

CARROLL VALLEY BOROUGH
PUBLIC SEWER ADVISORY COMMITTEE

REGULAR MEETING

MONDAY, MARCH 25, 2024 – 7:00 P.M.

AGENDA

Roll Call

1. Approval of Minutes: January 22, 2024
2. Open to the Public
3. Administrative Business
4. Unfinished Business
 - a. Sewer Treatment Plant – Update
 - b. Sump Pumps Connected to Sewer System
5. New Business
 - a. Chapter 94 Report
6. Open to the Public
7. Adjournment

CARROLL VALLEY BOROUGH

2023

MUNICIPAL WASTELOAD MANAGEMENT ANNUAL CHAPTER 94 REPORT

Prepared January 2024



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

CARROLL VALLEY BOROUGH

MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

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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:	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:	Keller Engineers, 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 2**)
 DEP Chapter 94 Spreadsheet used (**Attachment 1**)
 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 3**)
 DEP Chapter 94 Spreadsheet used (**Attachment 1**)
 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))

Typically, there are minimal connections each year in the existing service area. Projections are based on 2 EDU's per year.

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))

Carroll Valley Borough'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 2023, some sanitary sewer jetting, cleaning, and camera inspections were completed on Sanitary Sewer Main lines for Infiltration & Inflow Evaluation. A major Sanitary Sewer repair was made on Snow Bird Trail.

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:

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 4**)

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

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

Check the appropriate boxes:

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

9. Existing or Projected Overload.

Check the appropriate boxes:

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

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

- Corrective Action Plan attached (**Attachment**)

10. Where required by the NPDES permit, attach a Sewage Sludge Management inventory that demonstrates a mass balance of solids coming in and leaving the facility over the previous calendar year.

- Sewage Sludge Management Inventory attached (**Attachment 5**)

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 6**)

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).

David A. Hazlett, Borough Manager

Name of Responsible Official

Signature

(717) 642-8269

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).

William F. Hill, P.E.


Name of Preparer

Signature

(717) 334-9137

Telephone No.

Date


FEB 2, 2024

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	0.141	0.115	0.103	0.113	0.137
February	0.137	0.118	0.117	0.114	0.117
March	0.124	0.102	0.125	0.087	0.125
April	0.109	0.101	0.104	0.09	0.109
May	0.125	0.118	0.085	0.102	0.124
June	0.088	0.082	0.088	0.136	0.097
July	0.091	0.074	0.079	0.097	0.088
August	0.072	0.071	0.08	0.088	0.09
September	0.073	0.072	0.129	0.093	0.1
October	0.077	0.071	0.1	0.101	0.099
November	0.084	0.074	0.092	0.096	0.103
December	0.098	0.114	0.088	0.14	0.133

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

Month	2019	2020	2021	2022	2023
January	398	190	155	173	236
February	193	270	185	230	148
March	149	286	208	108	110
April	137	175	150	164	201
May	183	101	129	136	294
June	259	109	141	225	208
July	151	106	158	158	102
August	125	117	92	131	148
September	147	84	109	169	137
October	162	119	101	148	199
November	202	115	151	266	191
December	264	179	109	182	307

Annual Avg	0.102	0.093	0.099	0.105	0.11
Max 3-Mo Avg	0.134	0.112	0.115	0.112	0.131
Max : Avg Ratio	1.31	1.20	1.16	1.07	1.19
Existing EDUs	510.0	510.0	516.0	516.0	517.0
Flow/EDU (GPD)	200.0	182.4	191.9	203.5	212.8
Flow/Capita (GPD)	82.0	74.7	78.6	83.4	87.2
Exist. Overload?	NO	NO	NO	NO	NO

