Wayne County Rouge Valley Sewage Disposal System

Annual System Monitoring Report for 2024

Report to Wayne County and Communities

Prepared By:

Applied Science, Inc.
21455 Melrose Avenue, Building R, Suite 12
Southfield, MI 48075

and

Wayne County Department of Public Services
Environmental Services Group

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Table of Contents

Section		Page
1.0)	System Summary	1
	A) Introduction	1
	B) Noteworthy Items	1
	C) RVSDS Overview	2
	D) Significant Storm Events	8-9
	E) GLWA Outlet Meters	17
2.0)	Monitoring Network	19
3.0)	Flow Rate at Key Locations	25
4.0)	Customer Flow Summaries	28
5.0)	Precipitation Data	42
6.0)	Flow Meter Summary	68
7.0)	Report of Discharge	82
8.0)	Data Edits and Flow Meter	87
Appendix A - System Reach Maps		133
Appendix B - Dye-Dilution Test Adjustment Factors		142

List of Tables

Table		Page
1-1	Average Q1 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024	4
1-2	Average Q2 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024	4
1-3	Average Q3 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024	4
1-4	Average Q4 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024	5
1-5	Average Q1 through Q4 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024	5
1-6	Average Flow Rate and Volume by Customer for 2024	7
1-7	Maximum Allowable Flow Limit Exceedances for Significant Storm Events in 2024	15
1-8	Rouge River Flood Frequency for Significant Storm Events in 2024	16
1-9	RVSDS Outlet Volumes to GLWA for 2024	18
2-1	Flow Monitoring Meters	23
2-2	Rain Gages	24
3-1	Average Per-Capita Flow Rate at Key Locations	26
3-2	Average Per-Capita Dry Weather Flow Rate at Key Locations	26
4-1	Monthly Average Flow Rate by Customer Using Incremental Sewage Flow Meter Math	29
4-2	Monthly Average Dry Weather Flow Rate by Customer Using Incremental Sewage Flow Meter Math	30
4-3 to 4-12	Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Events Using Incremental Sewage Flow Meter Math	32-41
5-1	Dry/Wet Weather Count by Month and Monthly Precipitation at DTW for 2024	43
5-2	Monthly Precipitation for 2024	44
5-3 to 5-14	Daily Precipitation for January through December 2024	45-56
5-15	Summary of Rainfall for Significant Storm Events in 2024	57
5-16 to 5-25	Rainfall Summary for Significant Storm Events	58-67
6-1 to 6-10	Peak Hydraulic Gradeline Summary for Significant Storm Events	69-78
6-11	Flow Rate Continuity Check	79
6-12	Monthly Average Dry Weather Flow Rate Versus Residential Population Check	80
7-1	Estimated SSO from Regulators/Outfalls M-21, M-22 and M-25	83
7-2	Estimated RTB Discharge from Wayne County Operated CSO RTBs	84
7-3	Estimated CSO from Uncontrolled CSO Regulators/Outfalls	85-86
8-1	Notable Data Edits	88
B-1	Summary of Applicable Dye-Dilution Test Adjustment Factors	143-145

List of Figures

Figure		Page
1-1	Monthly RVSDS Flow Rate to GLWA versus Total Precipitation at DTW for 2019 through 2024	3
1-2	Average Q1 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024	5
1-2	Average Q2 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024	6
1-2	Average Q3 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024	6
1-2	Average Q4 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024	6
1-6 to 1-15	Outlet Meter Flow Rates for Significant Storm Events	10-14
2-1	Interceptor Schematic	20
2-2	Meter District and Line Connection Areas	21
2-3	Rain Gage Location Map	22
3-1	Monthly Average Flow Rates at Key Locations for 2019 through 2024	27
3-2	Monthly Average Dry Weather Flow Rates at Key Locations for 2019 through 2024	27
4-1	Monthly Average Flow Rate by Customer for 2024	31
6-1	End of System Monthly Flow Rate Comparison	81
8-1	Flow Rate Flags for Report Period	89
8-2 to 8-44	Flow Meter Reports	90-132
A1	Lower Rouge Interceptor Schematic Hannon to Venoy	134
A2	Lower Rouge Interceptor Schematic Venoy to Telegraph	135
A3	Middle Rouge Interceptor Schematic Northville to 5 Mile Road	136
A4	Middle Rouge Interceptor Schematic 5 Mile Road to Newburgh	137
A5	Middle Rouge Interceptor Schematic Newburgh to Middlebelt	138
A6	Middle Rouge Interceptor Schematic Middlebelt to Outer Drive	139
A7	Middle Rouge Interceptor Schematic Inkster and Redford Arms	140
A8	Interceptor System Schematic Downstream End of System	141

1.0 System Summary

A) Introduction

The Rouge Valley Sewage Disposal System (RVSDS) annual system monitoring report for 2024 provides a summary of the best available flow monitoring dataset.

This report supersedes and consolidates the information previously issued in the quarterly system monitoring reports for 2024. It is intended to provide the best available estimate of flow rates for the entire RVSDS, each meter district and community during the dry and wet weather conditions that occurred in 2024. The flow monitoring data were reviewed and missing or erroneous data have been estimated using fill-in techniques to provide a complete data set. Any monitoring plan updates made in the annual period and major findings from the RVSDS 2024 system monitoring to-date are presented below.

B) Noteworthy Items

1) RVSDS rain gauge R-29 has been relocated from the Redford Fire Station to the Redford Combined Sewer Overflow (CSO) Retention Treatment Basin (RTB). This device was relocated because access and power interruptions had become a persistent issue, which resulted in a loss of data. Redford Township constructed a new Fire Station and the old Fire Station (where the gauge was installed) was transitioned to a storage facility for the Fire Department. The device was removed on July 23, 2024. The device was installed at the Redford CSO RTB on October 22, 2024.

2) Meter 5730 is owned and operated by the Oakland County Water Resources Commissioner (WRC) and is the same meter referred to as RVSDS Meter BG-1. WRC provides data from Meter BG-1 to Wayne County through their data sharing agreement. The provided data for Meter BG-1 includes the raw depth and processed flow rate. The flow rate for Meter BG-1 is processed with a calibrated flume equation that was developed in 2024. Starting January 1, 2024 the Meter BG-1 flow rate uses the WRC processed flow rate which is calculated using the calibrated flume equation.

3) Meter M-22 was temporarily removed from service on October 16, 2024 to facilitate bypass pumping of a section of the Middle Rouge Parkway Interceptor Extension (MRPIE) along Merriman Road under the Middle Rouge River. Meter M-22 was reinstalled on December 4, 2024.

4) Meter LV-20 was removed from service on December 18th, 2024. This was a local City of Livonia meter and provided depth data only (no velocity or flow rate). This meter is not expected to be reinstated, and will be removed from the future RVSDS System Monitoring Reports.

5) Over the year, the flow meters in the RVSDS operated and provided useful data for 96.1% of the period. Excluding the customer meters and the three GLWA outlet meters the Wayne County flow meters in the RVSDS operated and provided useful data for 97.8% of the period.

6) In 2024, dye-dilution testing was conducted for Meters LV-Basin, LV14, LV15, P1, P7, P8, P9, P10, P12, P13, P14, P15, P17, P19, P20, P24, P28, P30, P31, P32, P33, P34, P35, WE-14, WE-25, and WE-28. The results of all applicable dye-dilution tests of RVSDS flow meters for data through 2024 are shown in Table B-1 for reference (Appendix B). The data presented in this report reflects the results of these dye-dilution tests. The dye test results provide important information that was used to adjust the flow meter data. These adjustments provide more reasonable estimates of flow rates for the meters, meter districts, and communities.

C) RVSDS Overview

1) The total precipitation at the Detroit Metropolitan Wayne County Airport (DTW) for year 2024 was 33.50 inches, which is 0.82 inches below normal.

2) Figure 1-1 shows the long-term flow rate versus precipitation trend for the RVSDS by month from 2019 through 2024. The total flow rate to GLWA is based on the sum of the outlet flow meters WC-S-1 + WC-S-2 + WC-S-3 and the total precipitation is at DTW.

   On the top graph, the blue vertical bars show the monthly precipitation, and the black markers show the monthly normal precipitation. On the middle graph, the solid blue line shows the 12-month rolling total precipitation, and the gray dashed line shows the 12-month rolling total normal precipitation. On the bottom graph, the vertical bars show the average monthly flow rate, the solid black line shows the 12-month rolling average flow rate, and the black dashed line shows the 2019-2023 average monthly flow rate. The 5-year average from 2019-2023 provides a long-term high-quality dataset for comparison to current conditions.

3) Table 1-1 through 1-4 lists the average quarterly RVSDS outlet flow rate and total flow volume to GLWA for years 2019 through 2024. The total RVSDS outlet flow rate to GLWA is based on the three outlet meters, WC-S-1, WC-S-2, and WC-S-3.

4) Figure 1-2 through 1-5 plots the average quarterly RVSDS outlet flow rate to GLWA versus the quarterly total precipitation at DTW for years 2019 through 2024. This figure shows the trend between precipitation and RVSDS flow rates. The RVSDS outlet flow rate for 2024 to GLWA was within the 95% confidence interval for the given precipitation.

5) Table 1-6 lists the average annual (Q1 through Q4) customer flow rate and total flow volume for year 2024. The sum of the outlet flow meters is based on the three outlet meters, WC-S-1, WC-S-2, and WC-S-3.

Figure 1-1
Rouge Valley Sewage Disposal System
Monthly RVSDS Flow Rate to GLWA versus Total Precipitation at DTW for 2019 through 2024

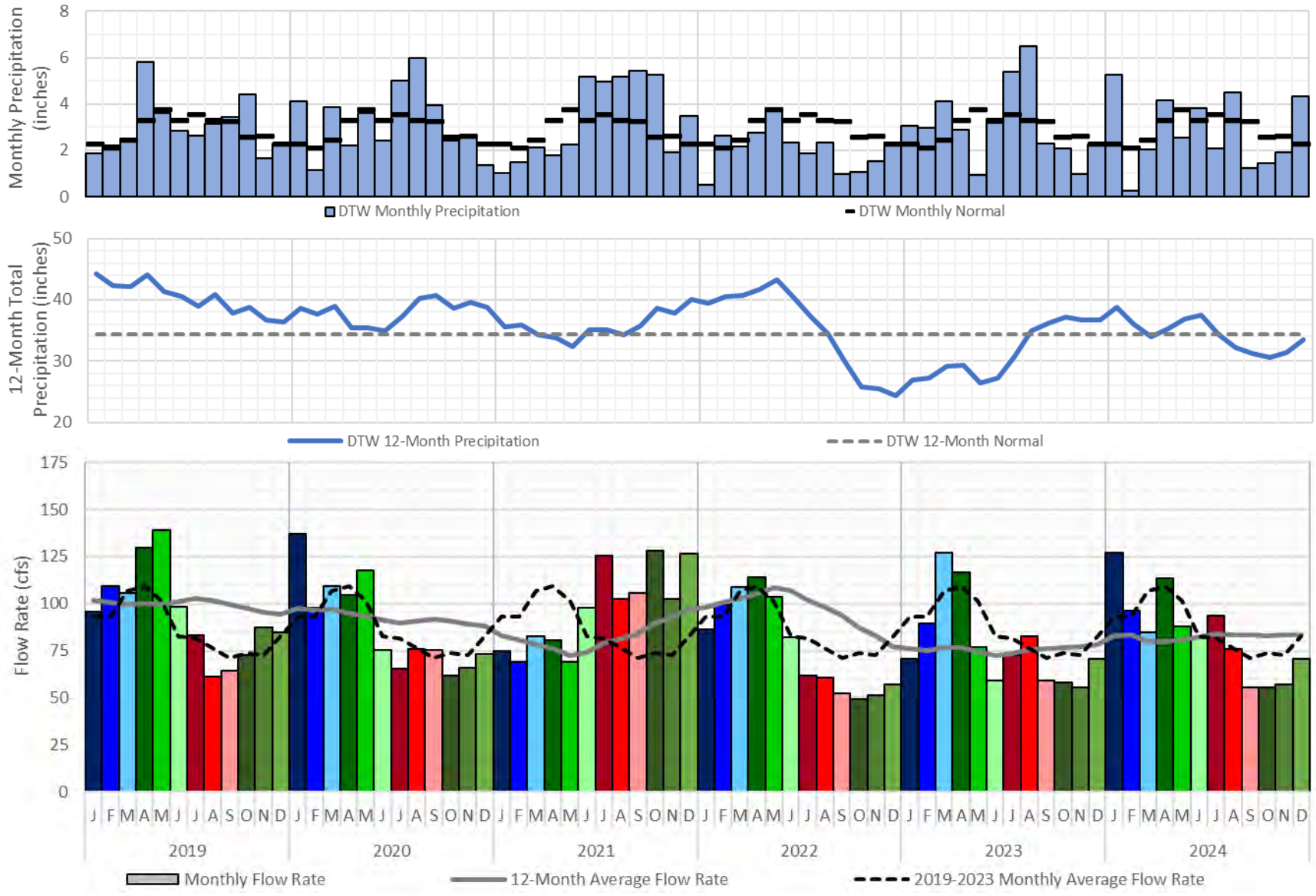


Table 1-1
Rouge Valley Sewage Disposal System
Average Q1 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024

Year & Quarter	Total Precipitation at DTW	Average Flow Rate (cfs)	Total Flow Volume (MG)	Total Flow Volume (MCF)
2019 Q1	6.54	103.34	6,011	803,600
2020 Q1	9.14	115.02	6,765	904,400
2021 Q1	4.63	75.66	4,401	588,300
2022 Q1	5.31	98.06	5,704	762,500
2023 Q1	10.15	95.95	5,582	746,100
2024 Q1	7.52	102.76	6,044	808,000
2019-2024 Q1 Average	7.15	97.61	5,693	761,000

