



Herbert, Rowland & Grubic, Inc.
369 East Park Drive
Harrisburg, PA 17111
717.564.1121
www.hrg-inc.com

March 20, 2024

Clean Water Program
PA Department of Environmental Protection
Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110

Re: **Halifax Area Water and Sewer Authority
Chapter 94 Municipal Wasteload Management Report
Calendar Year 2023**

Dear Clean Water Program:

On behalf of the Halifax Area Water and Sewer Authority (HAWASA), we are submitting the HAWASA Chapter 94 Report for Calendar Year 2023.

Should you have any questions or comments regarding the Chapter 94 Report or any of the included attachments for HAWASA, please do not hesitate to contact me at (717) 564-1121. Thank you.

Sincerely,

Herbert, Rowland & Grubic, Inc.

A handwritten signature in black ink that reads "Erica Luongo".

Erica Luongo, E.I.T.
Staff Professional II | Water & Wastewater

EL/LJ/rb
001650.0425

\\Hrg.local\hrgdfsfiles\Project\0016\001650_0425\Admin\Chapter 94 Reports\Chapter 94 Report - CY2023\Draft\00. Cover Letter to DEP.docx

Enclosures

c: HAWASA Board
Mr. Jeffrey Grosser, HAWASA
HRG File (w/Encl.)



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Harrisburg, PA 17111
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CHAPTER 94 WASTELOAD MANAGEMENT REPORT FOR CALENDAR YEAR 2023

Submitted to: Pennsylvania DEP Southcentral Regional Office
ATTN: Clean Water Program
909 Elmerton Avenue, Harrisburg, PA 17110

On Behalf of: Halifax Area Water and Sewer Authority,
Dauphin County, PA

001650.0425



Submitted: March 2024

Herbert, Rowland & Grubic, Inc.
Engineering | Planning | Infrastructure Solutions

TABLE OF CONTENTS

INTRODUCTION

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT REPORT

ATTACHMENTS TO CHAPTER 94 WASTELOAD MANAGEMENT REPORT:

- A. DEP Chapter 94 Spreadsheet
 - Hydraulic Loading Graph
 - Organic Loading Graph
- B. Sanitary Sewer System Extension
 - Act 537 Recommended Alternative Map
 - Sycamore Ridge Parcel Map
- C. Condition of the Sewer System
 - Pump Hours – Boyer Street Pumping Station
 - Pump Hours – Main Pumping Station
- D. Sewage Sludge Management Inventory
- E. Flow Meter Calibration Report
- F. COA Progress Report



CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: **2023**

- 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:	April 1, 2023
City, State, Zip:	Halifax, PA 17032	Expiration Date:	March 31, 2028
Contact Person:	Jeffrey Grosser	Renewal Due Date:	October 1, 2027
Title:	Operator	Municipality:	Halifax Borough, Halifax Twp
Phone:	(717) 896-3886	County:	Dauphin
Email:	kgrosser@hawasaonline.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 new connections to the Authority's collection system were made in 2023. One (1) disconnection was made to the Authority's collection system were made in 2023.

The Authority is currently in construction the Halifax Township Sewer Extension Project , which includes the extension of sanitary sewer along Peters Mountain Road to serve residents in Halifax Township. This project consists of various 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 Authority WWTP with an ultimate buildout to 407 EDUs. The construction of the proposed sanitary sewer extension is expected to be completed within the current 5 year planning period.

HAWASA has completed the Wastewater Treatment Plant (WWTP) Upgrade Project, which involved construction of a new WWTP at the site of the old HAWASA WWTP. The upgraded WWTP has a rated hydraulic capacity of 0.28 MGD and a new organic loading capacity of 636 lbs BOD5/day. The WWTP Upgrade Project involved improvements to the WWTP Main Pumping Station to correct the overload at this pump station and an expansion of capacity to facilitate the Halifax Township Sewer Extension Project, which is currently under construction. The WWTP Upgrade Project achieved substantial completion in June 2023 and final closeout documents were distributed in December 2023. A final site inspection by PA DEP was completed on March 14, 2024.

The Notice to Proceed for the Halifax Township Sewer Extension Project was issued on March 22, 2023. Based on this date, substantial completion is scheduled for November 11, 2024. The Lenker Estates development is anticipated to be the first development ready for connection to the system and accounts for approximately 50 EDUs. These EDUs will come online following completion of the Lenker Pump Station, currently scheduled for April 2024. Additional EDUs will be connected as construction is completed on the Roadcap Pumping Station and the Creek Road Pumping Station and as low pressure systems are able to be brought online.

Several land development projects are currently in preliminary planning stages:

- **Sycamore Ridge**

The Sycamore Ridge community is expected to connect to the Authority's system in the 5-year planning period. The development will be constructed east of Pennsylvania Route 147. Sewer facilities will consist of a gravity sewer that will tie into the existing gravity system main and ultimately drain into the WWTP Main Pumping Station. The Sycamore Ridge development will add 124 new EDUs to the WWTP. Preliminary LD plans have been submitted to the Authority and reviewed; however, plans have been shelved until the CAP is lifted. It is anticipated that the CAP on any new connections to the Main PS will be lifted in 2024. It is assumed the Sycamore Ridge Community will be added onto the system in 2025. Land development plans for

Sycamore Ridge have been submitted to the Authority and the location of the development is outlined in Attachment B.

- **Halifax Commons**

Halifax Commons is a proposed commercial development located at the intersection of South River Road (S.R. 0147) and Peters Mountain Road (S.R. 0225). The proposed development consists of three (3) commercial buildings with approximate footprints of 6,889 S.F., 2,486 S.F., and 2,527 S.F. and associated parking areas and other amenities. Two (2) driveways are proposed. A full movement driveway is proposed on Peters Mountain Road. A right-out only driveway is proposed on S River Road. Utility connections will be made to the existing utilities along Peters Mountain Road. Flow from Halifax Commons will enter the Authority WWTP through the gravity line at the east side of the WWTP. For planning purposes, current plans estimate an addition of six (6) EDUs to the system to be connected in 2024. This flow is not tributary to the WWTP Main Pumping Station. Land development plans for Halifax Commons have been submitted to the Authority and the location of the development is outlined in Attachment B.

- **Halifax Residential**

Halifax Residential is a proposed residential development located along Peters Mountain Road (S.R. 0225). The new development will consist of approximately 120 apartment units. A preliminary site sketch was provided for review to the Authority in early 2023. No further planning on Halifax Residential has occurred since that time. For planning purposes, it was assumed these connections would be made in 2025. Flow from Halifax Residential will enter the Authority WWTP through the gravity line at the east side of the WWTP. This flow is not tributary to the WWTP Main Pumping Station. The location of the development is outlined in Attachment B.

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))

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 stations 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. The maintenance teams conduct regular inspections of the gravity system, and jet clean the system where needed.

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:

No sanitary sewer overflows (SSOs) were observed in the Authority's system in the 2023 calendar year.

PA DEP had 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.

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. HRG had 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. Improvements to the Main Pumping Station at the WWTP and the WWTP itself are in the process of being completed as part of the WWTP Upgrade project. The Water Quality Management Permit for construction of the WWTP Upgrade project was issued by PA DEP on March 12, 2020.

HAWASA concluded construction on the Wastewater Treatment Plant Upgrade Project in June 2023. The project included the construction of new headworks, two (2) new sequencing batch reactors (SBRs), construction of a new post-equalization tank, upgraded disinfection system, new chemical equipment and improvements to existing biological tanks and digester tanks. The project increased the capacity of the existing WWTP to 0.28 MGD. In addition to treatment plant upgrades, the project also entailed upgrades to the hydraulically overloaded Main Pumping Station. The Main Pumping Station concluded construction and was placed into service on August 17, 2022. Based on the operating run times provided in this report, there is no longer an overload at the Main Pumping Station.

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. – **The Main PS was reconstructed in Fall 2022, and is therefore no longer hydraulically overload.**
- 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 Grosser, Lead Operator


Signature

Name of Responsible Official

(717) 896-3886

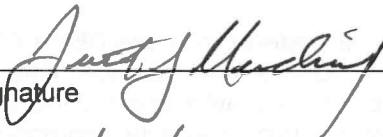

Date

Telephone No.

PREPARER CERTIFICATION

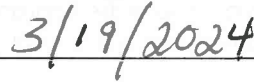
I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to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


Signature

Name of Preparer

(717) 564-1121


Date

Telephone No.

**ATTACHMENT A:
Hydraulic And Organic Loading Data And
Line Graphs**



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	2019	2020	2021	2022	2023
January	0.1445	0.103	0.0952	0.0803	0.1039
February	0.1352	0.1137	0.0918	0.1144	0.0848
March	0.1429	0.1255	0.1298	0.126	0.0906
April	0.1603	0.1398	0.1405	0.147	0.0777
May	0.1933	0.1714	0.1344	0.1804	0.0904
June	0.1586	0.1586	0.1382	0.1316	0.0723
July	0.1451	0.1561	0.221	0.1429	0.1024
August	0.1233	0.1523	0.1892	0.1037	0.0876
September	0.111	0.127	0.2177	0.0826	0.0764
October	0.1018	0.105	0.1417	0.085	0.0727
November	0.0966	0.0933	0.1017	0.0798	0.0638
December	0.0955	0.0947	0.0842	0.096	0.0868

Annual Avg	0.134	0.1284	0.1405	0.1141	0.0841
Max 3-Mo Avg	0.1707	0.162	0.2093	0.153	0.0949
Max : Avg Ratio	1.27	1.26	1.49	1.34	1.13
Existing EDUs	753.0	753.0	753.0	753.0	752.0
Flow/EDU (GPD)	178.0	170.5	186.6	151.5	111.8
Flow/Capita (GPD)	50.8	48.7	53.3	43.3	32.0
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2024	2025	2026	2027	2028
New EDUs	306.0	244.0	2.0	2.0	2.0
New EDU Flow	0.0489	0.039	0.0003	0.0003	0.0003
Proj. Annual Avg	0.1691	0.2081	0.2084	0.2087	0.209
Proj. Max 3-Mo Avg	0.2196	0.2703	0.2707	0.2711	0.2715
Proj. Overload?	NO	NO	NO	NO	NO

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

Month	2019	2020	2021	2022	2023
January	102	125	126	120	130
February	114	181	147	148	132
March	108	86	155	98	138
April	133	89	176	115	172
May	71	73	193	138	111
June	103	156	230	63	100
July	177	232	149	123	84
August	146	332	214	207	160
September	169	423	132	180	139
October	131	157	252	177	189
November	157	175	115	113	149
December	136	148	149	169	236

Annual Avg	129	181	170	138	145
Max Mo Avg	177	423	252	207	236
Max : Avg Ratio	1.37	2.33	1.48	1.50	1.63
Existing EDUs	753	753	753	753	752
Load/EDU	0.171	0.241	0.226	0.183	0.193
Load/Capita	0.049	0.069	0.064	0.052	0.055
Exist. Overload?	NO	NO	NO	NO	NO

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

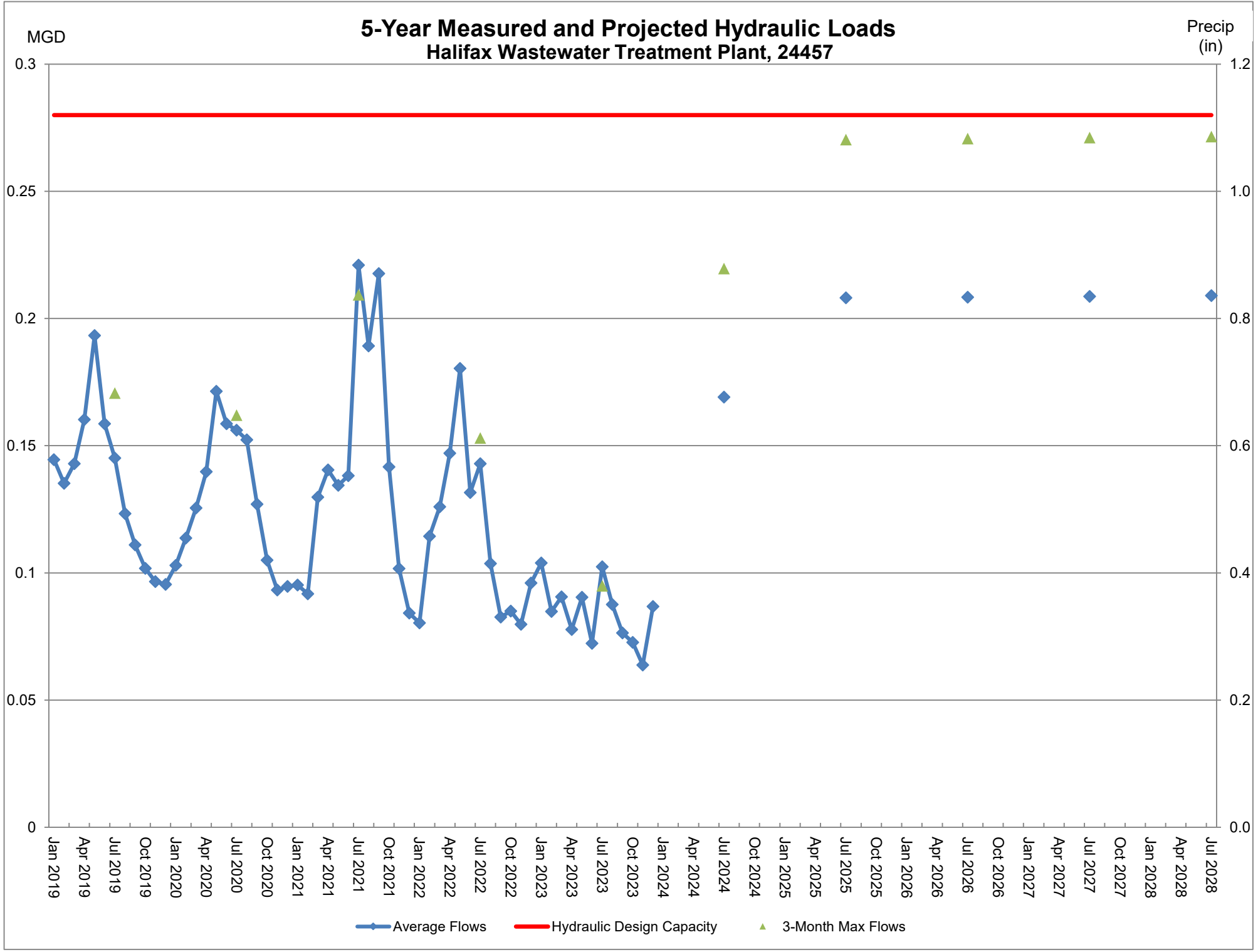
	2024	2025	2026	2027	2028
New EDUs	306	244	2	2	2
New EDU Load	62.008	49.444	0.405	0.405	0.405
Proj. Annual Avg	215	264	264	265	265
Proj. Max Avg	357	439	440	441	441
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

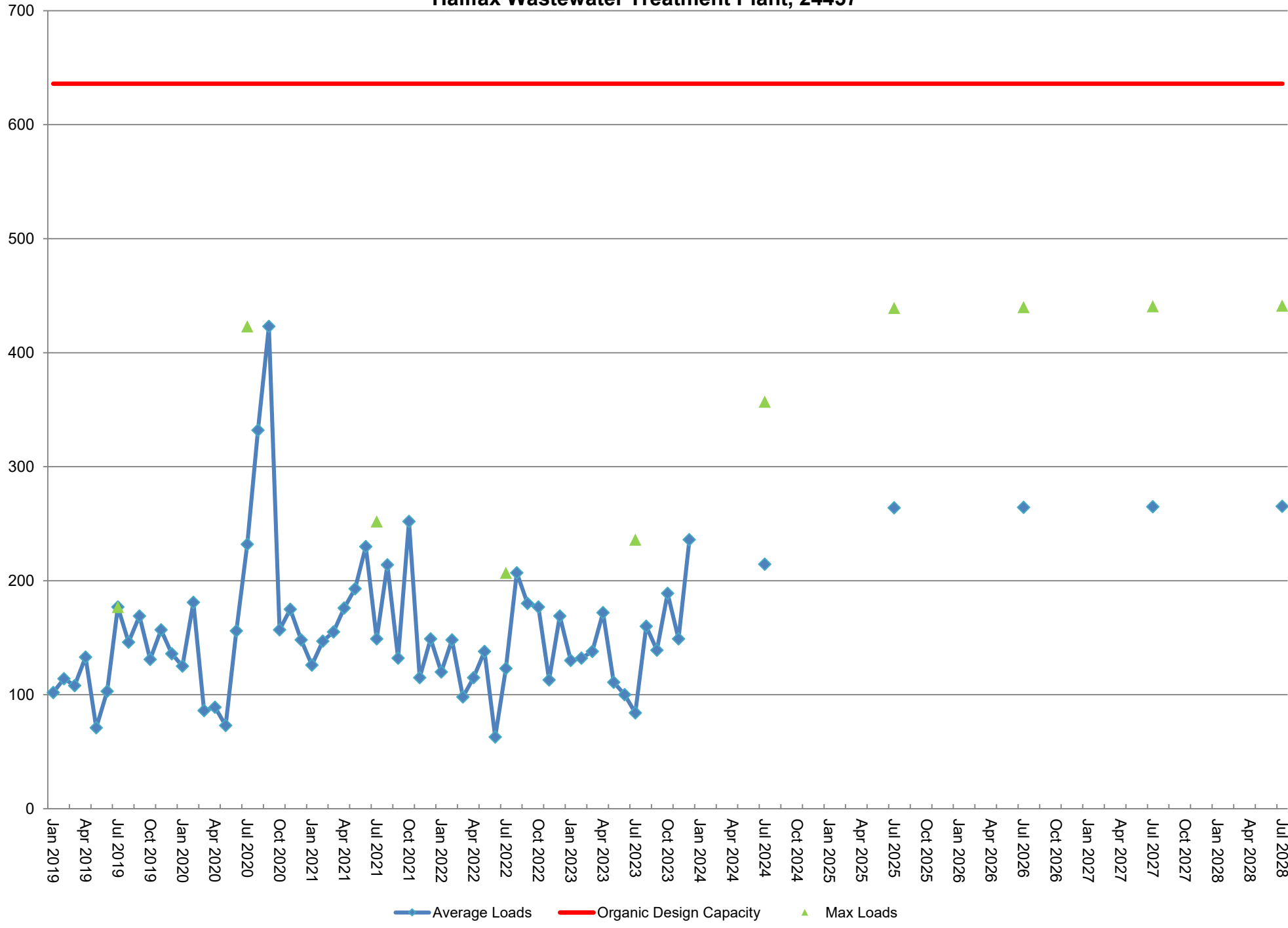
Total Monthly Precipitation for Past Five Years (Inches)

