



Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

AN EMPLOYEE-OWNED COMPANY

**369 East Park Drive
Harrisburg, PA 17111
(717) 564-1121
www.hrg-inc.com**

MARCH 2020

**CHAPTER 94
WASTELOAD MANAGEMENT REPORT
FOR
CALENDAR YEAR 2019**

**HALIFAX AREA WATER AND SEWER AUTHORITY
DAUPHIN COUNTY, PENNSYLVANIA**

HRG Project No. 001650.0425

TABLE OF CONTENTS

SECTION 1	Chapter 94 Municipal Wasteload Management Annual Report – CY 2019
SECTION 2	Attachments to Chapter 94 Wasteload Management Report
	Attachment A – DEP Chapter 94 Spreadsheet
	Hydraulic Loading Graph
	Organic Loading Graph
	Attachment B – Sanitary Sewer System General Plan/Extensions
	ACT 537 Recommended Alternative Map
	Attachment C – Condition of Pump Stations
	May 14, 2020 SSO Correspondence
	Pump Hours – Boyer Street Pumping Station
	Pump Hours – Main Pumping Station
	Attachment D – Sewage Sludge Management Inventory
	Attachment E – Flow Meter Calibration Report
	Attachment F – Consent Order and Agreement Progress Report
	Attachment G – Consent Order and Agreement
	Attachment H – Wastewater Treatment Plant Upgrade Project – PA DEP Water Quality Management Permit



CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2019

- 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:	Halifax Area Water and Sewer Authority	Permit No.:	PA0024457
Mailing Address:	PO Box 443	Effective Date:	May 1, 2017
City, State, Zip:	Halifax, PA 17032	Expiration Date:	April 30, 2022
Contact Person:	Jeffrey Grosser	Renewal Due Date:	November 1, 2021
Title:	Operator	Municipality:	Halifax Borough, Halifax Twp
Phone:	(717) 896-3886	County:	Dauphin
Email:	kgrosser@hawsaonline.com	Consultant Name:	Herbert, Rowland & Grubic, 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 A**)

DEP Chapter 94 Spreadsheet used (**Attachment A**)

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 A**)

DEP Chapter 94 Spreadsheet used (**Attachment A**)

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))

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

Comments:

No extensions to the Authority's collection system were approved or exempted, nor were there any no new connections made in 2019.

The Halifax Township Act 537 Plan, completed in 2018, evaluated options for extending sanitary sewer to areas of Halifax Township that are currently served by on-lot disposal systems (OLDS). These new connections would be served by the HAWASA WWTP upon construction of the sewer extension. A map of the extension can be viewed in Attachment B.

The proposed extension of sanitary sewer will consist of low pressure sewer systems, gravity collectors, three (3) pump stations and associated force mains. This project will initially add approximately 300 EDUs (existing homes) to the WWTP. The construction of the proposed sanitary sewer extension is expected to be completed following the expansion of the current HAWASA wastewater treatment facility which will increase the current hydraulic and organic design capacities of the WWTP to accommodate the projected Halifax Township sewer extension. A Water Quality Management Part II Permit Application for the sewer extension is in preparation and is anticipated to be submitted to PA DEP in March 2020. Thereafter, construction of the extension and connection of the new EDU's to the sewer extension will be begin in the next 5 years pending permit approval. A PENNVEST funding application will be submitted for consideration following the receipt of all PA DEP Permits required for the project's construction.

There is minimal growth projected for the Authority's collection system except for that associated with the recommended Alternative from the Township's Act 537 Plan. Without the sanitary sewer expansion associated with the Act 537 Plan, annual growth is anticipated to be limited to 2 new connections within the existing service area per year.

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))

Analysis of WWTP influent, effluent and sludge was conducted at minimum permit frequencies through certified lab(s). The plant operator completes the daily samples such as pH, dissolved oxygen and chlorine residual. All other testing is contracted to Microbac Laboratories.

Repairs to the Authority's collection system are conducted on an as-needed basis. There are two full-time operators of the sewer system, shared with the water system. The collection system maintenance program consists of daily checks of the Authority's pump station and routine checks of manholes throughout the collection system. Manhole inserts have been placed in manholes that appear to be affected by inflow. No serious problems have been observed in the collection system. The system is not a combined sewer system and no regulators are present.

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:

On May 14, 2019, PA DEP staff performed a routine inspection of the HAWASA WWTP and recorded in the resultant report that “the Department observed signs that a manhole on Front Street had overflowed”. A Notice of Violation (NOV) was issued by PA DEP on October 7, 2019. A formal response to the NOV was issued by HAWASA’s Engineering Consultant on October 23, 2019. A copy of all formal documentation relating to the reported overflow is attached in Attachment C.

PA DEP has identified a hydraulic overload condition at the HAWASA WWTP Main Pumping Station and occurrences of permit violations at the WWTP itself. In response to these issues, HAWASA entered into a Consent Order and Agreement (COA) with PA DEP for the upgrade of the main pump station and WWTP. Further details regarding the COA are outlined below and can be found in Attachments F and G.

Improvements to the Main Pumping Station at the WWTP and the WWTP itself will be completed as part of the WWTP Upgrade project outlined below. The Water Quality Management Permit for construction of the WWTP Upgrade project was issued by PA DEP on March 12, 2020, a copy of which is provided as Attachment H.

Consent Order and Agreement (COA) Update:

HAWASA entered into a Consent Order Agreement with PA DEP on April 20th, 2018 to address the hydraulic overload condition at the WWTP Main Pumping Station and discharge violations occurring at the WWTP. In accordance with the schedule contained in the COA, HAWASA submitted a *Wastewater Treatment Plant Alternatives Review and Design Engineers Report*, prepared by Herbert, Rowland & Grubic Inc. (HRG), to PA DEP for review on December 31st 2018. This included a categorical exclusion to the Uniform Environmental Review (UER) that was granted by PA DEP on December 31, 2018. HRG determined that the Authority’s WWTP will require comprehensive upgrades to nearly all unit processes in order to eliminate the hydraulic overload condition at the Main Pumping station and the occurrence of permit violations at the WWTP.

The *Wastewater Treatment Plant Alternatives Review and Design Engineers Report* provided a recommended course of action for rectifying the issues outlined in the COA. The recommendations include the construction of a new sequencing batch reactor (SBR) treatment process with a proposed hydraulic design capacity of 0.28 MGD that will replace the existing treatment process and provide for the increased loading projected in the Act 537 Plan adopted by Halifax Township. Further recommendations were made for upgrades at the existing Main Pumping Station, which include the installation of larger influent wastewater pumps and expansion of the force main. Once completed, this work will alleviate the hydraulic overload condition at the facility. Please refer to Attachments F, G and H for additional information concerning the WWTP Upgrade.

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 – 2)
- Discussion of condition of each pump station attached (**Attachment C**)

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. **At the WWTP main pumping station only**
- 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 F**)

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 D**)

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 E**)

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).

Jeffrey Enders, Chairman



Name of Responsible Official

Signature

(717) 896-3886



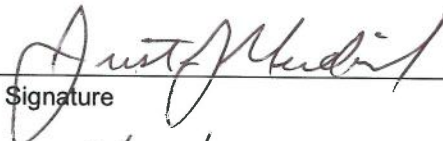
Telephone No.

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).

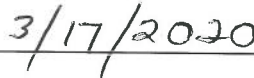
Justin J. Mendinsky, P.E.



Name of Preparer

Signature

(717) 564-1121



Telephone No.

Date



ATTACHMENT A

**HYDRAULIC AND ORGANIC LOADING
DATA AND LINE GRAPHS**



**PADEP Chapter 94 Sprea
Sewage Treatment**

Reporting Year:

Facility Name:

Permit No.:

Persons/EDU:

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	2015	2016	2017	2018	2019
January	0.0774	0.0902	0.0787	0.0726	0.1445
February	0.0691	0.1269	0.0819	0.1175	0.1352
March	0.0976	0.1153	0.0906	0.1157	0.1429
April	0.1123	0.1062	0.122	0.1258	0.1603
May	0.121	0.1173	0.1128	0.1484	0.1933
June	0.129	0.1239	0.1168	0.1418	0.1586
July	0.1264	0.1244	0.1444	0.167	0.1451
August	0.1181	0.1198	0.1456	0.174	0.1233
September	0.11	0.1038	0.122	0.1599	0.111
October	0.0985	0.0915	0.1047	0.1299	0.1018
November	0.0924	0.0784	0.0914	0.1583	0.0966
December	0.0996	0.0765	0.0748	0.1457	0.0955

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

Month	2015	2016	2017	2018	2019
January	136	380	99	151	102
February	101	325	86	127	114
March	142	253	105	114	108
April	199	190	297	53	133
May	347	262	197	42	71
June	513	303	197	39	103
July	317	328	106	66	177
August	171	208	220	101	146
September	357	152	257	165	169
October	273	466	193	149	131
November	100	175	221	137	157
December	147	148	110	139	136

Annual Avg	0.1043	0.1062	0.1071	0.1381	0.134
Max 3-Mo Avg	0.1255	0.1227	0.1373	0.167	0.1707
Max : Avg Ratio	1.20	1.16	1.28	1.21	1.27
Existing EDUs	739.0	749.0	751.0	753.0	753.0
Flow/EDU (GPD)	141.1	141.8	142.6	183.4	178.0
Flow/Capita (GPD)	40.3	40.5	40.7	52.4	50.8
Exist. Overload?	NO	NO	NO	NO	NO

Annual Avg	234	266	174	107	129
Max Mo Avg	513	466	297	165	177
Max : Avg Ratio	2.20	1.75	1.71	1.54	1.37
Existing EDUs	739	749	751	753	753
Load/EDU	0.316	0.355	0.232	0.142	0.171
Load/Capita	0.090	0.101	0.066	0.041	0.049
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2020	2021	2022	2023	2024
New EDUs	2.0	2.0	2.0	150.0	150.0
New EDU Flow	0.0003	0.0003	0.0003	0.0236	0.0236
Proj. Annual Avg	0.1182	0.1185	0.1188	0.1424	0.166
Proj. Max 3-Mo Avg	0.1448	0.1451	0.1455	0.1744	0.2033
Proj. Overload?	NO	NO	NO	NO	NO

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

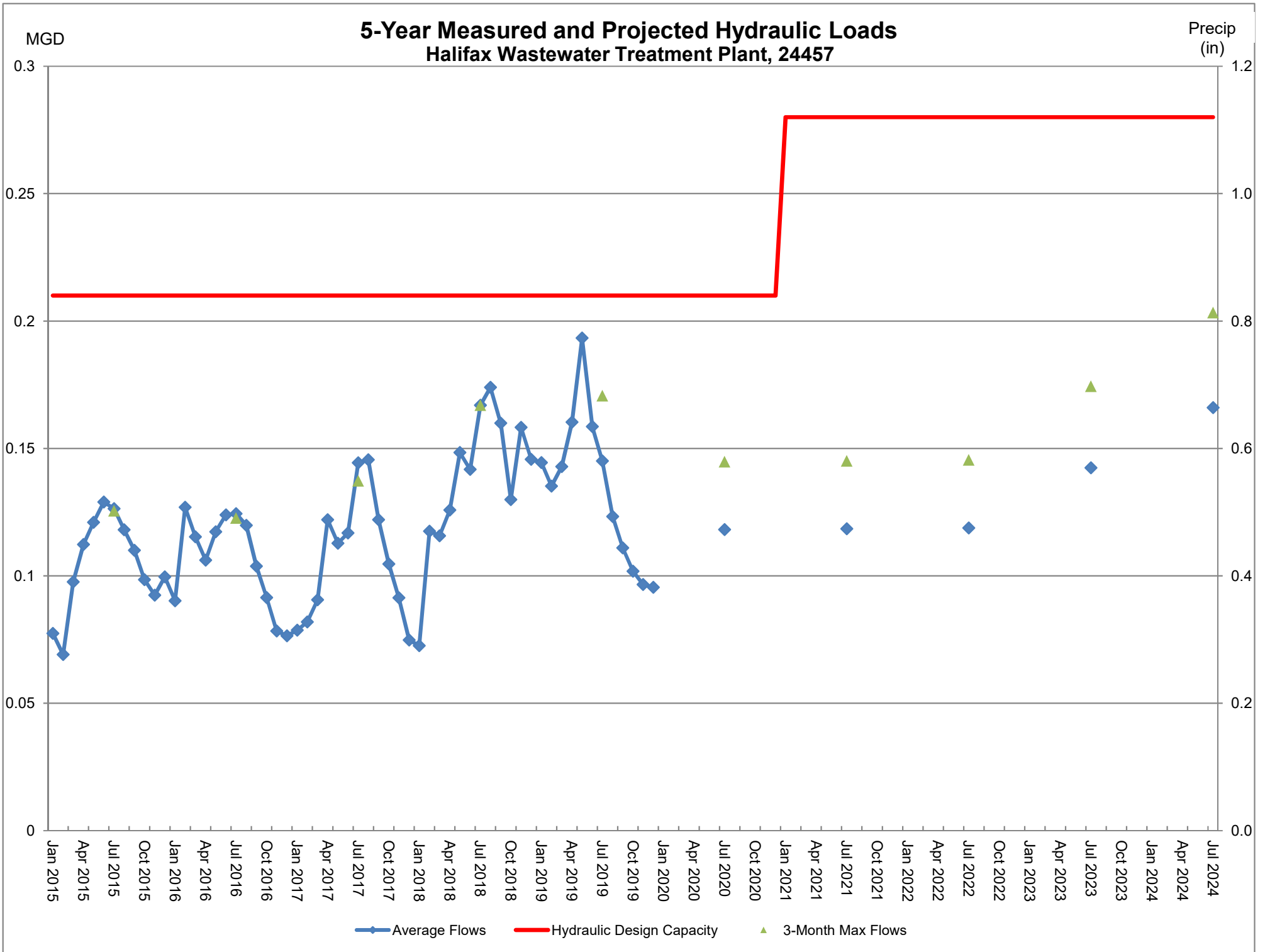
	2020	2021	2022	2023	2024
New EDUs	2	2	2	150	150
New EDU Load	0.486	0.486	0.486	36.476	36.476
Proj. Annual Avg	182	183	183	220	256
Proj. Max Avg	313	313	314	377	439
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

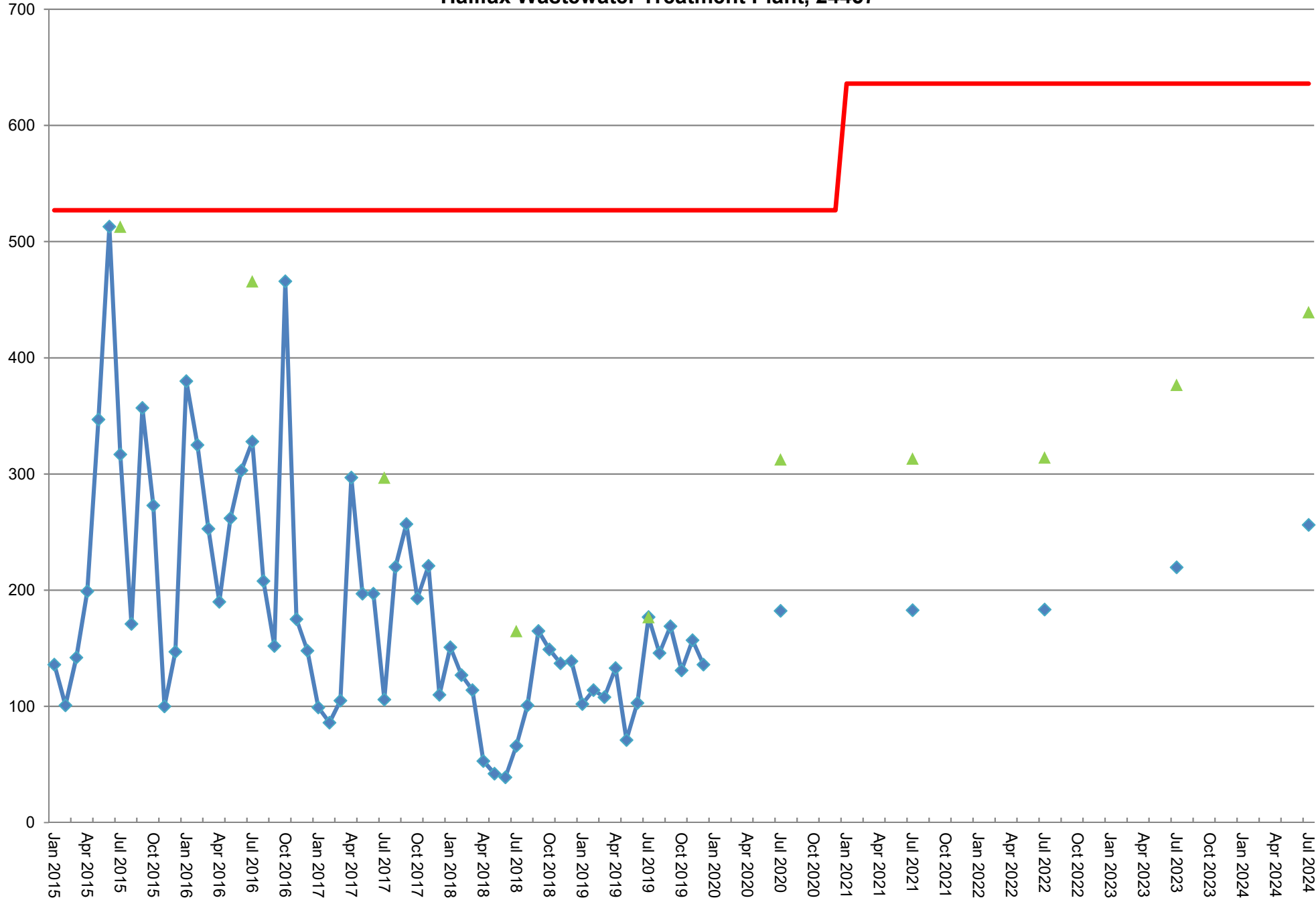
Total Monthly Precipitation for Past Five Years (Inches)