Annual Avg	198	154	141	174	190
Max Mo Avg	398	286	208	266	307
Max : Avg Ratio	2.02	1.85	1.48	1.53	1.62
Existing EDUs	510	510	516	516	517
Load/EDU	0.387	0.302	0.273	0.338	0.368
Load/Capita	0.159	0.124	0.112	0.138	0.151
Exist. Overload?	YES	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2024	2025	2026	2027	2028
New EDUs	2.0	2.0	2.0	2.0	2.0
New EDU Flow	0.0004	0.0004	0.0004	0.0004	0.0004
Proj. Annual Avg	0.102	0.1024	0.1028	0.1032	0.1036
Proj. Max 3-Mo Avg	0.121	0.122	0.122	0.123	0.123
Proj. Overload?	NO	NO	NO	NO	NO

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

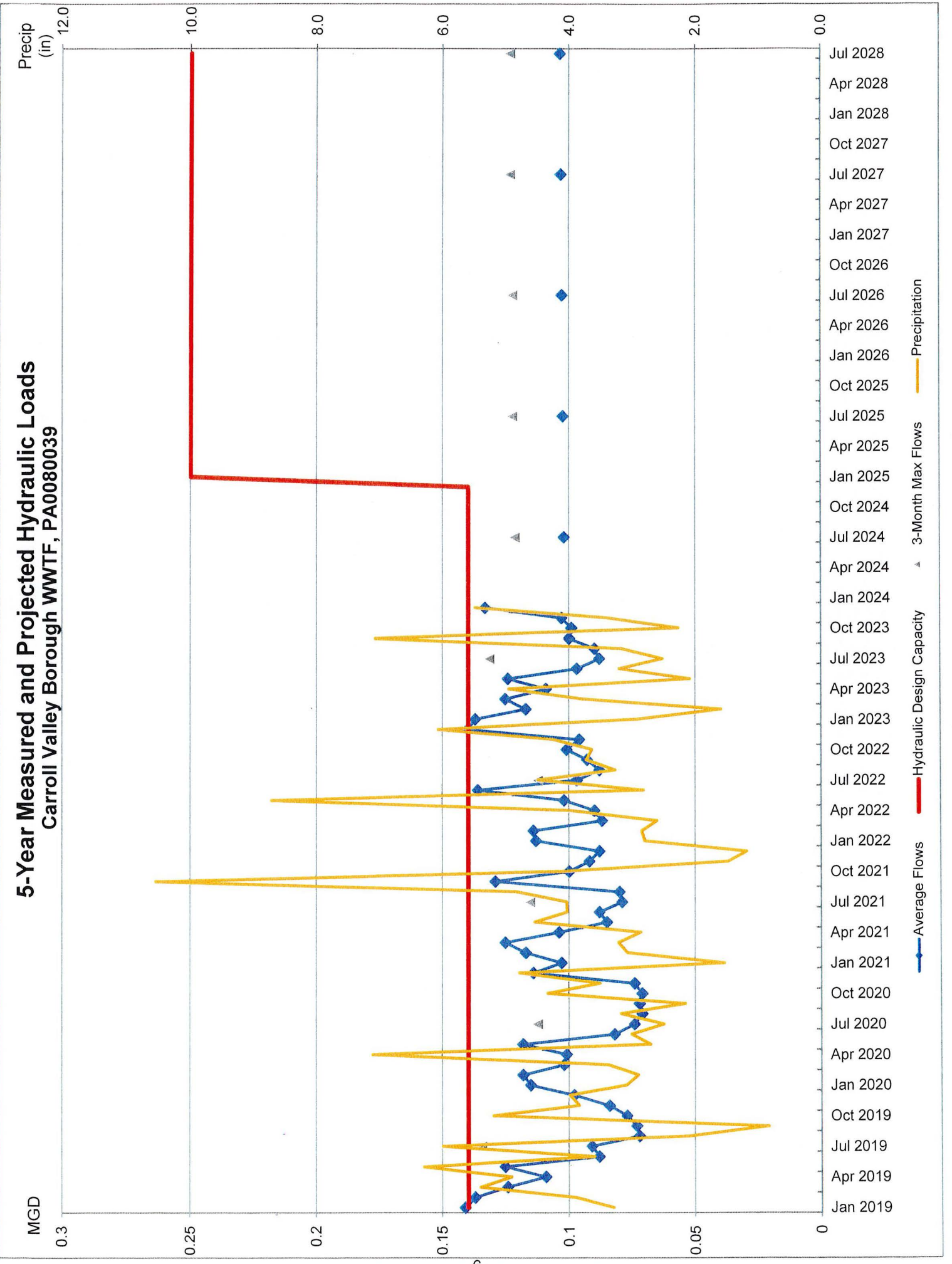
	2024	2025	2026	2027	2028
New EDUs	2	2	2	2	2
New EDU Load	0.667	0.667	0.667	0.667	0.667
Proj. Annual Avg	172	173	173	174	175
Proj. Max Avg	292	293	294	295	297
Proj. Overload?	NO	NO	NO	NO	NO

