

**CARROLL VALLEY BOROUGH**  
**PUBLIC SEWER ADVISORY COMMITTEE**  
**REGULAR MEETING**  
**MONDAY, JANUARY 23, 2023 – 7:00 P.M.**

**AGENDA**

Roll Call

1. Approval of Minutes: August 29, 2022
2. Open to the Public
3. Administrative Business
  - a. Chapter 94 Report
  - b. PENNVEST Update
4. Open to the Public
5. Adjournment

**BOROUGH OF CARROLL VALLEY  
PUBLIC SEWER ADVISORY COMMITTEE  
MONDAY, AUGUST 29, 2022 - 7:00 P.M.  
BOROUGH OFFICE**

**MINUTES**

The meeting was called to order at 7:00 P.M. The attendance was as follows:

**AUTHORITY MEMBERS**

**Present**

N. Kenneth Lundberg  
Bruce Carr  
Ron Harris  
David Lillard

**BOROUGH OFFICIALS, ETC.**

Jedidiah Fetter, Sewer Treatment Plant Operator  
David Hazlett, Borough Manager  
Gayle Marthers, Asst. Borough Manager

**Absent**

Bruce Carbaugh  
Richard Mathews

**ORGANIZATION OF THE NEWLY APPOINTED COMMITTEE MEMBERS.**

\*\*\*

B. Carr moved, D. Lillard seconded, that Members appoint N. Kenneth Lundberg Chairperson of the Committee. Motion passed unanimously.

\*\*\* D. Lillard moved; B. Carr seconded that Members appoint Bruce Carbaugh Vice-Chair of the Committee. Motion passed unanimously.

**OPEN TO THE PUBLIC**

No one addressed the Members at this time.

**ADMINISTRATIVE BUSINESS**

**Phase 2 – Sewer Treatment Plant Upgrade**

Mr. Hazlett explained the financial limitations to the project. He shared that staff had attended an initial meeting with PennVest, a state funding source who can offer low interest loans for the expansion project. There are many requirements that with the help of GMS Funding Solutions, the Borough should be able to navigate; but patience will be required as well. There will likely be a move to expand usership of the Public Sewer System by extending service to the Country Club Trail section of the Borough. This move will also reduce the number of holding tanks in the Borough and open several lots to the possibility of improvement. Concerns were raised regarding the cost of the projects and what the service rates may increase to customers. Mr. Hazlett acknowledged that the increase will be significant; however, representatives from PennVest stated that the fees in other areas of the state are considerably higher than Carroll Valley's. Mr. Hazlett further stated that open discussion and transparency throughout the process is the best way to handle the issue. The project is necessary and therefore the increase is inevitable.

Mayor Harris asked about the status of the 537 Plan and its possible influence on the Phase 2 Project. Mr. Hazlett stated that it was the opinion of the Borough Solicitor that the Borough can moving forward with the project without an update.

**ADJOURNMENT**

Upon a motion by D. Lillard and seconded by B. Carr; the meeting adjourned at 7:35 P.M. via unanimous vote.

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Gayle Marthers, Borough Secretary

# **Carroll Valley Sewer & Water Authority**

**ADAMS COUNTY, PA**

**MUNICIPAL WASTELOAD MANAGEMENT**

**CHAPTER 94**

**ANNUAL REPORT- CALENDAR YEAR 2022**

**January 2023**



**WM. F. HILL & ASSOCIATES.**

*PROFESSIONAL ENGINEERS*

CIVIL ♦ MUNICIPAL ♦ ENVIRONMENTAL

207 Baltimore Street  
Gettysburg, Pennsylvania 17325  
(717) 334 – 9137

**CARROLL VALLEY SEWER & WATER AUTHORITY  
MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT  
2022**

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## CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