Table 1-2
Rouge Valley Sewage Disposal System
Average Q2 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024

Year & Quarter	Total Precipitation at DTW	Average Flow Rate (cfs)	Total Flow Volume (MG)	Total Flow Volume (MCF)
2019 Q2	12.29	122.49	7,204	963,100
2020 Q2	8.23	99.30	5,841	780,800
2021 Q2	9.18	82.32	4,842	647,200
2022 Q2	8.91	99.86	5,873	785,100
2023 Q2	6.99	84.21	4,953	662,100
2024 Q2	10.53	94.14	5,537	740,100
2019-2024 Q2 Average	9.12	97.64	5,743	767,700

Table 1-3
Rouge Valley Sewage Disposal System
Average Q3 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024

Year & Quarter	Total Precipitation at DTW	Average Flow Rate (cfs)	Total Flow Volume (MG)	Total Flow Volume (MCF)
2019 Q3	9.21	69.60	4,139	553,300
2020 Q3	14.96	71.95	4,278	571,900
2021 Q3	15.55	111.21	6,613	884,000
2022 Q3	5.17	58.31	3,467	463,500
2023 Q3	14.15	71.43	4,248	567,800
2024 Q3	7.80	73.74	4,384	586,100
2019-2024 Q3 Average	11.81	76.50	4,549	608,100

Table 1-4
Rouge Valley Sewage Disposal System
Average Q4 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024

Year & Quarter	Total Precipitation at DTW	Average Flow Rate (cfs)	Total Flow Volume (MG)	Total Flow Volume (MCF)
2019 Q4	8.34	81.48	4,845	647,700
2020 Q4	6.40	66.78	3,971	530,800
2021 Q4	10.63	119.28	7,093	948,100
2022 Q4	4.92	52.40	3,116	416,500
2023 Q4	5.34	61.49	3,657	488,800
2024 Q4	7.65	60.90	3,621	484,100
2019-2024 Q4 Average	7.13	76.29	4,536	606,400

Table 1-5
Rouge Valley Sewage Disposal System
Average Q1 through Q4 RVSDS Outlet Flow Rate and Total Volume to GLWA for 2019 through 2024

Year & Quarter	Total Precipitation at DTW	Average Flow Rate (cfs)	Total Flow Volume (MG)	Total Flow Volume (MCF)
2019 Q4	36.38	376.91	22,199	2,967,700
2020 Q4	38.73	353.06	20,855	2,787,900
2021 Q4	39.99	388.47	22,948	3,067,600
2022 Q4	24.31	308.63	18,160	2,427,600
2023 Q4	36.63	313.10	18,439	2,464,800
2024 Q4	33.50	332.86	19,665	2,628,800
2019-2024 Q4 Average	35.21	348.03	20,520	2,743,200

Figure 1-2
Rouge Valley Sewage Disposal System
Average Q1 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024

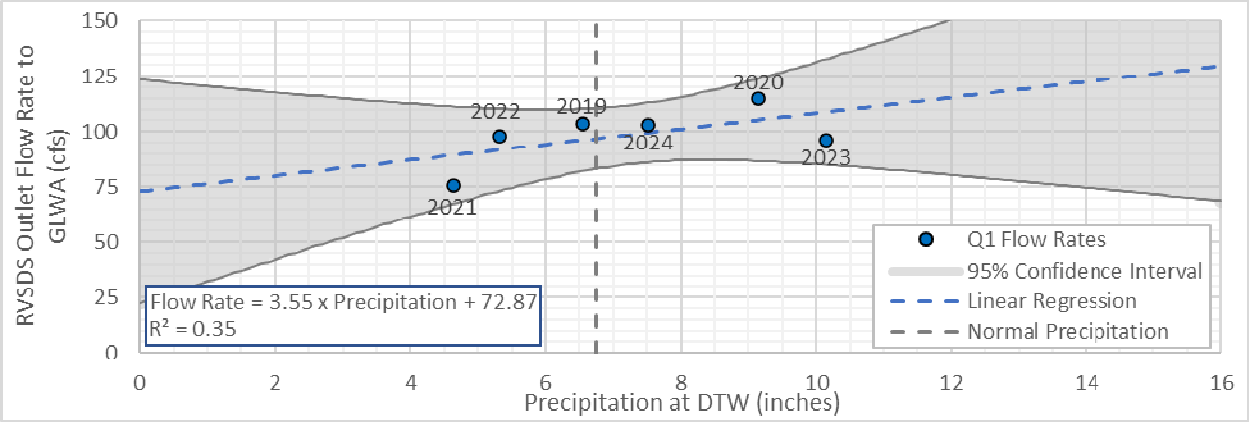


Figure 1-3
Rouge Valley Sewage Disposal System
Average Q2 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024

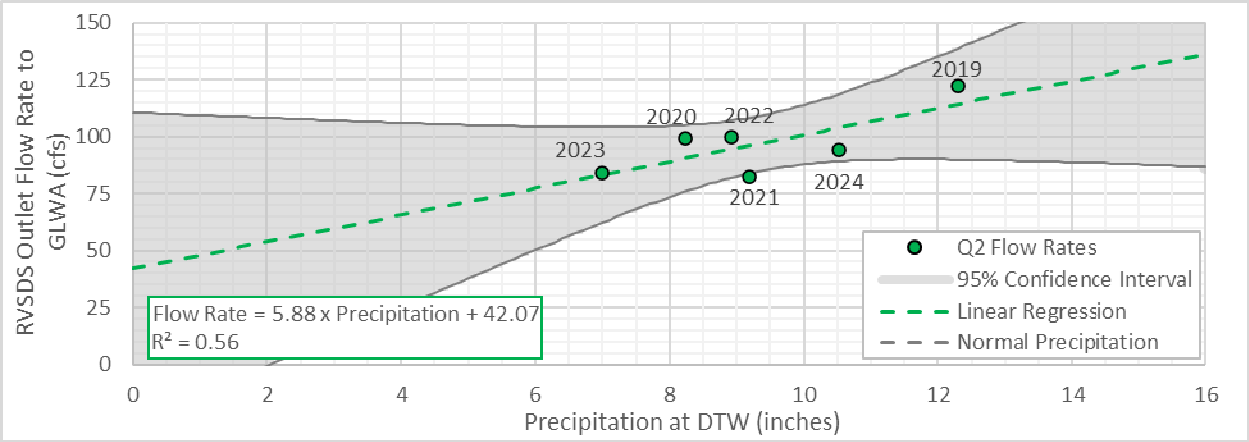


Figure 1-4
Rouge Valley Sewage Disposal System
Average Q3 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024

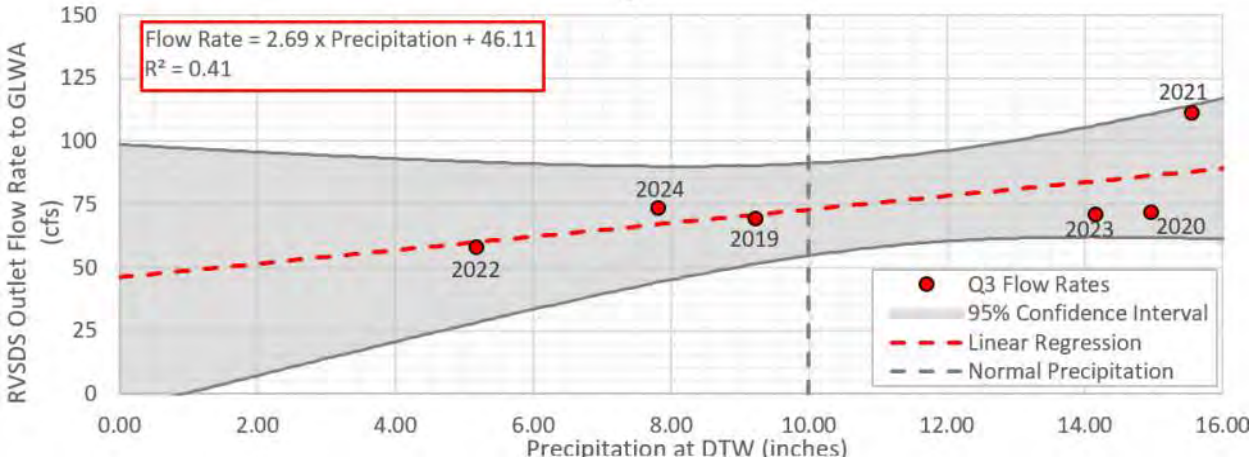


Figure 1-5
Rouge Valley Sewage Disposal System
Average Q4 RVSDS Outlet Flow Rate to GLWA versus Precipitation at DTW for 2019 through 2024

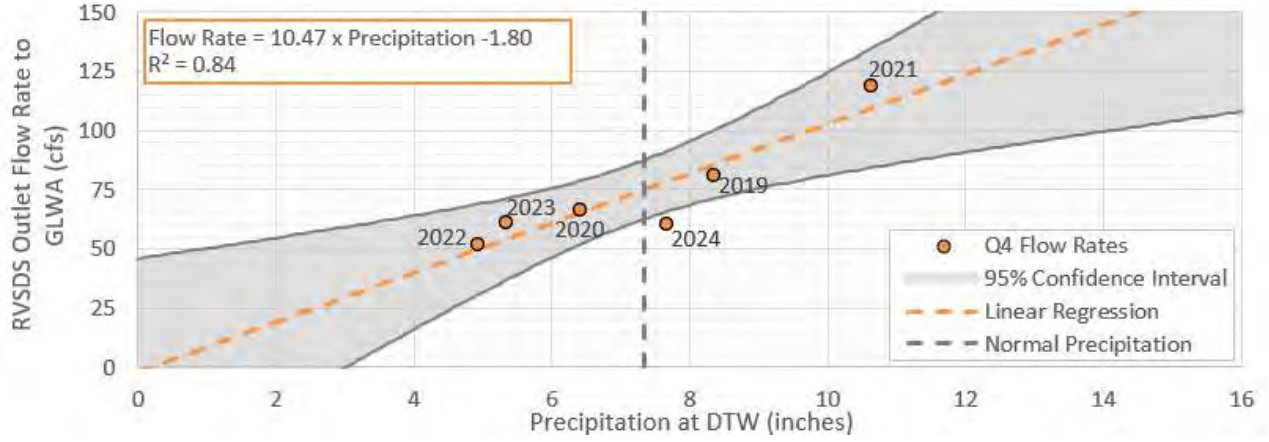


Table 1-6
Rouge Valley Sewage Disposal System
Average Flow Rate and Volume by Customer for 2024

Customer	Estimated Quarterly Average Flow Rate (cfs)				Estimated Annual Average Flow Rate (cfs)	Estimated Annual Flow Volume	
	Q1	Q2	Q3	Q4		(MG)	(MCF)
Oakland County (Novi)	8.40	7.98	7.80	6.52	7.67	1,810	241,900
Plymouth City	1.68	1.84	1.19	0.41	1.28	301	40,300
Northville City	2.12	1.98	1.80	2.39	2.07	489	65,400
Garden City	7.74	7.33	4.85	4.25	6.03	1,423	190,200
Livonia	27.29	25.46	21.42	16.68	22.69	5,353	715,600
Westland	17.01	16.22	12.85	11.48	14.37	3,391	453,300
Redford Twp	12.49	12.42	9.93	7.00	10.45	2,465	329,500
Dearborn Heights	20.43	15.06	7.97	5.45	12.20	2,878	384,700
Van Buren Twp	1.82	1.65	1.18	1.05	1.42	336	44,900
Romulus	0.56	0.50	0.59	0.56	0.55	130	17,400
Wayne	5.42	4.91	3.73	3.61	4.41	1,041	139,200
Inkster	5.67	5.89	4.51	4.79	5.21	1,230	164,400
WCAA	0.99	0.00	0.00	0.10	0.27	64	8,600
Sum of Customer Flow Rates	111.62	101.23	77.82	64.28	96.82	22,841	3,053,400
Sum of Outlet Meter Flow Rates [WC-S-1] + [WC-S-2] + [WC-S-3]	102.76	94.14	75.27	60.90	90.67	21,389	2,859,300

Notes:
1. cfs = Cubic Feet per Second
2. MG = Million Gallons
3. MCF = Thousand Cubic Feet

D) Significant Storm Events

1) There were ten (10) significant storm events during year 2024. The events were designated as Significant Storm Events 1 through 10 for 2024. A rainfall summary for year 2024 significant storm events is presented in Table 5-15. Total rainfall values for each rain gauge and each event are presented in Tables 5-16 and 5-25.

   - Significant Storm Event 1 occurred on January 9-13, 2024 and had an average rainfall of 1.84 inches over the service area.
   - Significant Storm Event 2 occurred on January 22-31, 2024 and had an average rainfall of 2.67 inches over the service area.
   - Significant Storm Event 3 occurred on April 10-12, 2024 and had an average rainfall of 1.71 inches over the service area.
   - Significant Storm Event 4 occurred on April 28-30, 2024 and had an average rainfall of 1.08 inches over the service area.
   - Significant Storm Event 5 occurred on May 26-27, 2024 and had an average rainfall of 1.48 inches over the service area.
   - Significant Storm Event 6 occurred on June 28-29, 2024 and had an average rainfall of 1.35 inches over the service area.
   - Significant Storm Event 7 occurred on July 9-11, 2024 and had an average rainfall of 2.21 inches over the service area.
   - Significant Storm Event 8 occurred on August 6, 2024 and had an average rainfall of 1.16 inches over the service area.
   - Significant Storm Event 9 occurred on October 12-14, 2024 and had an average rainfall of 1.38 inches over the service area.
   - Significant Storm Event 10 occurred on December 29-30, 2024 and had an average rainfall of 1.47 inches over the service area.