Month	2015	2016	2017	2018	2019
January		2.0			2.46
February		3.5			2.83
March		1.6			2.22
April		1.7			4.31
May		5.15			5.05
June		2.75			2.47
July		4.8			5.44
August		1.35			3.94
September		2.05			2.29
October		1.5			5.0
November		1.5			2.11
December		3.2			3.81

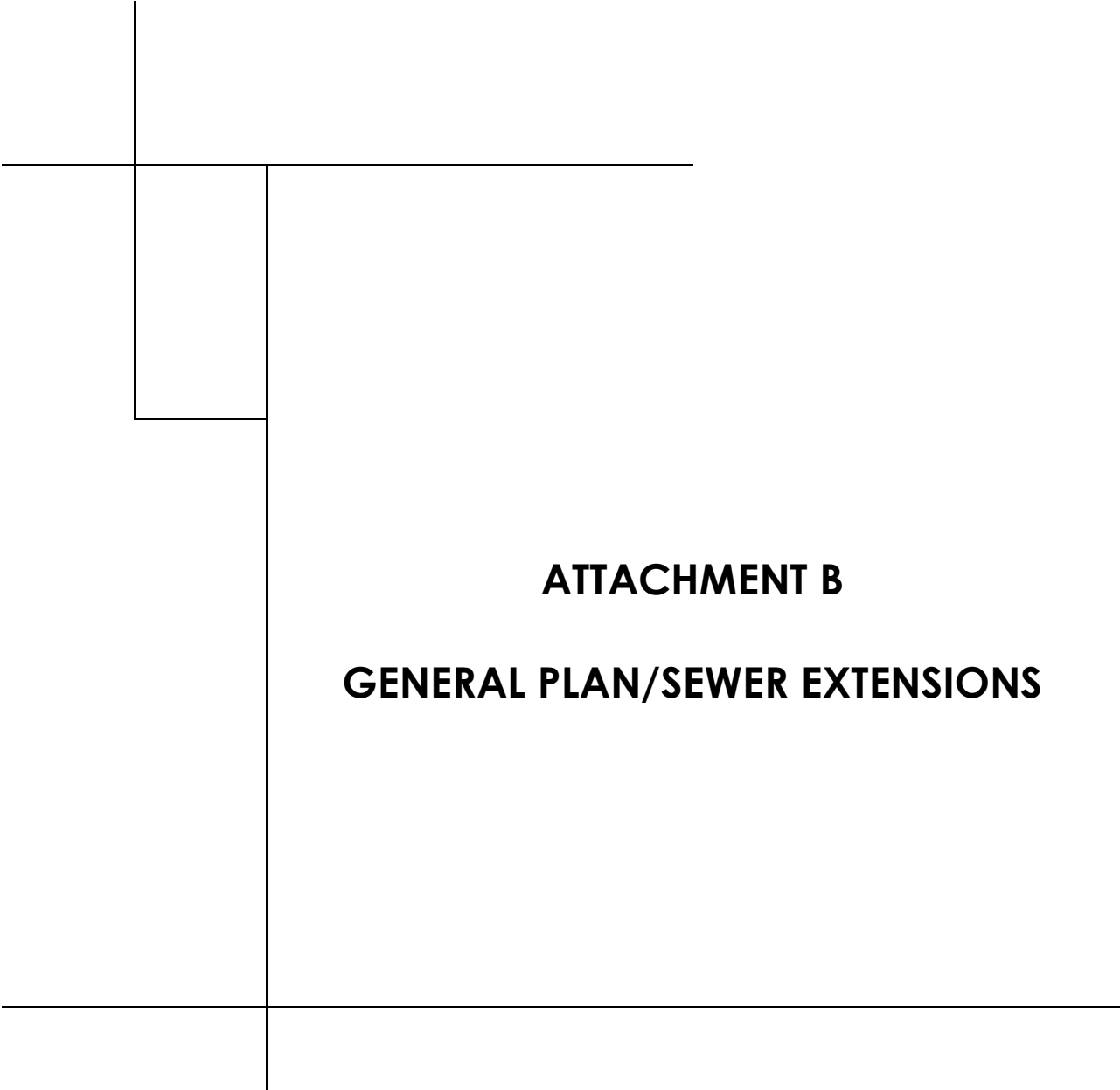
5-Year Measured and Projected Hydraulic Loads Halifax Wastewater Treatment Plant, 24457



5-Year Measured and Projected Organic Loads Halifax Wastewater Treatment Plant, 24457

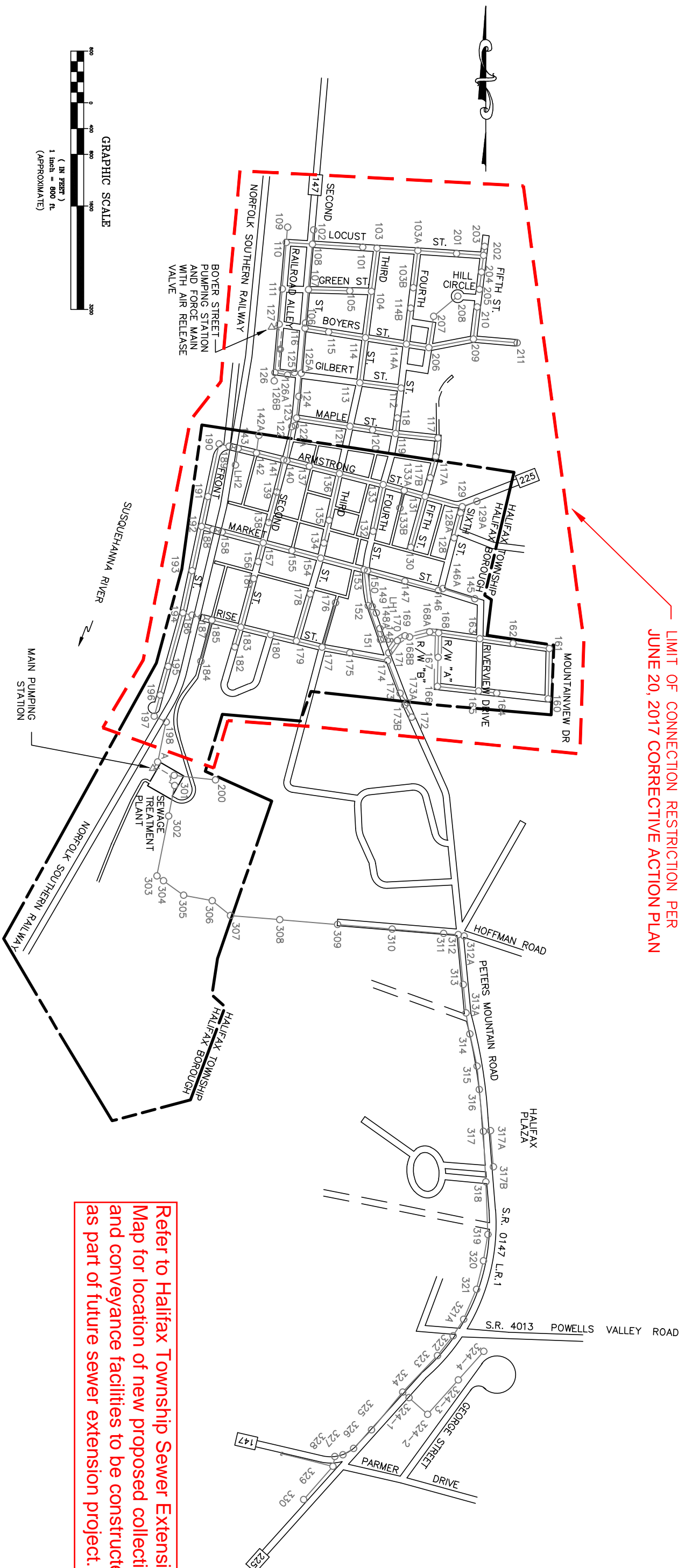


◆ Average Loads
 — Organic Design Capacity
 ▲ Max Loads



ATTACHMENT B
GENERAL PLAN/SEWER EXTENSIONS

LIMIT OF CONNECTION RESTRICTION PER
JUNE 20, 2017 CORRECTIVE ACTION PLAN



Refer to Halifax Township Sewer Extension
Map for location of new proposed collection
and conveyance facilities to be constructed
as part of future sewer extension project.

HALIFAX AREA WATER AND SEWER AUTHORITY
DAUPHIN COUNTY, PENNSYLVANIA

GENERAL PLAN OF
SANITARY SEWERAGE FACILITIES
FOR CORRECTIVE ACTION PLAN

SCALE	DATE	FILE CODE	PLAN NO.
1"=800'	OCT., 2015	6071502	3

GLACE ASSOCIATES, INC., CAMP HILL, PA.

COMPUTER DRAWING FILE NAME:
S-GENPLAN - CAP.DWG



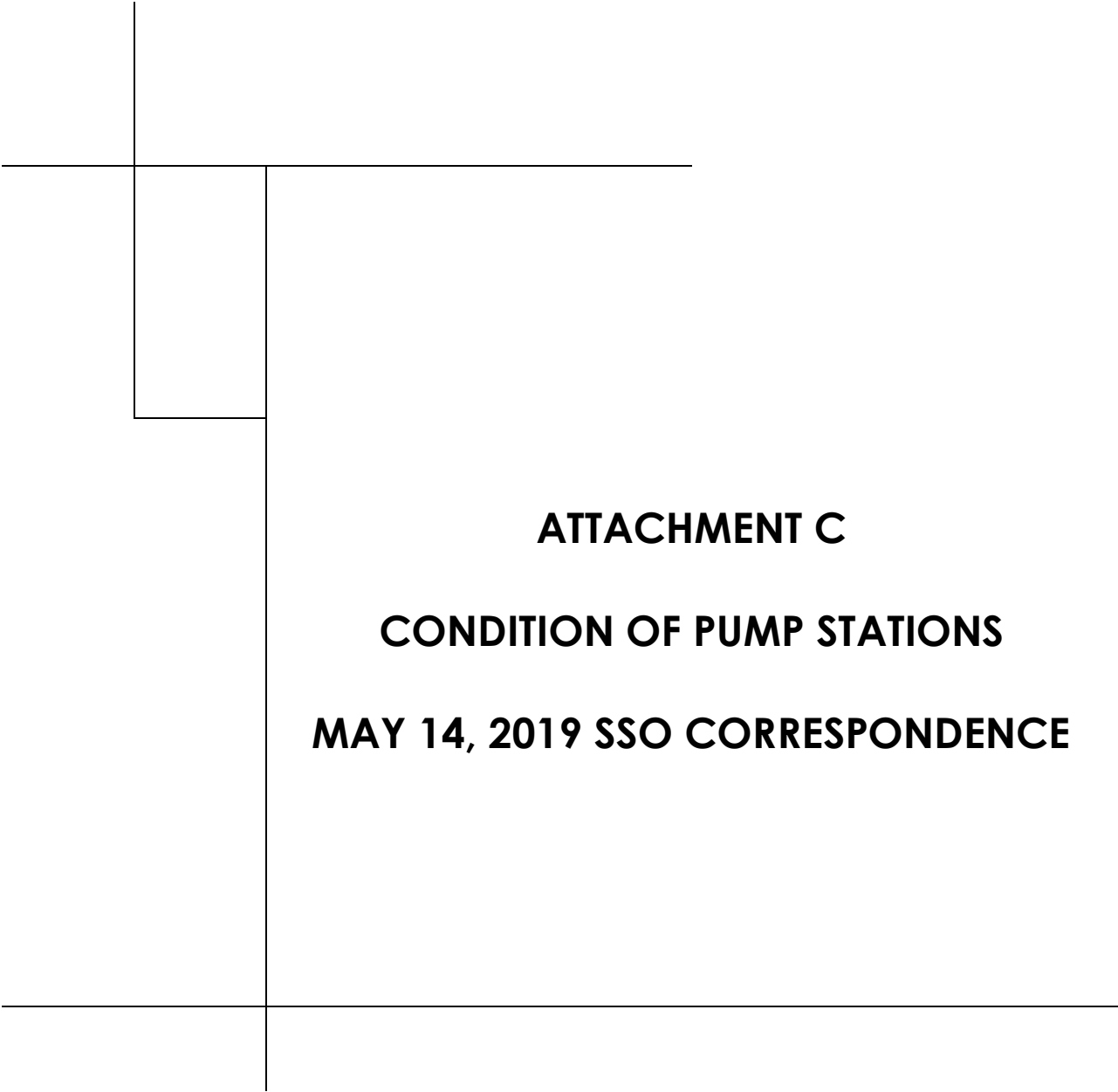
LENKER PUMP STATION

ROADCAP LANE PUMP STATION

CREEK ROAD PUMP STATION

HALIFAX TOWNSHIP SANITARY SEWER EXTENSION
PRELIMINARY DESIGN
01/16/2020

- GRAVITY SEWER
- FORCE MAIN SEWER
- LOW PRESSURE SEWER



ATTACHMENT C
CONDITION OF PUMP STATIONS
MAY 14, 2019 SSO CORRESPONDENCE

CONDITION OF THE PUMP STATIONS

HAWSA utilizes two (2) pump stations throughout the sanitary sewer system. The pump stations are maintained and inspected by the operators on a regular basis. Cleaning, repairs, and routine maintenance items are performed as needed.

Boyer Street Pumping Station - Location: Boyer Street, Halifax Township

Design Capacity:	50 gpm (1 pump basis)
Present Flows:	Average: 3.9 gpm
	Maximum (Peak Hourly Flow estimated): 50 gpm
	Projected two-year maximum peak hourly flow estimated: 50 gpm (Design basis of new Boyer Street Pump Station for maintaining velocity in 4-inch force main)

The Boyer Street Pump Station was upgraded to submersible pumps at the end of 2014 and began operations in 2015. The single phase pumps run full speed. Attached runtime records indicate total runtime for the station averages to approximately 13.1 hours per week, usually divided equally between the pumps.

There are no known future connections to the pump station in the next 2-year planning period. Therefore, a hydraulic overload condition is not expected to occur at the pump station in the next 2 years.

Main Pumping Station - Location: At the Treatment Plant, conveying all flow from the Borough and the northern Halifax Township service area (including flows from Boyer Street Pumping Station). There are two (2) suction lift pumps with separate 4-inch suction lines, discharging into a single 4-inch force main. The pumps are variable speed based on use of variable frequency drives, so only maximum flows can be estimated based on runtime. Due to the small size of the force main, 2 pumps on represents a much lower flow rate than twice one-pump flow.

Design Capacity:	175 gpm (1 pump basis)
Present Flows:	Average: 198 gpm (estimated based on plant flow)
	Maximum (Peak Hourly Flow estimated): 240 gpm
	Projected two-year maximum peak hourly flow estimated: 240 gpm (based on effective capacity of 2 pumps together into small 4-inch force main)

As noted plant return flows are included.

The recorded pump hours attached indicate an overloaded pump station condition with Pump 2 (or lag pump) operating an average of 4-20 hours each day. In accordance with the Consent Order and Agreement (COA) developed for the WWTP, improvements to the Main Pumping Station will be addressed as part of the WWTP Upgrade project. See Attachment F for information regarding the COA status.

Wastewater from the Halifax School and southern Halifax Township service area flows directly to the headworks. The Peak Hourly Flow at the WWTP is determined to be 360 gpm based on analysis of effluent WWTP flow meter charts for this flow-through treatment plant.

The updated pump station will have an effective wet well volume of approximately 788 gallons, based on the design pump rate of 300 gpm and a minimum allowable cycle time of 10 minutes per pump. A 6-inch nominal diameter ductile iron force main will convey all flow from the Main Pumping Station approximately 175 feet to the proposed distribution box upstream of the proposed WWTP headworks.



October 7, 2019

NOTICE OF VIOLATION

CERTIFIED MAIL NO. 9171 9690 0935 0230 7530 56

Mr. Jeff Enders
Halifax Area Water and Sewer Authority
PO Box 443
Halifax, PA 17032

Re: NPDES Inspection on May 14, 2019
Halifax STP
Halifax Borough, Dauphin County

Dear Mr. Enders:

The Pennsylvania Department of Environmental Protection (Department) conducted an inspection of your sewage treatment plant on May 14, 2019. During the inspection, the Department observed signs that a manhole on Front Street had overflowed. As a result, the following violations were noted:

1. A discharge of sewage from a manhole overflow with the potential to reach Waters of the Commonwealth is a violation of Sections 201 and 202 of the Clean Streams Law.
2. Failure to notify the Department of a sanitary sewer overflow (SSO) is a violation of 25 Pa. Code 91.33.

At this time, we request that you investigate these violations and within 15 days of receipt of the report, submit a written report to the Department explaining the cause of the violations, remediation actions taken and any measures to be implemented to prevent future violations.

Please be advised that failure to comply with the terms and conditions of Sections 201 and 202 of The Clean Streams Law, constitutes a violation and subjects you to appropriate enforcement action.

This NOV is neither an order nor any other final action of the Department. It neither imposes nor waives any enforcement action available to the Department under any of its statutes. If the Department determines that an enforcement action is appropriate, you will be notified of the action.