**For Calendar Year: 2022**

- 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:	Carroll Valley Borough	Permit No.:	PA0080039
Mailing Address:	5685 Fairfield Road	Effective Date:	March 1, 2020
City, State, Zip:	Fairfield, PA 17320	Expiration Date:	February 28, 2025
Contact Person:	David A. Hazlett	Renewal Due Date:	September 1, 2024
Title:	Borough Manager	Municipality:	Carroll Valley Borough
Phone:	(717) 642-8269	County:	Adams County
Email	manager@carrollvalley.org	Consultant Name:	Wm. F. Hill & Assoc., Inc.
CHAPTER 94 REPORT COMPONENTS			
<p>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. (<u>25 Pa. Code § 94.12(a)(1)</u>)</p> <p><b>Check the appropriate boxes:</b></p> <p><input checked="" type="checkbox"/> Line graph for flows attached  <input checked="" type="checkbox"/> DEP Chapter 94 Spreadsheet used (<b>Attachment</b>)  <input type="checkbox"/> Section 1 is not applicable (report is for a collection system).</p>			
<p>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. (<u>25 Pa. Code § 94.12(a)(2)</u>)</p> <p><b>Check the appropriate boxes:</b></p> <p><input checked="" type="checkbox"/> Line graph for organic loads attached  <input checked="" type="checkbox"/> DEP Chapter 94 Spreadsheet used (<b>Attachment</b>)  <input type="checkbox"/> Section 2 is not applicable (report is for a collection system).</p>			
<p>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. (<u>25 Pa. Code § 94.12(a)(3)</u>)</p> <p><b>Typically, there are minimal connections each year in the existing service area. Projections are based on 1 or 2 EDU's per year.</b></p>			

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

**Check the appropriate boxes:**

- Map showing sewer extensions constructed, approved/exempted but not yet constructed, and proposed projects attached (**Attachment** )
- List summarizing each extension or project attached (**Attachment** )
- Schedules describing how each project will be completed over time and effects attached (**Attachment** )

**Comments:**

**There have been no new sewer extensions in the past year.**

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

**The Carroll Valley Sewer & Water Authority's sanitary sewer collection system consists of gravity sewers, laterals, and two pumping stations. A comprehensive collection system maintenance program has been developed by the operating personnel at the wastewater treatment facility, including manhole inspections and video inspection of the collection lines.**

**In calendar year 2022, some sanitary sewer jetting, cleaning, and camera inspections were completed. One manhole was grouted and repaired to eliminate infiltration.**

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 System overflows occurred in 2022.**

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 No. 1**)

The Sanders Road Pumping Station was substantially completed in January, 2022 .

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

- a. A copy of any ordinance or regulation governing industrial waste discharges to the sewer system or a copy of amendments adopted since the initial submission of the ordinance or regulation under Chapter 94, if it has not previously been submitted.
- b. A discussion of the permittee's or municipality's program for surveillance and monitoring of industrial waste discharges into the sewer system during the past year.
- c. A discussion of specific problems in the sewer system or at the plant, known or suspected to be caused by industrial waste discharges and a summary of the steps being taken to alleviate or eliminate the problems. The discussion shall include a list of industries known to be discharging wastes which create problems in the plant or in the sewer system and action taken to eliminate the problem or prevent its recurrence. The report may describe pollution prevention techniques in the summary of steps taken to alleviate current problems caused by industrial waste dischargers and in actions taken to eliminate or prevent potential or recurring problems caused by industrial waste dischargers.

**Check the appropriate boxes:**

- Industrial waste report as described in 8 a., b. and c. attached (**Attachment** )  
 Industrial pretreatment report as required in an NPDES permit attached (**Attachment** )

9. Existing or Projected Overload.

**Check the appropriate boxes:**

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

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

- Corrective Action attached

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 2**)

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** )

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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 3**)

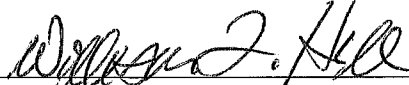
**RESPONSIBLE OFFICIAL CERTIFICATION**

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).

<b>David A. Hazlett, Borough Manager</b>	
Name of Responsible Official	Signature
<b>(717) 642-8269</b>	
Telephone No.	Date

**PREPARER CERTIFICATION**

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

<b>William F. Hill, P.E.</b>	
Name of Preparer	Signature
<b>(717) 334-9137</b>	
Telephone No.	Date <b>1/20/2023</b>