2) Figures 1-6 through 1-15 show the RVSDS outlet meter flow rates for Significant Storm Events 1 through 10. For year 2024, the peak rolling hourly average flow rate to GLWA was 363 cfs and occurred during Significant Storm Event 2, on January 27, 2024.

3) A summary of maximum allowable flow limit exceedances by community during significant storm events for 2024 are listed in Table 1-7. Dearborn Heights, Garden City, Northville City, Van Buren Township, and Inkster exceeded the maximum allowable flow limits (MAFLs) for at least one significant storm event in 2024. Livonia, Oakland County (Novi), Plymouth City, Redford Township, Romulus, Wayne and Westland did not exceed the MAFLs for any of the significant storm events in 2024.

4) Table 1-8 lists the peak flow rates and estimated flood frequencies on the Middle and Lower Rouge Rivers for each significant storm event in 2024. For year 2024, the highest peak flow rate and return frequency on the Middle and Lower Rouge River occurred during Significant Storm Event 2, on January 27, 2024. The estimated flood frequency for this event was about 6-year for the Middle Rouge River and about 7-year for the Lower Rouge River.

Figure 1-6
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 1

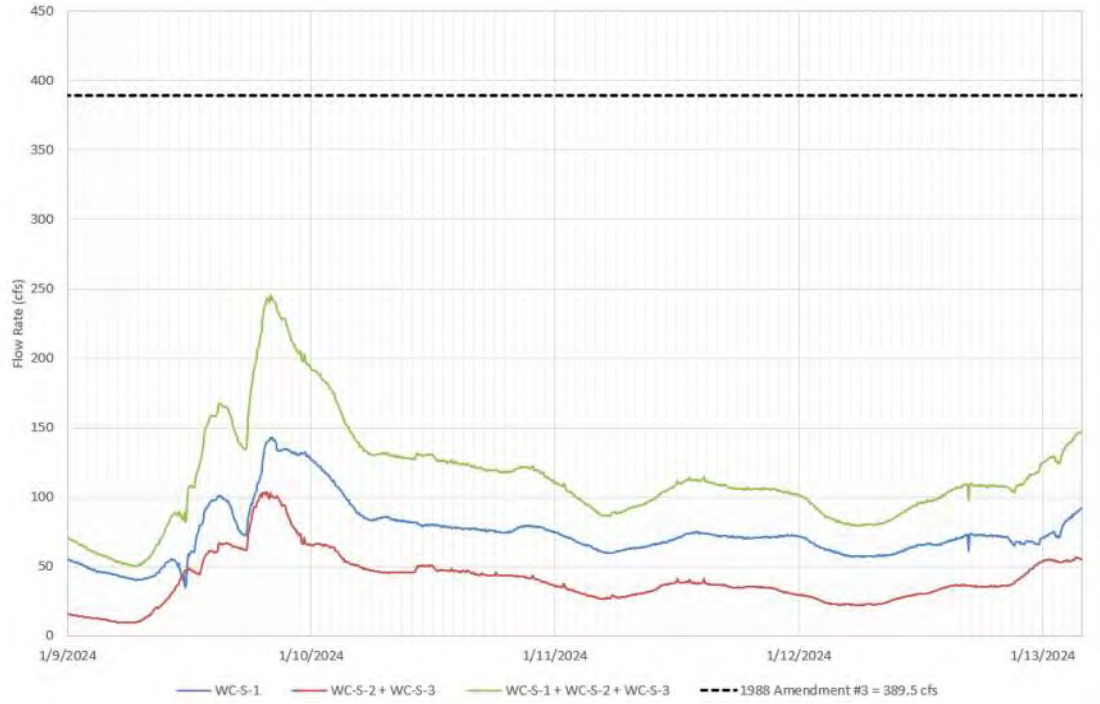


Figure 1-7
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 2

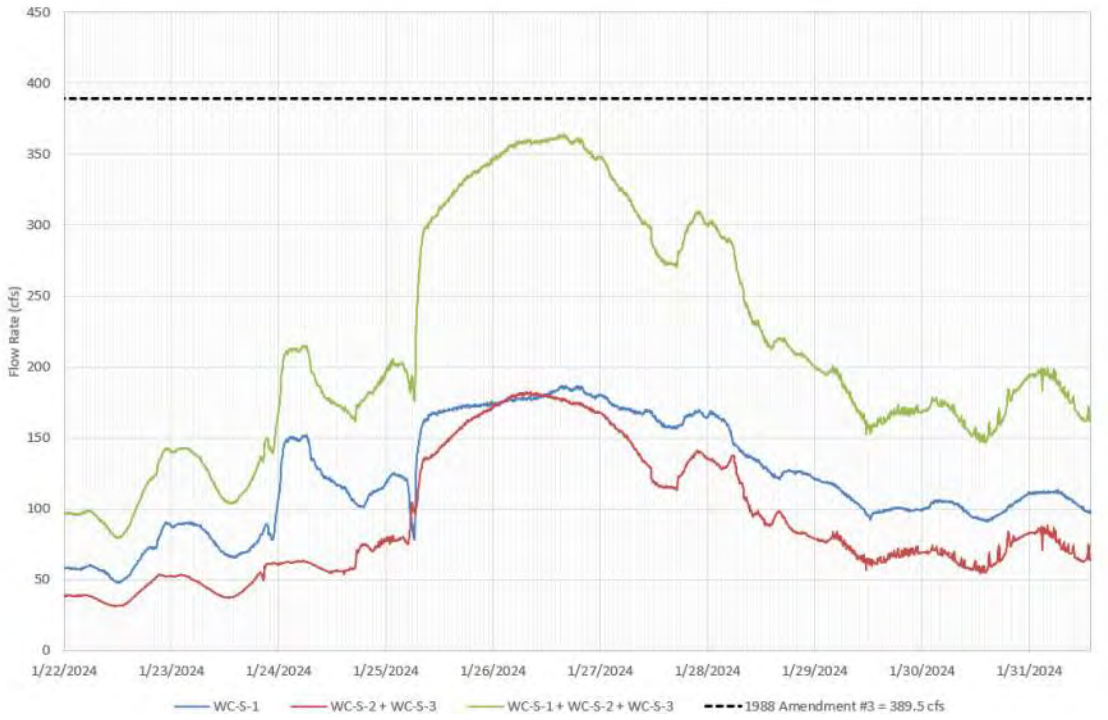


Figure 1-8
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 3



Figure 1-9
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 4

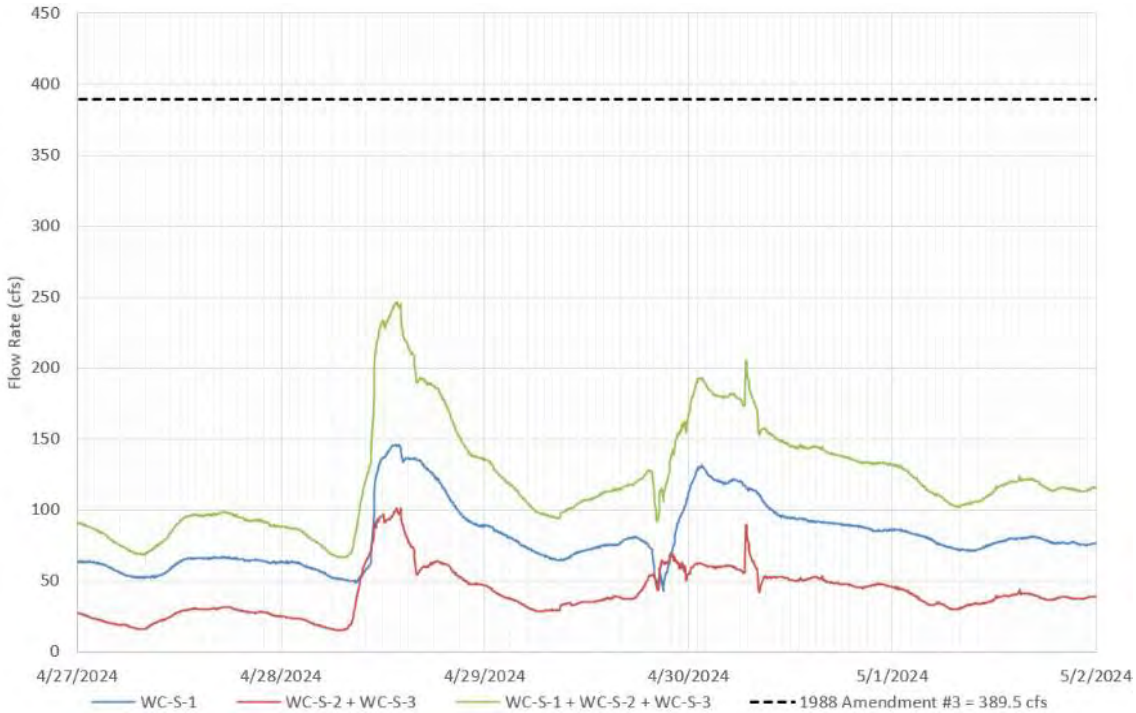


Figure 1-10
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 5

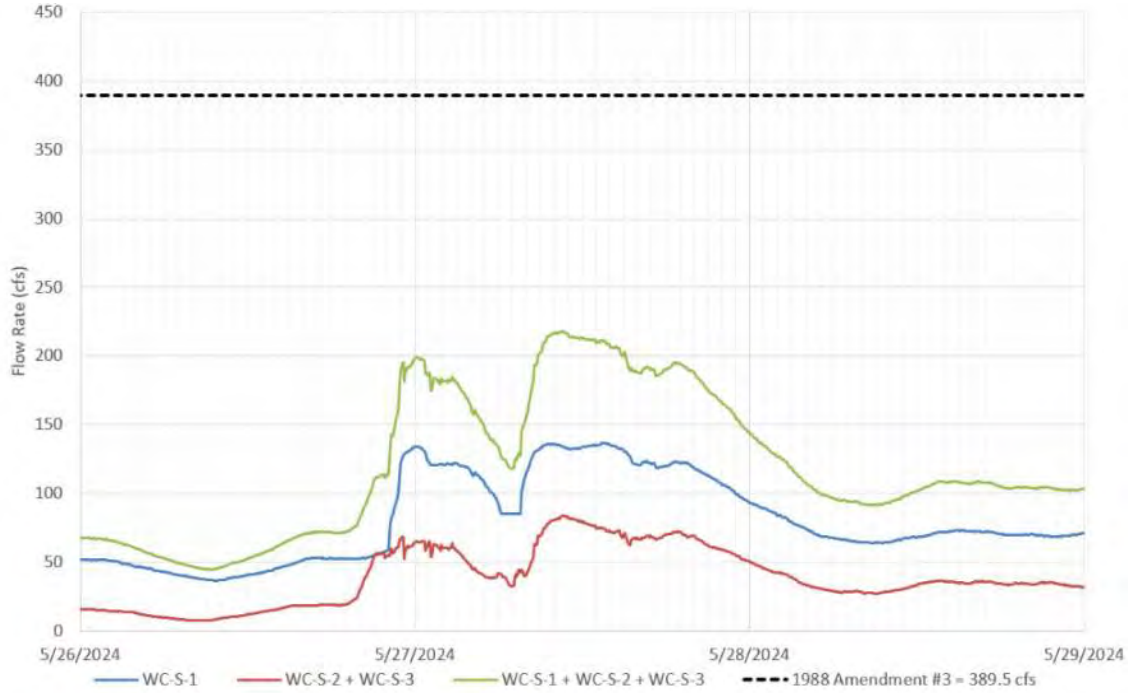


Figure 1-11
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 6

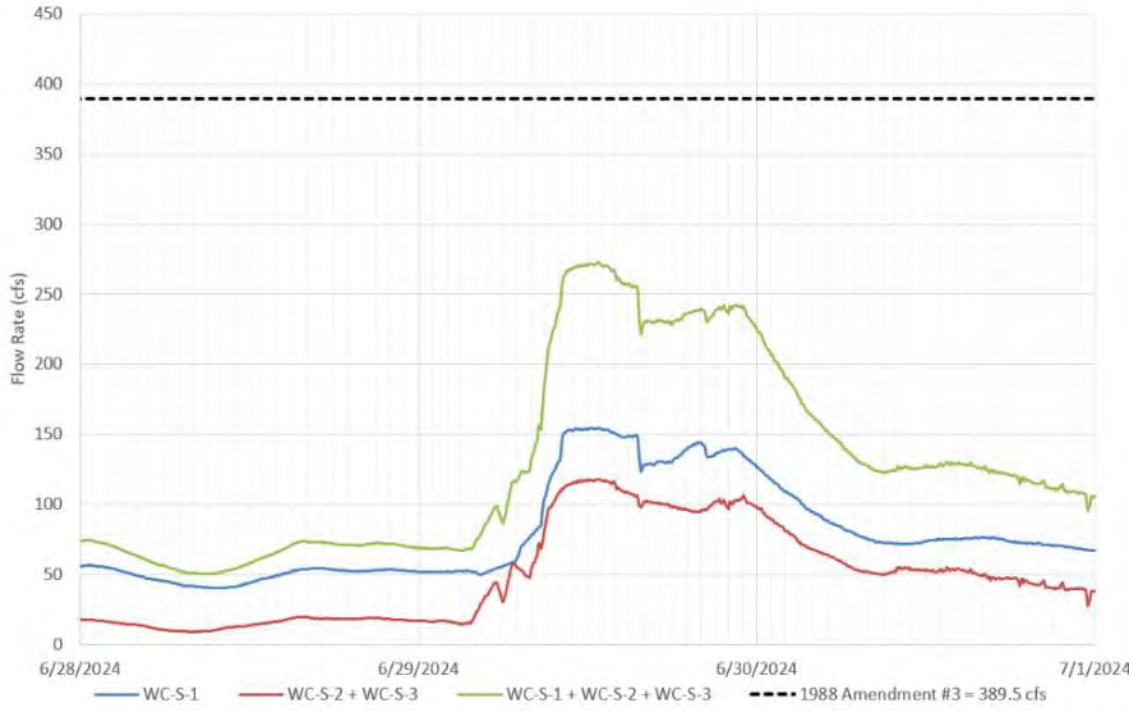


Figure 1-12
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 7



Figure 1-13
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 8

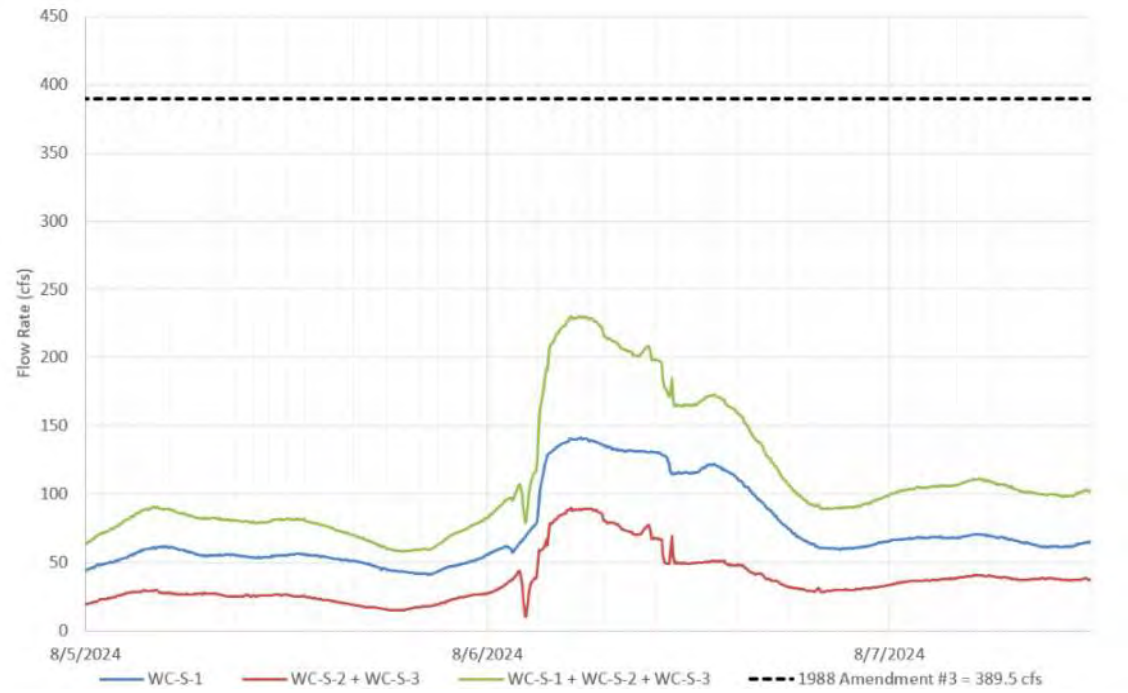


Figure 1-14
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 9

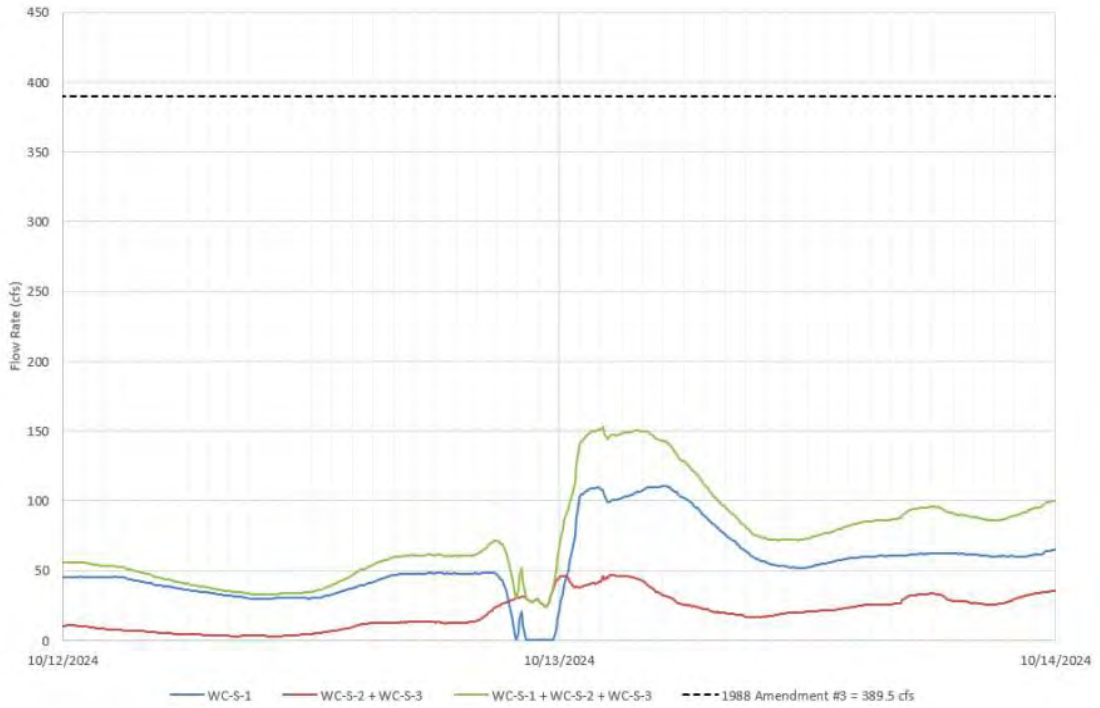


Figure 1-15
Rouge Valley Sewage Disposal System
Outlet Meter Flow Rates for Significant Storm Event 10



Table 1-7
Rouge Valley Sewage Disposal System
Maximum Allowable Flow Limit Exceedances for Significant Storm Events in 2024

Event	Date	Precipitation (inches)	Customer										
			Oakland County (Novi)	Plymouth City	Northville City	Garden City	Livonia	Westland	Redford Twp	Dearborn Heights	Van Buren Twp	Romulus	Wayne	Inkster
1	January 9, 2024 – January 13, 2024	1.47	-	-	-	-	-	-	-	✓	-	-	-	-
2	January 22, 2024 – January 31, 2024	1.66	-	-	✓	✓	-	-	-	✓	✓	-	-	-
3	April 10, 2024 – April, 12, 2024	1.71	-	-	-	✓	-	-	-	✓	-	-	-	-
4	April 28, 2024 – April 30, 2024	1.08	-	-	-	✓	-	-	-	✓	-	-	-	-
5	May 26, 2024 – May 27, 2024	1.48	-	-	-	✓	-	-	-	-	-	-	-	-
6	June 28, 2024 – June 29, 2024	1.35	-	-	-	✓	-	-	-	✓	-	-	-	-
7	July 9, 2024 – July 11, 2024	2.21	-	-	-	✓	-	-	-	✓	-	-	-	✓
8	August 6, 2024	1.16	-	-	-	✓	-	-	-	-	-	-	-	-
9	October 12, 2024 – October 14, 2024	1.38	-	-	-	-	-	-	-	-	-	-	-	-
10	December 29, 2024 – December 30, 2024	1.47	-	-	-	✓	-	-	-	✓	-	-	-	-
Total			0/10	0/10	1/10	8/10	0/10	0/10	0/10	7/10	1/10	0/10	0/10	1/10

Legend:

✓	Maximum Allowable Flow Limit Exceeded
x	Flow meter data does not show a Maximum Allowable Flow Limit exceedance but peak hourly flow rates are underestimated due to SSO and an exceedance may have occurred
-	Maximum Allowable Flow Limit Not Exceeded

Table 1-8
Rouge Valley Sewage Disposal System
Rouge River Flood Frequency for Significant Storm Events in 2024

Significant Storm Event		Peak 15-minute Flow Rate (cfs)		Estimated Flood Frequency[2]	
Event No.	Date	Middle Rouge USGS Gage #04167000	Lower Rouge USGS Gage #04168400	Middle Rouge USGS Gage #04167000	Lower Rouge USGS Gage #04168400
1	January 9, 2024 – January 13, 2024	406	556	2 - month	2 - month
2	January 22, 2024 – January 31, 2024	1,650	2,170	6 - year	7 - year
3	April 10, 2024 – April 12, 2024	804	1120	8 - month	11 - month
4	April 28, 2024 – April 30, 2024	406	415	1 - month	2 - month
5	May 26, 2024 – May 28, 2024	634	504	5 - month	2 - month
6	June 28, 2024 – June 29, 2024	616	592	5 - month	3 - month
7	July 9, 2024 – July 11, 2024	1160	1040	3 - year	9 - month
8	August 6, 2024	462	485	3 - month	2 - month
9	October 12, 2024 – October 14, 2024	280	223	< 1 - month	< 1 - month