Mr. Jeff Enders

- 2 -

October 7, 2019

If you have any questions, please call me at 717.439.5080.

Sincerely,



for

Heather Dock
Water Quality Specialist
Clean Water Program

VIA ELECTRONIC & HAND DELIVERY

October 23, 2019

Ms. Heather Dock
Clean Water Program
PA Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, Pennsylvania 17110-8200



Re: Notice of Violation
NPDES Inspection - May 14, 2019
Halifax STP
Halifax Area Water and Sewer Authority

Dear Ms. Dock:

On behalf of the Halifax Area Water and Sewer Authority (HAWASA), Herbert, Rowland & Grubic, Inc. (HRG) hereby submits this response to your October 7, 2019 Notice of Violation (NOV) resulting from your May 14, 2019 inspection of the HAWASA Sewage Treatment Plant (Halifax STP). The NOV indicates that during your inspection, "the Department observed signs that a manhole on Front Street had overflowed." The NOV requests that the Authority investigate the violation and submit a written report to the Department explaining the cause of the violation, remediation actions taken, and any measures to be implemented to prevent future violations.

As you are aware, all sewage flows from the Borough, including those from the Front Street area where signs of an overflow were observed by the Department, are conveyed to the Main Pump Station located at the Halifax STP. The Main Pump Station is considered to be hydraulically overloaded in accordance with 25 PA Code § 94.12. HAWASA and the Department executed a Consent Order and Agreement (COA) on April 20, 2018 providing an implementation schedule for the upgrade of the Halifax STP, including improvements to the Main Pump Station. A copy of the most recent COA Quarterly Progress Report submitted to the Department on October 2, 2019 is attached for reference.

It is believed by HAWASA and HRG that the overflows which have occurred on Front Street are a direct result of the hydraulic overload condition observed at the Main Pump Station, which prevents the adequate conveyance of influent sewage flows through the STP during periods of heavy precipitation and causes a surcharge condition in the sewers in Front Street. To prevent future violations relating to this overflow condition, the Halifax STP Upgrade project will completely upgrade the Main Pump Station which will improve its ability to convey the peak flows observed during periods of heavy precipitation through the STP.

The following improvements to the Main Pump Station are proposed as part of the Halifax STP Upgrade project and have been included in the Water Quality Management Permit Application which was submitted to the Department on September 13, 2019:

- Installation of a new rail mounted twin-shafted sewage grinder
- Installation of new self-priming influent pumps within a new concrete dry well structure. The new influent pumps are designed for a maximum pumping rate of 300 gallons per minute (gpm). The existing pumps are rated for 175 gpm, but are believed to be operating at a much lower pumping rate based on the occurrence of two pump simultaneous operations and from our review of the suction piping configuration associated with these pumps which is not ideal.
- Installation of a new influent force main
- Upgrades to existing electrical and HVAC systems to provide for NFPA 820 compliance and to removed aged equipment
- Removal of the existing self-priming influent pumps and demolition of the current dry well structure

It is important to note that the Halifax STP operators continually monitor the level of the influent wet well at the Main Pump Station and record these levels on a daily basis. Attached is an example of the STP operators' log from May 2019. Based on prior experience and records compiled by the STP operators, hydraulic surcharging of the sewer on Front Street and the potential for overflow conditions begin to occur at a water (sewage) level of approximately 120-inches in the influent wet well. The May 2019 log provided with this response clearly shows that the influent water level during this time was significantly lower than the 120-inch condition with the exception of brief periods where the chlorine contact tank was drained for cleaning, which still resulted in water levels below 120 inches and which were closely monitored by the STP operators and did not create surcharge conditions. In reviewing their operating logs, HAWASA cannot confirm if the overflow noted during your May 14, 2019 inspection was a new condition that was not observed during a previous inspection completed by the Department, and it is believed that the signs observed during your visit were created during a previous overflow which was reported to the Department.

We trust that the information provided with this response adequately addresses the NOV and reiterates HAWASA's intention to eliminate the overflow condition through its STP Upgrade project. If you have any questions or comments regarding this response or require additional information regarding this matter, please do not hesitate to contact me at 717-564-1121. Thank you.

Very truly yours,

Herbert, Rowland and Grubic, Inc.



Justin J. Mendinsky, P.E.

Water & Wastewater Group Manager

JJM/rb
01650.0426

P:\0016\001650_0426\Admin\Corres\NOV Correspondence\2019.10.23 NOV Response to 2019.10.23 NOV.docx

Enclosures

cc: HAWASA Board
Jeffrey Grosser, Operator
Joseph D. Kerwin, Esq., Solicitor
HRG File

Herbert, Rowland & Grubic, Inc.



369 East Park Drive
Harrisburg, PA 17111
717.564.1121
(FAX) 717.564.1158
www.hrg-inc.com

VIA ELECTRONIC & HAND DELIVERY

October 2, 2019

Mr. Erick Ammon
Clean Water Program
PA Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, Pennsylvania 17110-8200

Re: NPDES Permit No. PA0024457
Consent Order & Agreement: Quarterly Progress Report
Main Pumping Station and Wastewater Treatment Plant
Halifax Area Water and Sewer Authority

Dear Mr. Ammon:

On behalf of the Halifax Area Water and Sewer Authority (HAWASA), Herbert, Rowland & Grubic, Inc. (HRG) hereby submits this Consent Order and Agreement (COA) Quarterly Progress Report in accordance with the requirements outlined in the April 20, 2018 COA executed by the Department and HAWASA.

The Main Pumping Station located at the HAWASA Wastewater Treatment Plant (WWTP) is considered to be hydraulically overloaded in accordance with 25 Pa. Code § 94.12. HAWASA and the Department executed the above referenced COA to relimitate the overload condition at the Main Pumping Station. Modifications to the Main Pumping Station will be undertaken as part of a WWTP Upgrade Project to be completed by HAWASA.

For ease in reporting HAWASA progress in meeting the Corrective Action schedule contained in the COA, this Progress Report provides the status of the Tasks which were identified in the Implementation Schedule contained in the HAWASA Corrective Action Plan (CAP) and have been updated to reflect the required compliance dates identified within the COA. This Progress Report also summarizes any new connections to the portion of the HAWASA system which is tributary to the overloaded sewerage facilities.

Implementation Schedule – Update

The following items critical to the completion of Tasks contained in the Implementation Schedule for the WWTP Upgrade Project have occurred since the submission of the June 24, 2019 COA Quarterly Progress Report:

- A Water Quality Management Part II Permit Application, review fee and supporting documentation for the WWTP Upgrade Project were submitted to PA DEP on September 13, 2019. A copy of the cover letter for the Part II submission is attached to this Quarterly Report. Improvements proposed to be constructed, as detailed in the Part II Application, include the following:

- Retrofit of the existing Main Pumping Station
 - Installation of a new rail-mounted twin-shafted sewage grinder
 - Installation of new self-priming influent pumps
 - Installation of a new influent force main
 - Upgrades to electrical and HVAC systems
 - Construction of a new headworks building with fine screening equipment
 - Construction of a new SBR Feed Pump Station equipped with new self-priming pumps
 - Construction of a new Sequencing Batch Reactor (SBR) and associated tankage
 - Re-purposing of existing process tankage to provide aerobic sludge storage
 - Installation of a new ultraviolet (UV) light disinfection system
 - Installation of new chemical feed systems
 - Upgrades to the existing WWTP Controls Building and laboratory area
 - Miscellaneous site improvements including fence modifications, concrete sidewalks, and paved parking areas
 - Demolition of existing treatment tanks and building structures that will no longer be in use
- In conjunction with the design of the WWTP Upgrade Project, HRG is also currently performing the Preliminary Design Phase for the Halifax Township Sewer Extension Project. This Project is not mandated by the COA. However, the Part II Permit Application for the WWTP Upgrade Project includes capacity for the additional flows which will be generated by the construction of this sewer extension. HRG has completed topographic survey and base mapping for the Halifax Township Sewer Extension Project and is currently proceeding with the Preliminary Design of the associated collection and conveyance systems. It is anticipated that the Authority will submit an application for funding assistance to PENNVEST for the WWTP Upgrade and Halifax Township Sewer Extension Projects.

The Implementation Schedule below is included in the HAWASA CAP; the required completion dates have been updated to reflect those contained in the COA. For the purpose of this Report, the "Status/Update" column has been updated to demonstrate HAWASA's compliance with the Implementation Schedule. Items in red text are updates since the last COA quarterly report submission.

IMPLEMENTATION SCHEDULE FOR HAWASA WWTP UPGRADE <i>[Taken from approved CAP and modified per the Corrective Action schedule included in the COA]</i>		
TASK DESCRIPTION	COMPLETION / SUBMISSION DATE	STATUS/ UPDATE
<i>HAWASA and PA DEP Execution of Consent Order and Agreement</i>	April 20, 2018	<i>[Task Completed]</i>
<p><i>Submit a Wastewater Treatment Plant Alternatives Review, Design Engineer's Report and an administratively and technically complete Uniform Environmental Report for the upgrade of the Plant and main pumping station</i></p> <p>Design Engineer's Report will include the following key components:</p> <ul style="list-style-type: none"> • Review previous HAWASA evaluation of WWTP improvement alternatives • Prepare existing and future flow and loading projections including flow metering study as required • Request and receive preliminary effluent discharge limits for WWTP Upgrade from PA DEP • WWTP Improvements alternatives review • Identification and selection of recommended improvements • User rates analysis for recommended improvements 	December 31, 2018	<i>[Task Completed; Wastewater Treatment Plant Alternatives Review & Design Engineer's Report was submitted to PA DEP on December 28, 2018; Categorical Exclusion request for WWTP Upgrade Project approved by PA DEP on December 31, 2019; Task Completed]</i>
<i>Submission of administratively and technically complete Water Quality Management Part II Permit Application for the upgrade of the Plant and main pumping station</i>	Within 180 Days of PA DEP approval of UER	<i>[Task Completed; WQM Part II Permit Application, review fee and supporting documents were submitted to PA DEP on September 13, 2019]</i>
<i>Begin construction of the Plant upgrade in accordance with the Part II Permit</i>	Within 205 Days of PA DEP issuance of Water Quality Management Part II Permit	
<i>Complete Construction</i>	Within 705 Days of PA DEP issuance of Water Quality Management Part II Permit	
<i>Verify completion of construction by submission of the Sewage and Industrial Wastewater Facilities Construction Certification</i>	Within 30 days of completed construction operations	
<i>Submission of quarterly Progress Reports until termination of COA</i>		Quarterly Progress Report submitted October 2, 2019 Previous Quarterly Progress Report submitted June 24, 2019

Mr. Erick Ammon - Clean Water Program
PA Department of Environmental Protection
October 2, 2019
Page 4

Restriction on Connections Tributary to Overloaded Sewerage Facilities

Per the terms of the approved CAP, HAWASA will limit new connections within the area tributary to the Main Pumping Station to a total of twenty-five (25) new EDUs (not otherwise meeting the definitions of 25 Pa Code §§ 94.55, 94.56 and 94.57) until the hydraulic overload condition is eliminated. There have not been any new connections made within the area tributary to the Main Pumping Station as of the date of this Progress Report.

There is no restriction on connections in the southern portion of the HAWASA collection system located in Halifax Township as this area is not tributary to the Main Pumping Station. There was one (1) EDU connected to this portion of the collection system in 2019. This connection was made to eliminate the occurrence of a malfunctioning on-lot disposal system (OLDS) located at 56 Fellowship Drive in Halifax Township.

If you have any questions or comments regarding this COA Progress Report, please do not hesitate to contact me at 717-564-1121. Thank you.

Very truly yours,

Herbert, Rowland and Grubic, Inc.



Justin J. Mendinsky, P.E.

Water & Wastewater Group Manager

JJM/rb

01650.0426

P:\0016\001650_0426\Admin\Corres\CAP Correspondence\2019 10 02 COA Update Letter.docx

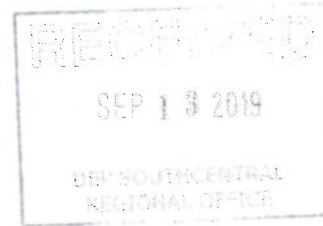
Enclosures

cc: HAWASA Board
Jeffrey Grosser, Operator
Joseph D. Kerwin, Esq., Solicitor
HRG File



Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

AN EMPLOYEE-OWNED COMPANY



VIA HAND DELIVERY

September 13, 2019

Clean Water Program
Permit Section
PA Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, Pennsylvania 17110-8200

Re: Water Quality Management Part II Permit Application
Wastewater Treatment Plant Upgrade Project
Halifax Area Water and Sewer Authority
Dauphin County, Pennsylvania

Dear Permit Reviewer:

On behalf of the Halifax Area Water and Sewer Authority (Authority), we are pleased to submit the Water Quality Management Part II Permit Application package for the above-referenced project. This submission is made in accordance with the Corrective Action schedule established in the April 20, 2018 Consent Order Agreement (COA) executed by the Authority and PA DEP. Enclosed are the following:

1. One (1) check for \$500.00, payable to the Commonwealth of Pennsylvania.
2. Two (2) copies of the Water Quality Management Part II Permit Application, including the following:
 - General Information Form
 - Water Quality Management Part II Permit Application and Modules
 - Design Engineer's Report
 - Technical Specifications
 - County and Municipal Act 14 Notification Letters
 - Drawings

The project involves the construction of upgrades to the Authority's wastewater treatment plant (WWTP) and influent pump station located within the Borough of Halifax, Dauphin County, Pennsylvania. The WWTP Upgrade will be designed to accommodate future expansion of the Authority's sanitary sewer service area in Halifax Township, as proposed in the Township's approved Act 537 Plan.

Proposed work at the WWTP includes the following construction and renovation:

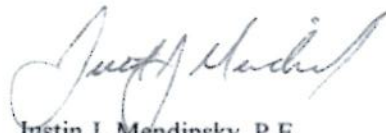
- Retrofit of the existing Main Pumping Station
 - Installation of a new rail-mounted twin-shafted sewage grinder
 - Installation of new self-priming influent pumps
 - Installation of a new influent force main
 - Upgrades to electrical and HVAC systems

- Construction of a new headworks building with fine screening equipment
- Construction of a new SBR Feed Pump Station equipped with new self priming pumps
- Construction of a new Sequencing Batch Reactor (SBR) and associated tankage
- Re-purposing of existing process tankage to provide aerobic sludge storage
- Installation of a new ultraviolet (UV) light disinfection system
- Installation of new chemical feed systems
- Upgrades to the existing WWTP Controls Building and laboratory area
- Miscellaneous site improvements including fence modifications, concrete sidewalks, and paved parking areas
- Demolition of existing treatment tanks and building structures that will no longer be in use

Please feel free to contact me at (717) 564-1121 if you have any questions concerning the submitted documents or if you require any additional information. Thank you for your cooperation on this very important project.

Very truly yours,

Herbert, Rowland & Grubic, Inc.



Justin J. Mendinsky, P.E.

Water & Wastewater Group Manager

JJM/rb

R001650.0427

[P:\0016001650_0427\Admin\Permits\WQM Part II\PA DEP Submission Letter.doc](#)

Enclosures

c: Mr. Jeffrey Enders, Authority Chairman
Mr. Jeffery Grosser, Treatment Plant and Operations Manager
Mr. Erick Ammon, PA DEP
File (w/Encl.)