Month	2019	2020	2021	2022	2023
January	2.46	2.77	2.9	2.73	4.0
February	2.83	2.53	2.9	2.92	1.0
March	2.22	3.46	5.3	1.66	1.9
April	4.31	3.5	3.9	4.46	4.0
May	5.05	4.3	5.25	6.67	1.7
June	2.47	2.86	2.4	4.31	4.55
July	5.44	0.92	10.0	2.81	6.5
August	3.94	3.96	11.5	1.66	6.7
September	2.29	1.71	14.55	3.96	5.6
October	5.0	3.69	3.9	3.2	2.2
November	2.11	2.12	2.6	2.71	1.9
December	3.81	5.11	1.25	4.02	5.7

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



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



ATTACHMENT B: General Plan/Sewer Extensions





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



Peters Mountain Road (SR 0147)
Peters Mountain Road (SR 0147)
Hoffman Road (T-362)
Summer Drive

PHASE I

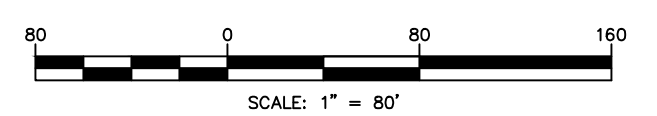
PHASE II

EXISTING LEGEND

- Boundary Line
- - - - - Legal Right-Of-Way Line
- ▭ Building
- ▬ Edge Of Road
- ▬ Curbing
- - - - - Fence Line
- ⊕ Road Sign
- ⊕ Woods Line
- ⊕ Tree
- ⊕ Shrub
- ⊕ Traffic Light Post/Pole
- - - - - Existing 1' Contour
- - - - - Existing 5' Contour
- - - - - Easement Line
- - - - - Storm Sewer Line
- - - - - Storm Sewer Inlet
- - - - - Sanitary Sewer Line
- - - - - Sewer Manhole
- - - - - Water Line
- - - - - Fire Hydrant
- - - - - Water Valve
- - - - - Overhead Electric Line
- - - - - Electric & Telephone Line
- - - - - Telephone & Cable TV Line
- - - - - Electric, Telephone & Cable TV Line
- ⊕ Electric Pole
- ⊕ Utility Pole
- ⊕ Telephone Pole
- ⊕ Guy Wire

PROPOSED LEGEND

- PROPOSED CENTERLINE
- - - - - PROPOSED RIGHT-OF-WAY
- ▭ PROPOSED BUILDING
- ▬ PROPOSED SHOULDER
- ▬ PROPOSED EDGE OF PAVEMENT
- ▬ PROPOSED TRAIL
- - - - - PROPOSED 1' CONTOUR
- 400 - - - - - PROPOSED 5' CONTOUR
- - - - - PROPOSED EASEMENT
- - - - - PROPOSED STORM SEWER LINE
- - - - - PROPOSED STORM SEWER INLET
- - - - - PROPOSED MANHOLE
- - - - - PROPOSED SANITARY SEWER LINE
- - - - - PROPOSED WATER LINE
- ▬ PHASE LINE



NO.	DATE	DESCRIPTION	REVISIONS
1	06/22/22	PER TOWNSHIP COMMENTS	CHECKED/DRAWN
2	07/18/22	PER TOWNSHIP COMMENTS	

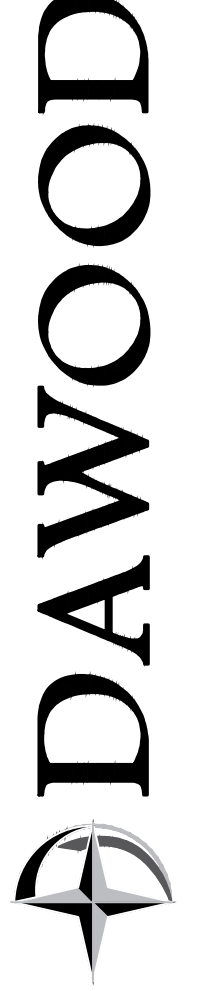
PRELIMINARY SUBDIVISION AND LAND DEVELOPMENT PLAN FOR SYCAMORE RIDGE
 HALIFAX TOWNSHIP PENNSYLVANIA
 DAUPHIN COUNTY

DRAWING TITLE
 OVERALL GRADING AND UTILITY PLAN

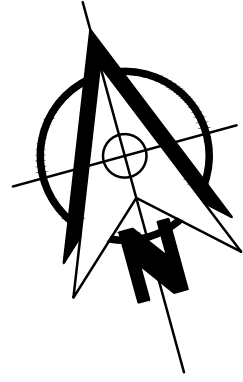
DATE	MAY 23, 2022
JOB NO.	2000264.00
FILE NAME	LDE-PP-UT01
DRAWN BY	CZ/HAB
CHECKED BY	CZ

SHEET NO. 9 OF 41

4250 Grums Mill Road
 Suite 301 PA 17112
 P: 888.832.9663
 F: 717.732.8596



D:\2020\JOBS\2000264-00\1.D\PRELIMINARY\200026400-LDE-PP-DVGD01
 July 19, 2022 11:01 AM



n/f
Peters Mountain LLC
Inst. No. 20220034334
Lot 7 - PB F-4-52

Driveway / Access Easement
Inst. No. 20080016665

n/f
F3 Holdings
Inst. No. 20190004013

Fire Station
PP&L
22782
S40767

10' Waterline Easement
PP&L Pole

(PUMP STATION)

SANITARY SEWER
FORCE MAIN
PP&L
22833
S40755

Benchmark #2
Inlet
Grate: 622.05
Inv.: 618.61

Inlet
Grate: 622.81
Inv.: 619.94

BLDG-1
ADVANCE AUTO PARTS
6,889 S.F.
FFE: 621.00

GREASE TRAP #2

POPPIES
2,277 S.F.
FFE: 824.80

STORMWATER
EASEMENT (TYP.)

MH-325
Rim: 623.53
Inv.: 617.97

Mailbox
PP&L
22828
S40739

Residential Driveway
PP&L
22818
S40742

FIRE HYDRANT

PROPOSED LIGHT
STANDARD (TYP.)

Peters Mountain Road (S.R. 0225)

n/f
Halifax Fire Department
R3 2501-947
Lot 8 - PB F-4-52

BLDG-2A
STARBUCKS
2,488 S.F.
FFE: 623.00

n/f
U & ME 3, LLC
Inst. No. 20220034334
29-016-24
221,030/47 SF (Gross)
190,758.54 SF (Net)

Benchmark #1
MH-329
Rim: 623.69
Inv.: 618.75

PP&L
22807
S40726

WATER
METER
PITS

10' Sanitary
Sewer Main

WATER SERVICE CONNECTION
6" Water Main

STORMWATER
EASEMENT (TYP.)

PROPOSED LIGHT
STANDARD (TYP.)

River Road (S.R. 0147)

Inlet
Grate: 620.98
Inv.: 617.89

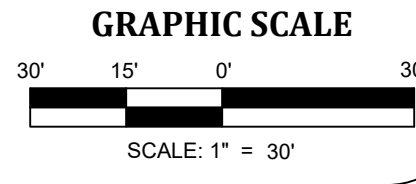
Inlet
Grate: 622.83
Inv.: 619.54

MH-329
Rim: 625.04
Inv.: 619.18

PP&L
22787
S40711

LEGEND

- EXISTING BOUNDARY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING CURB
- PROPOSED CURB
- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING UTILITY POLE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- PROPOSED UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- PROPOSED UNDERGROUND TELEPHONE LINE
- EXISTING GAS LINE
- EXISTING GAS VALVE
- PROPOSED GAS LINE
- EXISTING WATER VALVE
- EXISTING WATER LINE
- PROPOSED 8" WATER LINE
- PROPOSED FIRE HYDRANT
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER LINE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEAN-OUT
- PROPOSED 6" SANITARY SEWER LINE
- PROPOSED 4" SANITARY SEWER FORCEMAIN
- PROPOSED SANITARY SEWER STRUCTURE LABEL
- PROPOSED LIGHT STANDARDS
- EXISTING STORM MANHOLE
- PROPOSED STORM MANHOLE
- EXISTING STORM INLET
- PROPOSED STORM INLET
- EXISTING STORM HEADWALL/ENDWALL
- PROPOSED STORM HEADWALL/ENDWALL
- PROPOSED PIPE OUTLET PROTECTION
- EXISTING STORM PIPE
- PROPOSED STORM PIPE
- PROPOSED STORM STRUCTURE LABEL



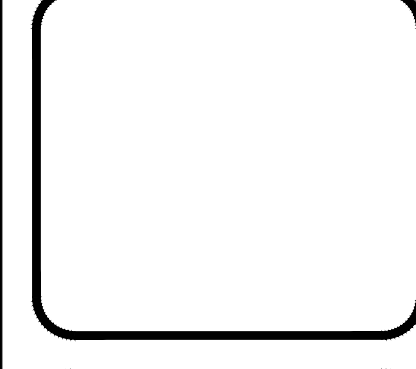
PROJ. MGR. -	JCG
DESIGN -	TBF
CADD -	TBF
CHECKED -	JCG

NO.	DATE	REVISION
2	12/21/23	REVISED PER HALIFAX TOWNSHIP COMMENTS
1	11/17/23	REVISED PER DCCD COMMENTS

LANDWORKS
CIVIL DESIGN, LLC
land development consultants

1195 VIRGINIA AVENUE
P 717.991-1195

YORK, PA 17403
www.landworkscd.com



UTILITIES & EASEMENTS PLAN
FOR
HALIFAX COMMONS
FOR
U & ME 3, LLC

HALIFAX TOWNSHIP
DAUPHIN COUNTY, PENNSYLVANIA

PROJECT NO.
22-0161-001

DATE: 07/25/23

SCALE: 1" = 30'

SHEET
UE 5.0

DRAWING REFERENCE: L:\Projects\22-0161-001\U & ME 3, LLC - Halifax Commons\Drawings\UE5.0-01-Halifax Commons\UE5.0.dwg
 DATE PLOTTED: 1/25/2024 3:55:04 PM
 PLOTTED BY: JCG

ATTACHMENT C: Condition of Pump Stations



CONDITION OF THE PUMP STATIONS

HAWASA 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)
Average flow:	4100 gpd (estimated from pump hours and design point)
Maximum:	50 gpm (Peak Hourly Flow estimated)

The Boyer Street Pumping Station was upgraded to submersible pumps at the end of 2014 and began operation in 2015. Attached runtime records indicate total runtime for the station averages to approximately 5.78 hours per week, usually divided equally between the pumps.

There are no known future connections tributary to the Boyer Street Pumping 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. Pump run hours for the Boyer Street Pumping Station are attached.

MAIN PUMPING STATION

The Main Pumping Station is composed of two (2) suction lift pumps within the pump station building at the Halifax WWTP. One (1) pump is dedicated as the duty pump, while the second pump is dedicated as a standby pump. The pumps have a design point of 300gpm. The pump station has 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 diameter ductile iron force main conveys all flow from the Main Pumping Station approximately 175 feet to the distribution box upstream of the proposed WWTP headworks.

Design Capacity:	300 gpm (1 pump basis)
Daily run time:	5.74 hours (both pumps combined)

The pump station has a design capacity of 300gpm (one pump) with a larger 6in force main. Attached are the pump run hours for the 2023 calendar year.

HALIFAX TOWNSHIP SANITARY SEWER EXTENSION PROJECT

The Halifax Township Sanitary Sewer Extension Project is currently under construction with an anticipated substantial completion date in November 2024. A Water Quality Management Permit for the extension was issued on November 2, 2020. The project includes the construction of three new pump stations. These stations are currently identified as the Lenker Estates Pump Station, the Creek Road Pump Station, and the Road Cap Lane Pump Station. All three pump stations are anticipated to be connected to the existing HAWASA system by in 2024. These flows will enter the

HAWASA WWTP through an influent gravity line into the headworks and won't be conveyed through the Main Pumping Station.

BOYER STREET PUMPING STATION PUMP RUN HOURS 2023



BOYER STREET PUMP STATION

DATE	TIME	HOURS #1	HOURS RAN	HOURS #2	HOURS RAN	TOTAL
1-2-23	1040	2098.3	1.2	1797.2	.7	1.9
1-6-23	1040	2099.8	1.5	1798.5	1.3	2.8
1-9-23	1010	2100.3	1.1	1799.3	.8	1.9
1-13-23	1030	2102.6	1.7	1800.1	.8	2.5
1-16-23	1000	2104.0	1.4	1800.9	.8	2.2
1-20-23	1050	2106	2.0	1802.0	1.1	3.1
1-23-23	1100	2107.9	1.9	1803.1	1.1	3.0
1-27-23	1020	2109.9	2.0	1804.6	1.5	3.5
1-30-23	1100	2111.6	1.7	1805.8	1.2	2.9
2-3-23	0840	2113.4	1.8	1807.3	1.5	3.3
2-6-23	1055	2114.9	1.5	1808.4	1.1	2.6
2-10-23	1055	2116.8	1.9	1809.8	1.4	3.3
2-13-23	1220	2118.1	1.3	1810.9	1.1	2.4
2-21-23	0830	2121.5	3.4	1813.3	2.4	5.8
2-24-23	1030	2123.0	1.7	1814.4	1.1	2.8
2-27-23	1120	2124.7	1.5	1815.3	0.9	2.4
3-3-23	1050	2126.6	1.9	1816.5	1.2	3.1
3-6-23	1050	2128.8	2.2	1818.2	1.7	3.9
3-10-23	1005	2131.1	2.3	1819.7	1.5	3.8
3-13-23	1015	2132.8	1.7	1820.7	1.0	2.7
3-17-23	1015	2134.7	1.9	1822.2	1.5	3.4
3-20-23	1750	2136.1	1.7	1823.2	1.0	2.7
3-24-23	1015	2138.1	2.0	1824.4	1.2	3.2
3-27-23	1040	2139.6	1.5	1825.5	1.1	2.6
3-31-23	1100	2141.6	2.0	1826.6	1.1	3.1
4-3-23	1050	2143.2	1.6	1827.5	0.9	2.5
4-7-23	1030	2145.1	1.9	1828.6	1.1	3.0
4-10-23	1130	2146.4	1.3	1829.4	.8	2.1
4-14-23	0950	2148.0	1.6	1830.5	1.1	2.7
4-17-23	0945	2149.3	1.3	1831.3	.8	2.1

REPLACE #2. PUMP - 11-27-23

REPAIR SEWER LAT. @ 107 MARKET ST.

BOYER STREET PUMP STATION

DATE	TIME	HOURS #1	HOURS RAN	HOURS #2	HOURS RAN	TOTAL
4-2-23	0950	2151.1	1.8	1832.1	0	2.6
4-24-23	1040	2158.4	1.3	1832.9	0	2.1
4-28-23	0930	2154.2	1.9	1833.9	1.0	2.8
5-1-23	1055	2156.6	2.4	1835.3	1.4	3.8
5-5-23	0930	2160.5	3.7	1836.6	1.3	5.0
5-8-23	1045	2161.7	1.4	1837.6	1.0	2.4
5-12-23	1115	2165.1	3.9	1838.4	0.8	4.7
5-15-23	0900	2168.9	3.3	1839.7	0.3	3.6
5-16-23				Overload		
5-19-23	1005	2173.9	5.0	1838.8	1	5.1
5-22-23	1005	2176.8	2.9	OFF	0	2.9
5-26-23	1100	2180.2	3.4	OFF	0	3.4
5-29-23	1020	2182.4	2.2	OFF	0	2.2
6-2-23	1040	2185.9	3.5	OFF	0	3.5
6-3-23	1040	2188.2	2.3	OFF	0	2.3
6-9-23	1040	2192.2	3.0	OFF	0	3.0
6-12-23	0900	2194	2.8	OFF	0	2.8
6-16-23	1055	2197.7	3.7	OFF	0	3.7
6-19-23	1050	2199.9	2.2	OFF	0	2.2
6-23-23	1050	2204.2	4.3	OFF	0	4.3
6-26-23	1025	2207.3	3.1	OFF	0	3.1
6-30-23	1125	2210.0	2.7	OFF	0	2.7
7-3-23	1045	2212.3	2.3	OFF	0	2.3
7-7-23	1045	2216.1	3.8	OFF	0	3.8
7-10-23	1040	2218.3	2.2	OFF	0	2.2
7-14-23	1125	2220.6	2.3	OFF	0	2.3
7-17-23	0900	2222.5	1.6	OFF	0	1.6
7-21-23	1005	2224.9	2.7	OFF	0	2.7
7-24-23	1045	2227.2	2.3	OFF	0	2.3
7-28-23	1005	2230.3	3.1	OFF	0	3.1
7-31-23	1040	2232.7	2.4	OFF	0	2.4
8-4-23 1030 2235.1 2.7						2.7
8-11-23 1030 2237.8 2.7						2.7
8-18-23 1030 2240.5 2.7						2.7
8-25-23 1030 2243.2 2.7						2.7
8-31-23 1030 2245.9 2.7						2.7

BOYER STREET PUMP STATION

DATE	TIME	HOURS #1	HOURS RAN	HOURS #2	HOURS RAN	TOTAL
8-4-23	1030	2235.4	2.7	OFF	0	2.7
8-7-23	0930	2237.8	2.4	OFF	0	2.4
8-11-23	1030	2240.9	3.1	OFF	0	3.1
8-14-23	1040	2243.3	2.4	OFF	0	2.4
8-18-23	1030	2247.4	4.1	OFF	0	4.1
8-21-23	1035	2249.5	2.1	OFF	0	2.1
8-25-23	0955	2252.7	2.7	OFF	0	2.7
8-28-23	1050	2255.6	4	OFF	0	4
9-1-23	1125	2255.8	3.2	OFF	0	3.2
9-4-23	1022	2258.0	2.2	OFF	0	2.2
9-8-23	1030	2261.2	3.2	OFF	0	3.2
9-11-23	1045	2263.3	2.1	OFF	0	2.1
9-15-23	1050	2266.2	2.9	OFF	0	2.9
9-18-23	1040	2269.6	2.4	OFF	0	2.4
9-22-23	1015	2271.6	3.0	OFF	0	3.0
9-25-23	1040	2274	2.4	OFF	0	2.4
9-29-23	1040	2277.2	3.2	OFF	0	3.2
10-2-23	1035	2279.5	2.3	OFF	0	2.3
10-7-23	1045	2282.5	3.0	OFF	0	3.0
10-9-23	1045	2284.8	2.3	OFF	0	2.3
10-13-23	1115	2288.3	3.5	OFF	0	3.5
10-16-23	1120	2291.1	2.8	OFF	0	2.8
10-20-23	1055	2294.8	3.7	OFF	0	3.7
10-23-23	1040	2297.4	2.6	OFF	0	2.6
10-27-23	1000	2302.2	4.8	OFF	0	4.8
10-30-23	1100	2305.7	3.5	OFF	0	3.5
11-3-23	1020	2309.2	3.5	OFF	0	3.5
11-6-23	1030	2312.5	3.3	OFF	0	3.3
11-10-23	1115	2315.9	3.4	OFF	0	3.4
11-13-23	1040	2318.3	2.4	OFF	0	2.4