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	2018	2019	2020	2021	2022
January	0.153	0.141	0.115	0.103	0.113
February	0.165	0.137	0.118	0.117	0.114
March	0.13	0.124	0.102	0.125	0.087
April	0.105	0.109	0.101	0.104	0.09
May	0.117	0.125	0.118	0.085	0.102
June	0.115	0.088	0.082	0.088	0.136
July	0.152	0.091	0.074	0.079	0.097
August	0.132	0.072	0.071	0.08	0.088
September	0.209	0.073	0.072	0.129	0.093
October	0.105	0.077	0.071	0.1	0.101
November	0.152	0.084	0.074	0.092	0.096
December	0.143	0.098	0.114	0.088	0.14

Annual Avg	0.14	0.102	0.093	0.099	0.105
Max 3-Mo Avg	0.164	0.145	0.112	0.115	0.112
Max : Avg Ratio	1.17	1.42	1.20	1.16	1.07
Existing EDUs	509.0	510.0	510.0	516.0	516.0
Flow/EDU (GPD)	275.0	200.0	182.4	191.9	203.5
Flow/Capita (GPD)	110.0	80.0	72.9	76.7	81.4
Exist. Overload?	NO	YES	NO	NO	NO

**Projected Flows for Next Five Years (MGD)**

	2023	2024	2025	2026	2027
New EDUs	2.0	1.0	2.0	1.0	2.0
New EDU Flow	0.0004	0.0002	0.0004	0.0002	0.0004
Proj. Annual Avg	0.108	0.1082	0.1086	0.1088	0.1092
Proj. Max 3-Mo Avg	0.13	0.13	0.131	0.131	0.132
Proj. Overload?	NO	NO	NO	NO	NO

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

Month	2018	2019	2020	2021	2022
January	253	398	190	155	173
February	160	193	270	185	230
March	188	149	286	208	108
April	227	137	175	150	164
May	194	183	101	129	136
June	169	259	109	141	225
July	285	151	106	158	158
August	215	125	117	92	131
September	140	147	84	109	169
October	182	162	119	101	148
November	158	202	115	151	266
December	122	264	179	109	182

Annual Avg	191	198	154	141	174
Max Mo Avg	285	398	286	208	266
Max : Avg Ratio	1.49	2.02	1.85	1.48	1.53
Existing EDUs	509	510	510	516	516
Load/EDU	0.375	0.387	0.302	0.273	0.338
Load/Capita	0.150	0.155	0.121	0.109	0.135
Exist. Overload?	NO	YES	NO	NO	NO

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

	2023	2024	2025	2026	2027
New EDUs	2	1	2	1	2
New EDU Load	0.670	0.335	0.670	0.335	0.670
Proj. Annual Avg	172	173	173	174	174
Proj. Max Avg	288	289	290	290	292
Proj. Overload?	NO	NO	NO	NO	NO