MAY 2019

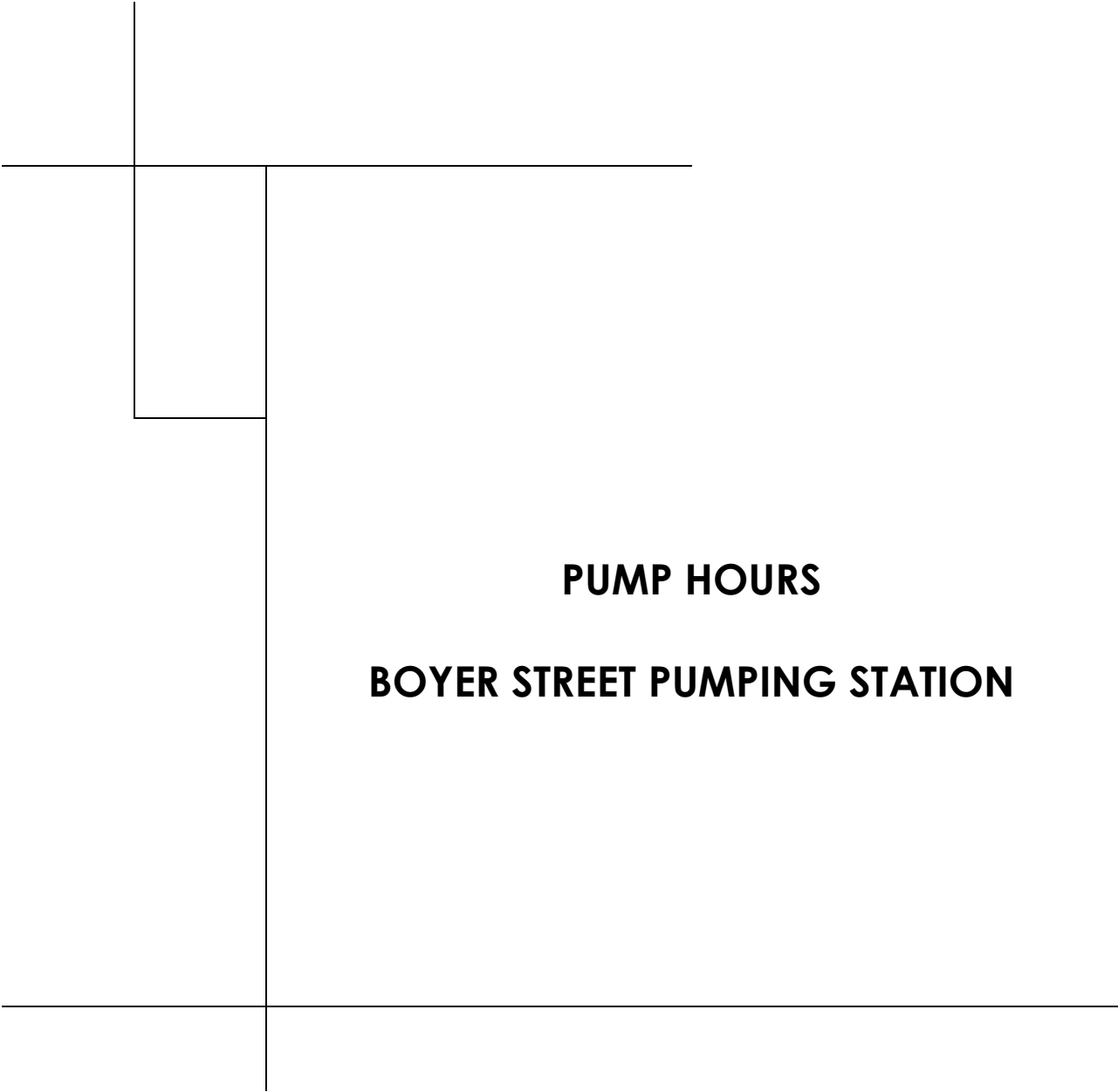
PUMP RUN TIMES

DECANT

Old Tank Clean

CLEAN Cbg - CONTRACT

DATE-MAY	#1 Pump	RUN TIME	#2 PUMP	RUN TIME	INCHES
1	16745.3	21.7	09867.3	11.8	54.7
2	16759	13.7	09884.2	16.9	53.5
3	16769.2	10.2	09894.5	10.3	52.8
4	16779.2	10	09915.5	21	60
5	16793.2	14	09937	21.5	65
6	16806.2	13	09960.5	23.5	62.2
7	16829.2	23	09980.2	19.7	54.7
8	16847.2	18	10000.8	20.6	54.5
9	16865.6	18.4	10020.5	19.7	60.2
10	16885.7	20.1	10042.2	21.7	83.1
11	16907.9	22.2	10054.5	12.3	57.6
12	16930.0	22.1	10066.4	11.9	72.1
13	16954.4	24.4	10090.8	24.4	62.5
14	16978.3	23.9	10114.7	23.9	61.4
15	17001.5	23.2	10138.7	24	65
16	17025.5	24	10161.7	23	66.8
17	17047.2	21.7	10183.5	21.8	64.7
18	17067.9	20.7	10203.5	20	60.9
19	17086.9	19	10225	21.5	59
20	17110.9	24	10249	24	104.7
21	17134.9	24	10273	24	60.9
22	17158	23.1	10287.3	14.3	53.6
23	17180.7	22.7	10310.1	22.8	82.4
24	17203.1	22.4	10329.9	19.8	67.2
25	17218.9	15.8	10352.2	22.3	61.2
26	17241.1	22.2	10370.0	17.8	57.4
27	17265.5	24.4	10386.2	16.2	64.7
28	17288.2	22.7	10400.9	14.7	108.1
29	17310.4	22.2	10411	10.1	51.6
30	17320.0	9.6	10434.4	23.4	53.9
31	17333.8	13.8	10455.5	21.1	56.7



PUMP HOURS
BOYER STREET PUMPING STATION

BOYER STREET PUMP STATION

MONTH	YEAR					
DATE		PUMP #1	HRS		PUMP #2	HRS
8-31-18	1045	944.5	6.6		690.6	5.7
9-7-18	1100	949.6	5.1		695.1	4.5
9-14-18	1200	957.7	8.1		702.5	7.4
9-21-18	1035	966	8.3		709.3	6.8
9-28-18	1005	975.8	9.8		716.7	7.4
10-4-18	1300	984.7	8.9		724.1	7.4
10-12-18	1030	994.6	9.9		732.5	8.4
10-19-18	1030	1002.8	8.2		739.4	6.9
10-26-18	1030	1009.4	6.6		744.6	5.2
11-2-18	1030	1016.5	7.1		750.3	5.7
11-9-18	1055	1026.5	16		759.4	9.1
11-16-18	1055	1042.4	13.9		772.0	12.6
11-23-18	1040	1059.9	17.4		787.2	15.2
12-7-18	1040	1089.6	29.8		819.4	25.2
12-14-18	1110	1099.4	9.3		830.6	8.2
12-21-18	1025	1112.6	13.2		830.6	10
12-28-18	1100	1127.9	15.3		842.3	11.7
1-4-19	1010	1143.0	15.1		854.9	12.6
1-11-19	1050	1156.1	13.1		866.6	11.7
1-17-19	1030	1165	8.9		873.9	7.3
1-24-19	1045	1179.3	14.3		884.6	10.7
2-1-19	1015	1192.8	13.5		894.6	10
2-8-19	1045	1204.6	11.8		903.5	8.9
2-15-19	1100	1217.4	12.8		913.2	9.7
2-22-19	1120	1229.5	12.1		923.5	10.3
3-1-19	0945	1241.1	11.6		934.1	10.6
3-8-19	1025	1252.2	11.1		944.3	10.2
3-22-19	1000	1273.7	21.5		963.3	19
3-29-19	1040	1286.1	12.4		974.3	11
4-5-19	1015	1294.8	8.7		983.2	7.9
4-12-19	1050	1302.1	7.3		988.2	6

12.3
9.6
15.5
15.1
17.2
16.3
18.3
15.1
11.8
12.8
25.1
26.5
32.6
55
78
23.2
27
27.7
24.8
16.2
25
23.5
20.7
22.5
22.4
22.2
21.3
40.5
23.4
16.6
13.3



BOYER STREET PUMP STATION

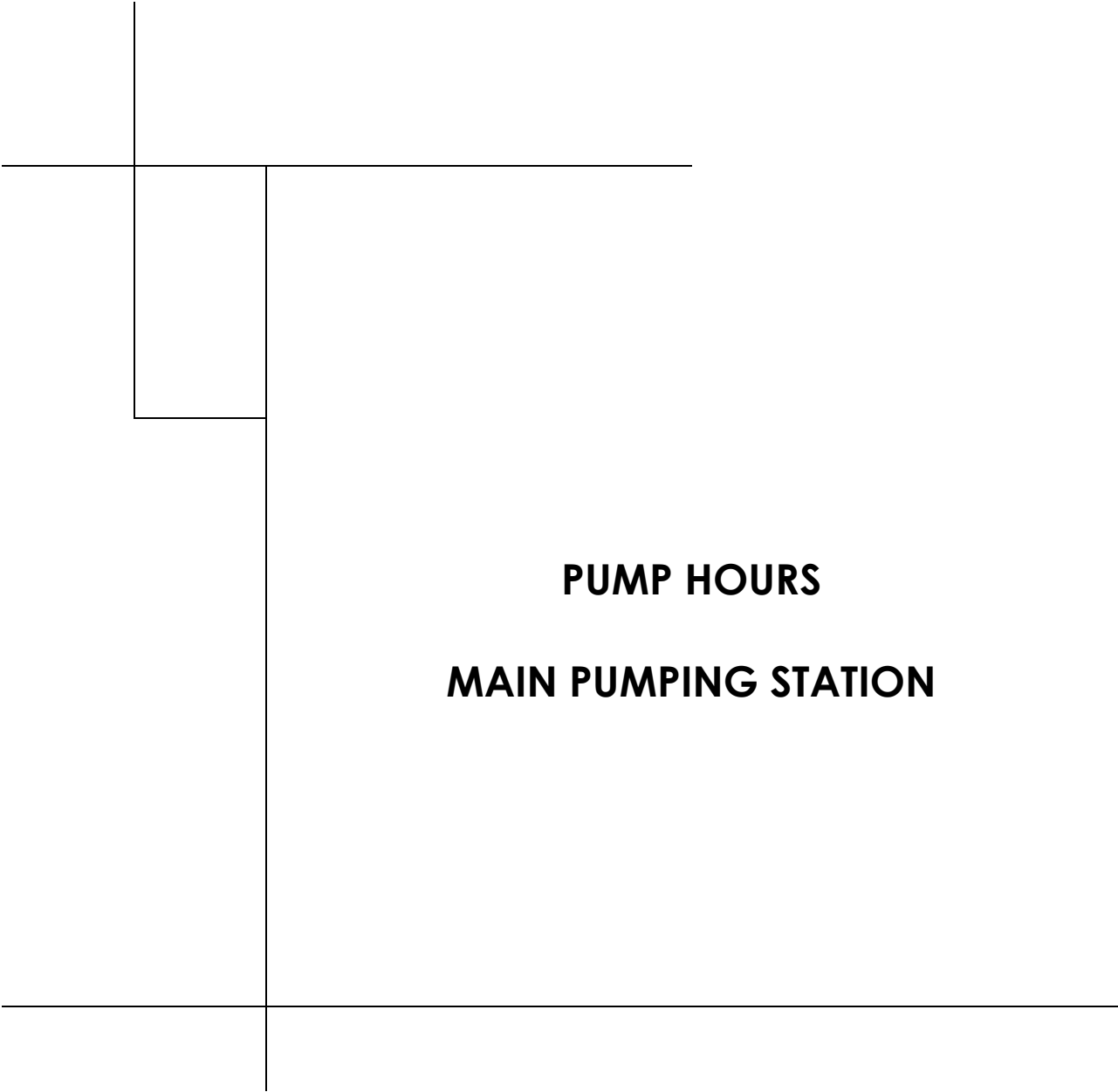
MONTH	YEAR					
DATE		PUMP #1	HRS	PUMP #2	HRS	
4-19-19	1000	1314.2	12.1	998.9	10.7	20.8
4-26-19	1040	1326.1	11.9	1007.8	8.9	20.8
5-3-19	0920	1326.7	10.6	1015.5	7.7	18.3
5-10-19	1010	1348.5	11.8	1026.7	11.2	23.0
5-17-19	1055	1364.4	15.9	1042.1	15.4	31.3
5-24-19	1020	1377.9	13.5	1052.6	11.5	25
5-31-19	0930	1388.3	10.4	1062.3	8.7	19.1
6-7-19	1040	1398.7	10.4	1070.5	8.2	18.6
6-14-19	1010	1407.2	8.5	1076.9	6.4	14.9
6-21-19	1000	1414.7	7.5	1083.6	6.7	14.2
6-28-19	1040	1421.6	6.9	1090.2	6.6	13.5
7-5-19	1125	1427.0	5.4	1095.1	4.9	10.3
7-12-19	1000	1432.2	5.2	1099.7	4.6	9.8
7-19-19	1025	1436.8	4.6	1103.4	3.7	8.3
7-26-19	1100	1440.8	4.0	1106.7	3.3	7.3
8-2-19	1020	1443.9	3.1	1109.3	2.6	5.7
8-9-19	1030	1447.2	3.3	1112.2	2.9	6.2
8-16-19	1045	1449.8	2.6	1114.5	2.3	4.9
8-23-19	1025	1453	3.2	1116.8	2.3	5.5
8-30-19	1030	1455.9	2.9	1119.3	2.5	5.4
9-6-19	1040	1458.7	2.8	1121.3	2.0	4.8
9-13-19	1030	1462.3	3.6	1123	1.7	5.3
9-20-19	1020	1465.2	2.9	1124.6	1.6	4.5
9-27-19	1025	1467.6	2.4	1126.2	1.6	4.0
10-4-19	1025	1469.9	2.3	1127.7	1.5	3.8
10-11-19	1020	1471.9	2	1129.4	1.7	3.7
10-18-19	1005	1474.0	2.1	1131.0	1.6	3.7
10-25-19	1050	1475.9	1.9	1132.0	2.0	3.9
11-1-19	1045	1478.3	2.4	1135.2	2.2	4.6
11-8-19	1215	1480.4	2.1	1137.2	2	4.1
11-15-19	1140	1482.5	2.1	1139.1	1.9	4.0

BOYER STREET PUMP STATION

MONTH	YEAR				
		1482.5			1139.1
DATE		PUMP #1	HRS	PUMP #2	HRS
11-22-19	1100	1484.7	2.2	1141.3	2.2
11-27-19	0940	1486.7	2.2	1143.4	2.1
12-0-19	1155	1488.9	2.0	1145.4	2.0
12-13-19	1030	1490.7	1.8	1147.4	2.0
12-20-19	1035	1492.6	1.9	1149.4	2.0
12-27-19	1015	1494.7	2.1	1151.4	2.0
1-3-20	1050	1497.3	2.6	1153.9	2.4

Total

4.4
4.3
4.0
3.8
3.9
4.1
5.0



PUMP HOURS
MAIN PUMPING STATION

JANUARY 2014

PUMP RUN TIMES

DATE:	#1 Pump	RUN TIME	#2 Pump	RUN TIME	INCHES
JAN.	16098.8	24.1	07309.8	24	
	16122.8	24	07333.9	24.1	
	16143.9	21.1	07357.8	23.9	
	16163.1	19.2	07382.0	24.2	
	16181	17.9	07405.8	23.8	
	16198.3	17.3	07429.8	24	
	16216.3	18	07453.8	24	53.7
	16223.6	7.3	07477.9	24.1	54.8
	16240.2	16.6	07501.9	24	57
	16252.9	12.7	07525.9	24	50.3
	16258.6	5.7	07549.9	24	42.8
	16258.7	8.1	07574.5	24.6	
	16258.7	8	07598.6	24.1	
	16261.1	2.4	07621.8	23.2	39.2
	16261.1	0	07645.8	24	41.6
	16263.5	2.4	07669.8	24	38
Source Pumps	16263.5	0	07693.8	24	39.4
	16282.9	19.4	07698.3	4.5	38.9
	16288.1	5.2	07720.7	22.4	
	16293.3	5.2	07743.0	22.3	
	16304.8	11.5	07766.2	23.2	48.2
	16305.2	.4	07789.8	23.6	40
	16305.2	0	07813.8	24	42.5
	16309.3	4.1	07837.9	24.1	120.1
	16324	14.7	07861.9	24	70
	16329.6	5.6	07885.9	24	53.6
	16332.5	2.9	07908.9	23	42.0
	16335.7	3.2	07933.7	24.8	48.3
	16337.0	1.3	07957.8	24.1	91
	16337	0	07981.7	23.9	41.6
	16337	0	08005.7	24	41.4

FEBRUARY 2019

PUMP RUN TIMES

DATE:	#1 PUMP	RUN TIME	#2 PUMP	RUN TIME	INCHES
FEB. 1	16337	Ø	08029.8	24.1	42.9
2	16337	0	08053.8	24	
3	16337	0	08077.9	24.1	
4	16337	Ø	08101.2	23.3	40.3
5	16337	Ø	08125.2	24	41
6	16337	Ø	08149.2	24	42.2
7	16337	Ø	08173.2	24	39.6
8	16337.8	.8	08197.2	24	45.6
9	16340	2.2	08221.0	23.8	42.5
10	16340	Ø	08244.8	23.8	40.6
11	16340	Ø	08268.8	24	39.0
12	16340	Ø	08292.1	23.3	43.8
13	16340	Ø	08316.0	23.9	43.3
14	16340	Ø	08339.8	23.8	37.7
15	16340	Ø	08363.5	23.7	41.2
16	16341.2	1.2	08387.5	24	
17	16341.2	Ø	08411	23.5	
18	16341.2	Ø	08434.5	23.5	44.7
19	16341.2	Ø	08457.5	23	38.2
20	16341.2	Ø	08480.4	22.9	42.1
21	16341.2	Ø	08503.9	23.5	38.6
22	16341.2	Ø	08527.9	24.0	43.7
23	16341.2	Ø	08551.9	24.0	
1400 Reading 24	16345.9	4.7	08570.6	28.7	51.8
25	16349.3	3.4	08599.7	19.1	39.6
26	16351.4	2.1	08623.0	23.3	43.4
27	16351.4	Ø	08646	23	43.0
28	16351.4	Ø	08669.3	23.3	43.6

MARCH 2019

PUMP RUN TIMES

DATE: MARCH	#1. PUMP	RUN TIME	#2 PUMP	RUN TIME	INCHES
MARCH 1	16351.4	Ø	8692.5	23.2	46.1
2	16351.4	Ø	8714.9	22.4	41.0
3	16351.4	Ø	8738.4	23.5	42
4	16351.4	Ø	8761.9	23.5	43.9
5	16351.4	Ø	8785.4	23.5	42.8
6	16351.4	Ø	8809	23.6	41
7	16351.4	Ø	8832.7	23.7	41.8
8	16351.4	Ø	8856.4	23.7	43.6
9	16351.4	Ø	8880	23.6	42
10	16353.4	2	8903.5	23.5	49.1
11	16356.1	2.7	8927	23.5	41.0
12	16358.5	2.4	8950.6	23.6	53.7
13	16359.6	1.1	8974.1	23.5	41.1
14	16359.6	Ø	8997.5	23.4	43.4
15	16359.6	Ø	09020.8	23.3	37.7
16	16359.6	Ø	09043.9	23.1	41.1
17	16359.6	Ø	09066.9	23	40.9
18	16359.6	Ø	09089.9	23	44.1
19	16359.6	Ø	09113.2	23.3	39
20	16359.6	Ø	09136.7	23.5	37.4
21	16359.6	Ø	09160.2	23.5	46.3
22	16374.6	15	09184.2	24	70.9
23	16379.9	5.3	09208.2	24	60.1
24	16381.2	1.3	09232.2	24	50.3
25	16381.4	.2	09256.1	23.9	44.5
26	16381.4	Ø	09279.8	23.7	56.9
27	16382.5	1.1	09303.1	23.3	40.5
28	16382.5	Ø	09326.6	23.5	41.3
29	16382.5	0	09349.7	23.1	42.8
30	16382.5	Ø	09372.9	23.2	41
31	16382.5	Ø	09396	23.1	40.2

APRIL 2019
PUMP RUN TIMES

DATE: APRIL	#1. PUMP	RUN TIME	#2. PUMP	RUN TIME	INCHES
1	16382.5	Ø	09419	23	39.8
2	16382.5	Ø	09442	23	41
3	16382.5	Ø	09464.5	22.5	41.5
4	16382.5	Ø	09487.9	23.4	38.7
5	16382.5	Ø	09510.7	22.8	39
6	16382.5	Ø	09533.7	23	41.1
7	16382.5	Ø	09556.7	23	42
8	16382.5	Ø	09579.7	23	51.9
9	16382.7	.2	09603.7	24	97.2
10	16384.7	2	09627.7	24	40.9
11	16384.7	Ø	09651.5	23.8	38.5
12	16404.2	19.5	09656.4	4.9	42.6
13	16415.8	11.6	09674.8	18.4	53.7
14	16439.8	24	09688.7	13.9	80
15	16463.2	23.4	09691.7	3	71.5
16	16486.2	23	09704.7	13	54.5
17	16509.9	23.7	09707.9	3.2	49.3
18	16522.6	12.7	09719.3	11.4	41.2
19	16522.6	Ø	09743.3	24	48.5
20	16535	12.4	09767.3	24	50.1
21	16547	12	09780	12.7	47.9
22	16559.	12	09788	8	39.5
23	16570.7	11.7	09800.3	12.3	43.5
24	16694.7	24	09800.5	.2	42
25	16619.1	24.4	09800.5	Ø	41.3
26	16642.3	23.2	09805	4.5	55.2
27	16666.3	24	09817.5	12.5	60.9
28	16688.3	22	09839.5	22	58
29	16702.4	14.1	09847.5	8	53.2
30	16723.6	21.2	09855.5	12	54.7

30th
mp (main)

CLEAN
CLY-TANK.