MAIN PUMPING STATION PUMP RUN HOURS 2023



MONTH DECEMBER

YEAR 2022 JAN 2023

1260
1630

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	26	27	28	29	30	31	1
INFLU #	14370	14503	14644	14773	14887	15010	15137
FLOW	110	133	141	129	114	123	127
EFFLU #	9624	106796	117639	128584	137881	148553	158060
FLOW	9920	10550	10843	10945	9297	10672	9507
RAIN	0	0	0	0	0	0	.2
TEMP	37°	36°	25°	19°	37°	52°	48°

EFFLUENT

PH	7.4	7.5	7.5	7.4	7.4	7.4	7.4
DO	6.3	6.2	6.3	6.3	6.2	6.3	6.3

LOWER PUMP STATION

DEPTH	1.8	2.0	2.0	2.4	2.3	1.9	2.6
#1 HRS	311.2	314.5	318.3	321.5	324.2	327.1	330.5
HRS RAN	3.0	3.3	3.8	3.2	2.7	2.9	3.4
#2 HRS	298.1	301.3	304.8	307.8	310.5	313.5	316.5
HRS RAN	2.8	3.2	3.5	3.0	2.7	3.0	3.0

UPPER PUMP STATION

DEPTH	2.1	2.0	2.3	2.0	2.0	2.0	2.1
#1 HRS	169.0	170.7	172.4	174.0	175.5	177.0	178.6
HRS RAN	1.3	1.7	1.7	1.6	1.5	1.5	1.6
#2 HRS	169.6	171.2	173.1	174.7	176.1	177.6	179.3
HRS RAN	1.4	1.6	1.9	1.6	1.4	1.5	1.7

UV LIGHT

JAN. ①

#1 HRS	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	3121	3144	3168	3192	3216	3241	3266
#2 INTEN	0.4	.8	.6	.7	.4	.7	.6

673513

688325

MONTH Jan

YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	2	3	4	5	6	7	8
INFLU #	15239	15374	15513	15652	15794	15937	16067
FLOW <i>(in thousands)</i>	102	135	139	149	142	147	125
EFFLU #	16640	1742	1867	1988	2094	2201	2292
FLOW	102	135	125	121	106	107	91
RAIN	0	.10	.80	.10	.20	0	0
TEMP	42°	45°	44°	39°	39°	41°	39°

EFFLUENT

PH	7.5	7.4	7.5	7.5	7.4	7.4	7.5
DO	6.1	6.2	6.2	6.3	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH	2.3	2.0	2.3	3.5	2.9	1.6	2.3
#1 HRS	333.4	336.1	340.7	344.2	347.6	351.0	353.8
HRS RAN	2.9	2.7	4.6	3.5	3.4	3.4	2.8
#2 HRS	318.7	321.5	325.7	329.0	332.3	335.5	338.2
HRS RAN	2.2	2.8	4.2	3.3	3.3	3.2	2.7

UPPER PUMP STATION

DEPTH	2.0	2.9	2.7	2.1	2.1	2.0	2.1
#1 HRS	179.9	181.3	183.4	185.2	187.0	188.8	190.3
HRS RAN	1.3	1.4	2.1	1.8	1.8	1.8	1.5
#2 HRS	180.5	181.9	184.0	185.8	187.6	189.4	190.9
HRS RAN	1.2	1.4	2.1	1.8	1.8	1.8	1.5

UV LIGHT

#1 HRS	OFF	OFF	OFF	OFF	17	43	66
#1 INTEN	—	—	—	—	2.1	2.8	2.7
#2 HRS	3288	3312	3336	3360	OFF	OFF	OFF
#2 INTEN	1.0	1.1	1.9	.9	OFF	—	—

Switch
UV
light
6:30pm

MONTH Jan YEAR 2023

DAY OF WEEK	10649 MON	10739 TUES	10827 WED	11001 THURS	11001 FRI	SAT	SUN
DATE	9	10	11	12	13	14	15
INFLU #	16201	16334	16453	16575	16719	16852	16982
FLOW	139	133	129	122	144	133	130
EFFLU #	2408	2515	2609	2702	2793	2892	2980
FLOW	116	107	94	93	91	44	88
RAIN	0	0	0	0.20	0.40	0	0
TEMP	31°	30°	25°	37°	45°	31°	33°

10739

EFFLUENT

PH	7.5	7.4	7.4	7.5	7.5	7.5	7.5
DO	6.2	6.2	6.1	6.3	6.2	6.3	6.3

LOWER PUMP STATION

DEPTH	1.9	2.3	1.6	2.8	2.8	3.1	3.2
#1 HRS	357.2	360.3	362.9	365.6	369.2	372.0	374.7
HRS RAN	3.1	3.1	2.6	2.7	3.6	2.8	2.7
#2 HRS	341.1	344.0	346.7	349.2	352.5	355.3	357.9
HRS RAN	2.9	2.9	2.7	2.5	3.3	2.8	2.6

UPPER PUMP STATION

DEPTH	2.7	2.2	2.9	2.1	2.2	2.7	2.2
#1 HRS	192.0	193.7	195.1	196.6	198.3	200.0	201.5
HRS RAN	1.7	1.7	1.4	1.5	1.7	1.7	1.5
#2 HRS	192.7	194.3	195.7	197.2	199.1	200.6	202.3
HRS RAN	1.8	1.6	1.4	1.5	1.9	1.5	1.6

UV LIGHT

#1 HRS	89	113	137	161	185	210	234
#1 INTEN	3.5	1.9	5.0	1.8	1.9	5.1	6.0
#2 HRS	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#2 INTEN	—	—	—	—	—	—	—

10739

MONTH JAN

YEAR 2023

HER
FLOW
meter
EFF
meter

DAY OF WEEK	11243	11346	11428	11512	11626	SAT	SUN
MON	TUES	WED	THURS	FRI	SAT	SUN	
DATE	16	17	18	19	20	21	22
INFLU #	17103	17247	17367	17486	17639	17764	17918
FLOW	121	144	120	119	153	125	154
EFFLU #	3071	3164	3261	3336	3449	3547	3656
FLOW	91	93	97	75	113	100	107
RAIN	0	0	.10	.10	.60	0	0
TEMP	19°	39°	43°	37°	41°	35°	36°

EFFLUENT

PH	7.5	7.4	7.5	7.5	7.4	7.5	7.5
DO	6.2	6.2	6.1	6.1	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH	2.1	3.2	2.0	2.9	2.1	2.7	2.6
#1 HRS	377.3	380.1	382.9	385.7	389.5	392.2	396.2
HRS RAN	2.6	2.8	2.8	2.8	3.8	2.7	4.0
#2 HRS	360.4	364.0	366.6	369.3	372.9	375.5	378.7
HRS RAN	2.5	3.6	2.6	2.7	3.6	2.6	3.2

UPPER PUMP STATION

DEPTH	2.1	2.0	2.1	2.0	2.2	2.9	2.1
#1 HRS	202.9	204.7	206.2	207.7	209.6	211.1	213.1
HRS RAN	1.4	1.8	1.5	1.5	1.9	1.5	2.0
#2 HRS	203.7	205.4	206.9	208.3	210.3	211.8	213.8
HRS RAN	1.5	1.7	1.5	1.4	2.0	1.5	2.0

UV LIGHT

#1 HRS	257	281	305	329	353	377	402
#1 INTEN	5.3	5.5	6.7	4.6	7.3	6.1	10.5
#2 HRS	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#2 INTEN	—	—	—	—	—	—	—

MONTH JAN

YEAR 2023

DAY OF WEEK	11913 MON	12037 TUES	12138 WED	12249 THURS	12360 FRI	SAT	SUN
DATE	23	24	25	26	27	28	29
INFLU #	18048	18211	18349	18502	18658	18796	18946
FLOW	130	163	138	153	156	139	150
EFFLU #	3753	3860	3993	4107	4221	4332	4428
FLOW	97	107	133	114	114	111	96
RAIN	40	10	0	60	0	0	0
TEMP	32°	32°	32°	36°	31°	36°	40°

RAIN/snow

EFFLUENT

PH	7.6	7.5	7.5	7.6	7.5	7.5	7.5
DO	6.3	6.2	6.3	6.3	6.2	6.2	6.3

LOWER PUMP STATION

DEPTH	3.0	1.8	2.3	2.4	2.0	1.8	2.5
#1 HRS	399.4	403.1	406.3	409.9	413.8	416.9	420.4
HRS RAN	3.2	3.7	3.2	3.6	3.9	3.1	3.5
#2 HRS	381.7	385.8	389.0	392.7	396.1	399.1	402.3
HRS RAN	3.0	4.1	3.1	3.7	3.4	3.0	3.2

UPPER PUMP STATION

DEPTH	2.1	3.0	2.7	2.4	2.6	2.1	2.1
#1 HRS	214.7	216.8	218.6	220.4	222.4	224.1	226.0
HRS RAN	1.6	2.1	1.8	1.8	2.0	1.7	1.9
#2 HRS	215.4	217.5	219.2	221.1	223.1	224.8	226.7
HRS RAN	1.6	2.1	1.7	1.9	2.0	1.7	1.9

UV LIGHT

#1 HRS	425	449	473	497	521	544	570
#1 INTEN	5.6	6.3	6.9	6.2	7.0	2.9	12.7
#2 HRS	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#2 INTEN	—	—	—	—	—	—	—

MONTH JAN

YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	30	31					
INFLU #	19089	19254					
FLOW	143	165					
EFFLU #	4546	4664					
FLOW	118	118					
RAIN	0	110					
TEMP	35°	43°					

EFFLUENT

PH	7.6	7.6					
DO	6.1	6.3					

LOWER PUMP STATION

DEPTH	2.9	1.7					
#1 HRS	423.9	428.2					
HRS RAN	3.5	4.3					
#2 HRS	405.7	409.6					
HRS RAN	3.4	3.9					

UPPER PUMP STATION

DEPTH	2.0	3.0					
#1 HRS	227.8	229.9					
HRS RAN	1.8	2.1					
#2 HRS	228.5	230.6					
HRS RAN	1.8	2.1					

UV LIGHT

#1 HRS	593	617					
#1 INTEN	7.8	4.5					
#2 HRS	OFF	OFF					
#2 INTEN	-	-					

MONTH Feb

YEAR 2023

12860 12953 13036

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE			1	2	3	4	5
INFLU #		19254	19366	19496	19611	19726	19857
FLOW			112	130	115	114	131
EFFLU #		4664	4750	4850	4926	5030	5112
FLOW			96	100	76	104	82
RAIN			0	0	0	0	0
TEMP			27°	17°	23°	12°	34°

EFFLUENT

PH			7.5	7.4	7.5	7.5	7.5
DO			6.1	6.2	6.2	6.2	6.2

LOWER PUMP STATION

DEPTH			2.4	2.6	2.3	3.0	2.8
#1 HRS		428.2	430.8	433.9	436.7	439.3	442.5
HRS RAN			2.6	3.1	2.6	2.6	3.2
#2 HRS		409.6	412.1	415.1	417.8	420.7	423.8
HRS RAN			2.5	3.0	2.7	2.9	3.1

UPPER PUMP STATION

DEPTH			2.1	2.2	2.1	3.0	2.9
#1 HRS		229.9	231.3	232.9	234.4	235.9	237.6
HRS RAN			1.4	1.6	1.5	1.5	1.7
#2 HRS		230.6	232.0	233.6	235.1	236.6	238.3
HRS RAN			1.4	1.6	1.5	1.4	1.7

UV LIGHT

#1 HRS			638	665	689	712	738
#1 INTEN			9.8	8.0	7.1	3.9	5.1
#2 HRS			OFF	OFF	OFF	OFF	OFF
#2 INTEN			—	—	—	—	—

1111360 1122484 1133614

MONTH Feb YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	6	7	8	9	10	11	12
INFLU #	19972	20091	20199	20307	20415	20515	20645
FLOW	115	119	108	108	108	100	130
EFFLU #	5210	5305	5388	5471	5552	5632	5724
FLOW	98	95	83	83	81	80	92
RAIN	0	0	0	0	0	0	0
TEMP	29°	21°	30°	36°	49°	33°	36°

EFFLUENT

PH	7.5	7.6	7.4	7.5	7.5	7.6	7.5
DO	6.3	6.1	6.2	6.3	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH	1.7	2.0	2.4	1.8	2.3	2.5	3.3
#1 HRS	445.5	448.4	451.0	453.7	456.3	458.7	462.1
HRS RAN	3.0	2.9	2.6	2.7	2.6	2.4	3.4
#2 HRS	426.7	429.9	432.7	435.3	437.9	440.3	443.1
HRS RAN	2.9	3.2	2.8	2.6	2.6	2.4	2.8

UPPER PUMP STATION

DEPTH	2.2	2.2	2.0	2.1	2.3	2.4	3.1
#1 HRS	239.1	240.6	242.1	243.4	244.8	246.1	247.9
HRS RAN	1.5	1.5	1.5	1.3	1.4	1.3	1.7
#2 HRS	239.8	241.4	242.8	244.2	245.6	246.9	248.5
HRS RAN	1.5	1.6	1.4	1.4	1.4	1.3	1.6

UV LIGHT

#1 HRS	761	785	808	833	857	880	906
#1 INTEN	6.1	7.4	6.7	7.9	8.5	7.5	10.0
#2 HRS	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#2 INTEN	—	—	—	—	—	—	—

1189328 1253907 1261854 1269503 1278126

MONTH Feb YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	13	14	15	16	17	18	19
INFLU #	20776	20881	20981	21078	21170	21269	21370
FLOW	131	105	100	97	92	94	101
EFFLU #	5815	5917	5995	6073	6147	6223	6295
FLOW	91	102	78	78	74	76	72
RAIN	0	0	0	0	0	0	0
TEMP	23°	30°	43°	42°	55°	26°	36°

EFFLUENT

PH	7.5	7.6	7.5	7.5	7.5	7.5	7.5
DO	6.2	6.1	6.1	6.2	6.2	6.2	6.2

LOWER PUMP STATION

DEPTH	1.7	1.6	1.5	3.2	2.8	1.9	2.3
#1 HRS	465.7	468.3	470.7	473.1	475.4	477.7	480.2
HRS RAN	3.6	2.6	2.4	2.4	2.3	2.3	2.5
#2 HRS	446.3	448.9	451.2	453.5	455.7	458.1	460.4
HRS RAN	3.2	2.6	2.3	2.3	2.2	2.4	2.3

74.50
12

UPPER PUMP STATION

DEPTH	2.9	2.1	2.0	2.7	2.1	2.1	2.0
#1 HRS	249.5	250.8	252.1	253.3	254.5	255.9	257.0
HRS RAN	1.7	1.3	1.3	1.2	1.2	1.3	1.2
#2 HRS	250.3	251.7	253.0	254.2	255.4	256.6	257.9
HRS RAN	1.8	1.4	1.3	1.2	1.2	1.2	1.3

UV LIGHT

#1 HRS	928	953	977	1001	1024	1048	1073
#1 INTEN	5.6	7.5	6.1	4.2	5.0	4.4	4.3
#2 HRS	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#2 INTEN	—	—	—	—	—	—	—

1298696 1302525 1306229 1309610 1313410 1317160 1332960

SET TO
3 min.