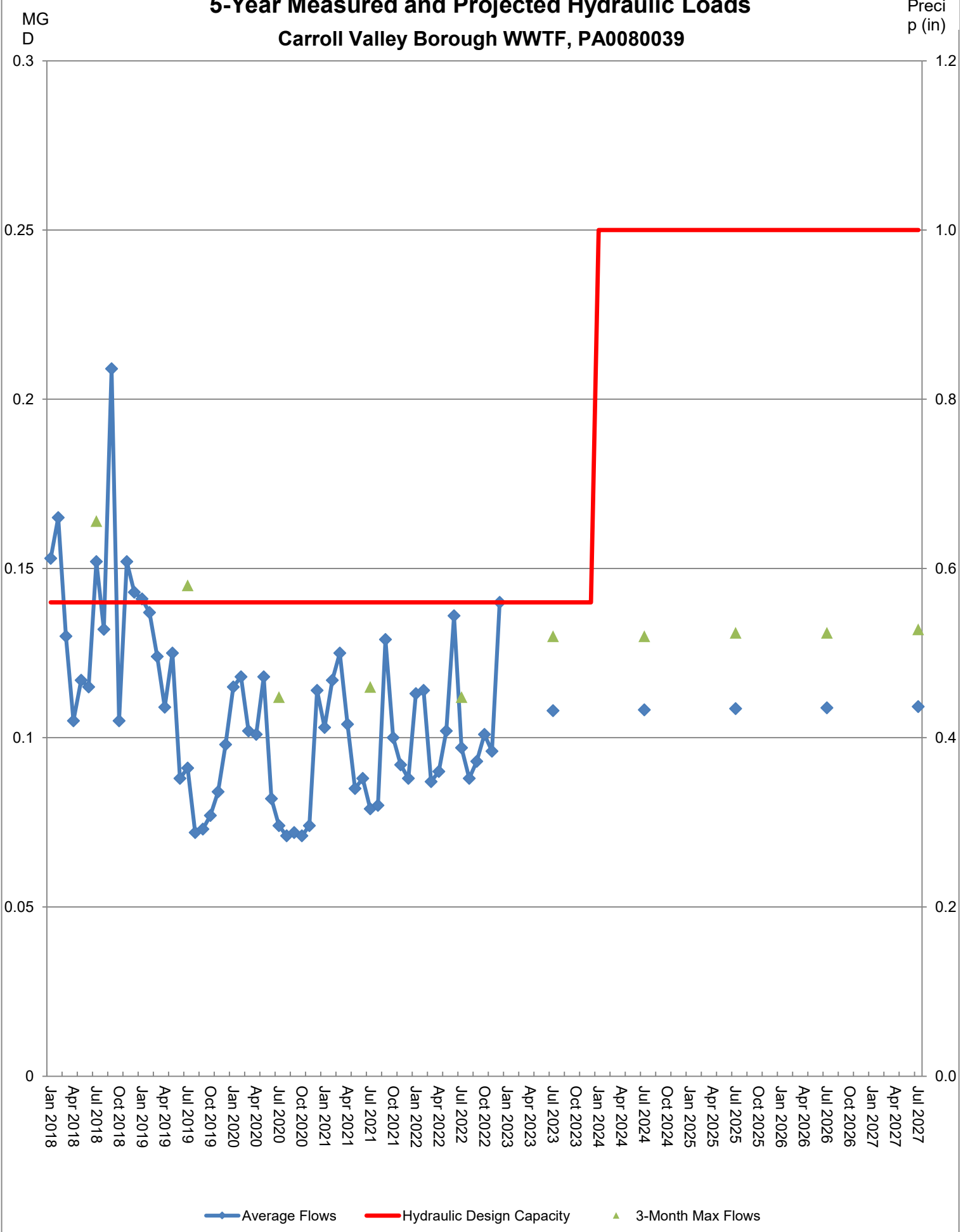
Show Precipitation Data on Hydraulic Graph?

**Total Monthly Precipitation for Past Five Years (Inches)**

Month	2018	2019	2020	2021	2022
January	5.1	3.3	3.09	1.54	2.8
February	3.8	3.9	2.9	3.08	2.85
March	1.0	5.4	3.38	3.22	2.61
April	6.8	4.9	7.12	2.86	4.0
May	4.7	6.3	2.71	4.54	8.71
June	6.5	3.6	3.01	4.03	2.82
July	13.4	6.0	2.5	4.04	4.49
August	7.9	2.1	3.18	4.83	3.27
September	15.2	0.84	2.16	10.55	3.73
October	2.9	5.19	4.34	4.09	3.64
November	8.3	3.84	3.51	1.48	4.25
December	6.4	3.99	4.78	1.18	6.08

