000	GPM	Visual from Chart	

Input		As Found Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.9000	0.1800%
25%	8.0000	8.0000	125.0000	125.9300	0.1860%
50%	12.0000	12.0000	250.0000	250.8500	0.1700%
75%	16.0000	16.0000	375.0000	376.0000	0.2000%
100%	20.0000	20.0000	500.0000	500.7500	0.1500%

Input		As Left Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.9000	0.1800%
25%	8.0000	8.0000	125.0000	125.9300	0.1860%
50%	12.0000	12.0000	250.0000	250.8500	0.1700%
75%	16.0000	16.0000	375.0000	376.0000	0.2000%
100%	20.0000	20.0000	500.0000	500.7500	0.1500%

Tag Notes

Technician ISA Level III
Certification

Technician Signature

Calibration Report



ICEA

Instrument Contracting
and Engineering Association

Smith Instrument Company, Inc.
P.O. Box 404
Downingtown, PA 19335
Phone: 610-594-6650
Fax: 610-594-6658
e-mail: bdoleski@smithservice.com

Riverside Pocopson Flow Recorder

Instrument Data

Customer Name: Delcora
Instrument Tag: Riverside Pocopson Flow Recorder
Manufacturer: Chesell
Model Number: 392
Serial Number: UR36439-001
Calibrated Range: 4-20 Ma
Description: Riverside Pocopson Flow Recorder
Instrument Accuracy: 0.5000%

Test Results

Cal. Date: 06/15/18
Next Due: 09/15/18

	As Found	As Left
Zero Error	0.1240%	0.1240%
Span Error	0.2580%	0.2580%
Max. Error	0.1340%	0.1340%
Min. Error	-0.0680%	0.1240%

Calibration Data

	Low	High	Unit	Calibrator	Serial #
Input Value	4.0000	20.0000	mA	Martel MC1200	9474060
Output Value	0.0000	500.0000	GPM	Visual from Chart	

Input		As Found Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.6200	0.1240%
25%	8.0000	8.0000	125.0000	125.6400	0.1280%
50%	12.0000	12.0000	250.0000	250.0000	0.0000%
75%	16.0000	16.0000	375.0000	374.6600	-0.0680%
100%	20.0000	20.0000	500.0000	500.6700	0.1340%

Input		As Left Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.6200	0.1240%
25%	8.0000	8.0000	125.0000	125.6400	0.1280%
50%	12.0000	12.0000	250.0000	250.6400	0.1280%
75%	16.0000	16.0000	375.0000	375.6600	0.1320%
100%	20.0000	20.0000	500.0000	500.6700	0.1340%

Tag Notes

Technician ISA Level III
Certification

Technician Signature

Calibration Report



ICEA

Instrument Contracting
and Engineering Association

Smith Instrument Company, Inc.
P.O. Box 404
Downingtown, PA 19335
Phone: 610-594-6650
Fax: 610-594-6658
e-mail: bdoleski@smithservice.com

Riverside Pocopson Flow Recorder

Instrument Data

Customer Name: Delcora
Instrument Tag: Riverside Pocopson Flow Recorder
Manufacturer: Chesell
Model Number: 392
Serial Number: UR36439-001
Calibrated Range: 4-20 Ma
Description: Riverside Pocopson Flow Recorder
Instrument Accuracy: 0.5000%

Test Results

Cal. Date: 09/20/18
Next Due: 12/20/18

	As Found	As Left
Zero Error	0.1240%	0.1240%
Span Error	0.2480%	0.2480%
Max. Error	0.1240%	0.1240%
Min. Error	0.1200%	0.1200%

Calibration Data

	Low	High	Unit	Calibrator	Serial #
Input Value	4.0000	20.0000	mA	Martel MC1200	9474060
Output Value	0.0000	500.0000	GPM	Visual from Chart	

Input		As Found Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.6200	0.1240%
25%	8.0000	8.0000	125.0000	125.6100	0.1220%
50%	12.0000	12.0000	250.0000	250.6000	0.1200%
75%	16.0000	16.0000	375.0000	375.6000	0.1200%
100%	20.0000	20.0000	500.0000	500.6200	0.1240%

Input		As Left Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.6200	0.1240%
25%	8.0000	8.0000	125.0000	125.6100	0.1220%
50%	12.0000	12.0000	250.0000	250.6000	0.1200%
75%	16.0000	16.0000	375.0000	375.6000	0.1200%
100%	20.0000	20.0000	500.0000	500.6200	0.1240%