MONTH

Feb

YEAR

2023

	14427	14509	14579	14681	14798	14865	14957
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	20	21	22	23	24	25	26
INFLU #	21466	21573	21670	21805	21947	22043	22167
FLOW	96	107	97	135	142	96	126
EFFLU #	6362	6439	6501	6574	6690	6764	6841
FLOW	67	70	69	73	116	74	77
RAIN	0	0.50	0.20	0.30	0	0	0
TEMP	43°	42°	43°	38°	41°	29°	45°

EFFLUENT

PH	7.6	7.4	7.3	7.2	7.2	7.3	7.3
DO	6.2	6.3	6.2	6.2	6.3	6.3	6.3

LOWER PUMP STATION

DEPTH	2.6	2.2	3.5	2.3	2.0	2.8	2.2
#1 HRS	462.6	485.3	487.8	491.4	495.9	498.2	501.4
HRS RAN	2.4	2.7	2.5	3.6	4.5	2.3	2.2
#2 HRS	462.8	465.4	467.7	470.8	473.5	475.5	478.6
HRS RAN	2.4	2.6	2.3	3.1	2.7	2.0	3.1

UPPER PUMP STATION

DEPTH	2.1	2.1	1.5	1.8 EST.	2.1	2.3	2.3
#1 HRS	258.3	259.6	260.8	262.0	264.0	265.2	266.8
HRS RAN	1.3	1.3	1.2	1.8 HRS.	2.0	1.2	1.6
#2 HRS	259.1	260.4	261.7	263.1	265.0	266.2	267.8
HRS RAN	1.2	1.3	1.3	1.4	1.4	1.2	1.6

UV LIGHT

#1 HRS	1096	1121	1145	1169	1193	1216	1242
#1 INTEN	4.6	5.1	5.4	6.5	6.5	7.6	4.1
#2 HRS	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#2 INTEN	—	—	—	—	—	—	—

1348180 ~~1464382~~ 1464382 1477119 1489397 1505521 1523622 1547382

MONTH Feb

YEAR 2023

15064 15178

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	27	28					
INFLU #	22301	22444					
FLOW	132	143					
EFFLU #	6915	7029					
FLOW	74	114					
RAIN	0	30					
TEMP	34°	35°					

EFFLUENT

PH	7.4	7.5					
DO	6.3	6.3					

LOWER PUMP STATION

DEPTH	2.8	3.5					
#1 HRS	504.9	508.4					
HRS RAN	3.5	3.5					
#2 HRS	481.8	485.5					
HRS RAN	3.2	3.7					

UPPER PUMP STATION

DEPTH	2.8	2.0					
#1 HRS	268.4	270.2					
HRS RAN	1.6	1.8					
#2 HRS	269.5	271.3					
HRS RAN	1.7	1.8					

UV LIGHT

#1 HRS	1264	1289					
#1 INTEN	7.9	5.3					
#2 HRS	OFF	OFF					
#2 INTEN	-	-					

156525 1579178

MONTH **MARCH**

YEAR 2023

15290 15223 15436 15577 15699

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE			1	2	3	4	5
INFLU #		22444	22584	22682	22783	22955	23096
FLOW			140	98	101	172	141
EFFLU #		7029	7130	7218	7280	7402	7563
FLOW			101	88	62	122	101
RAIN			0	.10	0	.10	0
TEMP			27°	43°	42°	38°	43°

EFFLUENT

PH			7.5	7.6	7.5	7.6	7.5
DO			6.1	6.2	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH			3.2	2.1	3.1	1.8	1.9
#1 HRS		508.4	512.3	514.8	517.3	522.3	526.1
HRS RAN			3.9	2.5	2.5	5.0	3.8
#2 HRS		485.5	488.4	490.8	493.3	497.8	501.4
HRS RAN			2.9	2.4	2.5	4.5	3.6

UPPER PUMP STATION

DEPTH			3.5	2.2	2.3	2.6	2.2
#1 HRS		270.2	270.0	273.2	274.5	276.7	278.5
HRS RAN			1.8	1.2	1.3	2.2	1.8
#2 HRS		271.3	273.1	274.3	275.6	277.8	279.6
HRS RAN			1.8	1.2	1.3	2.2	1.8

UV LIGHT

#1 HRS			1312	1337	1361	1385	1409
#1 INTEN			4.3	4.3	3.6	2.3	7.2
#2 HRS			—	—	—	—	—
#2 INTEN			—	—	—	—	—

1596674 1614138 1625116 1643148

MONTH MARCH

YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	6	7	8	9	10	11	12
INFLU #	23251	23414	23541	236103	23810	23923	24047
FLOW	155	163	127	122	147	113	124
EFFLU #	7401	7739	7851	7942	8054	8133	8212
FLOW	98	138	112	91	112	79	72
RAIN	0	10	0	0	0	0	0
TEMP	24°	44°	34°	28°	34°	34°	35°

EFFLUENT

PH	7.6	7.5	7.5	7.6	7.6	7.6	7.6
DO	6.2	6.1	6.2	6.1	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH	3.2	2.5	2.7	3.1	1.6	2.5	3.3
#1 HRS	530.3	533.8	537.1	540.1	544.1	546.9	550.0
HRS RAN	4.2	3.5	3.3	3.0	4.0	2.8	3.1
#2 HRS	505.4	510.2	513.3	516.3	520.1	522.8	525.8
HRS RAN	4.0	4.8	3.1	3.0	3.8	2.7	3.0

UPPER PUMP STATION

DEPTH	2.5	2.9	2.1	3.0	2.1	2.0	2.5
#1 HRS	280.4	282.6	284.2	285.7	287.6	289.0	290.6
HRS RAN	1.9	2.2	1.6	1.5	1.9	1.4	1.6
#2 HRS	281.5	283.6	285.2	286.8	288.7	290.1	291.7
HRS RAN	1.9	2.1	1.6	1.6	1.9	1.4	1.6

UV LIGHT

#1 HRS	1433	1456	-	-	-	-	-
#1 INTEN	6.3	2.5	-	-	-	-	-
#2 HRS	-	-	3389	3413	3437	3461	3486
#2 INTEN	-	-	3.1	2.6	1.3	0.5	0.4

1659895

1664190

1668493

1676849

1683039

1706502

1726264

Clean UV
#2, put
online

MONTH MARCH

YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	13	14	15	16	17	18	19
INFLU #	24167	24318	24442	24573	24678	24777	24849
FLOW	120	151	124	131	105	99	122
EFFLU #	8300	8426	8508	8610	8691	8759	8859
FLOW	88	126	82	102	81	68	100
RAIN	20	0	0	0	10	10	0
TEMP	36°	32°	30°	36°	43°	36°	27°

EFFLUENT

PH	7.6	7.5	7.5	7.6	7.6	7.4	7.5
DO	6.3	6.2	6.1	6.3	6.2	6.2	6.1

LOWER PUMP STATION

DEPTH	1.7	2.8	3.4	2.1	1.9	1.9	2.8
#1 HRS	553.3	557.1	560.0	563.5	546.0	568.5	571.5
HRS RAN	3.3	3.8	2.9	3.5	2.5	2.5	3.0
#2 HRS	528.8	537.4	535.8	538.4	541.1	543.5	546.4
HRS RAN	3.0	4.1	2.9	2.8	2.5	2.4	2.9

UPPER PUMP STATION

DEPTH	2.1	2.1	2.0	2.0	2.1	2.1	2.1
#1 HRS	292.1	294.1	295.6	297.3	298.7	299.9	301.4
HRS RAN	1.5	2.0	1.5	1.7	1.4	1.2	1.5
#2 HRS	293.2	295.0	296.6	298.2	299.4	300.8	302.3
HRS RAN	1.5	1.8	1.6	1.6	1.4	1.2	1.5

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	3508	3532	3555	3579	3604	3627	3653
#2 INTEN	2.2	1.7	1.3	1.3	1.2	0.9	1.0
	1741552	1750000	1758326	1767615	1779578	1784965	1791084

MONTH MARCH

YEAR 2023

	17152	17273	17346	17419	17501	17577	17654
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	20	21	22	23	24	25	26
INFLU #	25009	25162	25264	25364	25470	25573	25673
FLOW	110	153	102	100	106	103	100
EFFLU #	8744	9064	9142	9216	9296	9377	9454
FLOW	85	120	78	74	80	81	77
RAIN	0	0	0	.30	.50	.36	.10
TEMP	17°	20°	42°	46°	40°	41°	44°

EFFLUENT

PH	7.4	7.5	7.5	7.4	7.5	7.5	7.6
DO	6.2	6.2	6.1	6.3	6.3	6.3	6.3

LOWER PUMP STATION

DEPTH	1.5	2.0	1.6	2.9	2.0	2.0	3.1
#1 HRS	574.2	578.3	580.8	583.2	586.0	588.6	591.4
HRS RAN	2.7	4.1	2.5	2.4	2.8	2.6	2.8
#2 HRS	549.0	559.2	555.5	558.0	560.7	563.2	565.6
HRS RAN	2.0	4.2	2.3	2.5	2.7	2.5	2.4

UPPER PUMP STATION

DEPTH	2.1	2.1	2.0	2.7	2.1	2.2	2.8
#1 HRS	302.8	304.7	306.0	307.3	308.7	310.0	311.3
HRS RAN	1.4	1.9	1.3	1.3	1.4	1.3	1.3
#2 HRS	303.7	305.6	307.0	308.2	309.6	311.0	312.3
HRS RAN	1.4	1.9	1.4	1.2	1.4	1.4	1.3

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	3676	3700	3724	3748	3771	3797	3820
#2 INTEN	1.5	2.0	1.7	1.4	1.9	1.2	0.7

1796941

1802897

1808804

1814514

1820065

1827127

1832216

MONTH MARCH

YEAR 2023

17735 17822 17908 17993 18054

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	27	28	29	30	31		
INFLU #	25782	25895	26007	26110	26209		
FLOW	109	113	112	103	99		
EFFLU #	9536	9610	9700	9772	9837		
FLOW	82	74	90	72	65		
RAIN	0	0	0	0	0		
TEMP	34°	43°	34°	30°	32°		

EFFLUENT

PH	7.6	7.5	7.5	7.4	7.4		
DO	6.1	6.2	6.1	6.1	6.3		

LOWER PUMP STATION

DEPTH	3.0	2.6	2.5	3.2	2.1		
#1 HRS	594.3	597.2	600.0	602.4	605.1		
HRS RAN	2.9	2.9	2.8	2.4	2.7		
#2 HRS	568.3	571.1	574.1	576.5	578.8		
HRS RAN	2.7	2.8	3.0	2.4	2.3		

UPPER PUMP STATION

DEPTH	2.7	2.4	2.1	2.5	2.1		
#1 HRS	312.7	314.2	315.6	316.9	318.1		
HRS RAN	1.4	1.5	1.4	1.3	1.2		
#2 HRS	313.6	315.1	316.5	317.8	319.0		
HRS RAN	1.3	1.5	1.4	1.3	1.2		

UV LIGHT

#1 HRS	—	—	—	1486	1509		
#1 INTEN	—	—	—	7.3	4.2		
#2 HRS	0.7	0.7	0.6	—	—		
#2 INTEN	3843	3867	3892	—	—		

1839444 1845787 1852540 1865850 1879876

MONTH APRIL

YEAR 2023

18160 18242

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE						1	2
INFLU #					26209	26344	26453
FLOW						135	109
EFFLU #					9837	4932	
FLOW						95	75
RAIN						30	10
TEMP						59°	40°

17958?

EFFLUENT

PH						7.5	7.5
DO						6.2	6.2

LOWER PUMP STATION

DEPTH						2.5	1.6
#1 HRS					605.1	608.9	611.7
HRS RAN						3.8	3.0
#2 HRS					578.0	581.7	584.5
HRS RAN						3.9	2.6

UPPER PUMP STATION

DEPTH						2.1	2.1
#1 HRS					318.1	319.4	321.3
HRS RAN						1.8	1.4
#2 HRS					319.0	320.8	322.1
HRS RAN						1.8	1.3

UV LIGHT

#1 HRS					1509	1535	1558
#1 INTEN						4.2	1.2
#2 HRS					—	—	—
#2 INTEN					—	—	—

1891224 1905768

MONTH APRIL

YEAR 2023

18351 18450 18524 18689 18812 18945

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	3	4	5	6	7	8	9
INFLU #	26592	26722	26823	26921	27043	27173	27357
FLOW	139	130	101	98	122	150	164
EFFLU #	9902	267296	290902	358263	464402	516604	584524
FLOW	82	107	83	68	106	52	67
RAIN	0	0	0	0	0	0	0
TEMP	33°	40°	48°	54°	42°	37°	43°

EFFLUENT

PH	7.4	7.5	7.6	7.4	7.4	7.5	7.5
DO	6.0	6.0	6.1	6.0	6.0	6.1	6.1

LOWER PUMP STATION

DEPTH	2.6	2.9	2.9	2.9	2.5	2.2	3.2
#1 HRS	615.7	619.0	621.6	623.9	627	631.6	636.1
HRS RAN	3.8	3.3	2.6	2.3	3.1	4.6	4.5
#2 HRS	587.6	591.0	593.4	595.7	598.7	602.2	606.8
HRS RAN	3.1	3.4	2.4	2.3	3.0	3.5	4.6

UPPER PUMP STATION

DEPTH	2.1	2.0	3.0	2.1	2.0	2.3	2.7
#1 HRS	323.1	324.8	326.1	327.4	328.9	330.8	332.8
HRS RAN	1.8	1.7	1.3	1.3	1.5	1.7	2.0
#2 HRS	323.9	325.5	324.8	328.0	329.6	331.5	333.7
HRS RAN	1.8	1.6	1.3	1.2	1.6	1.7	2.2

UV LIGHT

CLEAN LIGHT

#1 HRS	1581	1605	1629	1653	1678	1700	1725
#1 INTEN	2.9	1.7	1.2	5.1	1.2	14.0	8.5
#2 HRS	-	-	-	-	-	-	-
#2 INTEN	-	-	-	-	-	-	-

1916576 1922681 1930252 1942367 1948743 2046852 2106109

92,039 65,277

MONTH APRIL YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	10	11	12	13	14	15	16
INFLU #	27493	27590	27683	27783	27912	28002	28113
FLOW	136	97	93	100	129	90	111
EFFLU #	687730	752	8264	891	978	1039	1104
FLOW	103	65	74	65	87	61	65
RAIN	0	0	0	0	0	10	30
TEMP	32°	40°	53°	45°	38°	65°	64°

EFFLUENT

PH	7.1	7.2	7.2	7.2	7.1	7.2	7.2
DO	6.0	6.1	6.2	6.3	6.0	6.1	6.1

LOWER PUMP STATION

DEPTH	2.5	3.3	2.9	2.0	3.1	3.2	2.5
#1 HRS	640.5	644.1	647.6	651.0	655.5	658.9	667.0
HRS RAN	4.4	3.6	3.5	3.4	4.5	3.4	4.1
#2 HRS	610.7	612.9	615.0	617.4	620.0	621.9	624.6
HRS RAN	3.9	2.2	2.1	2.4	2.6	1.4	2.7

UPPER PUMP STATION

DEPTH	2.3	2.6	2.9	2.1	2.7	2.6	2.6
#1 HRS	334.6	335.8	336.9	338.2	339.8	340.9	342.3
HRS RAN	1.9	1.2	1.1	1.3	1.6	1.1	1.4
#2 HRS	335.5	336.7	337.9	339.2	340.9	342.1	343.6
HRS RAN	1.8	1.2	1.2	1.3	1.7	1.2	1.5

UV LIGHT

#1 HRS	1741	1773	1797	1821	1845	1864	1894
#1 INTEN	1.1	8.7	6.6	3.6	5.1	5.7	11.3
#2 HRS	—	—	—	—	—	—	—
#2 INTEN	—	—	—	—	—	—	—

2106109 2120850 2163348 2171113 2196340 2214514 2236610 2247752

MONTH APRIL

YEAR 2023

	19613	19697	19761	19840	19907	19977	20056
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	17	18	19	20	21	22	23
INFLU #	28237	28349	28438	28545	28641	28739	28843
FLOW	124	112	89	107	96	48	104
EFFLU #	1193	1295	1348	1426	1475	1539	1611
FLOW	89	102	53	78	49	64	72
RAIN	10	0	0	0	0	0	90
TEMP	49°	43°	28°	50°	54°	65°	53°

EFFLUENT

PH	7.2	7.1	7.1	7.1	7.2	7.2	7.2
DO	6.1	6.0	6.2	6.1	6.2	6.2	6.2

LOWER PUMP STATION

DEPTH	2.2	3.4	2.5	2.5	3.1	2.1	3.6
#1 HRS	667.2	671.0	674.4	678.2	681.8	685.3	687.2
HRS RAN	4.2	3.8	3.4	3.8	3.6	3.5	3.9
#2 HRS	627.7	630.3	632.3	634.7	636.9	639.3	641.6
HRS RAN	3.1	2.6	2.0	2.4	2.2	2.4	2.3

UPPER PUMP STATION

DEPTH	2.0	2.2	2.1	2.6	2.9	1.9	2.4
#1 HRS	343.9	345.4	346.5	347.9	349.1	350.1	351.4
HRS RAN	1.6	1.5	1.1	1.4	1.2	1.0	1.3
#2 HRS	345.2	346.6	347.6	349.0	350.2	357.7	359.0
HRS RAN	1.4	1.4	1.0	1.4	1.2	7.5	1.3

UV LIGHT

#1 HRS	1917	1942	1965	1989	2014	2038	2062
#1 INTEN	13.4	4.6	13.2	3.2	9.4	8.5	4.9
#2 HRS	—	—	—	—	—	—	—
#2 INTEN	—	—	—	—	—	—	—

2280691 2301027 2312854 2327141 2342121 2356331 2372171

MONTH APRIL

YEAR 2023

	20152	20231	20321	20407	20408	20563	20659
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	24	25	26	27	28	29	30
INFLU #	29972	29081	29198	29314	29423	29520	29654
FLOW	129	109	117	116	109	97	134
EFFLU #	1712	1785	1866	1949	2014	2077	2080
FLOW	101	73	81	83	65	80	86
RAIN	0	0	0	.10	0	.60	1.5
TEMP	40°	46°	41°	50°	50°	49°	53°

EFFLUENT

PH	7.2	7.1	7.4	7.3	7.4	7.4	7.1
DO	0.1	0.3	0.1	7.0	7.2	7.2	7.2

LOWER PUMP STATION

DEPTH	2.6	2.9	2.7	2.3	3.7	3.1	2.0
#1 HRS	694.0	697.8	701.6	705.7	709.1	711.8	715.3
HRS RAN	4.8	3.8	3.8	4.1	3.4	2.7	3.5
#2 HRS	644.6	646.9	649.6	651.9	654.4	657.0	660.2
HRS RAN	3.0	2.3	2.7	2.3	2.5	2.6	3.2

UPPER PUMP STATION

DEPTH	2.1	2.5	2.2	2.1	2.9	2.9	2.4
#1 HRS	353.1	353.5	355.0	356.6	357.3	358.6	360.2
HRS RAN	1.7	0.4	1.5	1.6	0.7	1.3	1.6
#2 HRS	360.7	361.1	362.5	364.0	375.1	376.4	378.1
HRS RAN	1.7	0.4	1.4	1.5	1.1	1.3	1.7

UV LIGHT

#1 HRS	2085	2109	2133	2157	2181	2204	2230
#1 INTEN	4.5	3.2	3.4	2.6	2.7	4.9	2.7
#2 HRS	—	—	—	—	—	—	—
#2 INTEN	—	—	—	—	—	—	—

2385606 2463422 2482509 2496450 2521706 2535405 2551800

MONTH MAY YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	1	2	3	4	5	6	7
INFLU #	29874	30053	30218	30381	30511	30640	30797
FLOW	220	179	165	163	130	129	137
EFFLU #	2355	2485	2609	2727	2825	2922	3044
FLOW	175	130	124	118	98	97	122
RAIN	1.0	0.20	0.10	0.10	0.10	0	0
TEMP	40°	42°	41°	43°	42°	46°	63°

29654
2180

EFFLUENT

PH	7.4	7.3	7.4	7.4	7.3	7.3	7.3
DO	7.1	7.2	7.1	7.2	7.2	7.2	7.2

LOWER PUMP STATION

DEPTH	1.9	3.3	2.0	3.0	2.8	3.3	1.9
#1 HRS	723.0	727.8	732.6	736.8	740.2	743.2	747.6
HRS RAN	7.7	4.8	4.8	4.2	3.4	3.0	4.4
#2 HRS	665.8	670.8	674.5	679.0	682.2	685.5	688.8
HRS RAN	5.6	5.0	3.7	4.5	3.2	3.3	3.3