10	December 29, 2024 – December 30, 2024	478	650	3 - month	4 - month
Estimated Flood Frequency[1]		315	408	1 - month	
		734	903	6 - month	
		944	1,152	1 - year	
		1,066	1,405	2 - year	
		1,549	1,943	5 - year	
		1,988	2,436	10 - year	
		3,255	3,717	100 - year	

Notes:
1. A partial duration analysis was used to estimate the 1-month, 6-month, and 1-year flood frequency flow rates. An annual peak series analysis was used to estimate the 2, 5, 10 and 100-year flood frequency flow rates.
2. The estimated flood frequency for each storm event was linearly interpolated between the estimated flood frequencies listed in the lower half of this table.

E) GLWA Outlet Meters

1) Flow Meters WC-S-1, WC-S-2 and WC-S-3 are owned and operated by the GLWA. These flow meters are the official monitoring points for the RVSDS, and the data from these meters is used in the RVSDS system monitoring reports.

2) GLWA and Wayne County agreed to implement a common data estimation methodology for Meters WC-S-1, WC-S-2 and WC-S-3 missing data as of GLWA fiscal year 2017 (starting on July 1, 2016 at 12:00 AM) and continuing into the future. The agreed upon flow rate estimation methods for Meters WC-S-1, WC-S-2 and WC-S-3 are based on correlations to upstream RVSDS flow meters. These correlations will continue to be used to evaluate the performance of Meters WC-S-1, WC-S-2 and WC-S-3. Table 1-5 lists the total monthly volumes for year 2024 for Meters WC-S-1, WC-S-2 and WC-S-3. For year 2024, the Wayne County correlation is estimated to be 0.6% higher than the GLWA metered outlet to GLWA.

3) Meter WC-S-1, WC-S-2 and WC-S-3 data from GLWA is based primarily on measured data. The common data estimation methodology continues to be presented in this report as a check of the GLWA flow rates and to preserve this method, should it be needed due to metering issues with the GLWA meters. As shown in Table 1-5, the GLWA meters and estimation agree very well for the annual average of the RVSDS total flow rate. Differences between the GLWA metered flow rate and the correlation for the components (WC-S-1 and WC-S-2 + WC-S-3) are taken to be indications that the actual flow rate distribution between the three locations where flow rate from RVSDS to the GLWA system is monitored varied from the distribution that the correlations were based upon.

Table 1-9
Rouge Valley Sewage Disposal System
RVSDS Outlet Volumes to GLWA for 2024

Date	WC-S-1 (MG)				WC-S-2 + WC-S-3 (MG)				WC-S-1 + WC-S-2 + WC-S-3 (MG)			
	GLWA Flow Meter	Wayne County Correlation	Difference		GLWA Flow Meter	Wayne County Correlation	Difference		GLWA Flow Meter	Wayne County Correlation	Difference	
1/1/2024	1,586	1,717	130	8.2%	962	674	-288	-29.9%	2,549	2,391	-158	-6.2%
2/1/2024	1,258	1,372	114	9.0%	556	477	-79	-14.2%	1,814	1,848	35	1.9%
3/1/2024	1,218	1,334	116	9.5%	479	430	-49	-10.2%	1,697	1,764	67	4.0%
4/1/2024	1,471	1,624	153	10.4%	726	624	-102	-14.0%	2,197	2,248	51	2.3%
5/1/2024	1,247	1,373	126	10.1%	514	462	-51	-10.0%	1,760	1,835	75	4.3%
6/1/2024	1,124	1,211	87	7.7%	455	367	-88	-19.3%	1,579	1,578	-1	-0.1%
7/1/2024	1,258	1,349	91	7.2%	622	473	-149	-24.0%	1,880	1,822	-58	-3.1%
8/1/2024	1,066	1,174	108	10.2%	454	342	-111	-24.6%	1,519	1,516	-3	-0.2%
9/1/2024	849	954	105	12.3%	227	209	-18	-8.0%	1,076	1,162	86	8.0%
10/1/2024	886	956	70	7.9%	222	191	-31	-14.2%	1,108	1,147	39	3.5%
11/1/2024	869	946	77	8.8%	232	192	-40	-17.5%	1,101	1,137	36	3.3%
12/1/2024	1,035	1,148	113	10.9%	377	280	-97	-25.7%	1,412	1,428	16	1.1%
Total	11,077	12,106	1,029	9.3%	4,995	4,059	-936	-18.7%	16,072	16,165	94	0.6%

Notes:

Notes: 1. GLWA monthly compiled data as published on the GDRSS portal
2. MG = Million Gallons
3. Difference (MG) = Wayne County Correlation (MG) - GLWA Flow Meter (MG)
4. Difference (%) = (Wayne County Correlation (MG) - GLWA Flow Meter (MG)) / GLWA Flow Meter (MG)

2.0 Monitoring Network

Figure 2-1 is a schematic of the RVSDS interceptors. Appendix A contains the detailed RVSDS interceptor schematics A1 through A8 which show the interceptor and flow meter locations. Figure 2-2 shows the RVSDS meter districts and line connections areas. Figure 2-3 shows the RVSDS rain gauge network used to evaluate the wet weather monitoring data. The entities which operate and maintain the RVSDS system monitoring flow meters and rain gauges are listed in Tables 2-1 and 2-2, respectively.