DECANT -

MAY 2019

PUMP RUN TIMES

DECANT

OLD TANK CLEAN

CLEAN Cbg - CONTACT

DATE-MAY	#1 PUMP	RUN TIME	#2 PUMP	RUN TIME	INCHES
1	16745.3	21.7	09867.3	11.8	54.7
2	16759	13.7	09884.2	16.9	53.5
3	16769.2	10.2	09894.5	10.3	52.8
4	16779.2	10	09915.5	21	60
5	16793.2	14	09937	21.5	65
6	16806.2	13	09960.5	23.5	62.2
7	16829.2	23	09980.2	19.7	54.7
8	16847.2	18	10000.8	20.6	54.5
9	16865.6	18.4	10020.5	19.7	60.2
10	16885.7	20.1	10042.2	21.7	83.1
11	16907.9	22.2	10054.5	12.3	57.6
12	16930.0	22.1	10066.4	11.9	72.1
13	16954.4	24.4	10090.8	24.4	62.5
14	16978.3	23.9	10114.7	23.9	61.4
15	17001.5	23.2	10138.7	24	65
16	17025.5	24	10161.7	23	66.8
17	17047.2	21.7	10183.5	21.8	64.7
18	17067.9	20.7	10203.5	20	60.9
19	17086.9	19	10225	21.5	59
20	17110.9	24	10249	24	104.7
21	17134.9	24	10273	24	60.9
22	17158	23.1	10287.3	14.3	53.6
23	17180.7	22.7	10310.1	22.8	82.4
24	17203.1	22.4	10329.9	19.8	57.2
25	17218.9	15.8	10352.2	22.3	61.2
26	17241.1	22.2	10370.0	17.8	57.4
27	17265.5	24.4	10386.2	16.2	64.7
28	17288.2	22.7	10400.9	14.7	108.1
29	17310.4	22.2	10411	10.1	51.6
30	17320.0	9.6	10434.4	23.4	53.9
31	17333.8	13.8	10455.5	21.1	56.2

JUNE 2019

PUMP RUN TIMES

DATE JUNE	#1 PUMP	RUN TIME	#2 PUMP	RUN TIME	INCHES
1	17353.8	20	10477.5	22	59.1
2	17371.9	18.1	10499.4	21.9	55.2
3	17387.3	15.4	10519.6	20.2	54
4	17402.	14.7	10540.7	21.1	55.6
5	17424.9	22.9	10553.7	13	53.8
6	17447.5	22.6	10564.3	10.6	33.6
7	17457.9	10.4	10584.2	19.9	53.8
8	17468.1	10.2	10602.2	18	52
9	17478.1	10	10620.2	18	50.2
10	17488.1	10	10635.2	15	49.2
11	17510.5	22.4	10639.5	4.3	53.1
12	17534.5	24.0	10640.6	1.1	55.2
13	17545.8	11.3	10654.3	13.7	46.9
14	17545.8	0	10678.3	24.0	49.3
15	17568.8	23	10683.5	5.2	43
16	17590.4	21.6	10687.7	4.2	41
17	17608.4	18	10690.8	3.1	39.7
18	17616.1	7.7	10710.6	19.8	59.3
→ 19	17639.3	23.2	10713.5	2.9	14.3
20	17659.2	19.9	10719.4	5.9	39.2
21	17682.8	23.6	10721.0	1.6	54.7
22	17682.8	0	10744.8	23.8	51.6
23	17689.0	6.2	10768.0	23.2	50.1
24	17706.7	17.7	10778.2	10.2	51.5
25	17726.1	19.4	10788.6	10.4	54.3
26	17726.7	.6	10812.1	23.5	52.5
→ 27	17739.2	12.5	10824.6	12.5	48.4
28	17762.9	23.7	10829.5	4.9	47.4
29	17775.7	12.8	10842.1	13.6	51.7
30	17787.3	11.6	10856.7	14.6	51.1

INS
can
cupwell

→ 27

JULY 2019

PUMP RUN TIMES

DATE:	#1 pump	RUN TIME	#2 pump	RUN TIME	INCHES
JULY	17798.3	11	10869.8	13.1	50.6
2	17821.9	23.6	10871.4	1.6	51.6
3	17835	13.1	10883.3	11.9	39.8
4	17835	0	10907.3	2.4	39.4
5	17848.6	13.6	10918.7	11.4	39.0
6	17873.2	24.6	10918.7	0	54.3
7	17889.4	16.2	10929.5	10.8	46.6
8	17913.4	24	10936.3	6.8	57
9	17924.7	11.3	10953.5	7.2	49.9
10	17941.6	16.9	10964.4	10.9	51
11	17954.5	18.9	10977.7	13.3	47.9
12	17968.3	13.8	10990.2	12.5	52
13	17992.5	24.2	10990.5	0.3	55.7
14	17995.8	3.3	11013.1	22.6	46.9
15	17998	2.2	11036.2	23.1	41.6
16	17999.2	.2	11060.2	24	37.8
CLEAN Cl ₂ TANK -	18016.3	18.1	11067.5	7.3	80.9
18	18039.5	23.2	11070.3	2.8	48.9
19	18063.0	23.5	11071.7	1.4	52.8
20	18075.0	12	11086.7	15	49.9
21	18096	11	11101	13.3	46
22	18096	10	11116	15	43.7
23	18108.4	12.4	11128.5	12.5	39.9
24	18122.1	13.7	11140.0	12.5	49.5
25	18135.1	13	11151.1	11.1	44.4
26	18135.9	.8	11175.4	24.3	48.9
27	18145	9.1	11195.4	20	45.1
28	18153.6	8.6	11212	16.6	44
29	18159.9	6.3	11226	14	40.5
30	18183.6	23.9	11229.9	3.9	39.8
CLEAN Cl ₂ TANK -	18204.5	20.9	11236.2	6.3	34.7

AUGUST 2021

PUMP RUN TIMES

DATE:	#1.	RUN	#2.	RUN	
AUGUST	PUMP	TIME	PUMP	TIME	INCHES
AUG. 1.	18211.3	6.8	11254.3	18.1	42.5
2.	18234.9	23.6	11254.8	.3	47.2
3.	18257.1	22.2	11257.9	3.3	45
4.	18279.2	22.1	11260	2.1	42.2
5.	18301.3	22.1	11261.3	1.3	41.9
6.	18307.8	6.5	11279	17.7	40.5
7.	18320.7	12.9	11290	11	39.4
8.	18326.6	5.9	11307.8	17.8	40.6
9.	18350.5	23.9	11307.8	0	46.1
10.	18369.8	19.3	11315.9	8.1	42.4
11.	18382.1	13.3	11325.9	10	40.8
12.	18396.1	14	11331.5	5.6	39.5
13.	18416	19.9	11335.3	3.8	40.5
14.	18420.9	4.9	11354.1	18.8	39.2
15.	18443.8	22.9	11358.2	4.1	50.1
16.	18467.3	23.5	11358.7	.5	40.3
17.	18489.4	22.1	11360.1	1.4	39.8
18.	18513.1	23.7	11360.5	.4	40.0
19.	18530	16.9	11367.3	6.8	41.1
20.	18551.5	21.5	11369.5	2.2	41.7
21.	18573.2	21.7	11372.7	3.2	50.2
22.	18594.1	20.9	11375.3	2.6	39.8
23.	18615.4	21.3	11377.7	2.4	47
24.	18636.4	21	11379.0	1.3	43.8
25.	18658.2	21.8	11381.6	2.6	41.2
26.	18678.3	20.1	11385.8	4	51.4
27.	18684.6	6.3	11402.9	17.3	37.6
28.	18696.1	11.5	11414.6	11.7	39.9
29.	18701.3	5.2	11433.1	18.5	38.8
30.	18722.7	21.4	11437.6	4.6	53.8
31.	18741.3	18.6	11440.0	2.4	43.1

CLEAN - CL₂ TANK

DECANT

DECANT
DECANT

SEPTEMBER 2019

PUMP RUN TIMES

DATE:	#1 Pump	RUN TIME	#2 Pump	RUN TIME	INCHES
SEPT. 1.	18762.6	21.3	11445.2	5.2	38.9
2.	18766.1	3.5	11444.9	19.7	39.0
3.	18771.9	5.8	11482.8	17.9	38.5
4.	18777.4	5.5	11500.8	18	43.2
5.	18797.7	20.3	11503.7	29	38.2
6.	18804.0	6.3	11520.4	16.7	41.0
7.	18822.2	18.2	11522.8	2.4	42.1
8.	18825.6	3.4	11545.6	22.8	47.5
9.	18841.7	16.1	11551.8	6.2	40.9
10.	18847.5	5.8	11568.6	16.8	42.8
11.	18868.5	21	11571.1	2.5	39.7
12.	18885A	16.9	11577.9	6.8	43.4
13.	18907.0	21.6	11579.8	1.9	40.1
14.	18914.4	7.4	11598.2	18.4	39
15.	18920.6	6.2	11616.4	18.2	36.5
16.	18921.6	1.0	11633.6	17.2	34.9
17.	18935.7	14.1	11642.4	8.8	42.3
18.	18956.5	20.8	11646.0	3.6	56.4
19.	18971	14.5	11654.1	8.1	37.9
20.	18993.9	22.9	11654.8	.7	40.2
21.	19016.4	22.5	11655.6	.8	41.8
22.	19031.7	15.3	11664	8.4	40.1
23.	19046.9	15.2	11672.2	8.2	39.2
24.	19089.0	22.1	11672.8	.6	38.8
25.	19071.8	2.8	11693.5	20.7	51.3
26.	19079.9	8.1	11709.6	16.1	37.9
27.	19093.8	23.9	11719.9	10.3	51.7
28.	19094.3	0.5	11742.7	22.8	46.4
29.	19112.1	17.8	11747.8	5.1	44.2
30.	19130.6	18.5	11753.3	5.5	47.9
	19135.1	4.5	11772.4	19.1	39.2

CLEAN Cfg CONTRACT

OCTOBER 2019

PUMP RUN TIMES

DATE:	#1 PUMP	RUN TIME	#2 PUMP	RUN TIME	INCHES
OCT. 1.	19135.1	4.5	11772.4	19.1	39.2
2.	19143.2	8.1	11786.5	14.1	40.3
3.	19151.8	8.6	11801.2	14.7	42.5
4.	19171.7	19.9	11806	4.8	74
5.	19173.2	1.5	11827.7	21.7	40.7
6.	19184.7	16.5	11833.3	7.6	45.7
7.	19202.7	18	11846.5	11.2	37.7
8.	19218.2	15.5	11852.6	6.1	43
9.	19226.8	8.6	11865.6	13	37.3
10.	19238	11.2	11877	11.4	42.5
11.	19242.8	4.8	11895.8	18.8	56.7
12.	19244.0	1.2	11918.3	22.5	22.6
13.	19246.3	2.3	11941.0	22.7	44.8
14.	19261.2	14.9	11948.5	7.5	50.2
15.	19279.0	17.8	11955.1	6.6	39.9
16.	19295.7	16.7	11962.4	7.3	50.2
17.	19307.8	12.1	11980.2	17.8	37.6
18.	19322.9	15.1	11988.1	7.9	34.8
19.	19345.5	22.6	11988.4	0.3	40.2
20.	19353.2	8.4	12006.8	18.4	51.7
21.	19374.7	21.3	12008.8	2	40.5
22.	19384.2	9.5	12022.9	14.1	40.7
23.	19400.7	16.5	12031.1	8.2	35.9
24.	19420.8	20.1	12033.4	2.3	43.1
25.	19426.6	5.8	12051.7	18.3	36.5
26.	19446.6	20	12054.1	4.4	54.7
27.	19465.2	18.6	12062.5	6.4	88.4
28.	19484.9	19.7	12070.8	8.3	38
29.	19505.9	21	12072.8	2	39.7
30.	19528.6	22.7	12073.6	.8	38.2
31.	19551.1	22.5	12075.9	2.3	43.5

CLEAR
DGT

DEC

NOVEMBER 2019

PUMP RUN TIMES

DATE:	#1. PUMP	RUN TIME	#2. PUMP	RUN TIME	INCHES
NOV. 1	19574.2	23.1	12085.4	9.5	48
2	19594.5	20.3	12091.7	5.8	52.3
3	19616.4	21.9	12092.5	0.8	43.6
4	19640.8	24.4	12100.	7.5	49.6
5	19657.9	17.1	12107.9	7.9	48.1
6	19681.6	23.7	12109.7	1.8	51.5
7	19692	10.4	12123	13.3	41.3
8	19700	8	12140.2	17.2	43.5
9	19703.7	3.7	12162.4	22.7	52.5
10	19723.4	20.2	12164.8	1.0	37.8
11	19730.2	6.3	12184.8	20	40.6
12	19743.3	13.1	12196	11.2	46.5
13	19767.5	24.2	12197.	1	49.5
14	19791.3	23.8	12197.9	9	41.1
15	19813.7	22.4	12203.6	5.7	51.2
16	19836.4	22.7	12205.0	1.4	36.2
17	19861.4	25	12205.3	0.3	50.1
18	19873.4	12	12221.2	15.9	39.9
19	19891.3	17.9	12226.2	5	44.6
20	19897.5	6.2	12243.7	17.5	51.2
21	19915.6	18.1	12249.4	5.7	36.7
22	19926.8	11.2	12262.1	12.7	38.3
23	19948.0	21.2	12264.6	2.5	50.6
24	19972.1	24.1	12270.3	5.7	48.9
25	19987.9	15.8	12277.2	6.9	50.9
26	20010.4	22.5	12280.2	3.0	40.5
27	20031.7	21.3	12282.1	1.9	48.0
28	20051.2	19.5	12284.7	2.6	51.5
29	20074.6	23.4	12289.3	4.6	46.5
30	20084.2	9.4	12301.7	11.4	33.8

DECEMBER 2019

PUMP RUN TIMES

DATE:	#1 PUMP	RUN TIME	#2 PUMP	RUN TIME	INCHES
DEC. 1	20044.4	10.7	12320.4	18.7	52.8
2	20116.7	21.8	12327.9	7.5	47.6
3	20133.8	17.1	12340.5	12.6	58.4
4	20139.4	5.6	12359.1	18.6	35.2
5	20161.5	22.1	12361.4	2.3	39.8
6	20179.1	17.6	12370.7	9.3	40.7
7	20189.7	10.6	12382.3	11.6	41.2
8	20193.7	4	12405.6	23.3	37.6
9	20210.4	16.7	12419.5	13.9	50.9
10	20227	16.6	12429	9.5	50.0
11	20241.4	14.4	12440.5	11.5	54.9
12	20264.8	23.4	12443.3	2.8	45.8
13	20282.3	17.5	12453.3	10.0	53.2
14	20305.2	22.9	12462.2	8.9	53.3
15	20327.6	22.4	12474.4	12.2	52.6
16	20341.7	14.1	12493.8	19.4	52
17	20357.5	15.8	12507.2	13.4	50.2
18	20380.7	23.2	12515.7	8.5	51
19	20395.1	14.4	12531.3	15.6	52.7
20	20417.5	22.4	12540.5	9.2	53.6
21	20425.6	8.1	12558.5	1.8	59.4
22	20428.5	2.9	12580.9	22.4	52.7
23	20449.2	20.7	12588.9	8.0	52.6
24	20472.1	22.9	12594.9	6.0	39.4
25	20490.7	18.6	12604.6	9.7	37.9
26	20511.2	20.5	12614.1	9.5	51
27	20522.2	11	12631.2	17.1	68.2
28	20527.2	5.0	12656.1	24.2	54.5
29	20537.3	10.1	12671.1	14.0	41.9
30	20559.7	22.4	12678.2	7.1	47.2
31	20575.8	16.1	12687.8	9.6	50.7

CLEAN OUT CONTACT



ATTACHMENT D

**SEWAGE SLUDGE MANAGEMENT
INVENTORY**

	Influent BOD (mg/L)	Effluent CBOD (mg/L)	Liquid Sludge Disposed Off-Site (dry ton)	Liquid Sludge Disposed Off-Site (gal)	% Solids
Jan	102	10.0	1.124	11,000	2.5
Feb	114	4.9	0.000	0	0.0
Mar	108	5.1	1.756	16,200	2.6
Apr	133	4.1	0.000	0	0.0
May	71	7.7	0.000	0	0.0
Jun	103	4.2	1.622	19,100	2.1
Jul	177	4.3	0.000	0	0.0
Aug	146	6.9	0.000	0	0.0
Sep	169	4.7	0.000	0	0.0
Oct	131	3.1	2.210	31,800	1.7
Nov	157	4.3	0.000	0	0.0
Dec	136	8.4	0.000	0	0.0
Tot	1547	67.7	6.712	78100	8.9
Avg	128.9166667	5.6	0.6	6508	1.5



SLUDGE GENERATION CALCULATION

Facility Name: Halifax Wastewater Treatment Plant

Permit Number: PA0024457

Date of Calculation: 2/19/2020

Required Information For Calculation

Average Daily Flow (mgd): 0.134 Digester Capacity (gal): 42000
 Influent BOD (mg/l): 129 %Solids of Outgoing Sludge: 1.5
 Effluent BOD (mg/l): 5.6 Monitoring Period (days): 365

Wastewater Treatment Processes

Place an "X" in the box beside the corresponding treatment process. Select a maximum of Primary Clarification and one other treatment process.