715.3
660.2

UPPER PUMP STATION

DEPTH	2.4	2.0	2.7	2.5	2.1	3.0	2.3
#1 HRS	363.1	365.4	367.6	369.6	371.3	372.0	375.0
HRS RAN	2.9	2.3	2.2	2.0	1.7	1.6	2.1
#2 HRS	381.1	383.4	385.5	387.7	389.3	391.0	393.0
HRS RAN	3.0	2.3	2.1	2.2	1.6	0.7	2.0

360.2
378.1

UV LIGHT

#1 HRS	2253	2277	2300	2325	2349	2372	2398
#1 INTEN	2.4	3.0	2.3	3.7	4.0	5.3	2.4
#2 HRS	—	—	—	—	—	—	—
#2 INTEN	—	—	—	—	—	—	—

2583063 2660413 2645899 2657510 2668709 2677272 2690473

71"

MONTH MAY

YEAR 2023

DAY OF WEEK	21675	21771	21893	21984	22067	22162	22249
DATE	MON	TUES	WED	THURS	FRI	SAT	SUN
INFLU #	30931	31056	31213	31336	31451	31577	31697
FLOW	134	125	157	123	115	124	120
EFFLU #	3139	3234	3331	3432	3511	3616	3703
FLOW	95	9.5	9.7	101	79	109	87
RAIN	0	0	0	0	0	0	0
TEMP	53°	56°	57°	46°	43°	65°	59°

EFFLUENT

PH	7.5	7.4	7.4	7.3	7.3	7.3	7.3
DO	7.2	7.1	7.3	7.0	7.1	7.1	7.2

LOWER PUMP STATION

DEPTH	2.1	3.2	1.9	2.4	3.0	1.5	2.8
#1 HRS	751.2	754.5	758.7	761.6	764.3	767.1	769.8
HRS RAN	3.6	3.3	4.2	2.9	2.7	2.8	2.7
#2 HRS	692.2	695.1	698.9	702.0	704.7	708.1	711.0
HRS RAN	3.4	2.9	3.8	3.1	2.7	3.4	1.9

UPPER PUMP STATION

DEPTH	2.2	2.2	2.4	2.3	3.0	2.1	2.1
#1 HRS	376.7	378.4	380.4	382.0	383.5	385.1	386.7
HRS RAN	1.7	1.7	2.0	1.6	1.5	1.6	1.6
#2 HRS	394.7	396.3	398.3	399.9	401.4	403.1	404.6
HRS RAN	1.7	1.6	2.0	1.6	1.5	1.7	1.5

UV LIGHT

#1 HRS	2421	2443	2469	2493	2517	2540	2566
#1 INTEN	3.4	2.5	2.3	4.9	4.1	2.7	2.2
#2 HRS	—	—	—	—	—	—	—
#2 INTEN	—	—	—	—	—	—	—

2716884 2740632 2756515 2767620 2779267 2791466 2801516

MONTH MAY

YEAR 2023

	22364	22448	22521	22596	22677	22757	22832
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	15	16	17	18	19	20	21
INFLU #	31849	31961	32069	32174	32285	32393	32497
FLOW	152	112	108	105	111	108	106
EFFLU #	3775	3813	3892	3965	4036	4117	4197
FLOW	72	38	79	73	71	83	78
RAIN	0	0	0	0	0	0	20
TEMP	41°	43°	52°	35°	56°	60°	57°

EFFLUENT

PH	7.4	7.5	7.4	7.4	7.5	7.5	7.5
DO	7.2	7.2	7.1	7.2	7.0	7.1	7.1

LOWER PUMP STATION

DEPTH	3.0	1.7	3.5	1.6	2.6	2.1	1.8
#1 HRS	773.9	777.0	779.5	782.1	784.6	787.4	790.0
HRS RAN	2.1	3.1	2.5	2.6	2.5	2.8	2.6
#2 HRS	714.3	716.8	719.2	721.7	724.5	726.9	729.5
HRS RAN	3.3	2.5	2.4	2.5	2.8	2.4	2.6

UPPER PUMP STATION

DEPTH	2.5	2.1	2.2	2.1	3.1	2.2	2.1
#1 HRS	388.5	390.0	391.3	392.7	394.1	395.5	396.8
HRS RAN	1.8	1.5	1.3	1.4	1.4	1.4	1.3
#2 HRS	406.5	407.9	409.3	410.6	412.1	413.4	414.8
HRS RAN	1.9	1.4	1.4	1.3	1.5	1.3	1.4

UV LIGHT

#1 HRS	2589	2613	—	—	—	—	—
#1 INTEN	3.7	2.0	—	—	—	—	—
#2 HRS	—	—	3892	3917	3941	3965	3989
#2 INTEN	—	—	4.5	6.5	4.5	3.7	2.7

2812362 2864018 2874476 2884612 2895785 2906960 2918252

MONTH MAY

YEAR 2023

	22933	23042	23110	23180	23252	23335	23398
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	22	23	24	25	26	27	28
INFLU #	32630	32768	32863	32958	33057	33169	33259
FLOW	131	138	95	95	99	112	90
EFFLU #	4277	4379	4456	4513	4581	4669	4737
FLOW	80	102	77	57	68	88	68
RAIN	0	0	0	0	0	0	0
TEMP	50°	45°	51°	48°	47°	60°	58°

EFFLUENT

PH	7.5	7.4	7.4	7.5	7.4	7.4	7.4
DO	7.1	7.2	7.1	7.2	7.3	7.3	7.3

LOWER PUMP STATION

DEPTH	2.2	1.7	3.3	2.5	2.4	1.6	1.9
#1 HRS	793.7	797.7	800.0	802.4	804.8	807.4	809.5
HRS RAN	3.7	4.0	2.3	2.4	2.4	2.6	2.1
#2 HRS	732.2	735.2	737.5	739.8	742.2	744.0	746.8
HRS RAN	2.7	3.0	2.3	2.3	2.4	2.7	1.9

UPPER PUMP STATION

DEPTH	2.1	2.1	2.1	2.2	2.1	2.1	2.1
#1 HRS	398.5	400.2	401.5	402.7	404.0	405.4	406.6
HRS RAN	1.7	1.7	1.3	1.2	1.3	1.4	1.2
#2 HRS	416.5	418.3	419.5	420.7	422.0	423.5	424.6
HRS RAN	1.7	1.8	1.2	1.2	1.3	1.5	1.1

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	4013	4037	4061	4085	4109	4133	4156
#2 INTEN	2.1	1.8	4.1	5.4	9.2	4.9	4.0

2929275 3015613 3028280 3041699 3055471 3068866 3077752

MONTH MAY

YEAR 2022

DAY OF WEEK	23475	23576	23645	23724			
	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	29	30	31				
INFLU #	33368	33493	33587	33693			
FLOW	109	125	94	106			
EFFLU #	4804	4899	4983	5058			
FLOW	67	95	84	75			
RAIN	0	0	0	0			
TEMP	64°	50°	50°	47°			

EFFLUENT

PH	7.5	7.4	7.4	7.4			
DO	6.2	6.3	6.1	6.2			

LOWER PUMP STATION

DEPTH	2.0	2.1	1.9	3.2			
#1 HRS	812.0	815.6	817.8	820.4			
HRS RAN	2.5	3.6	2.2	2.6			
#2 HRS	749.4	752.3	754.6	757.3			
HRS RAN	2.6	2.9	2.3	2.7			

UPPER PUMP STATION

DEPTH	3.0	2.1	2.1	2.0			
#1 HRS	408.0	409.7	410.9	412.3			
HRS RAN	1.4	1.7	1.2	1.4			
#2 HRS	426.1	427.7	429.0	430.4			
HRS RAN	1.5	1.6	1.3	1.4			

UV LIGHT

#1 HRS	—	—	—	—			
#1 INTEN	—	—	—	—			
#2 HRS	418.2	420.5	422.9	425.3			
#2 INTEN	3.6	3.3	2.8	2.5			

3086122 3094363 3102299 3110785

MONTH June

YEAR 2023

23724 23798 23736

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE				1	2	3	4
INFLU #				33693	33790	33891	33777
FLOW				106	97	101	88
EFFLU #				5058	5135	5209	5273
FLOW				75	77	74	64
RAIN				0	0	0	0
TEMP				47°	47°	78°	68°

EFFLUENT

PH				7.4	7.5	7.5	7.5
DO				6.2	6.0	6.1	6.1

LOWER PUMP STATION

DEPTH				3.2	2.9	3.0	2.4
#1 HRS				820.4	822.8	825.2	827.5
HRS RAN				2.6	2.4	2.5	2.2
#2 HRS				757.3	759.7	762.2	764.2
HRS RAN				2.7	2.4	2.5	2.0

UPPER PUMP STATION

DEPTH				2.0	2.7	2.1	2.3
#1 HRS				412.3	413.6	415.0	416.2
HRS RAN				1.4	1.3	1.4	1.2
#2 HRS				430.4	431.7	433.1	434.3
HRS RAN				1.4	1.3	1.4	1.2

UV LIGHT

#1 HRS				—	—	—	—
#1 INTEN				—	—	—	—
#2 HRS				4253	4277	4302	4327
#2 INTEN				2.5	2.5	3.5	3.6
				3110785	3114551	3124608	3138307

MONTH June

YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	5	6	7	8	9	10	11
INFLU #	34072	34197	34290	34387	34478	34568	34654
FLOW	93	125	93	97	91	90	86
EFFLU #	5343	5441	5518	5585	5655	5717	5775
FLOW	70	98	67	67	70	62	58
RAIN	0	0	0	0	0	0	0
TEMP	57°	45°	47°	45°	47°	64°	66°

EFFLUENT

PH	7.5	7.4	7.4	7.3	7.4	7.4	7.4
DO	6.1	6.2	6.0	6.1	6.2	6.2	6.2

LOWER PUMP STATION

DEPTH	3.1	2.9	1.5	1.6	3.4	3.3	3.2
#1 HRS	829.7	833.4	835.6	837.9	840.0	842.6	843.7
HRS RAN	2.2	3.7	2.2	2.3	2.1	2.0	1.9
#2 HRS	766.7	769.3	771.5	773.7	775.6	777.5	779.4
HRS RAN	2.5	2.6	2.2	2.2	1.9	1.9	1.9

UPPER PUMP STATION

DEPTH	2.9	2.3	2.2	2.2	2.0	2.0	3.0
#1 HRS	417.4	419.0	420.2	421.5	422.6	423.7	424.8
HRS RAN	1.2	1.6	1.2	1.3	1.1	1.1	1.1
#2 HRS	435.6	437.3	438.6	439.8	441.0	442.1	443.3
HRS RAN	1.3	1.7	1.3	1.2	1.2	1.1	1.1

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	4349	4373	4397	4421	4445	4469	4493
#2 INTEN	2.7	2.4	2.8	2.2	2.2	2.3	3.7

3145663 3190860 3199216 3241311 3250158 3258984 3267484

MONTH June

YEAR 2023

DAY OF WEEK	24493 MON	24569 TUES	24650 WED	24709 THURS	24763 FRI	24830 SAT	24894 SUN
DATE	12	13	14	15	16	17	18
INFLU #	34761	34864	34974	35175	35265	35353	35446
FLOW	107	103	110	101	90	88	93
EFFLU #	5849	5920	6011	6066	6135	6179	6260
FLOW	74	71	91	55	69	67	61
RAIN	0	.90	0	.10	.10	.70	0
TEMP	70°	54°	57°	52°	49°	65°	71°

EFFLUENT

PH	7.4	7.5	7.5	7.4	7.4	7.4	7.4
DO	6.2	6.1	6.1	6.2	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH	2.8	2.7	2.4	2.3	2.2	2.9	2.4
#1 HRS	846.6	849.3	852.2	854.2	856.2	858.3	860.5
HRS RAN	2.7	2.7	2.9	2.0	2.0	2.1	2.2
#2 HRS	781.9	784.1	786.3	788.2	790.2	792.2	794.2
HRS RAN	2.5	2.2	2.2	1.9	2.0	2.0	2.0

UPPER PUMP STATION

DEPTH	2.1	2.1	2.1	2.1	2.1	2.1	2.2
#1 HRS	426.2	427.4	428.9	429.9	431	432.1	433.3
HRS RAN	1.4	1.2	1.4	1.1	1.1	1.1	1.2
#2 HRS	444.5	445.9	447.3	448.4	449.4	450.6	451.7
HRS RAN	1.3	1.4	1.4	1.1	1.0	1.2	1.1

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	4518	4541	4565	4589	4613	4637	4662
#2 INTEN	3.0	2.1	2.0	5.6	3.7	3.1	4.0
	3321401	3329305	3337656	3346010	3354151	3362731	3371537

MONTH JUNE

YEAR 2023

24951 25036 25115 25190 25256 25324 25387

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	19	20	21	22	23	24	25
INFLU #	35525	35635	35740	35845	35938	36036	36129
FLOW	79	110	105	105	93	48	93
EFFLU #	6320	6378	6402	6552	6628	6703	6771
FLOW	60	58	84	90	76	75	68
RAIN	0	0	0	.50	.30	.60	.25
TEMP	56°	68°	63°	57°	63°	72°	71°

35446

6260

EFFLUENT

PH	7.3	7.4	7.4	7.5	7.5	7.5	7.5
DO	6.1	6.2	6.1	6.3	6.1	6.1	6.2

LOWER PUMP STATION

DEPTH	1.9	2.6	1.8	2.9	1.9	1.8	3.2
#1 HRS	860.4	865.6	868.4	870.8	873.1	875.4	877.6
HRS RAN	1.9	3.2	2.8	2.4	2.3	2.3	2.2
#2 HRS	796.1	798.2	800.8	803.3	805.5	807.7	809.7
HRS RAN	1.9	2.1	2.6	2.5	2.2	2.2	2.0

860.5

794.2

UPPER PUMP STATION

DEPTH	2.0	2.2	2.5	3.0	2.2	2.0	2.7
#1 HRS	434.3	435.8	437.2	438.5	439.7	440.9	442.1
HRS RAN	1.0	1.5	1.4	1.3	1.2	1.2	1.2
#2 HRS	452.8	454.2	455.6	457.0	458.2	459.4	460.6
HRS RAN	1.1	1.4	1.4	1.4	1.2	1.2	1.2

433.3

451.7

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	4685	4709	4733	4757	4781	4805	4829
#2 INTEN	3.3	4.9	4.9	3.2	2.8	2.6	2.5

338278 3388665 3377111 3405407 3413410 3422225 3431142

MONTH June

YEAR 2023

25484 25562 25639 25712 25785

36129

6771

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	26	27	28	29	30		
INFLU #	36358	36365	36468	36569	36670		
FLOW	129	107	103	101	101		
EFFLU #	6840	6932	7019	7097	7161		
FLOW	69	92	87	78	64		
RAIN	2	0	.90	0	0		
TEMP	70°	74°	66°	61°	66°		

EFFLUENT

PH	7.5	7.4	7.4	7.5	7.4		
DO	6.8	6.2	6.1	6.0	6.1		

LOWER PUMP STATION

877.6

809.7

DEPTH	2.1	2.8	2.3	3.4	2.8		
#1 HRS	880.0	882.7	885.3	887.6	890.2		
HRS RAN	2.4	2.7	2.6	2.3	2.6		
#2 HRS	813.4	815.8	818.4	820.7	822.9		
HRS RAN	3.7	2.4	2.6	2.3	2.2		

UPPER PUMP STATION

442.1

460.6

DEPTH	2.1	3.0	2.1	2.0	2.1		
#1 HRS	443.8	445.1	446.5	447.7	449.0		
HRS RAN	1.7	1.3	1.4	1.2	1.3		
#2 HRS	462.2	463.6	464.9	466.2	467.5		
HRS RAN	1.6	1.4	1.3	1.3	1.3		

UV LIGHT

#1 HRS	—	—	—	—	—		
#1 INTEN	—	—	—	—	—		
#2 HRS	4853	4877	4901	4925	4949		
#2 INTEN	2.5	2.4	2.6	2.3	2.3		

3439726 3448665 3456490 3464599 3473334

MONTH July

YEAR 2023

25785

25848

25940

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE						1	2
INFLU #					36670	36760	36653
FLOW						90	123
EFFLU #					7161	7242	7334
FLOW						81	92
RAIN						0	1.4"
TEMP						70°	76°

EFFLUENT

PH					7.4	7.4	7.4
DO					6.1	6.1	6.1

LOWER PUMP STATION

DEPTH						2.4	2.1
#1 HRS					890.2	892.3	895.5
HRS RAN						2.1	3.2
#2 HRS					822.9	825.0	828.0
HRS RAN						2.1	3.0

UPPER PUMP STATION

DEPTH						2.1	2.0
#1 HRS					449.0	450.2	451.8
HRS RAN						1.2	1.5
#2 HRS					467.5	468.7	470.2
HRS RAN						1.2	1.3

UV LIGHT

#1 HRS					—	4972	4998
#1 INTEN					—	2.8	3.3
#2 HRS						4972	4998
#2 INTEN						2.8	3.3

SBR 1

MLSS							
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SBR 2

MLSS	42000				1600		
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3473334 3477165 3481113

MONTH July

YEAR 2023

26010 26095 26181 26260 26342 26416 26494

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	3	4	5	6	7	8	9
INFLU #	36975	37083	37189	37288	37397	37492	37591
FLOW	92	109	106	99	109	95	99
EFFLU #	7412	7500	7585	7664	7752	7843	7927
FLOW	78	88	85	79	88	91	84
RAIN	.10	.50	0	0	0	.40	0
TEMP	70°	72°	70°	70°	74°	74°	78°

36883

7334

EFFLUENT

PH	7.4	7.5	7.5	7.4	7.4	7.4	7.5
DO	6.2	6.1	6.3	6.2	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH	3.0	1.8	2.6	3.4	1.8	3.5	3.1
#1 HRS	897.9	900.8	903.7	906.4	909.0	911.5	914.2
HRS RAN	2.4	2.9	2.9	2.7	2.6	2.5	3.3
#2 HRS	830.3	833.1	836.0	838.6	841.4	843.8	846.3
HRS RAN	2.3	2.8	2.9	2.6	2.8	2.4	2.5

895.5

828.0

UPPER PUMP STATION

DEPTH	2.0	2.6	2.3	2.1	2.6	3.1	2.6
#1 HRS	453.0	454.4	455.9	457.2	458.6	459.9	461.3
HRS RAN	1.2	1.4	1.5	1.3	1.4	1.3	1.4
#2 HRS	471.5	472.9	474.4	475.8	477.2	478.5	479.8
HRS RAN	1.3	1.4	1.5	1.4	1.4	1.3	1.3