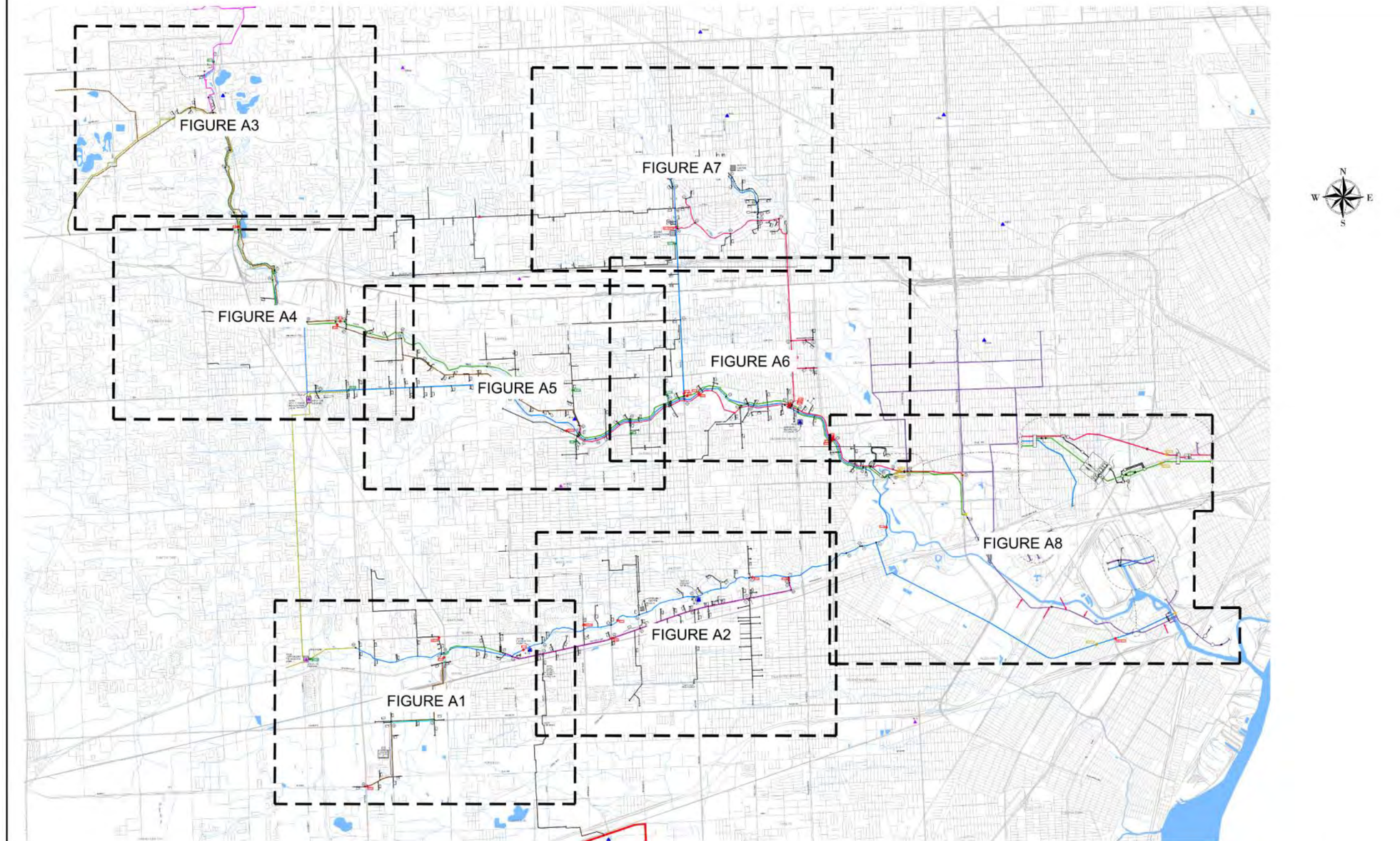


FIGURE 2-1
ROUGE VALLEY SEWAGE DISPOSAL SYSTEM
INTERCEPTOR SCHEMATIC

SYSTEM
MONITORING
INDEX SHEET

REVISION DATE: DECEMBER 8, 2022

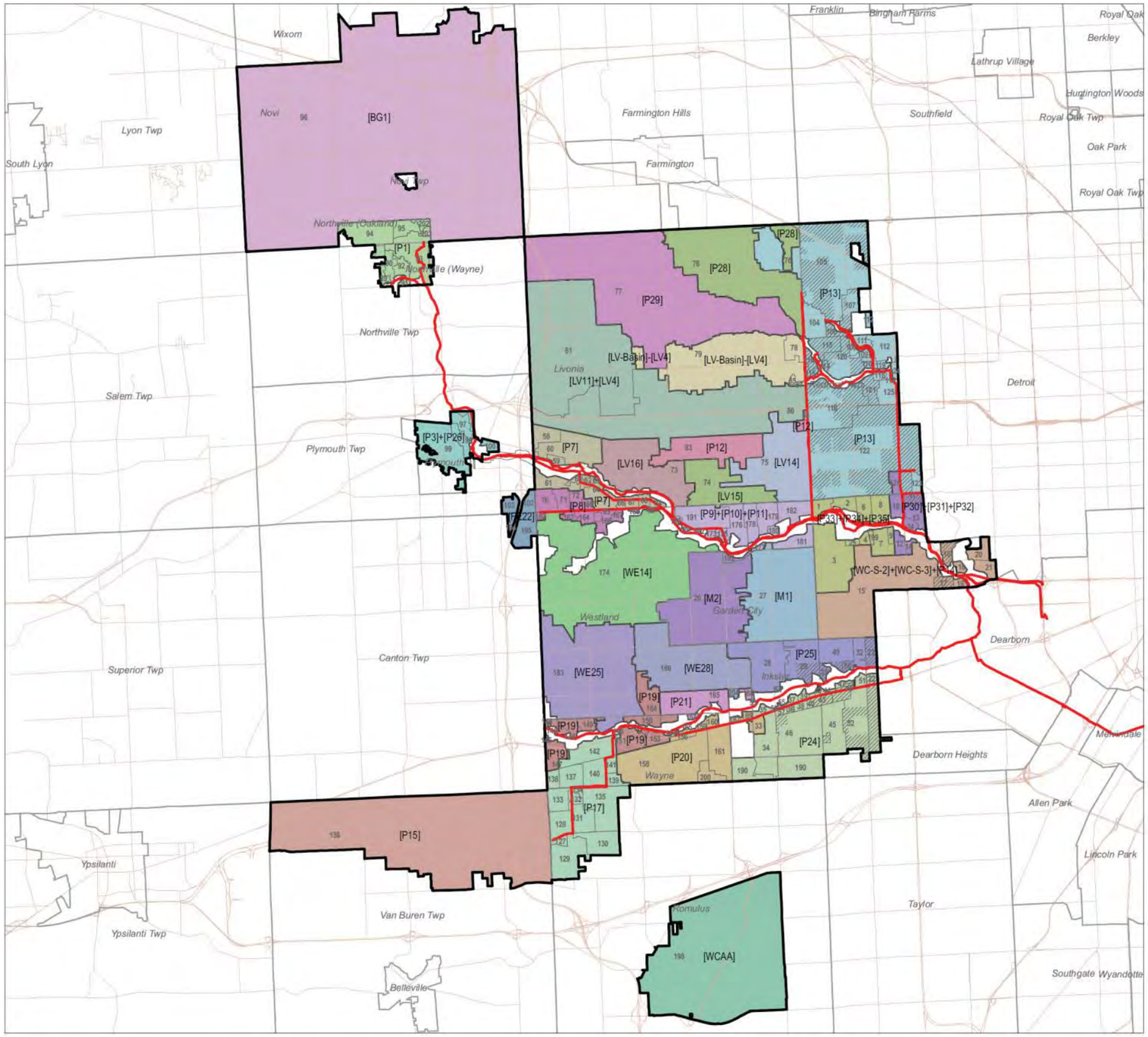


Figure 2-2
Meter District and
Line Connection Areas

Prepared By:
Applied Science, Inc.

REVISION DATE: OCTOBER 7, 2019

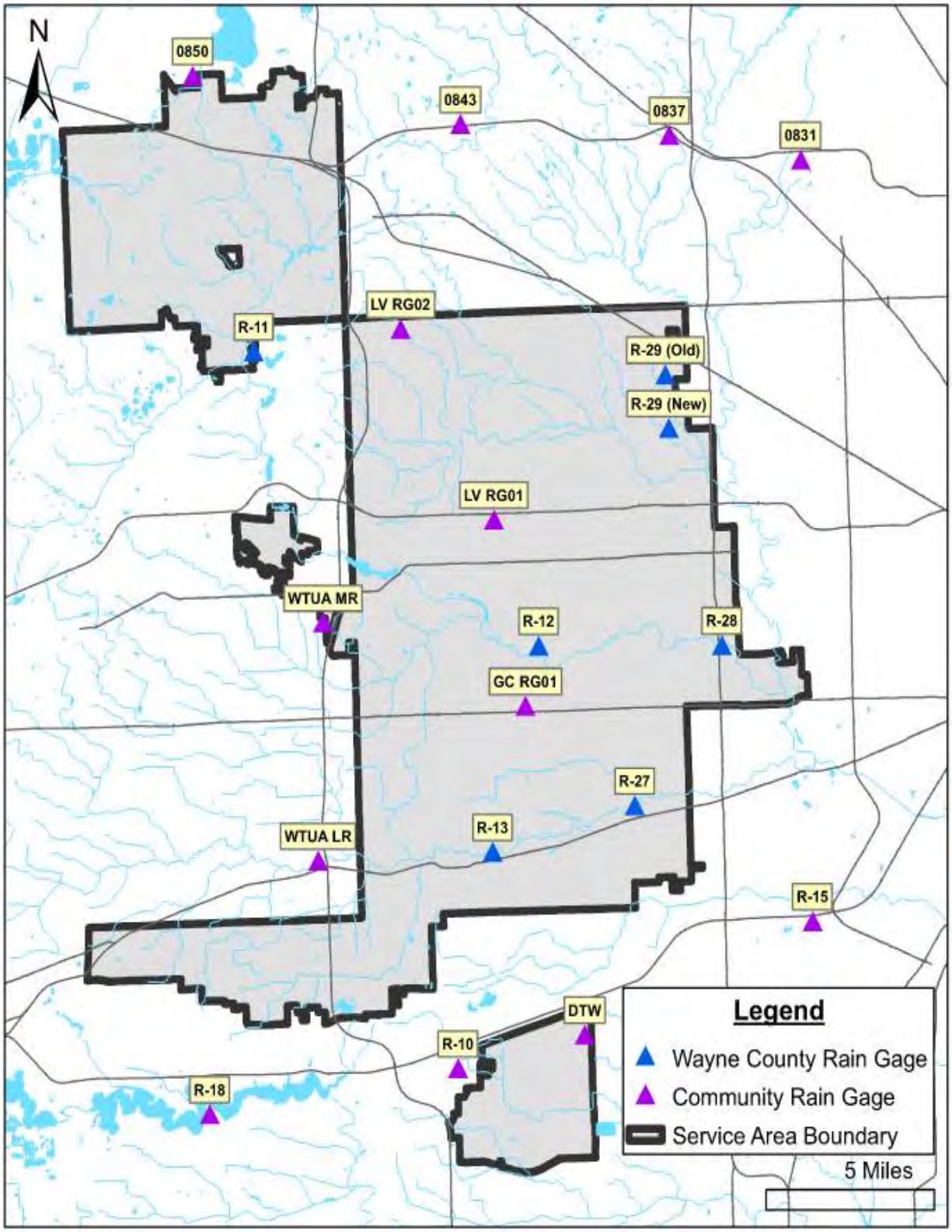


Figure 2-3
Rouge Valley Sewage Disposal System
Rain Gage Location Map

Table 2-1
Rouge Valley Sewage Disposal System
Flow Monitoring Meters

Operated By		Flow Meter
Wayne County		P-1, P-3, P-7, P-8, P-9, P-10, P-11, P-12, P-13, P-14, P-15, P-17, P-19, P-20, P-21, P-24, P-25, P-26, P-28, P-29, P-30, P-31, P-32, P-33, P-34, P-35, LV-Basin, M-22A, M-22B, WE-14, WE-25, & WE-28
Customer Meters	City of Livonia	LV-4, LV-11, LV-14, LV-15, LV-16 & LV-20
	Garden City	M-1 & M-2
	Oakland County WRC[1]	BG-1
	WTUA[2]	FE-19 & FE-22
	WCAA[3]	Pond 3 West to RVSDS
GLWA[4]		WC-S-1, WC-S-2 & WC-S-3

Notes:
1) Oakland County Water Resources Commissioner (WRC)
2) Western Townships Utilities Authority (WTUA)
3) Wayne County Airport Authority (WCAA)
4) Great Lakes Water Authority (GLWA) owns and operates the RVSDS outlet meters

Table 2-2
Rouge Valley Sewage Disposal System
Rain Gages

Operated By	Rain Gage	Location
Wayne County	R-11	650 Doheny Drive, Northville
	R-12	7651 Merriman Road, Westland
	R-13	3301 Josephine Street, Wayne
	R-27	2001 Inkster Road, Inkster
	R-28	23800 Hines Drive, Dearborn Heights
	R-29	18300 Beech Daly Road, Redford[4] 16100 Lola Drive, Redford[4]
DUWA[1]	R-10	11111 Wayne Road, Romulus
	R-15	20195 Trolley, Taylor
	R-18	130 4th Street, Belleville
Livonia	LV RG01	Schoolcraft Road, Livonia
	LV RG02	Whispering Willows Golf Course, Livonia
Garden City	GC RG01	Moeller Park, Garden City
NOAA[2]	DTW	Wayne County Metro Airport, Romulus
Oakland County WRC[3]	0831	19625 Middlesex Street, Southfield
	0837	25515 Clara Lane, Southfield
	0843	34189 12 Mile Road, Farmington Hills
	0850	46351 West Road, Walled Lake
WTUA	WTUA LR	3501 Haggerty Road, Canton
	WTUA MR	40905 Joy Road, Plymouth

Notes:

1) Downriver Utility Wastewater Authority (DUWA) transferred from Wayne County (effective September 27, 2019)
2) National Oceanic and Atmospheric Administration (NOAA)
3) Oakland County Water Resources Commissioner (WRC)
4) Rain gauge R-29 was removed from the Redford Fire Station (on Beech Daly Road) on July 23, 2024, and relocated to the Redford CSO RTB (on Lola Drive) on October 22, 2024.