Tag Notes

Technician ISA Level III
Certification

Technician Signature

Calibration Report



ICEA

Instrument Contracting
and Engineering Association

Smith Instrument Company, Inc.
P.O. Box 404
Downingtown, PA 19335
Phone: 610-594-6650
Fax: 610-594-6658
e-mail: bdoleski@smithservice.com

Riverside Pocopson Flow Recorder

Instrument Data

Customer Name: Delcora
Instrument Tag: Riverside Pocopson Flow Recorder
Manufacturer: Chesell
Model Number: 392
Serial Number: UR36439-001
Calibrated Range: 4-20 Ma
Description: Riverside Pocopson Flow Recorder
Instrument Accuracy: 0.5000%

Test Results

Cal. Date: 12/10/18
Next Due: 03/10/19

	As Found	As Left
Zero Error	0.1300%	0.1300%
Span Error	0.2500%	0.2500%
Max. Error	0.1320%	0.1320%
Min. Error	0.1200%	0.1200%

Calibration Data

	Low	High	Unit	Calibrator	Serial #
Input Value	4.0000	20.0000	mA	Martel MC1200	9474060
Output Value	0.0000	500.0000	GPM	Visual from Chart	

Input		As Found Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.6500	0.1300%
25%	8.0000	8.0000	125.0000	125.6500	0.1300%
50%	12.0000	12.0000	250.0000	250.6600	0.1320%
75%	16.0000	16.0000	375.0000	375.6600	0.1320%
100%	20.0000	20.0000	500.0000	500.6000	0.1200%

Input		As Left Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	4.0000	4.0000	0.0000	0.6500	0.1300%
25%	8.0000	8.0000	125.0000	125.6500	0.1300%
50%	12.0000	12.0000	250.0000	250.6600	0.1320%
75%	16.0000	16.0000	375.0000	375.6600	0.1320%
100%	20.0000	20.0000	500.0000	500.6000	0.1200%

Tag Notes

Technician ISA Level III
Certification

Technician Signature

Calibration Report



ICEA

Instrument Contracting
and Engineering Association

Smith Instrument Company, Inc.
P.O. Box 404
Downingtown, PA 19335
Phone: 610-594-6650
Fax: 610-594-6658
e-mail: bdoleski@smithservice.com

Riverside Pocopson Flow Transmitter

Instrument Data

Customer Name: Delcora
Instrument Tag: Riverside Pocopson Flow Transmitter
Manufacturer: Sparling
Model Number: M107933306
Serial Number: 77177
Calibrated Range: 0-500 GPM
Description: Riverside Pocopson Flow Transmitter
Instrument Accuracy: 0.5000%

Test Results

Cal. Date: 04/06/18
Next Due:

	As Found	As Left
Zero Error	-25.0000%	-25.0000%
Span Error	-150.0000%	-150.0000%
Max. Error	-25.0000%	-25.0000%
Min. Error	-125.0000%	-125.0000%

Calibration Data

	Low	High	Unit	Calibrator	Serial #
Input Value	0.0000	1644.0000	mV	Sparling	AC678-2
Output Value	4.0000	20.0000	mA	Martel	9474060

Input		As Found Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	0.0000	0.0000	4.0000	0.0000	-25.0000%
25%	411.0000	411.0000	8.0000	0.0000	-50.0000%
50%	822.0000	822.0000	12.0000	0.0000	-75.0000%
75%	1233.0000	1233.0000	16.0000	0.0000	-100.0000%
100%	1644.0000	1644.0000	20.0000	0.0000	-125.0000%

Input		As Left Data		Output	
% Value	Calculated	Actual	Calculated	Actual	% Error
0%	0.0000	0.0000	4.0000	0.0000	-25.0000%
25%	411.0000	411.0000	8.0000	0.0000	-50.0000%
50%	822.0000	822.0000	12.0000	0.0000	-75.0000%
75%	1233.0000	1233.0000	16.0000	0.0000	-100.0000%
100%	1644.0000	1644.0000	20.0000	0.0000	-125.0000%

Tag Notes

Readings should be +/- 1%

Could not access program to make changes to calibration.
Could not Cal check transmitter would not recognize calibrator.
Recommend Replacement

Technician ISA Level III
Certification

Technician Signature