451.8

470.2

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	5021	5045	5069	5093	5117	5141	5166
#2 INTEN	2.6	2.8	2.5	2.6	2.5	2.5	1.8

SBR 1

MLSS				1900			
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SBR 2

MLSS			1800				
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3484132 3489649 3492268 3497084 3500751 3504427 3508633

MONTH July YEAR 2023
 26589 26669 26736 26830 26983 27048 27127

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	10	11	12	13	14	15	16
INFLU #	37709	37807	37896	38015	41476	41562	41666
FLOW	118	98	89	120	160	86	104
EFFLU #	8018	8105	8181	8260	8315	8400	8472
FLOW	91	87	76	79	5.5	85	72
RAIN	1.2	0	0	0	0	0	1.5
TEMP	66°	65°	65°	70°	74°	74°	75°

EFFLUENT

PH	7.4	7.5	7.5	7.4	7.5	7.5	7.5
DO	6.3	6.2	6.1	6.2	6.3	6.3	6.3

LOWER PUMP STATION

DEPTH	2.3	1.7	1.9	3.7	3.5	2.7	1.7
#1 HRS	917.6	920.2	922.6	925.9	931.3	933.5	936.3
HRS RAN	3.4	2.6	2.4	3.3	5.4	2.2	2.8
#2 HRS	849.4	852.0	854.2	857.2	862.4	864.6	867.4
HRS RAN	3.1	2.6	2.2	3.0	5.2	2.2	2.8

UPPER PUMP STATION

DEPTH	2.6	2.2	2.1	2.6	2.1	2.2	2.2
#1 HRS	462.9	464.2	465.4	467.0	484.9	486.1	487.4
HRS RAN	1.6	1.3	1.2	1.6	7.9	1.2	1.3
#2 HRS	481.4	482.8	484.0	485.6	502.2	504.3	505.7
HRS RAN	1.6	1.4	1.2	1.6	7.6	1.1	1.4

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	5189	5213	5235	5261	5287	5302	5374
#2 INTEN	3.0	2.3	1.7	2.3	6.3	5.1	4.9

SBR 1

MLSS							
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SBR 2

MLSS	2400						
	turn back to 2 min waste 3511821	3519952	3527803	3536653	3538907	3550391	3558767
			↑ 7AM		↑ 1045 computer fail		

MONTH July

YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	17	18	19	20	21	22	23
INFLU # <small>41660</small>	41772	41889	41984	42108	42216	42327	42421
FLOW	104	117	95	124	108	106	97
EFFLU # <small>8472</small>	8552	8657	8744	8810	8893	8993	9065
FLOW <small>8472</small>	80	105	87	66	83	100	72
RAIN	0	70	0	0	80	0	0
TEMP	67°	68°	68°	70°	71°	68°	73°

EFFLUENT

PH	7.4	7.5	7.4	7.4	7.5	7.4	7.4
DO	6.2	6.1	6.2	6.1	6.3	6.3	6.3

LOWER PUMP STATION

DEPTH	3.0	3.4	2.2	3.4	1.9	2.5	3.2
#1 HRS <small>936.3</small>	939.2	942.5	945.1	965.5	968.4	970.8	973.4
HRS RAN	2.9	3.3	2.6	2.4	2.9	2.4	2.6
#2 HRS <small>867.4</small>	870.4	873.4	875.8	876.2	879.1	882.0	884.5
HRS RAN	3.0	3.0	2.4	1.4	2.9	2.9	2.5

UPPER PUMP STATION

DEPTH	2.0	2.1	2.2	2.1	2.3	2.2	3.0
#1 HRS <small>447.4</small>	448.9	490.5	491.7	492.9	494.4	495.8	497.1
HRS RAN	1.5	1.6	1.2	1.2	1.5	1.4	1.3
#2 HRS <small>505.7</small>	507.2	508.8	510.1	511.2	512.7	514.2	515.5
HRS RAN	1.5	1.6	1.3	1.1	1.5	1.5	1.3

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	5357	5381	5405	5429	5453	5476	5502
#2 INTEN	4.0	2.6	2.1	1.6	1.1	1.5	1.2

SBR 1

MLSS							
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SBR 2

MLSS							
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3567121 3575563 3583720 3591520 3600045 3608907 3617721

MONTH July 28324

YEAR 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	31						
INFLU # 43102	43192						
FLOW	90						
EFFLU # 7637	9699						
FLOW	72						
RAIN	0						
TEMP	61°						

EFFLUENT

PH	7.4						
DO	6.7						

LOWER PUMP STATION

DEPTH	2.5						
#1 HRS 991.4	993.8						
HRS RAN	2.4						
#2 HRS 902.6	904.9						
HRS RAN	2.3						

UPPER PUMP STATION

DEPTH	3.4						
#1 HRS 506.6	507.6						
HRS RAN	1.0						
#2 HRS 524.9	524.0						
HRS RAN	1.1						

UV LIGHT

#1 HRS	—						
#1 INTEN	—						
#2 HRS	5693						
#2 INTEN	4.7						

SBR 1

MLSS							
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SBR 2

MLSS							
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3675893

MONTH **AUG**

YEAR **2023**

28324 28394 28459 28533 28606 28650 28750

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE		1	2	3	4	5	6
INFLU #	43192	43281	43367	43461	43554	43650	43741
FLOW		89	86	94	93	96	91
EFFLU #	9699	9771	9839	9904	9983	60118	129101
FLOW		72	68	65	79	135 EST.	69
RAIN		0	0	0	0	.80	0
TEMP		57°	56°	61°	66°	72°	76°

EFFLUENT

PH		7.5	7.4	7.4	7.5	7.4	7.4
DO		6.2	6.1	6.2	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH		2.9	2.4	2.3	2.3	2.3	3.3
#1 HRS	993.8	996.2	998.5	1001.1	1003.5	1006.1	1008.5
HRS RAN		2.4	2.3	2.6	2.4	2.6	2.4
#2 HRS	904.9	907.2	909.4	911.7	914.3	916.7	919.0
HRS RAN		2.3	2.2	2.3	2.6	2.4	2.2

UPPER PUMP STATION

DEPTH		2.2	2.1	2.1	2.1	2.2	2.5
#1 HRS	507.6	508.9	510.0	511.3	512.6	513.4	515.1
HRS RAN		1.3	1.1	1.3	1.3	1.3	1.2
#2 HRS	526.0	527.2	528.4	529.7	530.9	532.2	533.5
HRS RAN		1.2	1.2	1.3	1.2	1.3	1.3

UV LIGHT

#1 HRS		—	—	—	—	—	—
#1 INTEN		—	—	—	—	—	—
#2 HRS		57.7	57.40	57.65	57.89	58.14	58.38
#2 INTEN		4.6	4.1	4.3	4.3	4.7	4.9

SBR 1

MLSS							
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SBR 2

MLSS							
	3675693	3684070	3691957	3700720	3709595	3719587	3728083

MONTH AUG YEAR 2023
 28839 28956 29019 29086 29152 29220 29291

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	7	8	9	10	11	12	13
INFLU # 43741	43850	43985	44069	44156	44245	44336	44430
FLOW	109	135	84	87	89	41	94
EFFLU #	2084	3217	4027	4698	5374	6028	6801
FLOW	110 ^{EST}	113 3	81 9	67 X	67 6	65 4	77 9
RAIN	.50	.40	0	0	.10	0	1.4"
TEMP	73°	76°	62°	70°	63°	74°	72°

EFFLUENT

PH	7.5	7.4	7.5	7.5	7.4	7.4	7.4
DO	6.1	6.3	6.2	6.3	6.1	6.2	6.2

LOWER PUMP STATION

DEPTH	3.1	1.8	2.4	2.8	3.5	2.0	1.7
#1 HRS 1036.5	1011.7	1015.7	1017.9	1020.1	1022.4	1024.8	1027.3
HRS RAN	3.2	4.0	2.2	2.2	2.3	2.4	2.5
#2 HRS 919	921.8	925.0	927.1	929.3	931.5	933.8	936.1
HRS RAN	2.8	3.2	2.1	2.2	2.2	2.3	2.3

UPPER PUMP STATION

DEPTH	2.1	2.1	2.1	3.0	2.1	2.1	2.1
#1 HRS 515.1	516.6	518.5	519.6	520.8	521.9	523.2	524.5
HRS RAN	1.5	1.9	1.1	1.2	1.1	1.3	1.3
#2 HRS 533.5	535.0	536.8	538.0	539.2	540.4	541.6	542.9
HRS RAN	1.5	1.8	1.2	1.2	1.2	1.2	1.3

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	5861	5885	5909	5933	5957	5982	6004
#2 INTEN	4.1	3.8	3.9	3.6	3.4	4.0	4.5

SBR 1

MLSS							
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SBR 2

MLSS							
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3736338 3743740 3752543 3761302 3770206 3780046 3787716

MONTH AUG
30085

YEAR 2023
30284

30442

30523

30586

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	21	22	23	24	25	26	27
INFLU # 45309	45413	45560	45660	45758	45871	45976	46060
FLOW	104	147	100	98	113	105	84
EFFLU # 14074	14805	16020	16823	17542	18230	19100	19753
FLOW	73 1	121 5	80 8	71 9	68 8	87 0	65 3
RAIN	0	0	0	0	.50	.10	0
TEMP	62°	65°	55°	66°	68°	77°	67°

EFFLUENT

PH	7.5	7.5	7.4	7.4	7.5	7.5	7.5
DO	6.3	6.2	6.1	6.2	6.3	6.3	6.3

LOWER PUMP STATION

DEPTH	2.8	1.9	1.7	3.3	1.9	2.8	2.8
#1 HRS 1057.0	1054.6	1059.3	1061.9	1064.3	1067.5	1070.4	1072.6
HRS RAN	2.8	4.7	2.6	2.4	3.2	2.9	2.2
#2 HRS 958.9	961.7	965.2	967.6	969.9	972.4	975.1	977.3
HRS RAN	2.8	3.5	2.4	2.3	2.5	2.7	2.2

UPPER PUMP STATION

DEPTH	2.1	2.7	2.1	3.0	2.1	2.2	2.2
#1 HRS 536.7	538.1	540.1	541.4	542.7	544.2	545.6	546.8
HRS RAN	1.4	2.0	1.3	1.3	1.5	1.4	1.2
#2 HRS 535.1	556.5	558.5	559.9	561.2	562.7	564.1	565.2
HRS RAN	1.5	2.0	1.4	1.3	1.5	1.4	1.1

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	6197	6220	6245	6268	6293	6318	6341
#2 INTEN	4.0	3.6	2.6	2.5	2.3	2.5	2.2

SBR 1

MLSS							
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SBR 2

MLSS							
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3855250 3863705 3872010 3880114 3888388 3898544 3906602

MONTH AUG

YEAR 2023

301602 30757 30856 30930 30995

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	28	29	30	31	1		
INFLU # 46260	46157	46275	46374	46493	46584		
FLOW	97	118	119	99	91		
EFFLU # 19153	20438	2137	2216	2308	2377		
FLOW	65	94	79	92	69		
RAIN	0	0	.50	0	0		
TEMP	68°	66°	68°	61°	48°		

EFFLUENT

PH	7.5	7.5	7.6	7.6	7.5		
DO	6.2	6.1	6.1	6.3	6.2		

LOWER PUMP STATION

DEPTH	1.8	3.5	2.5	2.0	3.4		
#1 HRS 1072.6	1075.3	1078.6	1082.5	1085.2	1087.4		
HRS RAN	2.7	3.5	3.7	2.7	2.2		
#2 HRS 977.3	979.9	982.7	985.7	988.2	990.4		
HRS RAN	2.6	2.8	3.0	2.5	2.2		

UPPER PUMP STATION

DEPTH	2.2	2.9	2.8	2.4	2.4		
#1 HRS 546.8	548.1	549.6	551.3	552.7	553.8		
HRS RAN	1.3	1.5	1.7	1.4	1.1		
#2 HRS 565.2	566.6	568.2	569.8	571.1	572.3		
HRS RAN	1.4	1.6	1.7	1.3	1.2		

UV LIGHT

#1 HRS	—	—	—	—	—		
#1 INTEN	—	—	—	—	—		
#2 HRS	6365	6390	6413	6437	6461		
#2 INTEN	2.1	5.7	7.2	6.3	6.3		

SBR 1

clean

MLSS	1600						
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SBR 2

MLSS		1700					
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3915421 3920072 3923256 3926909 3921015

MONTH SEPT

YEAR 2023

31062 31125

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE					1	2	3
INFLU #					46584	46676	46766
FLOW					91	92	90
EFFLU #					2377	2447	2517
FLOW					69	70	70
RAIN					0	0	0
TEMP					48°	64°	71°

EFFLUENT

PH					7.5	7.5	7.5
DO					6.2	6.3	6.3

LOWER PUMP STATION

DEPTH					3.4	2.0	2.0
#1 HRS					1087.4	1089.8	1092.2
HRS RAN					2.2	2.4	2.4
#2 HRS					990.4	992.7	994.8
HRS RAN					2.2	2.3	2.1

UPPER PUMP STATION

DEPTH					2.4	2.1	2.2
#1 HRS					553.8	555.0	556.2
HRS RAN					1.1	1.2	1.2
#2 HRS					572.3	573.5	574.7
HRS RAN					1.2	1.2	1.2

UV LIGHT

#1 HRS					—	—	—
#1 INTEN					—	—	—
#2 HRS					6461	6485	6507
#2 INTEN					6.3	5.9	5.5

SBR 1

MLSS							
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SBR 2

MLSS							
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3974151 3977810

MONTH SEPT

YEAR 2023

31200

31274

31339

31412

31492

31555

31618

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	4	5	6	7	8	9	10
INFLU # 46766	46862	46956	47044	47138	47252	47339	47425
FLOW	96	94	88	94	114	87	86
EFFLU # 2517	2580	2657	2721	2782	2867	2929	2993
FLOW	69	71	64	61	85	62	64
RAIN	0	0	0	0	.50	0	0.40
TEMP	79°	106°	70°	68°	68°	72°	71°

EFFLUENT

PH	7.5	7.4	7.4	7.5	7.4	7.3	7.4
DO	6.2	6.2	6.1	6.3	6.2	6.3	6.1

LOWER PUMP STATION

DEPTH	2.6	2.4	2.0	1.7	1.9	2.7	2.3
#1 HRS 1092.2	1094.6	1097.3	1099.5	1101.8	1104.8	1107.0	1109.1
HRS RAN	2.4	2.7	2.2	2.3	3.0	2.2	2.1
#2 HRS 974.3	997.3	999.8	1002.0	1004.6	1006.9	1009.0	1011.1
HRS RAN	2.5	2.5	2.2	2.6	2.3	2.1	2.1

UPPER PUMP STATION

RESET
PANEL ↓

DEPTH	2.6	2.8	2.4	2.2	2.2	4.0	2.2
#1 HRS 556.2	557.5	558.7	559.9	561.2	562.6	563.5	564.6
HRS RAN	1.3	1.2	1.2	1.3	1.4	0.9	1.1
#2 HRS 574.7	576.0	577.3	578.4	579.7	581.1	582.1	583.2
HRS RAN	1.3	1.3	1.1	1.3	1.4	1.0	1.1

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	6534	6557	6580	6604	6629	6653	6677
#2 INTEN	5.7	5.0	4.7	4.7	4.5	4.4	4.1

SBR 1

MLSS							
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SBR 2

MLSS							
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3941922 3949156 3957216 3966025 3974991 3983762 3992170

MONTH SEPT

YEAR 2023

	31719	31786	31850	31929	31991	32052	32112
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	11	12	13	14	15	16	17
INFLU # 47425	47553	47641	47727	47831	47921	48006	48095
FLOW	128	88	86	104	90	85	89
EFFLU # 2993	3068	3152	3212	3272	3350	3411	3470
FLOW	75	84	60	60	78	61	59
RAIN	.20	0	.20	0	0	0	0
TEMP	66°	62°	64°	53°	46°	63°	57°

EFFLUENT

PH	7.5	7.5	7.5	7.4	7.5	7.4	7.4
DO	6.2	6.1	6.2	6.2	6.1	6.1	6.2

LOWER PUMP STATION

DEPTH	2.2	3.0	2.3	2.2	3.7	1.6	3.1
#1 HRS 1109.1	1112.5	1144.8	1117.0	1119.7	1121.8	1123.8	1125.8
HRS RAN	3.4	2.3	2.2	2.7	2.1	2.0	2.0
#2 HRS 1011.1	1014.1	1016.3	1018.4	1020.7	1022.7	1024.8	1026.8
HRS RAN	3.1	2.2	2.1	2.3	2.0	2.1	2.0

UPPER PUMP STATION

DEPTH	2.3	2.4	2.2	2.7	2.5	2.3	2.1
#1 HRS 564.6	566.3	567.5	568.6	570.0	571.1	572.2	573.3
HRS RAN	1.7	1.2	1.1	1.4	1.1	1.1	1.1
#2 HRS 573.2	585.0	586.1	587.3	588.6	589.8	590.9	592.0
HRS RAN	1.8	1.1	1.2	1.3	1.2	1.1	1.1

UV LIGHT

#1 HRS	—	—	—	—	—	—	—
#1 INTEN	—	—	—	—	—	—	—
#2 HRS	6701	6724	6749	6773	6797	6821	6845
#2 INTEN	3.8	3.5	3.5	3.3	3.0	3.0	2.9

SBR 1

MLSS							
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SBR 2

MLSS							
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4000570 4008879 4016856 4025689 4034645 4043305 4052635

MONTH SEPT

YEAR 2023

	32229	32316	32375	32454	32537	32611	32681
DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	18	19	20	21	22	23	24
INFLU # 48095	48244	48356	48441	48552	48665	48772	48865
FLOW	149	112	85	111	113	107	93
EFFLU # 3470	3558	3663	3728	3792	3865	3941	4011
FLOW	88	105	65	64	73	76	70
RAIN	1.4"	0	0	0	0	.10	.90
TEMP	59°	51°	49°	53°	56°	56°	59°

EFFLUENT

PH	7.5	7.5	7.4	7.4	7.5	7.5	7.5
DO	6.3	6.1	6.2	6.1	6.2	6.2	6.2

LOWER PUMP STATION

DEPTH	3.4	1.9	2.2	2.0	2.0	2.1	2.2
#1 HRS 1125.8	1130.1	1133.0	1135.0	1137.5	1140.3	1142.9	1145.3
HRS RAN	4.3	2.9	2.0	2.5	2.5	2.6	2.4
#2 HRS 1026.8	1030.5	1033.1	1035.0	1037.8	1040.3	1042.8	1045.1
HRS RAN	3.7	2.6	1.9	2.8	2.5	2.5	2.3