3.0 Flow Rate at Key Locations

Table 3-1 lists the estimated average monthly flow rate at key locations in the RVSDS for each month in 2024. The average monthly flow rate includes all days – both dry and wet weather. Table 3-2 lists the estimated average monthly dry weather flow rate at key locations in the RVSDS for each month in 2024. The Year 2020 residential population is given on Tables 3-1 and 3-2 and it is used to estimate per-capita flow rates.

Figure 3-1 shows the long-term total flow rate trends at key locations in the RVSDS by month from 2019 through 2024. Figure 3-2 shows the long-term dry weather flow rate trends at key locations in the RVSDS by month from 2019 through 2024. The flow rates at key locations are based on the sewage flow meter math provided on Tables 3-1 and 3-2. The solid lines show the average monthly flow rates, and the dashed lines show the 2019-2023 average monthly flow rate. These figures show the seasonal variations in flow rates.

A single set of dry days was used to estimate the dry weather flow rates for all of the meters. The dry weather days were determined by analyzing the daily flow rate for meter groups near the downstream end of the interceptor system. The meter groups used for this analysis include: Meters [P-9]+[P-10]+[P-11] which represent the Middle Rouge interceptor system, Meters [P-24]+[P-25] which represent the Lower Rouge interceptor system, and Meters [WC-S-1]+[WC-S-2]+[WC-S-3] which represent the entire RVSDS. These meter groups were chosen because they are near the downstream end of the interceptor system, include some dewatering flow rates, and provide a well-defined sort of dry/wet days.

Table 3-1
Rouge Valley Sewage Disposal System
Average Per-Capita Flow Rate at Key Locations

Branch	Sewage Flow Meter	Year 2020 Residential Population	Total Developed Land (acres)	Monthly Average Incremental Flow Rate (cfs)												Estimated Annual Average Incremental Flow Rate	
				Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	(cfs)	(gallons / capita / day)
Middle Rouge at Inkster Road	[P-9] + [P-10] + [P-11]	232,937	38,494	57.2	52.2	46.0	58.9	50.0	47.7	54.0	43.9	35.5	33.6	34.3	40.3	46.1	128
Middle Rouge Outlet	[WC-S-2] + [WC-S-3] + [P-14]	324,189	46,362	102.3	76.0	67.4	90.5	70.8	66.3	78.6	63.1	45.0	43.5	45.0	56.5	67.1	134
Lower Rouge Outlet	[P-24] + [P-25] - [WCAA]	97,068	15,976	27.1	21.4	19.1	26.7	20.6	17.6	17.3	16.4	14.9	14.4	14.8	17.6	19.0	126
RVSDS Outlet	[WC-S-1] + [WC-S-2] + [WC-S-3] - [WCAA]	421,257	62,339	127.0	94.7	83.2	113.3	87.9	81.5	93.8	75.8	55.5	55.3	56.8	70.2	82.9	127

Table 3-2
Rouge Valley Sewage Disposal System
Average Per-Capita Dry Weather Flow Rate at Key Locations

Branch	Sewage Flow Meter	Year 2020 Residential Population	Total Developed Land (acres)	Monthly Average Incremental Dry Weather Flow Rate (cfs)												Estimated Annual Average Incremental Dry Weather Flow Rate	
				Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	(cfs)	(gallons / capita / day)
Middle Rouge at Inkster Road	[P-9] + [P-10] + [P-11]	232,937	38,494	40.6	48.8	44.3	51.2	47.5	43.3	47.5	40.3	35.5	32.5	33.0	35.5	41.6	116
Middle Rouge Outlet	[WC-S-2] + [WC-S-3] + [P-14]	324,189	46,362	65.1	69.2	63.9	74.4	65.4	57.3	64.4	54.3	45.0	41.0	42.5	46.7	57.4	114
Lower Rouge Outlet	[P-24] + [P-25] - [WCAA]	97,068	15,976	16.8	19.6	17.9	22.0	19.3	16.0	15.1	14.4	14.8	13.8	14.0	15.0	16.5	110
RVSDS Outlet	[WC-S-1] + [WC-S-2] + [WC-S-3] - [WCAA]	421,257	62,339	80.1	86.0	78.6	92.7	80.9	70.6	77.2	64.9	55.4	52.4	53.5	57.9	70.8	109

Figure 3-1
Rouge Valley Sewage Disposal System
Monthly Average Flow Rates at Key Locations for 2019 through 2024

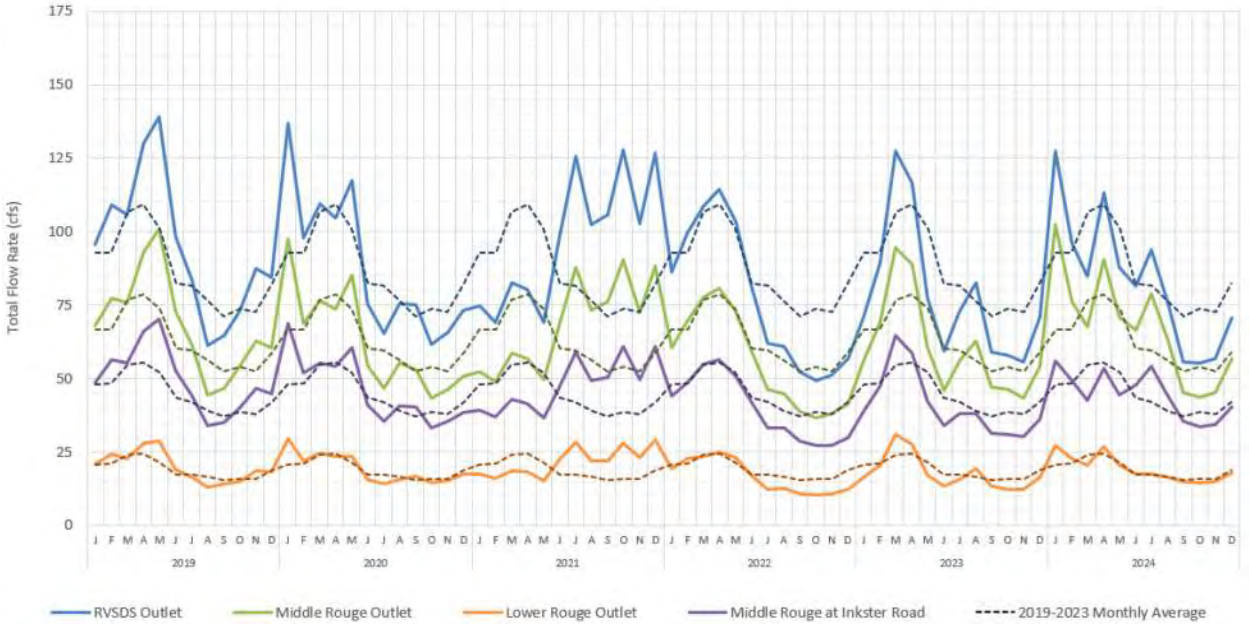
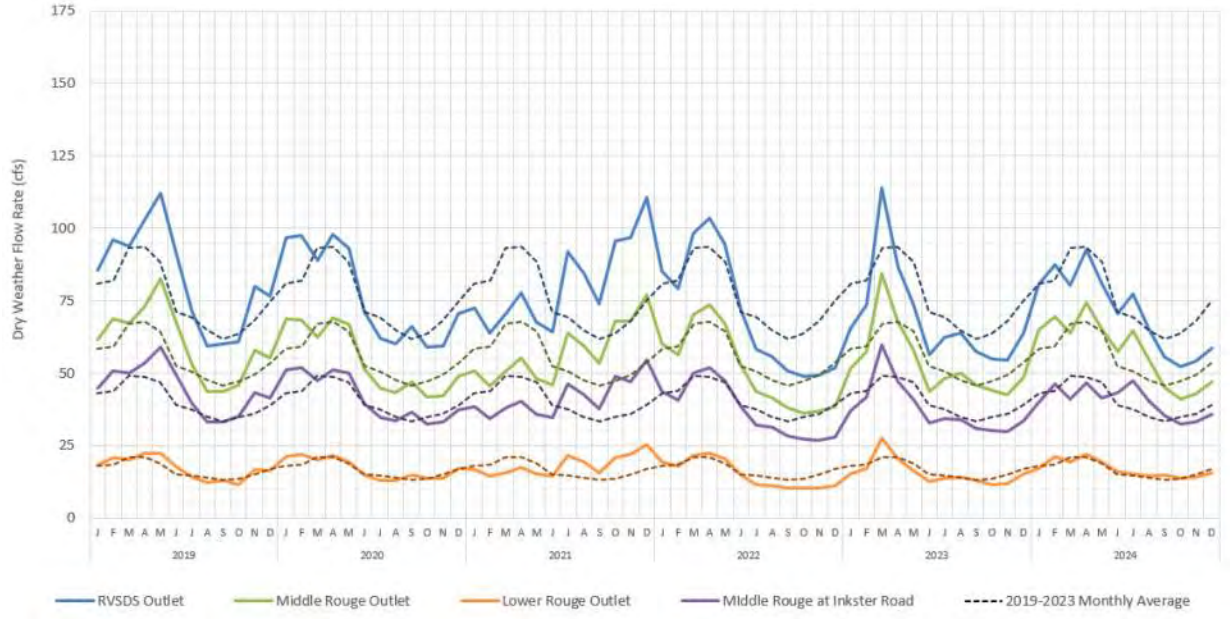


Figure 3-2
Rouge Valley Sewage Disposal System
Monthly Average Dry Weather Flow Rates at Key Locations for 2019 through 2024



4.0 Customer Flow Summaries

Table 4-1 lists the estimated average monthly flow rate for each community in the RVSDS for each month in 2024. The average monthly flow rate includes all days – both dry and wet weather. Table 4-2 lists the estimated average monthly dry weather flow rate for each community in the RVSDS for each month in 2024. The Year 2020 residential population is given on these tables and it is used to estimate per-capita flow rates. The sewage flow meter math is based on Year 2020 population and is listed on these tables for each community. The estimated average monthly flow rates listed in Table 4-1 are plotted on Figure 4-1.

For each significant storm event, maximum hourly wet weather flow rates for each community are estimated using the flow monitoring data set. These flow rates are compared to the MAFLs to check if any community exceeded its MAFL. Tables 4-3 through 4-12 lists the peak hourly flow rates for each community. Exceedances of the MAFLs are highlighted (if any).

Table 4-1
Rouge Valley Sewage Disposal System
Monthly Average Flow Rate by Customer
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math[1]	Year 2020 Residential Population	Total Developed Land (acres)	Maximum Allowable Flow Limit[2] (cfs)	Estimated Monthly Average Customer Flow Rate (cfs)												Estimated Annual Average Flow Rate		Estimated Maximum Monthly Average Flow Rate (cfs)
					Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	(cfs)	(gallons / capita / day)	
Oakland County (Novi)	[BG-1]	51,761	12,473	20.48	9.10	8.35	7.75	8.52	7.83	7.59	8.05	7.97	7.37	7.02	7.12	7.54	*7.85*	*98*	*9.10*
Plymouth City	[P-3] + [P-26] - [P-1] + [FE-22]	9,352	968	15.80	3.08	2.87	2.59	2.54	2.37	2.48	2.68	2.16	1.86	1.52	1.67	1.62	*2.29*	*158*	*3.08*
Northville City	[P-1] - [BG-1]	6,315	913	7.61	2.32	2.15	1.90	2.20	1.95	1.80	1.92	1.79	1.69	1.68	1.61	1.74	*1.89*	*194*	*2.32*
Garden City	[M-1] + 94.3%[M-2]	27,381	2,796	24.40	10.07	6.70	6.38	9.31	6.86	5.83	6.27	4.62	3.61	3.61	3.86	5.26	*6.03*	*142*	*10.07*
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	95,519	16,928	106.52	30.25	27.96	23.70	30.54	23.84	22.05	27.01	20.89	16.19	15.44	15.77	18.78	*22.69*	*154*	*30.54*
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	85,415	9,274	80.04	19.11	17.28	14.65	18.96	15.64	14.08	14.89	12.27	11.34	10.86	11.01	12.53	*14.37*	*109*	*19.11*
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	48,122	4,703	52.89	14.10	12.34	10.96	14.83	11.83	10.54	12.20	11.01	6.45	6.25	6.42	8.31	*10.44*	*140*	*14.83*
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	43,645	3,156	65.47	31.13	11.49	10.46	16.84	9.06	8.04	12.29	8.22	3.26	3.76	4.48	8.09	*10.61*	*157*	*31.13*
Van Buren Twp	[P-15]	7,363	4,471	5.00	2.13	1.77	1.56	1.91	1.59	1.45	1.33	1.17	1.05	1.01	1.04	1.11	*1.42*	*125*	*2.13*
Romulus	38.0%{[P-17] - [P-15]}	2,691	1,562	3.60	0.60	0.57	0.51	0.54	0.51	0.45	0.52	0.66	0.60	0.59	0.55	0.53	*0.55*	*133*	*0.66*
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	17,712	2,517	27.92	6.57	5.23	4.44	5.95	4.75	4.05	3.94	3.83	3.42	3.31	3.44	4.07	*4.41*	*161*	*6.57*
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	25,981	2,578	26.66	7.00	4.89	5.07	7.65	5.51	4.54	4.34	4.77	4.41	4.37	4.50	5.51	*5.21*	*130*	*7.65*
WCAA	[WCAA]	--	4,881	1.50	0.23	1.28	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	*0.27*	-	*1.48*
Row A) Sum of Customer Flow Rates (cfs):					**135.69**	**102.86**	**91.47**	**119.79**	**91.72**	**82.89**	**95.45**	**79.36**	**61.23**	**59.42**	**61.48**	**75.37**	**95.64**	**--**	***135.69***
Row B) Sum of Outlet Meter Flow Rates [WC-S-1] + [WC-S-2] + [WC-S-3] (cfs):					**127.20**	**95.95**	**84.70**	**113.31**	**87.86**	**81.45**	**93.83**	**75.84**	**55.50**	**55.30**	**56.79**	**70.47**	**90.67**	**--**	***127.20***

Notes:
1. Sewage flow meter math for some customers based on 2020 Census populations.
2. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.