Primary Clarification Contact Stabilization RBC
 Conventional Activated Sludge SBR ABF
 Extended Aeration Trickling Filter Small Plant with low SOR
 (<500 gpd/sq ft)

Operational Information

BOD Removed (lbs/day): 138 TSS Removed (lbs/day): 90

Digester Information

Type of Digester

Place an "X" in the box beside the corresponding treatment process.

Aerobic Digestion Anaerobic Digestion None

Sludge Feed Rate to Digesters (gpd): 1433.0853
 Digester Hydraulic Detention Time (days): 29
 Estimated Total Solids Reduction (%): 0.35

Sludge Generation

dry lbs/day 58 wet lbs/day 3884
 dry tons/monitoring period 11 wet tons/monitoring period 709
 gal/day 466 gal/monitoring period 170000

Amount of Sludge Reported as Being Generated by the Facility

wet tons/monitoring period 0

OR

dry tons/monitoring period 6.712

Enter only one of the above values. The remaining value should be "0".

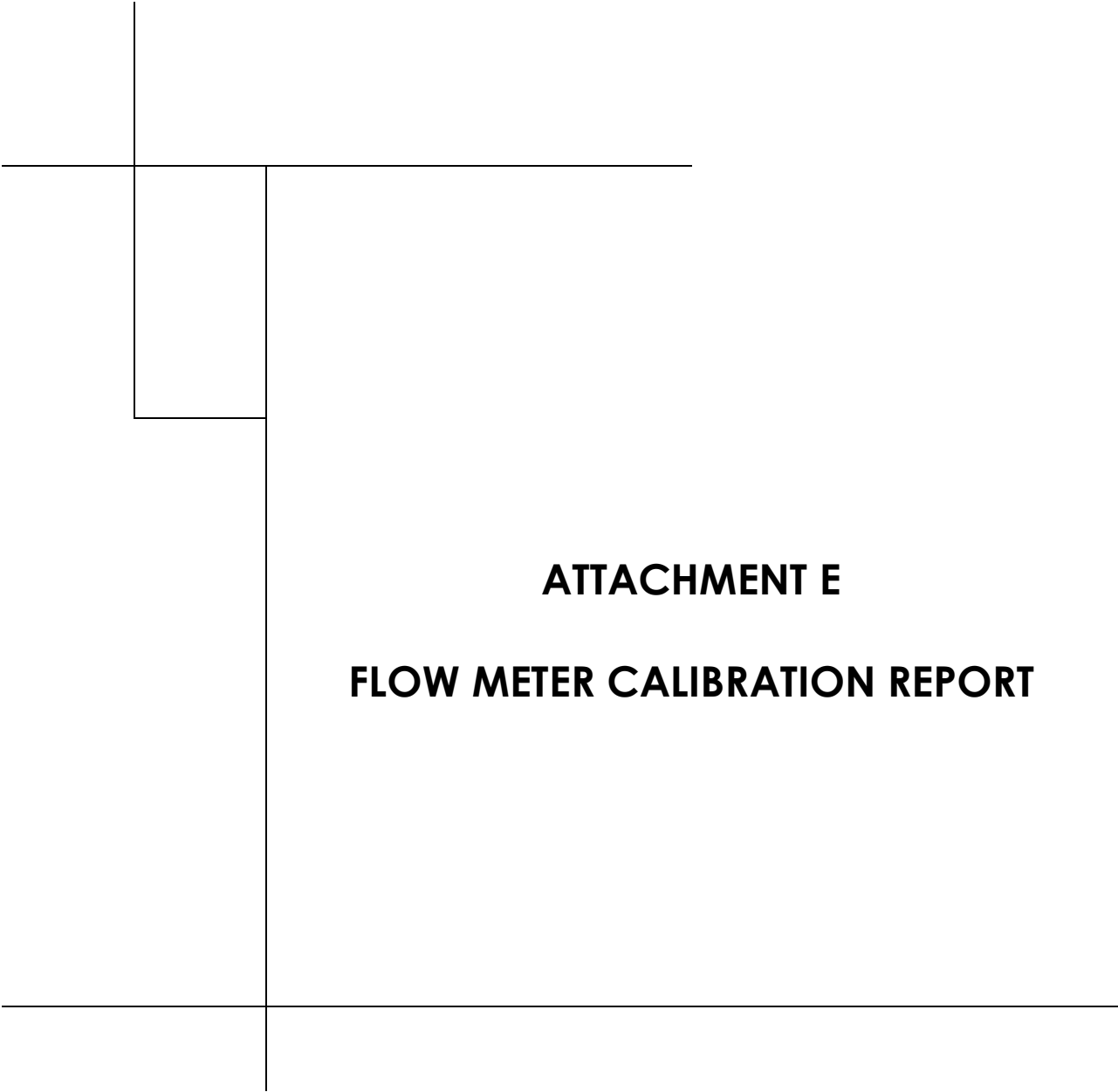
Is the amount reported by the generator within 15% of the calculated value? NO

NO explanation: LESS THAN 15% RANGE

What type of information was used to calculate the above information: 2019 DMR Supplemental Reports

Dates used: 1.1.2019 TO 12.31.2019

Name of person performing the calculation: Shelbi L. Meynard



ATTACHMENT E
FLOW METER CALIBRATION REPORT

WG Malden

P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

*** SERVICE REPORT ***

HALIFAX MUNICIPAL AUTHORITY
SOUTH FRONT STREET
HALIFAX, PA 17032

SERVICE DATE: DECEMBER 19, 2019 **SERVICE CONTRACT:** ANNUAL (A12)
LOCATION: WASTEWATER - EFFLUENT
METER #: C8201 AA

PRIMARY: WEIR V-NOTCH 90°
MAXIMUM CAPACITY: 347.2 GPM

METER: BADGER
RECORDER: CHESSELL

MODEL #: 2210
MODEL #: 392

SERIAL #: 12286
SERIAL #: 9404-31238-B02

*** WORK PERFORMED ***

METER CALIBRATION **ERROR:** -0.20 INCHES **TOLERANCE:** ±0.125 INCHES
METHOD: LEVEL MEASUREMENTS AND FLOW CHECKS

RECORDER CALIBRATION **ERROR:** 0%, 0%, 0% **TOLERANCE:** ±1.000 %
CHECKED AT: 0%, 50%, 100%

TOTALIZER CALIBRATION **ERROR:** 0% **TOLERANCE:** ±1.000 %
CHECKED AT: 0%, 50%, 100%

*** TECHNICIAN COMMENTS ***

PERFORMED ANNUAL CALIBRATION
RE-TUNED SENSOR
CLEANED PRIMARY
ADJUSTED EQUIPMENT
VERIFIED TOTALIZER (PASSED)
TESTED 4-20MA LOOP
LEFT EQUIPMENT OPERATING PROPERLY

SERVICE REPRESENTATIVE(S): DENNIS WEIDNER, KYLE RANKIN



ATTACHMENT F

**CONSENT ORDER AND AGREEMENT
PROGRESS REPORT**



AN EMPLOYEE-OWNED COMPANY

369 East Park Drive
Harrisburg, PA 17111
717.564.1121
FAX 717.564.1158
www.hrg-inc.com

VIA ELECTRONIC DELIVERY

March 27, 2020

Mr. Erick Ammon
Clean Water Program
PA Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, Pennsylvania 17110-8200

Re: NPDES Permit No. PA0024457
Consent Order & Agreement: Quarterly Progress Report
Main Pumping Station and Wastewater Treatment Plant
Halifax Area Water and Sewer Authority

Dear Mr. Ammon:

On behalf of the Halifax Area Water and Sewer Authority (HAWASA), Herbert, Rowland & Grubic, Inc. (HRG) hereby submits this Consent Order and Agreement (COA) Quarterly Progress Report in accordance with the requirements outlined in the April 20, 2018 COA executed by the Department and HAWASA.

The Main Pumping Station located at the HAWASA Wastewater Treatment Plant (WWTP) is considered to be hydraulically overloaded in accordance with 25 Pa. Code § 94.12. HAWASA and the Department executed the above referenced COA to eliminate the overload condition at the Main Pumping Station. Modifications to the Main Pumping Station will be undertaken as part of a WWTP Upgrade Project to be completed by HAWASA.

For ease in reporting HAWASA progress in meeting the Corrective Action schedule contained in the COA, this Progress Report provides the status of the Tasks which were identified in the Implementation Schedule contained in the HAWASA Corrective Action Plan (CAP) and have been updated to reflect the required compliance dates identified within the COA. This Progress Report also summarizes any new connections to the portion of the HAWASA system which is tributary to the overloaded sewerage facilities.

Implementation Schedule – Update

The following items critical to the completion of Tasks contained in the Implementation Schedule for the WWTP Upgrade Project have occurred since the submission of the December 31, 2019 COA Quarterly Progress Report:

- The Water Quality Management Permit for the WWTP Upgrade project was issued by PA DEP on March 12, 2020. A copy of the Permit is attached for reference.

- At its January 21, 2020 meeting, the HAWASA Board authorized HRG to proceed with the final design of the WWTP Upgrade Project, including completion of all final Process Mechanical, Electrical, Structural, Building/Architectural and HVAC design. The Board also authorized HRG to complete the Bid Phase, Construction Phase and Resident Project Representative services required for construction of the project at its January 21, 2020 meeting.
- An application for funding assistance for the WWTP Upgrade Project was submitted to PENNVEST and is under consideration for action at the April 22, 2020 PENNVEST Board meeting. HRG has provided additional information regarding the expected construction costs for the project to PA DEP staff as part of the review of useful life for the proposed equipment and materials. Additionally, a PENNVEST *Specification Certification* form for the project was submitted to PA DEP staff on February 19, 2020.
- HRG is currently preparing the Bidding Documents for the project. As required by the COA, the construction contracts for the project must be awarded within 205 days of HAWASA's receipt of the Water Quality Management Permit. All PENNVEST funding requirements, if awarded, will be included in the Bidding Documents.
- In conjunction with the design of the WWTP Upgrade Project, HRG is also currently performing the Preliminary Design Phase for the Halifax Township Sewer Extension Project. This Project is not mandated by the COA. However, the Part II Permit Application for the WWTP Upgrade Project includes capacity for the additional flows which will be generated by the construction of this sewer extension.
 - HRG has prepared a preliminary design drawings of the new gravity sewers, low pressure sewers, pump stations and associated force mains for this project.
 - HRG and HAWASA Chairman met with property owners where pump stations are proposed for construction.
 - A PENNVEST Planning consultation for the Halifax Township Sewer Extension Project including PENNVEST, PA DEP, HAWASA and HRG was held at the Halifax Borough Municipal Building on January 17, 2020.
 - Wetlands Presence/Absence investigations are scheduled to be performed during the week of March 16, 2020.
 - The Water Quality Management Permit Application for the Halifax Township Sewer Extension Project is expected to be submitted to PA DEP during the week of March 30, 2020.

The Implementation Schedule below is included in the HAWASA CAP; the required completion dates have been updated to reflect those contained in the COA. For the purpose of this Report, the "Status/Update" column has been updated to demonstrate HAWASA's compliance with the Implementation Schedule. Items in red text are updates since the last COA quarterly report submission.

IMPLEMENTATION SCHEDULE FOR HAWASA WWTP UPGRADE <i>[Taken from approved CAP and modified per the Corrective Action schedule included in the COA]</i>		
TASK DESCRIPTION	COMPLETION / SUBMISSION DATE	STATUS/ UPDATE
<i>HAWASA and PA DEP Execution of Consent Order and Agreement</i>	April 20, 2018	<i>[Task Completed]</i>
<p><i>Submit a Wastewater Treatment Plant Alternatives Review, Design Engineer's Report and an administratively and technically complete Uniform Environmental Report for the upgrade of the Plant and main pumping station</i></p> <p>Design Engineer's Report will include the following key components:</p> <ul style="list-style-type: none"> • Review previous HAWASA evaluation of WWTP improvement alternatives • Prepare existing and future flow and loading projections including flow metering study as required • Request and receive preliminary effluent discharge limits for WWTP Upgrade from PA DEP • WWTP Improvements alternatives review • Identification and selection of recommended improvements • User rates analysis for recommended improvements 	December 31, 2018	<i>[Task Completed; Wastewater Treatment Plant Alternatives Review & Design Engineer's Report was submitted to PA DEP on December 28, 2018; Categorical Exclusion request for WWTP Upgrade Project approved by PA DEP on December 31, 2019; Task Completed]</i>
<i>Submission of administratively and technically complete Water Quality Management Part II Permit Application for the upgrade of the Plant and main pumping station</i>	Within 180 Days of PA DEP approval of UER	<i>[Task Completed; WQM Part II Permit Application, review fee and supporting documents were submitted to PA DEP on September 13, 2019] WQM Permit issued by PA DEP on March 12, 2020</i>
<i>Begin construction of the Plant upgrade in accordance with the Part II Permit</i>	Within 205 Days of PA DEP issuance of Water Quality Management Part II Permit	<i>Authorization to complete Final Design, Bid Phase and Construction Phase services was made to HRG at January 21, 2020 HAWASA Board meeting.</i>
<i>Complete Construction</i>	Within 705 Days of PA DEP issuance of Water Quality Management Part II Permit	
<i>Verify completion of construction by submission of the Sewage and Industrial Wastewater Facilities Construction Certification</i>	Within 30 days of completed construction operations	
<i>Submission of quarterly Progress Reports until termination of COA</i>		<i>Quarterly Progress Report submitted March 31, 2020</i> Previous Quarterly Progress Report submitted December 31, 2019

Restriction on Connections Tributary to Overloaded Sewerage Facilities

Per the terms of the approved CAP, HAWASA will limit new connections within the area tributary to the Main Pumping Station to a total of twenty-five (25) new EDUs (not otherwise meeting the definitions of 25 Pa Code §§ 94.55, 94.56 and 94.57) until the hydraulic overload condition is eliminated. There have not been any new connections made within the area tributary to the Main Pumping Station as of the date of this Progress Report.

There is no restriction on connections in the southern portion of the HAWASA collection system located in Halifax Township as this area is not tributary to the Main Pumping Station. There was one (1) EDU connected to this portion of the collection system in 2019. This connection was made to eliminate the occurrence of a malfunctioning on-lot disposal system (OLDS) located at 56 Fellowship Drive in Halifax Township. There have been no new connections made to the system since the submission of the previous Quarterly Progress Report.

If you have any questions or comments regarding this COA Progress Report, please do not hesitate to contact me at 717-564-1121. Thank you.

Very truly yours,

Herbert, Rowland and Grubic, Inc.



Justin J. Mendinsky, P.E.

Water & Wastewater Group Manager

JJM/rb
01650.0426

P:\0016\001650_0426\Admin\Corres\CAP Correspondence\2020.03.27 COA Update Letter.docx

Enclosures

cc: HAWASA Board
Jeffrey Grosser, Operator
Joseph D. Kerwin, Esq., Solicitor
HRG File



ATTACHMENT G

CONSENT ORDER AND AGREEMENT

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:

Halifax Area Water and Sewer Authority	:	The Clean Streams Law
PO Box 443	:	Halifax Sewage Treatment Plant
Halifax, PA 17032-0443	:	NPDES Permit No. PA0024457
	:	Halifax Borough, Dauphin County

CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement ("COA") is entered into this *20th* day of *April*, 2018, by and between the Commonwealth of Pennsylvania, Department of Environmental Protection ("Department"), and Halifax Area Water and Sewer Authority ("HAWASA").