Show Precipitation Data on Hydraulic Graph?

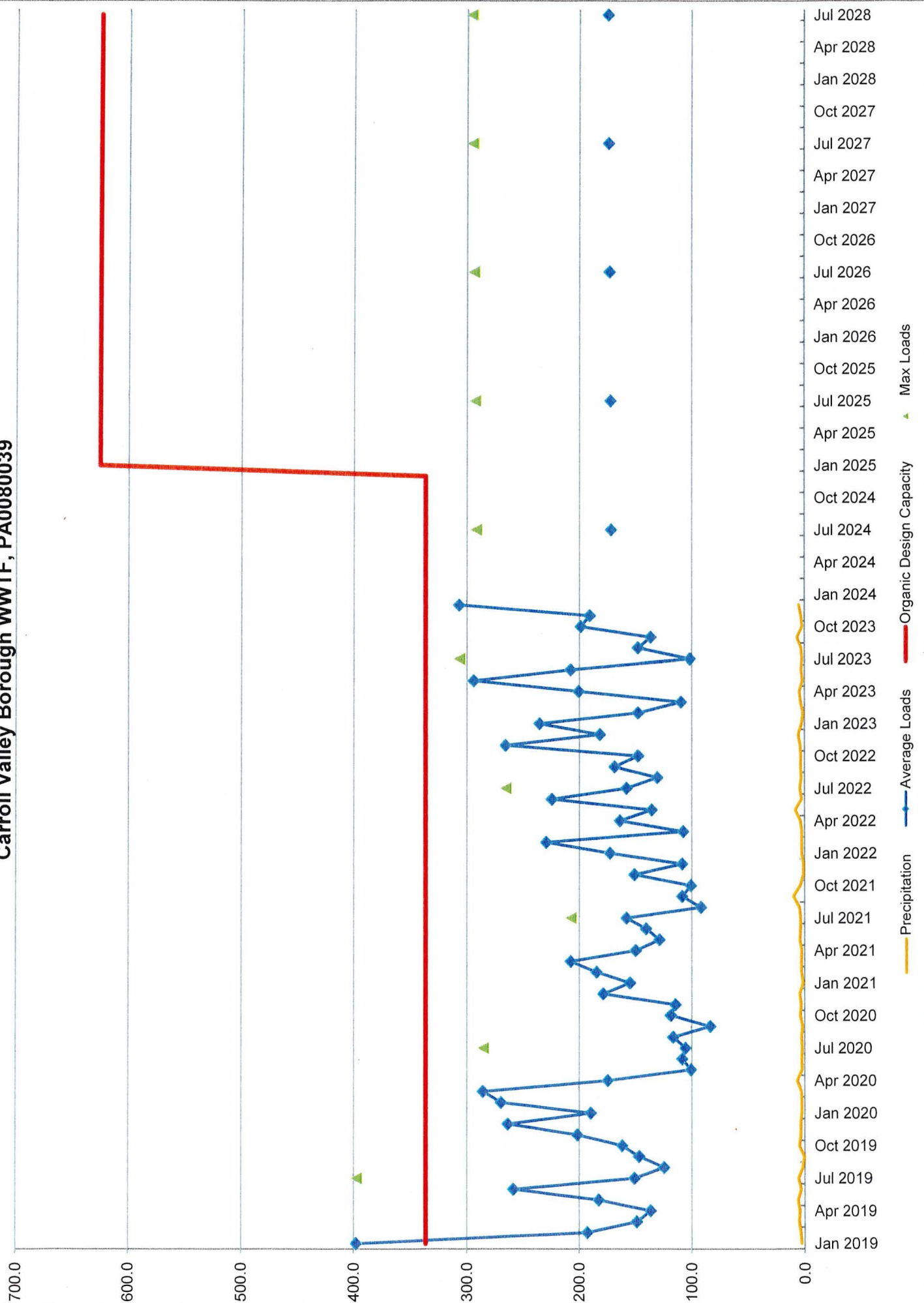
Total Monthly Precipitation for Past Five Years (Inches)