UPPER PUMP STATION

DEPTH	2.1	2.1	2.2	2.1	2.2	2.0	2.1
#1 HRS 572.3	575.2	576.6	577.7	579.1	580.6	581.9	583.1
HRS RAN	1.9	1.4	1.1	1.4	1.5	1.3	1.2
#2 HRS 592.0	593.9	595.4	596.5	597.9	599.3	600.6	601.8
HRS RAN	1.9	1.5	1.1	1.4	1.4	1.3	1.2

UV LIGHT

#1 HRS	—	—	—	—	2659	2685	2706
#1 INTEN	—	—	—	—	8.5	7.3	6.3
#2 HRS	6869	6893	6915	6941	—	—	—
#2 INTEN	3.1	2.3	1.8	2.1	—	—	—

SBR 1

MLSS							
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SBR 2

MLSS							
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4060005 4068355 4076457 4085026 4093954 4103777 411115

MONTH SEPT

YEAR 2023

32835 32971 33107 33143 33222 33278

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	25	26	27	28	29	30	
INFLU #	49052	49224	49345	49461	49569	49672	
FLOW	187	172	121	116	108	103	
EFFLU #	4147	4267	4361	4443	4528	4599	
FLOW	134	120	94	82	85	71	
RAIN	.2	.30	.20	0	.10	.10	5
TEMP	59°	56°	54°	55°	57°	60°	

EFFLUENT

PH	7.4	7.5	7.5	7.5	7.4	7.4	
DO	6.3	6.2	6.2	6.1	6.2	6.2	

LOWER PUMP STATION

DEPTH	2.7	1.7	2.6	3.1	3.3	3.3	3.3
#1 HRS 1145.3	1150.8	1155.1	1158.2	1161.1	1163.8	1166.5	1166.5
HRS RAN	5.5	4.3	3.1	2.9	2.7	2.7	
#2 HRS 1046.1	1050.3	1054.7	1057.5	1060.3	1063.0	1065.5	
HRS RAN	5.2	4.4	2.8	2.8	2.7	2.5	

UPPER PUMP STATION

DEPTH	2.2	2.2	2.2	2.8	2.1	2.4	
#1 HRS 582.1	585.5	587.7	589.1	590.6	592.0	593.2	
HRS RAN	2.4	2.2	1.4	1.5	1.4	1.2	
#2 HRS 601.8	604.3	606.4	607.9	609.4	610.7	612.0	
HRS RAN	2.5	2.1	1.5	1.5	1.3	1.3	

UV LIGHT

#1 HRS	2731	2755	2778	2803	2827	2851	
#1 INTEN	4.9	5.1	6.7	7.8	4.9	6.8	
#2 HRS	—	—	—	—	—	—	—
#2 INTEN	—	—	—	—	—	—	—

SBR 1

MLSS							
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SBR 2

MLSS							
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4119871 4124001 4127691 4131263 4134794 4138202

MONTH Oct

YEAR 2023

33385

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE							1
INFLU #							42789
FLOW							117
EFFLU #							4684
FLOW							85
RAIN							0
TEMP							68°

EFFLUENT

PH							7.4
DO							6.2

LOWER PUMP STATION

DEPTH							2.8
#1 HRS							1168.5
HRS RAN							3.0
#2 HRS							1068.5
HRS RAN							3.0

UPPER PUMP STATION

DEPTH							2.3
#1 HRS							541.8
HRS RAN							1.6
#2 HRS							613.5
HRS RAN							1.5

UV LIGHT

#1 HRS							2877
#1 INTEN							5.8
#2 HRS							—
#2 INTEN							—

SBR 1

MLSS							
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SBR 2

MLSS							
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4142136

MONTH Oct YEAR 2023
 33460 33575 33646

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	2	3	4	5	6	7	8
INFLU # 49789	49890	50031	50128				
FLOW	101	141	97				
EFFLU # 4684	4764	4865	4938				
FLOW	80	101	63				
RAIN	0	0	0				
TEMP	57°	57°	54°				

EFFLUENT

PH	7.5	7.5	7.4				
DO	6.2	6.1	6.2				

LOWER PUMP STATION

DEPTH	2.0	3.1	2.0				
#1 HRS 1169.5	1172.2	1175.4	1177.8				
HRS RAN	2.7	3.2	2.4				
#2 HRS 1016.5	1071.0	1075.6	1077.9				
HRS RAN	2.5	4.6	2.3				

UPPER PUMP STATION

DEPTH	2.0	2.2	2.1				
#1 HRS 594.8	596.1	598.0	599.2				
HRS RAN	1.3	1.9	1.2				
#2 HRS 613.5	614.9	616.7	618.0				
HRS RAN	1.4	1.8	1.3				

UV LIGHT

#1 HRS	2899	2923	2947				
#1 INTEN	4.4	3.7	3.9				
#2 HRS	—	—	—				
#2 INTEN	—	—	—				

SBR 1

MLSS							
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SBR 2

MLSS							
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4145031 4160411 4167229

MONTH Oct

YEAR 2023

33385

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE							1
INFLU #							44789
FLOW							117
EFFLU #							4684
FLOW							85
RAIN							0
TEMP							68°

EFFLUENT

PH							7.4
DO							6.2

LOWER PUMP STATION

DEPTH							2.8
#1 HRS							1169.5
HRS RAN							3.0
#2 HRS							1068.5
HRS RAN							3.0

LOWER PUMP STATION

	2.	3.	4.	5.	6.	7.	8.
DEPTH	2.0	3.1	2.0	2.4	3.5	2.4	2.1
#1 HRS 1169.5	1172.2	1175.4	1177.8	1180.3	1182.5	1185.2	1187.9
HRS RAN	2.7	3.2	2.4	2.5	2.2	2.7	2.7
#2 HRS 1068.5	1071.0	1075.6	1077.9	1080.4	1082.5	1085.0	1087.7
HRS RAN	2.5	4.6	2.3	2.5	2.1	2.5	2.7

LOWER PUMP STATION

	9.	10.	11.	12.	13.	14.	15.
DEPTH	1.9	2.0	2.8	2.7	2.8	1.8	3.5
#1 HRS 1187.9	1190.6	1191.5	1193.6	1195.6	1196.7	1198.9	1202.9
HRS RAN	2.7	0.9	2.1	2.0	L.L	2.2	4.0
#2 HRS 1087.7	1090.4	1091.2	1093.2	1095.1	1096.2	1098.4	1102.2
HRS RAN	2.7	0.8	2.0	1.9	L.L	2.2	3.8

UPPER PUMP STATION

DEPTH	2.1	2.8	2.1	2.5	2.1	2.2	3.0
#1 HRS 604.3	605.6	607.4	608.6	609.6	610.7	611.9	613.8
HRS RAN	1.3	1.8	1.2	1.0	L.L	1.2	1.9
#2 HRS 623.2	624.6	626.3	627.5	628.6	629.0	630.4	632.8
HRS RAN	1.4	1.7	1.2	1.1	L.L	1.1	1.9

MONTH OCT

YEAR 2023

34613 34700 34796 34861 34929 35006 35074

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	16	17	18	19	20	21	22
INFLU # 51301	51425	51549	51784	51948	52060	52166	52261
FLOW	124	124	235	164	112	106	95
EFFLU # 5741	5828	5906	5989	6051	6115	6185	6252
FLOW	87	78	83	62	64	70	67
RAIN	0	0	0	0	0	10	0
TEMP	45°	43°	42°	37°	56°	57°	50°

EFFLUENT

PH	7.5	7.4	7.5	7.5	7.4	7.4	7.4
DO	6.4	6.0	6.3	6.4	6.5	6.5	6.5

LOWER PUMP STATION

	16.	17.	18.	19.	20.	21.	22.
DEPTH	3.7	2.1	2.9	1.5	2.8	2.1	3.4
#1 HRS 1202.9	1205.8	1209.1	1212.2	1214.5	1216.9	1219.5	1221.9
HRS RAN	2.9	3.3	3.1	2.3	2.4	2.6	2.4
#2 HRS 1102.2	1106.1	1108.8	1111.6	1113.9	1116.1	1118.5	1120.7
HRS RAN	3.9	2.7	2.8	2.3	2.2	2.4	2.2

LOWER PUMP STATION

	23.	24.	25.	26.	27.	28.	29.
DEPTH	1.6	3.4	1.5	2.6	2.5	2.6	3.5
#1 HRS 1221.9	1224.3	1227.0	1229.3	1231.6	1234.2	1236.6	1239.0
HRS RAN	2.4	2.7	2.3	2.3	2.6	2.4	2.4
#2 HRS 1120.7	1123.0	1127.2	1129.3	1131.6	1133.6	1135.8	1138.3
HRS RAN	2.3	4.2	2.1	2.3	2.0	2.2	2.5

LOWER PUMP STATION

	30.	31.					
DEPTH	2.8	2.8					
#1 HRS 1237.0	1241.4	1243.7					
HRS RAN	2.4	2.3					
#2 HRS 1135.3	1140.6	1142.8					
HRS RAN	2.3	2.2					

UPPER PUMP STATION

DEPTH	2.7	2.8					
#1 HRS 631.7	632.8	633.9					
HRS RAN	1.1	1.1					

MONTH: Nov YEAR: 2023

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE			1	2	3	4	5
INFLU #			53226	53326	53413	53553	53638
FLOW			87	90	87	140	85
EFFLU #			6981	6977	7031	7126	7182
FLOW			59	56	54	45	56
RAIN			0	0	0	0	0
TEMP			34°	29°	26°	45°	51°

EFFLUENT

PH	DO
7.5	7.8
7.0	7.5
7.5	8.1
7.5	7.9
7.5	7.9

LOWER PUMP STATION

DEPTH	#1 HRS	HRS RAN	#2 HRS	HRS RAN
2.1	1257.0	2.0	1153.1	1.9
2.4	1270.4	2.1	1166.0	2.0
1.5	1250.3	2.2	1149.2	2.2
3.1	1248.1	2.2	1147.0	2.2
1.6	1245.9	2.2	1144.9	2.2

LOWER PUMP STATION

DEPTH	#1 HRS	HRS RAN	#2 HRS	HRS RAN
2.2	1259.5	2.5	1155.5	1.9
1.8	1262.1	2.6	1158.1	1.9
3.0	1264.3	2.2	1160.1	2.0
2.0	1266.4	2.1	1162.2	2.1
1.6	1268.3	1.9	1164.0	2.0

LOWER PUMP STATION

DEPTH	#1 HRS	HRS RAN	#2 HRS	HRS RAN
2.2	1275.0	2.6	1170.4	1.9
2.4	1279.0	4.0	1172.9	2.5
2.5	1282.1	3.1	1175.7	2.8
3.4	1294.2	2.1	1177.6	1.9
2.7	1286.1	1.9	1179.5	1.9

UPPER PUMP STATION

DEPTH	#1 HRS	HRS RAN	#2 HRS	HRS RAN
2.1	649.0	1.2	608.4	1.3
2.1	650.7	1.7	670.1	1.7
2.1	652.1	1.4	671.6	1.5
2.0	653.2	1.1	672.6	1.0
2.3	654.2	1.0	673.6	1.0
2.9	655.1	0.9	674.6	1.0
2.1	656.2	1.1	675.6	1.0

SBR 1

#1 HRS	#1 INTEN	#2 HRS	#2 INTEN
4444	1.6	—	—
4200	1.1	—	—
4292	1.2	—	—
4316	2.0	—	—

UV LIGHT

DEPTH	#1 HRS	HRS RAN	#2 HRS	HRS RAN
2.1	666.4	1.5	687.4	1.5
2.1	667.7	1.3	687.4	1.5
2.5	668.9	1.2	688.5	1.1
2.1	669.9	1.0	689.5	1.0

UPPER PUMP STATION

DEPTH	#1 HRS	HRS RAN	#2 HRS	HRS RAN
2.3	1310.9	3.2	1203.5	3.0
2.8	1313.8	2.9	1206.3	2.8
2.9	1316.1	2.8	1208.5	2.2
2.4	1318.1	2.0	1210.5	2.0

LOWER PUMP STATION

DEPTH	#1 HRS	HRS RAN	#2 HRS	HRS RAN
2.4	1293.1	2.1	1185.2	2.1
2.5	1295.1	3.0	1188.0	2.8
2.0	1298.8	3.7	1191.9	2.9
3.3	1301.3	2.5	1194.7	2.5
1.6	1303.7	2.4	1196.6	2.2
1.7	1305.6	1.9	1198.4	1.8
2.2	1307.7	2.1	1200.5	2.1

LOWER PUMP STATION

PH	DO
7.5	8.4
7.4	8.7
7.4	7.8
7.3	8.7
7.9	8.4
7.4	8.4
7.4	8.4

EFFLUENT

DAY OF WEEK	DATE	INFLU #	FLOW	EFFLU #	FLOW	RAIN	TEMP
MON	20	55074	92	8091	50	0	26°
TUES	21	55201	127	8159	58	0	26°
WED	22	55362	161	8271	112	1.7	46°
THURS	23	55462	100	8342	71	2	45°
FRI	24	55549	87	8396	54	2	49°
SAT	25	55627	78	8454	58	0	27°
SUN	26	55716	89	8509	75	0	31°

DEPTH	2.7	2.1	2.4	2.2	2.0	3.0	2.9
#1 HRS	681.7	690.4	689.1	687.8	686.1	684.8	683.4
HRS RAN	1.7	1.3	1.3	1.7	1.3	1.4	1.7
#2 HRS	703.1	702.1	704.5	705.9	707.6	708.9	710.1
HRS RAN	7.7	7.1	7.3	7.7	7.7	7.3	7.5
HRS RAN	1.4	1.2	1.3	1.7	1.4	1.4	1.4

UPPER PUMP STATION

DEPTH	3.3	2.3	3.2	2.7	3.1	3.5	2.3
#1 HRS	1361.9	1359.1	1356.7	1354	1352.3	1347.6	1344.6
HRS RAN	2.8	2.4	2.7	3.7	2.7	3.0	3.6
#2 HRS	1252.7	1250.1	1247.7	1245.3	1242.6	1240.0	1237.2
HRS RAN	2.6	2.4	2.4	2.7	2.6	2.8	3.4

LOWER PUMP STATION

DEPTH	1.5	3.0	2.0	2.8	2.4	2.8	2.6
#1 HRS	1341.0	1338.7	1337.3	1334.4	1332.4	1330.2	1327.4
HRS RAN	2.3	1.4	2.9	2.2	2.2	2.8	2.6
#2 HRS	1233.8	1231.5	1228.5	1227.5	1225.5	1222.4	1219.3
HRS RAN	2.3	1.2	2.8	2.0	3.1	2.1	2.4

LOWER PUMP STATION

DEPTH	3.4	2.2	1.9				
#1 HRS	1324.8	1322.6	1320.3	1318.1			
HRS RAN	2.2	2.3	1.2				
#2 HRS	1216.9	1214.7	1212.5	1210.5			
HRS RAN	2.2	2.2	2.0				

LOWER PUMP STATION

PH	7.5	7.5	7.5				
DO	9.1	9.1	9.1				

EFFLUENT

DAY OF WEEK	SUN	SAT	FRI	THURS	WED	TUES	MON
DATE	3	2	1				
INFLU #	56413	56316	56221	56132			
FLOW	97	95	89				
EFFLU #	8937	8884	8821	8769			
FLOW	53	63	58				
RAIN	1.30	1.20	0				
TEMP	50°	49°	53°				

MONTH DEC YEAR 2023
 37878 37944 38008

MONTH **DEC** YEAR **2023**
 39269 39436 39575 39685 39782 39876 39975

DAY OF WEEK	MON	TUES	WED	THURS	FRI	SAT	SUN
DATE	18	19	20	21	22	23	24
INFLU # 57871	58062	58257	58422	58559	58698	58823	58949
FLOW	191	195	165	137	139	125	126
EFFLU # 4939	7552	238242	355135	466381	550196	650244	735547
FLOW	170	EST-169	168	112	83	100	85
RAIN	2.4	0	0	0	0	0	1.0
TEMP	49°	36°	32°	33°	33°	37°	44°

EST. →

EFFLUENT

PH	7.3	7.3	7.4	7.3	7.3	7.3	7.4
DO	8.3	8.1	8.3	8.0	6.0	6.0	6.1

LOWER PUMP STATION

	18.	19.	20.	21.	22.	23.	24.
DEPTH	3.1	2.3	1.6	1.9	2.0	2.6	2.6
#1 HRS 1361.9	1369.5	1375.7	1380.3	1384.2	1387.7	1391.0	1394.4
HRS RAN	7.6	6.2	4.6	3.9	3.5	3.3	3.4
#2 HRS 1252.7	1257.1	1262.2	1266.4	1269.9	1273.1	1276.3	1279.6
HRS RAN	4.4	5.1	2.2	3.5	3.2	3.2	3.3

LOWER PUMP STATION

	25.	26.	27.	28.	29.	30.	31.
DEPTH	3.7	2.2	3.0	1.6	2.4	2.2	3.2
#1 HRS 1394.4	1397.3	1401.3	1405.2	1408.9	1412.1	1415.4	1418.9
HRS RAN	2.9	4.0	3.9	3.7	3.2	3.3	3.5
#2 HRS 1279.6	1282.2	1285.1	1289.2	1292.6	1296.1	1299.1	1302.3
HRS RAN	2.6	2.9	4.1	3.4	3.5	3.0	3.2

UPPER PUMP STATION

DEPTH	2.3	2.2	2.8	2.2	2.2	2.0	2.3
#1 HRS 709.9	707.2	708.0	710.9	712.7	714.3	715.4	717.6
HRS RAN	1.3	1.6	2.1	1.8	1.6	1.6	1.7
#2 HRS 725.6	727.0	728.7	730.6	732.4	734.1	735.7	737.4
HRS RAN	1.4	1.7	1.9	1.8	1.7	1.6	1.7

UV LIGHT

#1 HRS	4917	4940	4964	4989	5012	5036	5061
#1 INTEN	1.8	1.7	2.2	1.4	1.5	1.0	
#2 HRS	—	—	—	—	—	—	—
#2 INTEN	—	—	—	—	—	—	—

MAINTENANCE MONTH JAN 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13	GREASE/Check Belts	—————→		clean bulbs bank #2
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH FEB 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	GREASE/Check Belts	—————→		
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH MARCH 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8	GREASE / check Belts	GREASE / check Belts	GREASE / check Belts + oil	clean bulbs UV BANK #2
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH APRIL 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12	GREASE	GREASE	GREASE	
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26	GREASE	GREASE	Tighten bolts Digester/GREASE	
27				
28				
29				
30				
31				

MAINTENANCE MONTH MAY 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12	GREASE	GREASE	GREASE, CHECK OIL + BELTS	
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH June 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23	GREASE	GREASE	GREASE, check oil + Belts	clean UV bulbs tank #1
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH July 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21	GREASE	GREASE	GREASE, CHECK OIL & Belts	
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH AUG 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16	GREASE	GREASE	GREASE, CHECK OIL + BELTS	
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE

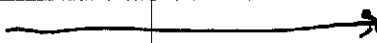
MONTH SEPT 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15	GREASE PUMP CHECK BELTS	GREASE PUMP/CHECK BELTS	GREASE/CHECK OIL & BELTS	
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH OCT 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				clean bulbs bank #1
20	GREASE/CHALK BELTS		—————→	
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH Nov 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	GREASE/Check Belts 			
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

MAINTENANCE MONTH DEC 23

DATE	UPPER PUMP	LOWER PUMP	BLOWERS	UV
1				
2				
3				
4				
5	GREASE/Check Belts		→	Clean bulbs bank #2
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

ATTACHMENT D: Sewage Sludge Management Inventory



SEWAGE SLUDGE MANAGEMENT INVENTORY

As a part of the 2022 Wastewater Treatment Plant Upgrades Project, the previously existing treatment tanks were repurposed into Aerobic Sludge Digestors. The tanks were updated with new coarse bubble diffusers and were reconnected to the headworks of the plant for RAS purposes. Sludge to be disposed is pumped and hauled from site after decanting from the repurposed Aerobic Digestors to thicken sludge.