The Department has found and determined the following:

- A. The Department is the agency with the duty and authority to administer and enforce the Pennsylvania Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended, 35 P.S. § 691.1 et seq. ("The Clean Streams Law"); Section 1917-A of the Administrative Code, the Act of April 9, 1929, P.L. 177, as amended, 71 P.S. § 510-17 ("Administrative Code") and the rules and regulations promulgated thereunder, and which has been delegated authority to administer the National Pollutant Discharge Elimination System ("NPDES") permit program under the Federal Clean Water Act, 33 U.S.C § 1342.
- B. HAWASA is a municipal authority formed under the laws of the Commonwealth of Pennsylvania, with a mailing address of P.O. Box 443, Halifax, Pennsylvania 17032.
- C. HAWASA owns and operates a municipal wastewater treatment plant ("Plant") and an associated collection system that are located in Halifax Borough, Dauphin County, Pennsylvania.
- D. The Plant discharges treated effluent into the Susquehanna River, a water of the Commonwealth, under NPDES Permit No. PA0024457 ("NPDES Permit"). The discharge of treated effluent constitutes sewage pursuant to Sections 201 and 202 of The Clean Streams Law, 35 P.S. §§ 691.201 and 691.202.
- E. All dischargers are required by their NPDES permits and Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§ 691.201 and 691.202, to comply fully with the effluent limits set forth in their NPDES permit.

- F. At various times, between March 2013 and September 2017, HAWASA discharged wastewater contrary to the terms and conditions set forth in its NPDES Permit. The violations are fully listed in Exhibit No. 1, which is attached hereto and incorporated herein by reference.
- G. On October 5, 2016, the Department conducted an administrative file review of HAWASA's Discharge Monitoring Reports ("DMRs") and documented violations of its NPDES effluent limits for Fecal Coliform and Total Suspended Solids.
- H. On October 5, 2016, the Department issued a Notice of Violation ("NOV") to HAWASA for its failure to comply with its NPDES effluent limits.
- I. On, October 21, 2016, HAWASA responded to the Department's NOV described in Paragraph H, above. HAWASA attributed the effluent violations to treatment plant conditions, low pH, which caused poor settleability conditions resulting in Total Suspended Solids violations.
- J. On June 20, 2017, HAWASA submitted a Corrective Action Plan ("CAP") to the Department in order to eliminate the hydraulic overload condition outlined in its Chapter 94 Report and upgrade its Plant.
- K. On August 8, 2017, the Department issued a CAP approval letter to HAWASA.
- L. The violations of the permitted effluent limit described in Paragraph F, and G, above, and Exhibit No. 1, attached, constitute violations of Sections 201 and 202 of the Clean Streams Law, 35 P.S. §§691.201 and 691.202.
- M. The violations described in Paragraph L, above, constitute unlawful conduct under Section 611 of The Clean Streams Law, 35 P.S. § 691.611; and subject HAWASA to a claim for civil penalties under Section 605 of The Clean Streams Law, 35 P.S. § 691.605.

ORDER

After full and complete negotiation of all matters set forth in this COA and upon mutual exchange of covenants contained herein, the parties desiring to avoid litigation and intending to be legally bound, it is hereby ORDERED by the Department and AGREED to by HAWASA as follows:

1. **Authority.** This COA is an Order of the Department authorized and issued pursuant to Sections 5 and 610 of the Clean Streams Law, 35 P.S. § 691.5 and 691.610; and Section 1917-A of the Administrative Code, 71 P.S. § 510.17.

2. Findings.

- a. HAWASA agrees that the findings in paragraphs A through M are true and correct and, in any matter or proceeding involving HAWASA and the Department, HAWASA shall not challenge the accuracy or validity of these findings.
- b. The parties do not authorize any other persons to use the findings in the COA in any matter or proceeding.

3. Corrective Action.

- a. On or before December 31, 2018, HAWASA shall submit to the Department a Wastewater Treatment Plant Alternatives Review, Design Engineer's Report, and an administratively and technically complete Uniform Environmental Report for the upgrade of the Plant and main pumping station.
- b. Within 180 days of the Department's approval of the Uniform Environmental Report, HAWASA shall submit to the Department, an administratively and technically complete Water Quality Management Part II Permit ("Part II Permit") application for the for the upgrade of the Plant and main pumping station.
- c. Within 205 days of the Department's issuance of the Part II Permit, HAWASA shall begin construction of the Plant upgrade in accordance with the Part II Permit.
- d. Within 705 days of the Department's issuance of the Part II Permit, HAWASA shall complete construction in accordance with the Part II Permit. HAWASA shall verify completion of construction by submission of the Sewage and Industrial Wastewater Facilities Construction Certification ("Construction Certification") within 30 days of completed construction operations. The construction completion date shall be established by the Construction Certification.
- e. HAWASA shall submit to the Department quarterly progress reports beginning upon the execution of this COA and continuing on a quarterly basis until termination of this COA.
- f. If the Department requires additional information to review or approve any submittal necessary to comply with this COA, HAWASA shall submit the requested information within ten (10) calendar days of the date of the Department's notice that such information is required; however, upon written request, including a justification from HAWASA, the Department may allow an extension for such a submittal.

4. **Civil Penalty Settlement.** Upon signing this COA, HAWASA shall pay a civil penalty of \$5,000.00. This payment is in settlement of the Department's claim for civil penalties for the violations set forth in Paragraph L, above, covering the period set forth in Paragraph F, above. The payment shall be by corporate check or the like, made payable to "Commonwealth of Pennsylvania," with the memo line specifying the "Clean Water Fund," and sent c/o Andrew Hall, DEP Clean Water Program, 909 Elmerton Avenue, Harrisburg, PA 17110-8200.

5. **Stipulated Civil Penalties.**

- a. In the event HAWASA fails to comply in a timely manner with any term or provision of this COA, HAWASA shall be in violation of this COA and, in addition to other applicable remedies, shall pay a civil penalty in the amount determined under the following schedule:
 - (1) For any violation of paragraphs 3.a. through 3.f, \$100 per day for the first 30 days of each violation, and \$200 per day for each violation extending beyond the first 30 days.
 - (2) For any violation of the HAWASA's NPDES effluent limits, HAWASA shall pay a stipulated penalty as outlined in Exhibit 2, which is incorporated by reference into this COA.
 - (3) Quantity and Concentration shall be considered separate violations.
- b. Stipulated civil penalty payments for any violation of paragraph 3 herein shall be payable monthly on or before the fifteenth day of each succeeding month, and shall be forwarded as described in paragraph 4 above. Stipulated civil penalties for violation of HAWASA's NPDES effluent limits shall be payable within thirty (30) calendar days of submission of a monthly monitoring report for any such violation. The penalties shall be due automatically and without notice.
- c. Any payment under this paragraph shall neither waive HAWASA's duty to meet its obligations under this COA, nor preclude the Department from commencing an action to compel HAWASA's compliance with the terms and conditions of this COA. The payment resolves HAWASA's liability only for civil penalties arising from the violation of this COA for which the payment is made.

6. Additional Remedies.

- a. In the event HAWASA fails to comply with any provision of this COA, the Department may, in addition to the remedies prescribed herein, pursue any remedy available for a violation of an order of the Department, including any action to enforce this COA.
- b. The remedies provided by this paragraph and paragraph 4 are cumulative and the exercise of one does not preclude the exercise of any other. The failure of the Department to pursue any remedy shall not be deemed to be a waiver of that remedy. The payment of a stipulated civil penalty, however, shall preclude any further assessment of civil penalties for the violation for which the stipulated civil penalty is paid.
- c. No provision of this COA shall preclude the Department from pursuing civil penalties for past violations, or any future reported or documented violations, except those violations covered by Paragraph 4 of this COA.

7. Reservation of Rights. The Department reserves the right to require additional measures to achieve compliance with applicable laws. HAWASA reserves the right to challenge any action which the Department may take to require those measures.

8. Liability of Operator. HAWASA shall be liable for any violations of the COA, including those caused by, contributed to, or allowed by its officers, agents, employees or contractors. HAWASA also shall be liable for any violation of this COA caused by, contributed to, or allowed by its successors and assigns.

9. Transfer of Site.

- a. The duties and obligations under this COA shall not be modified, diminished, terminated, or otherwise altered by the transfer of any legal or equitable interest in the Plant or any part thereof.
- b. If HAWASA intends to transfer any legal or equitable interest in the Plant which is affected by this COA, HAWASA shall serve a copy of this COA upon the prospective transferee of the legal and equitable interest at least 30 days prior to contemplated transfer and shall simultaneously inform the Department's Southcentral Regional Office of such intent.
- c. The Department in its sole discretion may agree to modify or terminate HAWASA's duties and obligations under this COA upon transfer of the Plant.

HAWASA waives any right that it may have to challenge the Department's decision in this regard.

- 10 **Correspondence with Department.** All correspondence with the Department concerning this COA shall be addressed to:

Andrew Hall
DEP Clean Water Program
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: (717) 705-4789
Fax: (717) 705-4760

11. **Correspondence with HAWASA.** All correspondence with HAWASA concerning this COA shall be addressed to:

Fred Ford
Authority Chairman
Halifax Area Water and Sewer Authority
PO Box 443
Halifax, PA 17032
Phone: (717) 896-8149

HAWASA shall notify the Department whenever there is a change in the contact person's name, title, or address. Service of any notice or any legal process for any purpose under this COA, including its enforcement, may be made by mailing a copy by first class mail to the above address.

12. **Severability.** The paragraphs of this COA shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

13. **Force Majeure.**

- a. In the event that HAWASA is prevented from complying in a timely manner with any time limit imposed on this COA solely because of a strike, fire, flood, act of God, or other circumstances entirely beyond HAWASA's control and

which HAWASA, by the exercise of all reasonable diligence, is unable to prevent, then HAWASA may petition the Department for an extension of time. An increase in the cost of performing the obligations set forth in this COA shall not constitute circumstances beyond HAWASA's control. HAWASA's economic inability to comply with any of the obligations of this COA shall not be grounds for any extension of time.

- b. HAWASA shall only be entitled to the benefits of this paragraph if it notifies the Department within five working days by telephone and within ten working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by HAWASA to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten working days of its submission. HAWASA's failure to comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.
- c. The Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by HAWASA and other information available to the Department. In any subsequent litigation, the operator shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.

14. **Entire Agreement.** This COA shall constitute the entire integrated agreement of the parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.

15. **Attorney Fees.** The parties shall bear their respective attorney fees, expenses, and other costs in the prosecution or defense of this matter or any related matters, arising prior to execution of this COA.

16. **Modifications.** No changes, additions, modifications, or amendments of this COA shall be effective unless they are set out in writing and signed by the parties hereto.

17. **Titles.** A title used at the beginning of any paragraph of this COA is provided solely for the purpose of identification and shall not be used to interpret that paragraph.

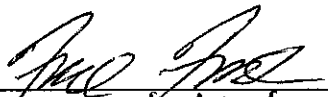
18. **Decisions Under Consent Order.** Any decision which the Department makes under the provisions of this Consent Order and Agreement, including a notice that stipulated civil penalties are due, is intended to be neither a final action under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa. C.S. § 101. Any objection which HAWASA may have to the decision will be preserved until the Department enforces this Consent Order and Agreement.

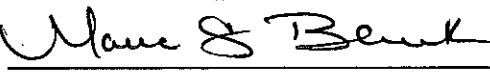
19. **Termination.** The obligations of this COA shall terminate when HAWASA has completed, to the Department's satisfaction, the actions required in Paragraphs 3 and 4, paid any stipulated penalties due under Paragraph 5, and demonstrated six consecutive months of compliance with its NPDES effluent limits after the completion of the approved diagnostic evaluation and implementation schedule.

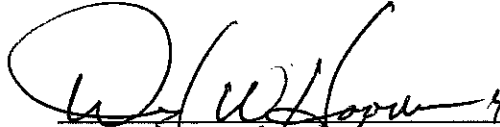
IN WITNESS WHEREOF, the parties hereto have caused this COA to be executed by their duly authorized representatives. The undersigned representatives of HAWASA certify under penalty of law, as provided by 18 Pa. C.S. § 4904, that they are authorized to execute this COA on behalf of HAWASA; that HAWASA consents to the entry of this COA and the foregoing Findings as an ORDER of the Department; and that HAWASA hereby knowingly waives its rights to appeal this COA and the foregoing Findings, which rights may be available under Section 4 of the Environmental Hearing Board Act, the Act of July 13, 1988, P.L. 530, No. 1988-94, 35 P.S. § 7514; the Administrative Agency Law, 2 Pa. C.S. § 103(a); and Chapters 5A and 7A, or any other provision of law. Signature by HAWASA's attorney certifies only that the COA has been signed after consulting with counsel.

FOR HALIFAX AREA WATER AND SEWER AUTHORITY

FOR THE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION:


Name: Fred Ford Date: 4/17/18
Title: Chairman


Name: Maria D. Bebenek, P.E. Date: 4/20/18
Program Manager
Clean Water Program


Name: David W. Hoover Date: 4/17/18
Title: Sec/Treas

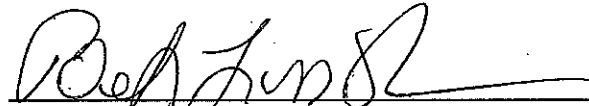

Name: Beth Liss Shuman Date: _____
Assistant Counsel

Exhibit 1

Violations of Permitted Effluent Limits

Facility Name: Halifax STP

NPDES Permit No: PA0024457

Date	Parameter	Sample Type	Permit / Reported	
3/1/2013	Total Suspended Solids	Weekly Average	79 lbs./day	111 lbs./day
3/1/2013	Total Suspended Solids	Average Monthly	30 mg/L	49 mg/L
3/1/2013	Total Suspended Solids	Weekly Average	45 mg/L	130 mg/L
3/1/2013	Fecal Coliform	Geometric Mean	2000/100ml	7951/100ml
6/1/2013	Dissolved Oxygen	Minimum	5 mg/L	4.7 mg/L
6/1/2013	CBOD5	Average Monthly	25 mg/L	25.1 mg/L
6/1/2013	CBOD5	Weekly Average	40 mg/L	57 mg/L
10/1/2013	Dissolved Oxygen	Minimum	5 mg/L	4.5 mg/L
12/1/2013	CBOD5	Weekly Average	40 mg/L	43 mg/L
12/1/2013	Total Suspended Solids	Weekly Average	45 mg/L	120 mg/L
12/1/2013	Total Suspended Solids	Average Monthly	30 mg/L	37 mg/L
4/1/2014	Total Suspended Solids	Weekly Average	45 mg/L	69 mg/L
4/1/2014	Total Suspended Solids	Weekly Average	79 lbs./day	83 lbs./day
5/1/2015	Fecal Coliform	Geometric Mean	200/100ml	1256/100ml
6/1/2015	Fecal Coliform	Geometric Mean	200/100ml	1625/100ml
7/1/2015	Fecal Coliform	Geometric Mean	200/100ml	561/100ml
9/1/2015	Fecal Coliform	Geometric Mean	200/100ml	750/100ml
11/1/2015	Fecal Coliform	Geometric Mean	200/100ml	246/100ml
2/1/2016	Total Suspended Solids	Weekly Average	45 mg/L	76 mg/L
2/1/2016	Total Suspended Solids	Weekly Average	79 lbs./day	124 lbs./day
3/1/2016	Total Suspended Solids	Weekly Average	45 mg/L	52 mg/L
3/1/2016	Total Suspended Solids	Average Monthly	30 mg/L	31 mg/L
5/1/2016	Fecal Coliform	Geometric Mean	200/100ml	929/100ml
5/1/2016	Total Suspended Solids	Weekly Average	45 mg/L	100 mg/L
5/1/2016	Total Suspended Solids	Weekly Average	79 lbs./day	90 lbs./day
5/1/2016	Total Suspended Solids	Average Monthly	30 mg/L	38 mg/L
6/1/2016	Fecal Coliform	Geometric Mean	200/100ml	620/100ml
6/1/2016	Total Suspended Solids	Weekly Average	45 mg/L	88 mg/L
6/1/2016	Total Suspended Solids	Weekly Average	79 lbs./day	84 lbs./day

6/1/2016	Total Suspended Solids	Average Monthly	30 mg/L	49 mg/L
7/1/2016	Total Suspended Solids	Weekly Average	45 mg/L	102 mg/L
7/1/2016	Total Suspended Solids	Weekly Average	79 lbs./day	114 lbs./day
7/1/2016	Total Suspended Solids	Average Monthly	30 mg/L	50 mg/L
12/1/2016	Total Suspended Solids	Weekly Average	45 mg/L	51 mg/L
1/1/2017	CBOD5	Average Monthly	25 mg/L	34.3 mg/L
1/1/2017	CBOD5	Weekly Average	40 mg/L	47 mg/L
5/1/2017	Fecal Coliform	Geometric Mean	200/100ml	1171/100ml
5/1/2017	Fecal Coliform	Instantaneous Maximum	1000/100ml	5700/100ml
6/1/2017	Fecal Coliform	Geometric Mean	200/100ml	481/100ml
9/1/2017	Fecal Coliform	Instantaneous Maximum	1000/100ml	2290/100ml
9/1/2017	Fecal Coliform	Geometric Mean	200/100ml	1468/100ml

EXHIBIT 2

**Halifax STP
NPDES Permit No. PA0024457**

Stipulated penalties for NPDES Permit effluent violations:

Percent over permit limits Penalty from execution of COA through completion of Paragraph 3.d

<u>Monthly Average/Weekly Average/Geometric Average Violations</u>	<u>Assessed Monthly</u>
>0-25%	\$ 100.00
>25.1-50 %	\$ 125.00
>50.1-75 %	\$ 150.00
>75.1-100 %	\$ 175.00
>100.1 %	\$ 200.00

<u>Instantaneous Maximum Violations(*)</u>	<u>Assessed Daily</u>
>0-25%	\$ 100.00
>25.1-50 %	\$ 125.00
>50.1-75 %	\$ 150.00
>75.1-100 %	\$ 175.00
>100.1 %	\$ 200.00

Percent over permit limits Penalty from completion of Paragraph 3.d through termination of COA

<u>Monthly Average/Weekly Average/Geometric Average Violations</u>	<u>Assessed Monthly</u>
>0-25%	\$ 200.00
>25.1-50 %	\$ 250.00
>50.1-75 %	\$ 300.00
>75.1-100 %	\$ 350.00
>100.1 %	\$ 400.00

<u>Instantaneous Maximum Violations (*)</u>	<u>Assessed Daily</u>
>0-25%	\$ 200.00
>25.1-50 %	\$ 250.00
>50.1-75 %	\$ 300.00
>75.1-100 %	\$ 350.00
>100.1 %	\$ 400.00

(*) – Instantaneous Maximum Violations are determined from Department inspection results and apply to all but Fecal Coliform Violations. Instantaneous Maximum Fecal Coliform limits are subject to 92a.47 of 25 Pa Code.