Table 4-2
Rouge Valley Sewage Disposal System
Monthly Average Dry Weather Flow Rate by Customer
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math[1]	Year 2020 Residential Population	Total Developed Land (acres)	Maximum Allowable Flow Limit[2] (cfs)	Estimated Monthly Average Customer Dry Weather Flow Rate (cfs)												Estimated Annual Average Dry Weather Flow Rate		Estimated Maximum Monthly Average Dry Weather Flow Rate (cfs)
					Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	(cfs)	(gallons / capita / day)	
Oakland County (Novi)	[BG-1]	51,761	12,473	20.48	8.01	8.13	7.63	8.02	7.82	7.39	7.69	7.65	7.38	6.95	7.05	7.29	*7.58*	*95*	*8.13*
Plymouth City	[P-3] + [P-26] - [P-1] + [FE-22]	9,352	968	15.80	2.56	2.75	2.54	2.42	2.29	2.37	2.43	2.01	1.86	1.49	1.64	1.54	*2.16*	*149*	*2.75*
Northville City	[P-1] - [BG-1]	6,315	913	7.61	1.85	2.07	1.88	2.03	1.95	1.73	1.79	1.73	1.69	1.66	1.58	1.65	*1.80*	*184*	*2.07*
Garden City	[M-1] + 94.3%[M-2]	27,381	2,796	24.40	5.63	5.92	5.80	6.98	5.96	4.91	4.98	3.92	3.58	3.26	3.44	3.87	*4.85*	*114*	*6.98*
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	95,519	16,928	106.52	21.14	25.78	22.78	26.64	22.77	20.18	23.80	19.15	16.22	14.93	15.20	16.57	*20.41*	*138*	*26.64*
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	85,415	9,274	80.04	13.80	16.10	14.20	16.73	15.11	13.28	13.66	11.34	11.34	10.60	10.76	11.38	*13.18*	*100*	*16.73*
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	48,122	4,703	52.89	9.52	11.32	10.43	12.73	10.69	8.84	10.22	9.29	6.43	5.64	5.85	6.62	*8.96*	*120*	*12.73*
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	43,645	3,156	65.47	14.87	9.04	9.15	10.52	7.19	5.18	6.57	4.73	3.24	3.05	3.75	4.76	*6.84*	*101*	*14.87*
Van Buren Twp	[P-15]	7,363	4,471	5.00	1.67	1.68	1.52	1.72	1.55	1.39	1.23	1.09	1.05	0.99	1.03	1.03	*1.33*	*117*	*1.72*
Romulus	38.0%{[P-17] - [P-15]}	2,691	1,562	3.60	0.48	0.56	0.50	0.49	0.51	0.46	0.49	0.65	0.60	0.58	0.53	0.52	*0.53*	*128*	*0.65*
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	17,712	2,517	27.92	4.25	4.82	4.24	5.09	4.53	3.80	3.58	3.52	3.40	3.23	3.32	3.53	*3.94*	*144*	*5.09*
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	25,981	2,578	26.66	3.53	4.38	4.54	5.78	4.97	3.85	3.47	3.87	4.37	4.00	4.06	4.44	*4.27*	*106*	*5.78*
WCAA	[WCAA]	--	4,881	1.50	0.43	1.44	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	*0.31*	-	*1.50*
Row A) Sum of Customer Flow Rates (cfs):					**87.74**	**93.99**	**86.71**	**99.15**	**85.33**	**73.39**	**79.91**	**68.97**	**61.15**	**56.38**	**58.22**	**63.53**	**76.14**	**-**	***99.15***
Row B) Sum of Outlet Meter Flow Rates [WC-S-1] + [WC-S-2] + [WC-S-3] (cfs):					**80.49**	**87.45**	**80.06**	**92.66**	**80.87**	**70.63**	**77.15**	**64.90**	**55.44**	**52.36**	**53.50**	**58.20**	**71.09**	**-**	***92.66***

Notes:
1. Sewage flow meter math for some customers based on 2020 Census populations.
2. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.

Figure 4-1
Rouge Valley Sewage Disposal System
Monthly Average Flow Rate by Customer for 2024

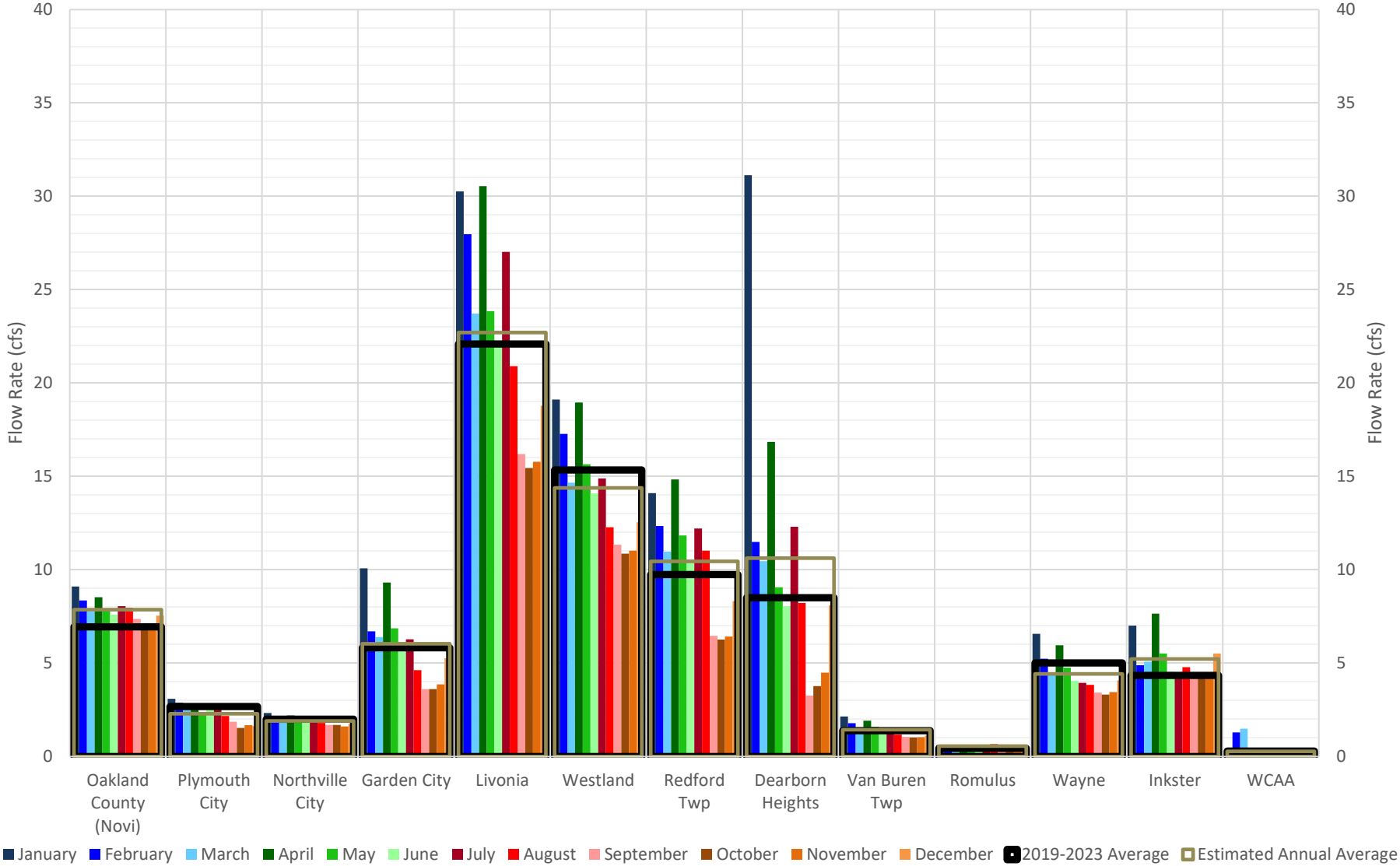


Table 4-3
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 1
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 1 1/9/2024 - 1/13/2024 1.84 in		
			Estimated Monthly Average Dry Weather Flow Rate for January 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	8.13	15.35	1.89
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	1.56	5.45	3.48
Northville City	[P-1] - [BG-1]	7.61	2.07	4.88	2.36
Garden City	[M-1] + 94.3%[M-2]	24.40	5.92	21.52	3.63
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	25.78	40.97	1.59
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	16.10	27.59	1.71
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	11.34	26.54	2.34
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	11.77	87.20	7.41
Van Buren Twp	[P-15]	5.00	1.68	2.75	1.63
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.56	1.34	2.40
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	4.82	11.59	2.40
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	4.38	20.57	4.69

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-4
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 2
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 2 1/22/2024-1/30/2024 2.67 in		
			Estimated Monthly Average Dry Weather Flow Rate for March 2023 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	7.63	19.56	2.56
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	1.42	8.82	6.19
Northville City	[P-1] - [BG-1]	7.61	1.88	7.93	4.21
Garden City	[M-1] + 94.3%[M-2]	24.40	5.80	53.21	9.18
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	22.78	72.13	3.17
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	14.20	49.91	3.51
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	10.46	35.69	3.41
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	12.61	156.27	12.39
Van Buren Twp	[P-15]	5.00	1.52	6.81	4.49
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.50	1.95	3.87
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	4.24	21.88	5.16
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	4.54	22.88	5.04

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-5
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 3
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 3 4/10/2024-4/12/2024 1.71 in		
			Estimated Monthly Average Dry Weather Flow Rate for April 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	8.02	17.12	2.13
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	1.63	5.06	3.11
Northville City	[P-1] - [BG-1]	7.61	2.03	6.50	3.21
Garden City	[M-1] + 94.3%[M-2]	24.40	6.98	26.54	3.80
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	26.64	62.03	2.33
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	16.73	35.96	2.15
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	12.77	32.25	2.52
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	15.26	76.62	5.02
Van Buren Twp	[P-15]	5.00	1.72	4.32	2.51
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.49	1.33	2.70
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	5.09	13.77	2.71
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	5.78	24.74	4.28

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-6
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 4
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 4 4/28/2024-4/30/2024 1.08 in		
			Estimated Monthly Average Dry Weather Flow Rate for April 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	8.02	12.37	1.54
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	1.63	3.39	2.08
Northville City	[P-1] - [BG-1]	7.61	2.03	3.98	1.96
Garden City	[M-1] + 94.3%[M-2]	24.40	6.98	27.71	3.97
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	26.64	43.17	1.62
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	16.73	30.20	1.81
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	12.77	28.00	2.19
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	15.26	85.88	5.63
Van Buren Twp	[P-15]	5.00	1.72	2.45	1.42
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.49	1.25	2.54
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	5.09	13.19	2.59
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	5.78	24.48	4.24

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-7
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 5
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 5 5/26/2024-5/27/2024 1.48 in		
			Estimated Monthly Average Dry Weather Flow Rate for May 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	7.82	11.37	1.46
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	1.77	6.30	3.56
Northville City	[P-1] - [BG-1]	7.61	1.95	3.36	1.72
Garden City	[M-1] + 94.3%[M-2]	24.40	5.96	24.97	4.19
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	22.77	47.22	2.07
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	15.11	29.81	1.97
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	10.74	36.72	3.42
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	13.31	50.51	3.80
Van Buren Twp	[P-15]	5.00	1.55	2.43	1.57
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.51	0.66	1.29
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	4.53	16.08	3.55
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	4.97	25.40	5.11

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-8
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 6
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 6 6/28/2024-6/29/2024 1.35 in		
			Estimated Monthly Average Dry Weather Flow Rate for June 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	7.39	16.17	2.19
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	1.89	5.11	2.71
Northville City	[P-1] - [BG-1]	7.61	1.73	5.55	3.21
Garden City	[M-1] + 94.3%[M-2]	24.40	4.91	28.06	5.71
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	20.18	56.39	2.79
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	13.28	32.76	2.47
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	8.84	36.03	4.08
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	5.18	67.33	13.00
Van Buren Twp	[P-15]	5.00	1.39	2.59	1.86
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.46	1.26	2.73
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	3.80	14.86	3.91
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	3.85	23.34	6.06

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-9
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 7
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 7 7/9-11/2024 2.21 in		
			Estimated Monthly Average Dry Weather Flow Rate for July 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	7.69	7.65	18.05	2.36
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	0.98	7.70	7.82
Northville City	[P-1] - [BG-1]	7.61	1.73	6.09	3.52
Garden City	[M-1] + 94.3%[M-2]	24.40	3.92	39.89	10.17
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	19.15	69.41	3.62
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	11.34	43.00	3.79
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	9.29	35.48	3.82
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	4.73	97.30	20.56
Van Buren Twp	[P-15]	5.00	1.09	3.46	3.16
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.65	1.20	1.86
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	3.52	14.96	4.25
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	3.87	27.56	7.12