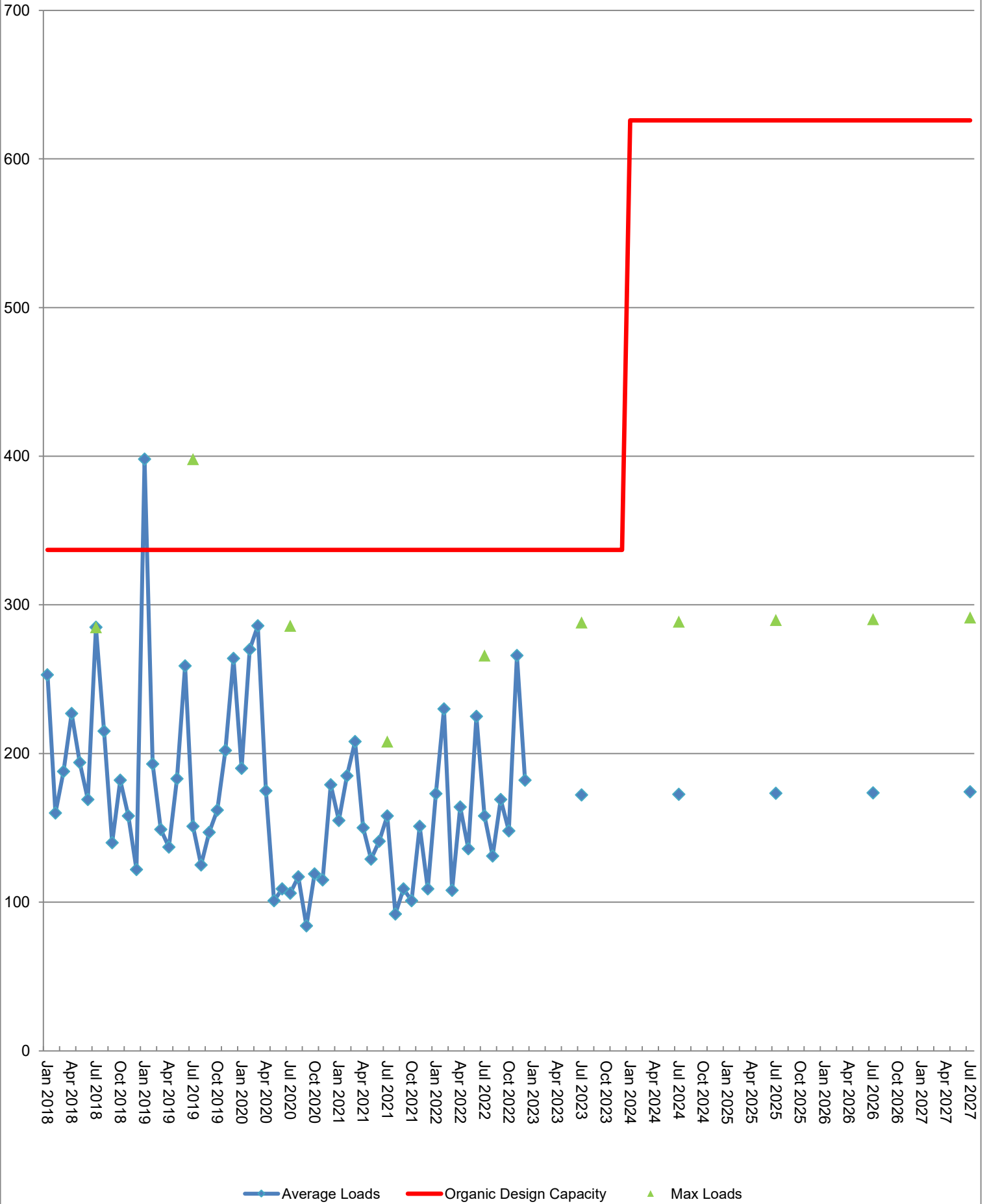
# 5-Year Measured and Projected Hydraulic Loads

## Carroll Valley Borough WWTF, PA0080039



# 5-Year Measured and Projected Organic Loads

## Carroll Valley Borough WWTF, PA0080039





**ATTACHMENT 2**

**CARROLL VALLEY AUTHORITY PUMPING STA. CHART  
WASTEWATER PUMPING STATIONS (2)**

Pumping Station	*Rated Capacity (MGD)	1/1/2022 - 12/31/2022			Projected Condition 12/31/2024		
		Connected EDU's	2022 Flow Average (MGD)	2022 Flow Peak (MGD)	Connected EDU's	Projected 2024 Flow Average (MGD)	Projected 2024 Flow Peak (MGD)
#1 Sanders Rd. P.S.	0.324	420	0.110	.530	423	0.111	0.45
#2 Liberty P.S.	0.216	61 (approx..)	.005	.035	61 (approx..)	.005	.035

\*P.S. #1 one pump@ 225 GPM (running 24 hours/day)  
Location @ WTTTF

\*P.S. #2 one pump@ 150 GPM (running 24 hours/day)  
Location - Liberty Mt. Ski Resort

96 Total EDUs for Liberty Mt. Resort  
61 EDUs for P. S. #2 (Liberty P. S.)  
35 EDUs Gravity Flow from new Lodge & Restaurants

Annual Precipitation for 2022 was 49.25 inches, representing a slightly higher than the normal annual amount.