The total dry tons of sludge hauled off site in 2023 was 13.949 tons.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

JANUARY 2023
NPDES Permit No. PA 0024457
This permit will expire on April 30, 2023

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site			
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons	
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
1/11/23	5,300	1.8	X 0.0000417	0.398			X 0.01					
1/11/23	5,300	1.8	X 0.0000417	0.398			X 0.01					
1/11/23	5,300	2.0	X 0.0000417	0.442			X 0.01					
1/11/23	5,300	1.5	X 0.0000417	0.332			X 0.01					
1/26/23	5,500	0.9	X 0.0000417	0.206			X 0.01					
1/26/23	5,500	1.1	X 0.0000417	0.252			X 0.01					
1/26/23	5,500	1.1	X 0.0000417	0.252			X 0.01					
			X 0.0000417				X 0.01					
	37,700	1.5	X 0.0000417				X 0.01					
			TOTAL:	2.280			TOTAL:	0.00			TOTAL:	0.00

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	2.280156	
Gallons Disposed:	0	37,700	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____
Date: _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

FEBRUARY 2023
NPDES Permit No. PA 0024457
This permit will expire on April 30, 2023

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site			
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons	
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
2/14/23	5,400	2.0	X 0.0000417	0.450			X 0.01					
2/14/23	5,400	1.8	X 0.0000417	0.405			X 0.01					
2/14/23	5,400	1.5	X 0.0000417	0.338			X 0.01					
2/14/23	5,400	1.8	X 0.0000417	0.405			X 0.01					
2/15/23	5,400	1.5	X 0.0000417	0.338			X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
	27,000	1.7	X 0.0000417				X 0.01					
			TOTAL:	1.937			TOTAL:	0.00			TOTAL:	0.00

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	1.936548	
Gallons Disposed:	0	27,000	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____
Date: _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

APRIL 2023
NPDES Permit No. PA 0024457
This permit will expire on April 30, 2023

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site				
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons		
4/27/23	5,600	1.4	X 0.0000417	0.327			X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
4/26/23	5,600	1.2	X 0.0000417	0.280			X 0.01						
4/27/23	5,400	1.2	X 0.0000417	0.270			X 0.01						
4/27/23	5,400	1.3	X 0.0000417	0.293			X 0.01						
4/27/23	5,600	1.3	X 0.0000417	0.304			X 0.01						
4/27/23	5,600	1.2	X 0.0000417	0.280			X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
	33,200	1.3	X 0.0000417				X 0.01						
TOTAL:				1.754	TOTAL:				0.00	TOTAL:			0.00

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0.326928	1.426974	
Gallons Disposed:	5,600	27,600	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____
Date: _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

JUNE 2023
NPDES Permit No. PA 0024457
This permit will expire on April 30, 2022

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site							
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons					
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
6/8/23	5,500	1.4	X 0.0000417	0.321			X 0.01									
6/8/23	5,500	1.6	X 0.0000417	0.367			X 0.01									
6/8/23	5,500	1.4	X 0.0000417	0.321			X 0.01									
6/8/23	5,500	1.5	X 0.0000417	0.344			X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
			X 0.0000417				X 0.01									
	22,000	1.5	X 0.0000417				X 0.01									
	TOTAL:			1.353			TOTAL:			0.00			TOTAL:			0.00

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	1.353165	
Gallons Disposed:	0	22,000	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____
Date: _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

JULY 2023
NPDES Permit No. PA 0024457
This permit will expire on April 30, 2022

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site			
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons	
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
7/19/23	5,500	1.9	X 0.0000417	0.436			X 0.01					
7/19/23	5,500	2.1	X 0.0000417	0.482			X 0.01					
7/19/23	5,500	2.2	X 0.0000417	0.505			X 0.01					
7/20/23	5,400	2.3	X 0.0000417	0.518			X 0.01					
7/20/23	5,400	2.2	X 0.0000417	0.495			X 0.01					
7/20/23	5,400	2.0	X 0.0000417	0.450			X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
	32,700	2.1	X 0.0000417				X 0.01					
			TOTAL:	2.886			TOTAL:	0.00			TOTAL:	0.00

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	2.88564	
Gallons Disposed:	0	32,700	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____
Date: _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

AUGUST 2023
NPDES Permit No. PA 0024457
This permit will expire on April 30, 2023

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site				
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons		
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
8/8/23	5,400	1.5	X 0.0000417	0.338			X 0.01						
8/8/23	5,400	1.5	X 0.0000417	0.338			X 0.01						
8/8/23	5,400	1.7	X 0.0000417	0.383			X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
			X 0.0000417				X 0.01						
	16,200	1.6	X 0.0000417				X 0.01						
	TOTAL:			1.058			TOTAL:		0.00			TOTAL:	0.00

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	1.058346	
Gallons Disposed:	0	16,200	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____
Date: _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

October 2023

NPDES Permit No. PA 0024457

This permit will expire on April 30, 2022

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site			
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons	
10/24/23	5,400	1.5	X 0.0000417	0.338			X 0.01					
10/24/23	5,400	2	X 0.0000417	0.360			X 0.01					
10/24/23	5,400	1	X 0.0000417	0.315			X 0.01					
10/24/23	5,400	2	X 0.0000417	0.338			X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
	21,600	1.5	X 0.0000417				X 0.01					
				TOTAL:	1.351			TOTAL:	0.00		TOTAL:	0.00

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	1.35108	0	
Gallons Disposed:	21,600	0	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____

Date: _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER STANDARDS AND FACILITY REGULATION

**SUPPLEMENTAL REPORT
SEWAGE SLUDGE / BIOSOLIDS PRODUCTION AND DISPOSAL**

Facility Name: Halifax Area Water and Sewer Authority
Municipality: Halifax Borough County: Dauphin
Watershed: 6-C

NOVEMBER 2023
NPDES Permit No. PA 0024457
This permit will expire on April 30, 2022

Check here if there were no off-site removal events during the month

Date	Liquid Sewage Sludge / Biosolids Hauled Off-site				Dewatered Sewage Sludge / Biosolids Hauled Off-site				Sewage Sludge / Biosolids Dewatered and Incinerated On-site			
	Gallons	% Solids	X Conv. Factor	= Dry Tons	Tons dewatered sludge	X % Solids	X 0.01	= Dry Tons	Tons dewatered	X % Solids	= Dry Tons	
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
11/16/23	5,500	2.0	X 0.0000417	0.459			X 0.01					
11/16/23	5,500	1.8	X 0.0000417	0.413			X 0.01					
11/16/23	5,500	2.0	X 0.0000417	0.459			X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
			X 0.0000417				X 0.01					
	16,500	1.9	X 0.0000417				X 0.01					
	TOTAL:			1.330		TOTAL:			0.00		TOTAL: 0.00	

SEWAGE SLUDGE/BIOSOLIDS AND INCINERATOR ASH DISPOSAL AND BENEFICIAL USE INFORMATION
(Identify all sites where sewage sludge/biosolids or ash were disposed or land applied)

	SITE 1	SITE 2	SITE 3
Site Name:	Kline's Septic	Harrisburg Sewer Plant	
Municipality	Salunga	Harrisburg	
County:	Lancaster	Dauphin	
DEP Permit Number:	101607	27198	
Type of Material*	Liquid Biosolids	Liquid Biosolids	
Dry Tons Disposal:	0	1.33023	
Gallons Disposed:	0	16,500	
Type of Disposal/Use:*	Sewer Plant	Sewer Plant	
Hauler Name:	Kline's Septic	Kline's Septic	

* See Instructions for explanation

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 gather and evaluate 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 knowing violations. See Pa. C.S. § 4904 (relating to unsworn falsification).

Prepared By: Jeffrey L. Grosser
Title: Manager

Signature: _____
Date: _____

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 07, 2023 **SERVICE CONTRACT:** OUT OF SERVICE ()
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 METHOD: LEVEL MEASUREMENTS AND FLOW CHECKS	ERROR: INCHES	TOLERANCE: ±0.125 INCHES
RECORDER CALIBRATION CHECKED AT: 0%, 50%, 100%	ERROR: 0%, 0%, 0%	TOLERANCE: ±1.000 %
TOTALIZER CALIBRATION CHECKED AT: 0%, 50%, 100%	ERROR: 0%	TOLERANCE: ±1.000 %

*** TECHNICIAN COMMENTS ***

SERVICE REPRESENTATIVE(S): PATRICK MCNALLY

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 07, 2023 **SERVICE CONTRACT:** ANNUAL (A12)
LOCATION: EFFLUENT
METER #: C8201 AC

PRIMARY: FLUME PARSHALL 6 INCH
MAXIMUM CAPACITY: 1000 GPM

METER: ENDRESS+HAUSER
RECORDER:

MODEL #: FMUJ90
MODEL #: N/A

SERIAL #: S600046010E6
SERIAL #: N/A

*** WORK PERFORMED ***

METER CALIBRATION METHOD: LEVEL MEASUREMENTS AND FLOW CHECKS	ERROR: 0.00 INCHES	TOLERANCE: ±0.125 INCHES
RECORDER CALIBRATION CHECKED AT: N/A	ERROR: N/A	TOLERANCE: N/A
TOTALIZER CALIBRATION CHECKED AT: N/A	ERROR: N/A	TOLERANCE: N/A

*** TECHNICIAN COMMENTS ***

PERFORMED ANNUAL CALIBRATION
CLEANED PRIMARY
VERIFIED TOTALIZER (PASSED)
TESTED 4-20MA LOOP
NO ADJUSTMENT NEEDED
LEFT EQUIPMENT OPERATING PROPERLY

SERVICE REPRESENTATIVE(S): PATRICK MCNALLY

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 07, 2023 **SERVICE CONTRACT:** ANNUAL (A12)
LOCATION: INFLUENT PS
METER #: C8201 AD

PRIMARY: 6 INCH

MAXIMUM CAPACITY:

METER: ENDRESS+HAUSER

RECORDER:

MODEL #: PROMAG 400

MODEL #: N/A

SERIAL #: S602CD16000

SERIAL #: N/A

*** WORK PERFORMED ***

METER CALIBRATION	ERROR: 0.00 %	TOLERANCE: N/A
METHOD: ENDRESS+HAUSER HEARTBEAT VERIFICATION		
RECORDER CALIBRATION	ERROR: N/A	TOLERANCE: N/A
CHECKED AT: N/A		
TOTALIZER CALIBRATION	ERROR: N/A	TOLERANCE: N/A
CHECKED AT: N/A		

*** TECHNICIAN COMMENTS ***

PERFORMED ANNUAL CALIBRATION
VERIFIED TOTALIZER (PASSED)
NO ADJUSTMENT NEEDED
LEFT EQUIPMENT OPERATING PROPERLY

SERVICE REPRESENTATIVE(S): PATRICK MCNALLY

WG Malden

P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 766-0800 FAX: (717) 766-0802

***** SERVICE REPORT *****

HALIFAX MUNICIPAL AUTHORITY
SOUTH FRONT STREET
HALIFAX, PA 17032

SERVICE DATE: DECEMBER 07, 2023 **SERVICE CONTRACT:** ANNUAL (A12)
LOCATION: INFLUENT SCHOOL
METER #: C8201 AE

PRIMARY: FLUME PARSHALL 6 INCH
MAXIMUM CAPACITY: 1000

METER:	MODEL #:	SERIAL #: S60045010E6
RECORDER:	MODEL #: N/A	SERIAL #: N/A

***** WORK PERFORMED *****

METER CALIBRATION METHOD: LEVEL MEASUREMENTS AND FLOW CHECKS	ERROR: 0.06 INCHES	TOLERANCE: ±0.125 INCHES
RECORDER CALIBRATION CHECKED AT: N/A	ERROR: N/A	TOLERANCE: N/A
TOTALIZER CALIBRATION CHECKED AT: N/A	ERROR: N/A	TOLERANCE: N/A

***** TECHNICIAN COMMENTS *****

PERFORMED ANNUAL CALIBRATION
CLEANED PRIMARY
VERIFIED TOTALIZER (PASSED)
TESTED 4-20MA LOOP
NO ADJUSTMENT NEEDED
LEFT EQUIPMENT OPERATING PROPERLY

SERVICE REPRESENTATIVE(S): PATRICK MCNALLY

**ATTACHMENT F:
Consent Order And Agreement Progress
Report**





Herbert, Rowland & Grubic, Inc.
369 East Park Drive
Harrisburg, PA 17111
717.564.1121
www.hrg-inc.com

January 5, 2024

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

Re: NPDES Permit No PA 0024457
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 were completed as part of the WWTP Upgrade Project, which is currently nearing completion.

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 has 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 are tributary to the overloaded sewerage facilities.

IMPLEMENTATION SCHEDULE - UPDATE

WWTP UPGRADE PROJECT CONSTRUCTION STATUS:

- The WWTP Main Pumping Station, which is considered hydraulically overloaded and was one of the primary drivers behind the implementation of the CAP and the completion of the Project, has been successfully operating since its start-up in August 2022. The upgraded station captures all flow from the Front Street Interceptor and various WWTP return flows and is designed to handle a PIF

of 300 gpm with a single pump in operation. Since it was put into operation, there have been no instances in which both pumps were called to operate due to high flow conditions.

- All work under the General and the Electrical Construction Contracts has been completed. The Post Construction Certification for the Water Quality Management Permit issued for this Project was submitted to PA DEP on December 11, 2023. Contract closeout documents were prepared by HRG and distributed to the General and Electrical Construction Contractors on December 20, 2023. HRG has been in communication with PA DEP on completing a post construction inspection at the project site and is preparing Contract Record Documents in advance of this meeting.

HALIFAX TOWNSHIP SEWER EXTENSION STATUS (NOT REQUIRED BY COA):

In conjunction with the design of the WWTP Upgrade Project, HRG and HAWASA have been proceeding with efforts on 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.

Notice to Proceed was issued on the three construction contracts for this Project on March 22, 2023. On August 30, HAWASA completed settlement on the PENNVEST loan for the Project. Work has been progressing on all three pump station sites. Construction activities under the gravity sewer and force main contract began the week of September 25, 2023.

CAP IMPLEMENTATION SCHEDULE

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		
(Taken From Approved Cap And Modified Per The Corrective Action Schedule Included In The COA)		
Task Description	Completion/ Submission Date	Status Update
HAWASA & PA DEP Execution of Consent Order and Agreement	April 20, 2018	(Task Completed)
<p>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</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	[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>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	(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>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	[Task Completed – Contract Awards were issued by HAWASA on November 25, 2020. The Contract Times commenced on November 30, 2020. Substantial Completion to be achieved by February 23, 2022; Final Completion to be achieved by April 9, 2022.]

IMPLEMENTATION SCHEDULE FOR HAWASA WWTP UPGRADE		
(Taken From Approved Cap And Modified Per The Corrective Action Schedule Included In The COA)		
Task Description	Completion/ Submission Date	Status Update
<i>Complete Construction</i>	Within 705 Days of PA DEP issuance of Water Quality Management Part II Permit	Final Completion adjusted to 8/11/23 Change Orders denoting this time extension have been submitted to PA DEP. <i>All work under the General and Electrical Contracts has been completed. Contract closeout documents were prepared by HRG and distributed to the General and Electrical Construction Contractors on December 20, 2023.</i>
<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>The Post Construction Certification for the Water Quality Management Permit issued for this Project was submitted to PA DEP on December 11, 2023.</i>
<i>Submission of quarterly Progress Reports until termination of COA</i>		<i>Quarterly Progress Report submitted January 5, 2024. Previous Quarterly Progress Report Submitted September 29, 2023</i>

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. The improvements made to the Main Pumping Station as part of the WWTP Upgrade Project have increased its capacity substantially and eliminated the hydraulic overload at this station. Since start-up of the upgraded station in August 2022, there were no instances where the standby pump was called into operation to handle additional flow.

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.

As discussed in previous Progress Reports, a new residential development along S.R. 147 across from the Halifax Area School District is being proposed for construction in Halifax Township. This parcel is identified

Mr. Erick Ammon
PA Department of Environmental Protection
January 5, 2024
Page 5

in the Dauphin County GIS Parcel Viewer as 29-013-022 with an approximate size of 23.9 acres. This project is known as Sycamore Ridge and proposes the construction of 124 residential townhome units. Sanitary sewer service to Sycamore Ridge is proposed by the Developer via connection to the existing HAWASA collection system located in S.R. 147 at Manhole 172. This portion of the collection system is tributary to the overloaded Main Pump Station.

Work on the WWTP Upgrade Project has been completed. The Main Pump Station has been successfully operating since August 2022 and is no longer hydraulically overloaded.

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.

Sincerely,

Herbert, Rowland & Grubic, Inc.



Justin J. Mendinsky
Water & Wastewater Group Manager

JJM/LJ/rb
001650,0426

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Enclosures

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