Month	2019	2020	2021	2022	2023
January	3.3	3.09	1.54	2.8	2.92
February	3.9	2.9	3.08	2.85	1.59
March	5.4	3.38	3.22	2.61	3.79
April	4.9	7.12	2.86	4.0	4.95
May	6.3	2.71	4.54	8.71	2.09
June	3.6	3.01	4.03	2.82	3.21
July	6.0	2.5	4.04	4.49	2.52
August	2.1	3.18	4.83	3.27	3.18
September	0.84	2.16	10.55	3.73	7.08
October	5.19	4.34	4.09	3.64	2.27
November	3.84	3.51	1.48	4.25	3.4
December	3.99	4.78	1.18	6.08	5.49

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 1
2023

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

Pumping Station	*Rated Capacity (MGD)	1/1/2023 - 12/31/2023			Projected Condition 12/31/2025		
		Connected EDU's	2023 Flow Average (MGD)	2023 Flow Peak (MGD)	Connected EDU's	Projected 2025 Flow Average (MGD)	Projected 2025 Flow Peak (MGD)
#1 Sanders Rd. P.S.	0.648	422	0.067	.270	426	0.0.80	0.400
#2 Liberty P.S.	0.216	61 (approx..)	.0042	.040	61 (approx..)	.005	.042

*P.S. #1 two (2) pumps @ 225 GPM (running 24 hours/day)
Location @ WTTF
PA DEP Permit rated capacity 0.648 MGD

*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 2023 was 42.5 inches, representing a normal annual amount (same precipitation as 2022).



Control Systems 21

"Your Process Control Specialists"

CERTIFICATE of CALIBRATION

Cal Certificate # 80780

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

Instrument ID CV-001

Description	Influent Flow Meter	Status	Active
Manufacturer	Siemens	Temp °F	70
Model Number	HydroRanger 200	Cal Proc	4.8
Serial Number	N/A	Adjusted To Improve	No
Location	WWTP	Calibration Frequency	Annual
Building	Blower Building	Calibrated	06/30/2023
Department	N/A	Next Due Date	06/30/2024

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	378.9 GPM	+/-18.9	372.2 GPM	P	372.2 GPM	P	-6.7

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: Jon Wirth

Finalized By: Jon Wirth 30 June 2023 8:56:38AM



Control Systems 21

"Your Process Control Specialists"

CERTIFICATE of CALIBRATION

Cal Certificate # 80781

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 70
Cal Proc 4.2
Adjusted To Improve No
Calibration Frequency Annual
Calibrated 06/30/2023
Next Due Date 06/30/2024

Calibration Specifications

Test Point	Group Name	Ref Standard	Expected	Tol	UUT As Found	P/F	UUT As Left	P/F	Dev
1	Recorder	4.00 mA	0.0 GPM	+/-0.0	0.0 GPM	P	0.0 GPM	P	0.0
2		12.00 mA	400.0 GPM	+/-20.0	397.7 GPM	P	397.7 GPM	P	-2.3
3		20.00 mA	800.0 GPM	+/-40.0	795.4 GPM	P	795.4 GPM	P	-4.6

Calibration Standards Used

Test Instrument ID	Manufacturer	Model Number	Serial Number	Next Cal Date
740	Fluke	725	2343108	8/31/2023

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: Jon Wirth

Finalized By: Jon Wirth 30 June 2023 9:00:56AM