# Control Systems 21

"Your Process Control Specialists"

## CERTIFICATE of CALIBRATION

Cal Certificate # 72842

**Company Name** Carroll Valley  
WWTP  
5685 Fairfield Rd  
Carroll Valley, PA 17320

**Instrument ID** CV-001

**Description** Influent Flow Meter  
**Manufacturer** Siemens  
**Model Number** HydroRanger 200  
**Serial Number** N/A  
**Location** WWTP  
**Building** Blower Building  
**Department** N/A

**Status** Active  
**Temp °F** 85  
**Cal Proc** 4.8  
**Adjusted To Improve** No  
**Calibration Frequency** Annual  
**Calibrated** 06/15/2022  
**Next Due Date** 06/30/2023

### Calibration Specifications

**Group Name** Flow Meter (120 V Notch)

<u>Test Point</u>	<u>Ref Standard</u>	<u>Tol</u>	<u>UUT As Found</u>	<u>P/F</u>	<u>UUT As Left</u>	<u>P/F</u>	<u>Dev</u>
1	564.8 GPM	+28.2/-28.2	564.8 GPM	P	564.8 GPM	P	0.0

### Calibration Standards Used

<u>Test Instrument ID</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number</u>	<u>Next Cal Date</u>
ISCO	Isco Flow Book	N/A	N/A	
TAPE MEASURE	N/A	N/A	N/A	

Equipment listed on this cert is certified in reference to our current work instructions as part of our quality system.

Where applicable and noted calibrations were performed using standards whose calibration is traceable through NIST or another National Metrology Institute to the International System of Units (SI units).

Control Systems 21 utilizes the comparison method of calibration. Results are reviewed, when applicable, and any results exceeding the agreed upon specifications are indicated by red and/or bold print.

All results with this certification relate only to the item(s) calibrated. This certificate shall not be reproduced except in full and with written consent of Control Systems 21. Unless otherwise noted all calibrations were performed in the field at the customers location.

**Please note:** any number of factors may cause the calibration item to drift out of tolerance before the calibration interval has expired.

### Remarks or Special Requirements:

Calibration Result: Calibration Successful

Calibrated By: Galen Anderson

Finalized By: Galen Anderson 15 June 2022 12:25:28PM



# Control Systems 21

"Your Process Control Specialists"

## CERTIFICATE of CALIBRATION

Cal Certificate # 72843

**Company Name** Carroll Valley  
WWTP  
5685 Fairfield Rd  
Carroll Valley, PA 17320

**Instrument ID** CV-002

**Description** Influent Flow Recorder  
**Manufacturer** Fischer & Porter  
**Model Number** Model 1392  
**Serial Number** 117-304-002 1 PEN 9311-23618  
**Location** WWTP  
**Building** Blower Building  
**Department** N/A

**Status** Active  
**Temp °F** 85  
**Cal Proc** 4.2  
**Adjusted To Improve** No  
**Calibration Frequency** Annual  
**Calibrated** 06/15/2022  
**Next Due Date** 06/30/2023

### Calibration Specifications

Test Point	Ref Standard	Expected	Tol	UUT As Found	P/F	UUT As Left	P/F	Dev
1	4.00 mA	0.0 GPM	+/-8.0	-0.1 GPM	P	-0.1 GPM	P	-0.1
2	12.00 mA	400.0 GPM	+/-8.0	397.4 GPM	P	397.4 GPM	P	-2.6
3	20.00 mA	800.0 GPM	+/-8.0	795.3 GPM	P	795.3 GPM	P	-4.7

### Calibration Standards Used

Test Instrument ID	Manufacturer	Model Number	Serial Number	Next Cal Date
732	Fluke	725	1234567	10/31/2022

Equipment listed on this cert is certified in reference to our current work instructions as part of our quality system.

Where applicable and noted calibrations were performed using standards whose calibration is traceable through NIST or another National Metrology Institute to the International System of Units (SI units).

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**Please note:** any number of factors may cause the calibration item to drift out of tolerance before the calibration interval has expired.

### Remarks or Special Requirements:

Calibration Result: Calibration Successful

Calibrated By: Galen Anderson

Finalized By: Galen Anderson 15 June 2022 12:27:14PM