RECEIVED

APR 20 2018

OFFICE OF CHIEF COUNSEL
SOUTHCENTRAL REGION

HALIFAX AREA WATER & SEWER AUTHORITY
P.O. BOX 443
HALIFAX, PA 17032

RIVERVIEW BANK
HALIFAX, PA 17032
60-1179 / 313

5187

***** Five Thousand & 00/100 Dollars

PAY

04/23/18

*****5,000.00

Department of Environmental Protection
Southcentral Regional Office
909 Elmenton Avenue
Harrisburg, PA 17111

TO THE ORDER OF

DATE

AMOUNT

[Signature]
AUTHORIZED SIGNATURE **MP**
CW



Clean Water Program
Compliance Check Distribution Form

Name: HALIFAX AREA WATER + SEW. AUTH
County: Dauphin Municipality: Halifax Borough
Permit No. PA0024457 Efacts Id: 363494
Action: COA
Date Rcv'd: 4/27/18 Amount: \$ 5,000.⁰⁰

GL	COST CENTER	FUND	SHORT DESCRIPTION	AMOUNT
4425012	3544360000	6007200001	Fines & Penalties Clean Water Fund	\$ 5,000. ⁰⁰
Total Check Amount				\$ 5,000. ⁰⁰

From: *[Signature]* (Compliance Specialist)

RECEIVED

APR 27 2018

DEP SOUTHCENTRAL OFFICE
CLEAN WATER PROGRAM



ATTACHMENT H

**WASTEWATER TREATMENT PLANT
UPGRADE PROJECT – PA DEP WATER
QUALITY MANAGEMENT PERMIT**



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

MAR 12 2020

CERTIFIED MAIL NO. 9171 9690 0935 0230 7529 67

Mr. Jeffrey Enders
Halifax Area Water & Sewer Authority
PO Box 443 (203 Armstrong Street)
Halifax, PA 17032-0443

Re: WQM Permit – Sewage-3G
Halifax STP
Permit No. 2205401 A-1
Authorization ID No. 1288723
Halifax Borough, Dauphin County

Dear Mr. Enders:

Your Water Quality Management (WQM) permit amendment is enclosed. You must comply with all Standard and Special Conditions attached to this Permit. Construction must be done in accordance with the permit application and all supporting documentation. Please review the permit conditions and the supporting documentation submitted with your application before starting construction.

Please note that you are responsible for securing all other required permits, approvals and/or registrations associated with the project, if applicable, under Chapters 102 (erosion and sedimentation control), 105 (stream obstructions and encroachments) and 106 (floodplains) of DEP's regulations. Construction may not proceed until all other required permits have been obtained.

Enclosed is the "Water Quality Management Post Construction Certification" form. A Pennsylvania-registered Professional Engineer must sign and complete this form prior to startup of the facilities. You or your authorized representative must also sign the form. This certification and other post-construction documentation must be submitted to DEP within 30 days of completion of the project and must be received by DEP prior to commencing operation of the facilities.

Any person aggrieved by this action may appeal the action to the Environmental Hearing Board (Board), pursuant to Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, and the Administrative Agency Law, 2 Pa.C.S. Chapter 5A. The Board's address is:

Environmental Hearing Board
Rachel Carson State Office Building, Second Floor
400 Market Street
P.O. Box 8457

Mr. Jeffrey Enders

- 2 -

Harrisburg, PA 17105-8457

TDD users may contact the Environmental Hearing Board through the Pennsylvania Relay Service, 800-654-5984.

Appeals must be filed with the Board within 30 days of receipt of notice of this action unless the appropriate statute provides a different time. This paragraph does not, in and of itself, create any right of appeal beyond that permitted by applicable statutes and decisional law.

A Notice of Appeal form and the Board's rules of practice and procedure may be obtained online at <http://ehb.courtapps.com> or by contacting the Secretary to the Board at 717-787-3483. The Notice of Appeal form and the Board's rules are also available in braille and on audiotape from the Secretary to the Board.

IMPORTANT LEGAL RIGHTS ARE AT STAKE. YOU SHOULD SHOW THIS DOCUMENT TO A LAWYER AT ONCE. IF YOU CANNOT AFFORD A LAWYER, YOU MAY QUALIFY FOR FREE PRO BONO REPRESENTATION. CALL THE SECRETARY TO THE BOARD AT 717-787-3483 FOR MORE INFORMATION. YOU DO NOT NEED A LAWYER TO FILE A NOTICE OF APPEAL WITH THE BOARD.

IF YOU WANT TO CHALLENGE THIS ACTION, YOUR APPEAL MUST BE FILED WITH AND RECEIVED BY THE BOARD WITHIN 30 DAYS OF RECEIPT OF NOTICE OF THIS ACTION.

During construction or upon completing construction, please contact John P. Kwedza, P.E. at 717.705.4815 or jkwedza@pa.gov so that an inspection of the facilities may be conducted, at DEP's discretion.

Sincerely,



Maria D. Bebenek, P.E.
Environmental Program Manager
Clean Water Program

Enclosures

cc: Justin J. Mendinsky, P.E., Herbert Rowland & Grubic Inc.



WATER QUALITY MANAGEMENT PERMIT

<p>A. PERMITTEE (Name and Address): CLIENT ID#: 40444 Halifax Area Water & Sewer Authority PO Box 443 (203 Armstrong Street) Halifax, PA 17032-0443</p>	<p>B. PROJECT/FACILITY (Name): Halifax STP</p>	
<p>C. LOCATION (Municipality, County): SITE ID#: 251407 Halifax Borough, Dauphin County</p>		
<p>D. This amendment approves the modification and operation of sewage facilities consisting of:</p> <ul style="list-style-type: none"> • Installation of sewage grinder and upgrading of the main pump station and controls • Construction of a new headworks with screening units • Construction of two sequencing batch reactors, feed pump station and installation of associated equipment • Construction of a post equalization tank • Installation of an Ultraviolet light disinfection system • Installation of chemical storage and feed equipment • Retrofitting of the existing biological tanks to aerobic digestion tanks 		
<p>Pump Stations: Main Pump Station Design Capacity: 300 GPM</p>	<p>Manure Storage: Volume: <u>N/A</u> MG Freeboard: _____ inches</p>	<p>Sewage Treatment Facility: Annual Average Flow: 0.21 MGD Design Hydraulic Capacity: 0.28 MGD Design Organic Capacity: 636 lb/day</p>
<p>E. APPROVAL GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING:</p> <p>1. Amendments: All construction, operations and procedures shall be in accordance with the Water Quality Management Permit Amendment application dated September 10, 2019 and its supporting documentation and addendums dated February 14, 2020 and March 6, 2020, which are hereby made a part of this amendment.</p> <p>Except for any herein approved modifications, all terms, conditions, supporting documentation and addendums approved under Water Quality Management Permit No. 2205401 dated January 10, 2005 shall remain in effect.</p> <p>2. Permit Conditions Relating to Sewerage are attached and made part of this permit.</p>		
<p>F. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS:</p> <p>1. If there is a conflict between the application or its supporting documents and amendments and the attached conditions, the attached conditions shall apply.</p> <p>2. Failure to comply with the rules and regulations of DEP or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of this permit.</p> <p>3. This permit is issued pursuant to the Clean Streams Law Act of June 22, 1937, P.L. 1987, as amended 35 P.S. §691.1 <i>et seq.</i> Issuance of this permit shall not relieve the permittee of any responsibility under any other law.</p>		
<p>PERMIT ISSUED: _____ MAR 12 2020</p>	<p>BY: <u><i>Maria D. Bebenek</i></u> Maria D. Bebenek, P.E. TITLE: Clean Water Program Manager Southcentral Regional Office</p>	



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

PERMIT CONDITIONS RELATING TO SEWERAGE
For use in Water Quality Management Permits

(Check boxes that apply)

General

- 1. The Department of Environmental Protection (DEP) considers the licensed Professional Engineer whose seal is affixed to the design documents to be fully responsible for the adequacy of all aspects of the facility design.
- 2. The permittee shall adopt and enforce an ordinance requiring the abandonment of privies, cesspools or similar receptacles for human waste and onlot sewage disposal systems on the premises of occupied structures accessible to public sewers. All such structures must be connected to the public sewers.
- 3. The outfall sewer or drain shall be extended to the low water mark of the receiving body of water. Where necessary to ensure proper mixing and waste assimilation, an outfall sewer or drain may be extended with appurtenances below the low water mark and into the bed of a navigable stream provided that the permittee has secured an easement, right-of-way, license or lease from DEP in accordance with Section 15 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, as amended.
- 4. The approval is specifically made contingent on the permittee acquiring all necessary property rights, by easement or otherwise, providing for the satisfactory construction, operation, maintenance and replacement of all sewers or sewerage structures in, along or across private property with full rights of ingress, egress and regress.
- 5. When construction of the approved sewerage facilities is completed and before they are placed in operation, the permittee shall notify DEP in writing so that a DEP representative may inspect the facilities.
- 6. The approval of the plans, and the authority granted in this permit, if not specifically extended, shall cease and be null and void 5 years from the issuance date of this permit unless construction or modification of the facilities covered by this permit has begun on or before the fifth anniversary of the permit date.
- 7. If, at any time, the sewerage facilities covered by this permit create a public nuisance, including but not limited to, causing malodors or causing environmental harm to waters of the Commonwealth, DEP may require the permittee to adopt appropriate remedial measures to abate the nuisance or harm.
- 8. If, after the issuance of this permit, DEP approves a municipal sewage facilities official plan or an amendment to an official plan under Act 537 (Pennsylvania Sewage Facilities Act, the Act of January 24, 1966, P.L. 1535 as amended) in which sewage from the herein approved facilities will be treated and disposed of at other planned facilities, the permittee shall, upon notification from the municipality or DEP, provide for the conveyance of its sewage to the planned facilities, abandon use and decommission the herein approved facilities including the proper disposal of solids, and notify DEP accordingly. The permittee shall adhere to schedules in the approved official plan, amendments to the plan, or other agreements between the permittee and municipality. This permit shall then, upon notice from DEP, terminate and become null and void and shall be relinquished to DEP.
- 9. This permit does not relieve the permittee of its obligations to comply with all federal, interstate, state or local laws, ordinances and regulations applicable to the sewerage facilities.
- 10. This permit does not give any real or personal property rights or grant any exclusive privileges, nor shall it be construed to grant or confirm any right, easement or interest in, on, to or over any lands which belong to the Commonwealth.
- 11. The authority granted by this permit is subject to all effluent requirements, monitoring requirements and other conditions as set forth in the NPDES Permit and all subsequent amendments and renewals. No discharge is authorized from these facilities unless approved by an NPDES Permit.

Construction

- 12. This permit is issued under the authorization of The Clean Streams Law and 25 Pa. Code Chapter 91. The permittee shall obtain all necessary permits, approvals and/or registrations under 25 Pa. Code Chapters 102, 105 and 106 prior to commencing construction of the facilities authorized by this permit, as applicable. The permittee should contact the DEP office that issued this permit if there are any questions concerning the applicability of additional permits.

- 13. The facilities shall be constructed under the supervision of a Pennsylvania licensed Professional Engineer in accordance with the approved reports, plans and specifications.
- 14. A Pennsylvania licensed Professional Engineer shall certify that construction of the permitted facilities was completed in accordance with the application and design plans submitted to DEP, using the "Post Construction Certification" form (3800-PM-WSFR0179a). It is the permittee's responsibility to ensure that a Professional Engineer is on-site to provide the necessary oversight and/or inspections to certify the facilities. The certification must be submitted to DEP before the facility is placed in operation. As-built drawings, photographs (if available) and a description of all deviations from the application and design plans must be submitted to DEP within 30 days of certification.
- 15. Manhole inverts shall be formed to facilitate the flow of the sewage and to prevent the stranding of sewage solids. The manhole structure shall be built to prevent undue infiltration, entrance of street wash or grit and provide safe access to facilitate manhole maintenance activities.
- 16. The local Waterways Conservation Officer of the Pennsylvania Fish and Boat Commission (PFBC) shall be notified when the construction of any stream crossing and/or outfall is started and completed. A written permit must be secured from the PFBC if the use of explosives in any waterways is required and the permittee shall notify the local Waterways Conservation Officer when explosives are to be used.

Operation and Maintenance

- 17. The permittee shall maintain records of "as-built" plans showing all the treatment facilities as actually constructed together with facility operation and maintenance (O&M) manuals and any other relevant information that may be required. Upon request, the "as-built" plans and O&M manuals shall be filed with DEP.
- 18. The sewers shall have adequate foundation support as soil conditions require. Trenches shall be back-filled to ensure that sewers will have proper structural stability, with minimum settling and adequate protection against breakage. Concrete used in connection with these sewers shall be protected from damage by water, freezing, drying or other harmful conditions until cured.
- 19. Stormwater from roofs, foundation drains, basement drains or other sources shall not be admitted directly to the sanitary sewers.
- 20. The approved sewers shall be maintained in good condition, kept free of deposits by flushing or other cleaning methods and repaired when necessary.
- 21. The sewerage facilities shall be properly operated and maintained to perform as designed.
- 22. The attention of the permittee is called to the highly explosive nature of certain gases generated by the digestion of sewage solids when these gases are mixed in proper proportions with air and to the highly toxic character of certain gases arising from such digestion or from sewage in poorly ventilated compartments or sewers. Therefore, at all places throughout the sewerage facilities where hazard of fire, explosion or danger from toxic gases may occur, the permittee shall post conspicuous permanent and legible warnings. The permittee shall instruct all employees concerning the aforesaid hazards, first aid and emergency methods of meeting such hazards and shall make all necessary equipment and material accessible.
- 23. An operator certified in accordance with the Water and Wastewater Systems Operator Certification Act of February 21, 2002, 63 P.S. §§1001, *et seq.* shall operate the sewage treatment plant.
- 24. The permittee shall properly control any industrial waste discharged into its sewerage system by regulating the rate and quality of such discharge, requiring necessary pretreatment and excluding industrial waste, if necessary, to protect the integrity or operation of the permittee's sewerage system.
- 25. There shall be no physical connection between a public water supply system and a sewer or appurtenance to it which would permit the passage of any sewage or polluted water into the potable water supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.
- 26. All connections to the approved sanitary sewers must be in accordance with the official Act 537 Plan and, if applicable, a corrective action plan as contained in the approved Title 25 Pa. Code Chapter 94 Municipal Wasteload Management Annual Report.
- 27. Collected screenings, slurries, sludge and other solids shall be handled and disposed of in compliance with Title 25 Pa. Code Chapters 271, 273, 275, 283 and 285 (related to permits and requirements for land filling, land application, incineration and storage of sewage sludge), Federal Regulations 40 CFR 257 and the Federal Clean Water Act and its amendments.



**WATER QUALITY MANAGEMENT
 POST CONSTRUCTION CERTIFICATION**

PERMITTEE IDENTIFIER

Permittee	Halifax Area Water & Sewer Authority Dauphin County
Municipality	Halifax Borough
County	Dauphin
WQM Permit No.	2205401
Facility Type	Sewage

All of the above information should be taken directly from the Water Quality Management Permit.

CERTIFICATION

This certification must be completed and returned to the permits section of the DEP's regional office issuing the WQM permit within 30 days of completion of the project and received by DEP prior to operation, and if requested, as-built drawings, photographs (if available) and a discussion of any DEP-approved deviations from the design plans during construction.

I, being a Registered Professional Engineer in Pennsylvania, do hereby certify to the best of my knowledge and belief, based upon personal observation and interviews, that the above facility approved under the Water Quality Management Permit has been constructed in accordance with the plans, specifications and modifications approved by DEP.

Construction Completion Date (MM/DD/YYYY): _____

Engineer's Seal	Professional Engineer
	Name _____ (Please Print or Type)
	Signature _____
	Date _____
	License Expiration Date _____
	Firm or Agency _____
	Telephone _____
	Permittee or Authorized Representative
	Name _____ (Please Print or Type)
	Signature _____
	Title _____
	Telephone _____