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-10
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 8
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 8 8/6/2024 1.16 in		
			Estimated Monthly Average Dry Weather Flow Rate for August 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	7.65	15.57	2.03
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	0.98	4.41	4.48
Northville City	[P-1] - [BG-1]	7.61	1.73	4.07	2.35
Garden City	[M-1] + 94.3%[M-2]	24.40	3.92	26.17	6.67
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	19.15	50.96	2.66
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	11.34	27.76	2.45
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	9.29	33.10	3.56
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	4.73	19.86	4.20
Van Buren Twp	[P-15]	5.00	1.09	2.05	1.87
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.65	1.07	1.66
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	3.52	15.78	4.48
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	3.87	20.31	5.25

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-11
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 9
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 9 10/12-14/2024 1.38 in		
			Estimated Monthly Average Dry Weather Flow Rate for October 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	6.95	10.13	1.46
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	0.53	3.13	5.87
Northville City	[P-1] - [BG-1]	7.61	1.66	3.67	2.21
Garden City	[M-1] + 94.3%[M-2]	24.40	3.26	16.23	4.98
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	14.93	27.89	1.87
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	10.60	19.64	1.85
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	5.64	24.87	4.41
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	3.05	43.24	14.20
Van Buren Twp	[P-15]	5.00	0.99	1.57	1.59
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.58	1.31	2.24
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	3.23	8.87	2.75
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	4.00	23.47	5.87

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

Table 4-12
Rouge Valley Sewage Disposal System
Estimated Maximum Hourly Flow Rates by Customer for Significant Storm Event 10
Using Incremental Sewage Flow Meter Math

Customer	Sewage Flow Meter Math	Maximum Allowable Flow Limit[1] (cfs)	Event 10 12/29-30/2024 1.47 in		
			Estimated Monthly Average Dry Weather Flow Rate for December 2024 (cfs)	Estimated Maximum Hourly Flow Rate[23] (cfs)	Peaking Factor[4]
Oakland County (Novi)	[BG-1]	20.48	7.29	13.28	1.82
Plymouth City	[P-3] + [P-26] - [P-1]+ [FE-22]	15.80	0.07	4.03	54.40
Northville City	[P-1] - [BG-1]	7.61	1.65	4.15	2.51
Garden City	[M-1] + 94.3%[M-2]	24.40	3.87	25.57	6.61
Livonia	[P-7] - [P-26] + [P-12] + 45.1%{[P-8] - [FE-22]} + 4.2%[P-13] + [LV-14] + 99.6%[LV-15] + [LV-16]	106.52	16.57	50.23	3.03
Westland	54.9%{[P-8] - [FE-22]} + 14.1%{[P-24] + [P-25] - [P-20] - [P-21]} + 30.0%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} +0.4%[LV-15] + 5.7%[M-2] + 150.6%[WE-14] + 96.6%[WE-25] + [WE-28]	80.04	11.38	29.53	2.60
Redford Twp	0.8%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 95.8%[P-13]	52.89	6.62	31.50	4.76
Dearborn Heights	99.2%{[WC-S-2] + [WC-S-3] + [P-14] - [P-9] - [P-10] - [P-11] - [P-13]} + 7.9%{[P-24] + [P-25] - [P-20] - [P-21]}	65.47	4.76	82.65	17.36
Van Buren Twp	[P-15]	5.00	1.03	2.25	2.18
Romulus	38.0%{[P-17] - [P-15]}	3.60	0.52	0.94	1.80
Wayne	69.2%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]} + 62.0%{[P-17] - [P-15]} + 3.4%[WE-25]	27.92	3.53	13.24	3.75
Inkster	78.0%{[P-24] + [P-25] - [P-20] - [P-21]} + 0.8%{[P-20] + [P-21] - [P-17] - [WE-25] - [WE-28] - [WCAA]}	26.66	4.44	21.63	4.88

Legend:

xx.x	Exceeds the Maximum Allowable Flow Limit by 0 to 10%
xx.x	Exceeds the Maximum Allowable Flow Limit by more than 10%

Notes:

1. The maximum allowable flow limits are from the 1988 service agreement adjusted for transfers between customers.
2. Estimated maximum hourly flow rates are based on recorded meter data with no adjustments for routing and attenuation.
3. Estimated maximum hourly flow rates do not include any Sanitary Sewer Overflows (SSO).
4. The peaking factor is a ratio of the maximum flow rate observed during the event to the average monthly dry weather flow rate.
5. The Wayne County Airport Authority (WCAA) is only allowed to discharge to the RVSDS during dry weather. The WCAA did not discharge to the RVSDS during this significant storm event.

5.0 Precipitation Data

Table 5-1 lists the monthly precipitation at DTW, the departure from normal, and the number of wet/dry days included for each month. Monthly precipitation data for the RVSDS rain gauges for 2024 is summarized on Table 5-2. Daily precipitation data for the RVSDS rain gauges for each month in 2024 is summarized on Tables 5-3 through 5-14. Data for the rain gauge at DTW is included in these tables.

Significant storm events are defined as those with at least 0.5 inches of rainfall occurring on a single day with an event total of at least 1.0 inch of rainfall. Significant storm events are separated by at least 2 consecutive days without precipitation over 0.1 inches. This storm event definition is based on the arithmetic mean of the rainfall recorded by all rain gauges used in the analysis for that storm.

There were ten (10) significant storm events in 2024. The events were designated as Significant Storm Events 1 through 10 for year 2024. The precipitation data for the significant storm events are summarized in Table 5-15 and presented in detail in Table 5-16 through 5-25.

A quality assurance (QA) and quality control (QC) review of the RVSDS rain gauge data was performed and involved a review of the maintenance logs and a comparison of the recorded precipitation to other nearby rain gauges. The maintenance logs identified rain gauge issues which were detected during site visits. In almost all cases, these issues were resolved during the site visit. In general, when a rain gauge had an issue, it recorded zero precipitation. All rain gauge data with documented maintenance log issues were flagged.

Table 5-1
Rouge Valley Sewage Disposal System
Dry/Wet Weather Count by Month and Monthly Precipitation at DTW for 2024

Month	Number of Dry Weather Days	Number of Wet Weather Days	Monthly Total Precipitation (in)	
			DTW[1]	Departure From Normal[2]
January	16	15	5.25	3.02
February	24	5	0.24	-1.84
March	23	8	2.03	-0.40
April	18	12	4.15	0.89
May	22	9	2.55	-1.17
June	21	9	3.83	0.57
July	23	8	2.08	-1.43
August	21	10	4.50	1.24
September	29	1	1.22	-2.00
October	25	6	1.44	-1.09
November	22	8	1.90	-0.67
December	22	9	4.31	2.06
Total	266	100	33.50	-0.82

Notes:
1) Detroit Metropolitan Wayne County Airport (DTW)
2) The National Centers for Environmental Information generates the official U.S. Climate Normals every 10-years and are calculated for a uniform 30-year period. Climate Normal precipitation values used in this report are from 1991-2020 and are the latest available.

Table 5-2
Rouge Valley Sewage Disposal System
Monthly Precipitation for 2024

Date	Monthly Precipitation (inches)																		DTW Monthly Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
January	4.64	0.02*	5.32	4.21	5.13	3.67	4.99	5.16	4.71*	4.93	3.82	4.54	4.60	4.87	4.74	4.59	4.54	4.53	5.25	32	23	28
February	0.17	0.27	0.14	0.13	0.12	0.18	0.11	0.12	0.00*	0.26	0.13	0.10	0.11	0.14	0.10	0.11	0.11	0.11	0.14	47	28	37
March	2.27	1.36	2.55	1.99	1.89	2.04	2.47	2.31	0.00*	2.15	1.84	2.08	2.01	2.18	2.10	2.20*	2.45	2.02	2.03	51	33	42
April	4.43	4.16	4.80	4.06	4.00	4.49	5.02	4.74	2.04*	4.81	3.79	3.85	3.71	4.35	5.10	4.61	2.40*	4.23	4.13	63	44	53
May	2.28	2.73	3.63	3.10	3.03	2.84	2.98	2.81	3.44	3.70	3.69	3.38	2.76	3.65	2.19	3.64	2.20*	2.89	2.55	75	54	65
June	3.99	4.54	4.50	3.51	3.43	3.48	3.61	4.46	1.06*	4.58	4.90	6.63	6.09	3.63	2.83	4.60	4.22	4.95	3.83	82	63	72
July	2.37	4.51	4.12	2.61	3.28	3.35	4.09	5.52	0.00*	3.48	5.57	5.26	5.76	6.22	6.01	3.63	4.68	5.15	2.08	83	65	74
August	4.79	3.44	4.07	2.36	4.25	3.89	4.36	3.01	0.00*	3.52*	4.54	5.85	4.00	5.00	4.45	3.76	3.49	5.25	4.28	83	63	73
September	1.39	1.05	0.98	0.86	0.97	1.29	0.93	0.87	0.00*	0.35*	0.81	0.85	1.12	0.62	0.50	0.76	0.63	1.14	1.22	78	58	68
October	1.64	1.74	1.83	1.30	1.47	1.53	1.67	1.75	0.16*	0.15*	2.11	1.92	1.74	1.51	1.69	1.50	1.43	1.79	1.44	68	45	57
November	1.95	2.06	2.00	1.77	1.69	1.85	2.05	1.87	2.29*	2.61*	2.13	1.99	2.01	2.20	2.24	2.00	0.00	2.20	1.90	53	40	47
December	3.11	2.89	2.94	2.25	3.28	2.77	3.19	3.14	1.08*	3.05*	2.35	2.72	2.32	2.20	2.14	3.05	2.79	2.82	4.93	39	27	34
Total	26.33	22.08*	30.11	22.83	26.10	25.23	28.56	29.00	11.25*	27.78*	29.09	32.54	30.16	30.66	28.02	27.90*	24.72*	30.27	25.51	66	48	57

Legend:

X.XX* Missing or suspect data (not used).

Table 5-3
Rouge Valley Sewage Disposal System
Daily Precipitation for January 2024

Date	Daily Precipitation (inches)																			DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUALR	VTUAMR	0831	0837	0843	0850	GCRG01	LVRG01	LVRG02	DTW	Max.	Min.	Avg.
1/1/2024	0	0*	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0.01	0	0	36	31	34
1/2/2024	0	0*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	30	32
1/3/2024	0	0*	0.04	0.02	0.03	0	0.04	0	0	0.02	0	0.01	0	0	0	0.03	0.02	0.01	0.04	35	32	34
1/4/2024	0	0*	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0.02	0	32	19	26
1/5/2024	0	0*	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	19	26
1/6/2024	0.01	0*	0.01	0.02	0.01	0.01	0.02	0.02	0	0.03	0.01	0.04	0.03	0.02	0.01	0	0.01	0.01	0.03	37	28	33
1/7/2024	0.03	0*	0.10	0.03	0.07	0.03	0.03	0.03	0.10	0.06	0	0.03	0.03	0.03	0.03	0.07	0.08	0.08	0.06	36	30	33
1/8/2024	0	0*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36	32	34
1/9/2024	0.84	0*	0.88	0.71	0.89	0.45	0.87	0.82	0.93	0.85	0.71	0.78	0.85	0.93	0.86	0.82	0.86	0.86	0.86	44	33	39
1/10/2024	0	0*	0.06	0.04	0.03	0.02	0.03	0.04	0.08	0.05	0.02	0.10	0.11	0.14	0.16	0.06	0.08	0.12	0.01	40	33	37
1/11/2024	0.06	0*	0.08	0.05	0.08	0.07	0.06	0.07	0.09	0.08	0.03	0.07	0.09	0.10	0.09	0.09	0.09	0.10	0.09	37	31	34
1/12/2024	0.93	0*	1.10	0.87	0.62	0.72	1.00	1.13	0.07	0.93	0.76	0.76	0.86	1.05	0.86	0.70	0.60	0.32	1.04	38	30	34
1/13/2024	0	0*	0.03	0.01	0.14	0.01	0.01	0.02	0.33	0.01	0	0.03	0.03	0.02	0.03	0.26	0.29	0.29	0.04	37	17	27
1/14/2024	0	0*	0	0	0	0	0	0	0	0.01	0	0	0.01	0	0	0	0	0	0.02	17	-2	8
1/15/2024	0	0*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	-3	3
1/16/2024	0	0*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03	12	3	8
1/17/2024	0	0*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	2	10
1/18/2024	0.05	0*	0.09	0.07	0	0.04	0.08	0.10	0	0.08	0.05	0.05	0.07	0.05	0.04	0.01	0.03	0	0.12	25	18	22
1/19/2024	0.03	0*	0.05	0.03	0	0.01	0.02	0.03	0	0.04	0	0.07	0.03	0.04	0.05	0	0	0	0.11	23	8	16
1/20/2024	0	0*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2	11
1/21/2024	0	0*	0	0	0.06	0	0	0	0	0	0	0	0	0	0	0.03	0.05	0.01	0.01	25	7	16
1/22/2024	0.03	0*	0.01	0.03	0	0.02	0.03	0.01	0	0.03	0	0	0	0	0.01	0	0	0	0.05	33	9	21
1/23/2024	0.42	0*	0.50	0.39	0.73	0.39	0.47	0.47	0.72	0.49	0.37	0.47	0.45	0.48	0.46	0.21	0.13	0.69	0.45	34	32	33
1/24/2024	0.34	0*	0.40	0.33	0.41	0.29	0.37	0.39	0.82	0.40	0.30	0.31	0.26	0.27	0.28	0.40	0.39	0.31	0.35	39	33	36
1/25/2024	0.17	0*	0.20	0.17	0.19	0.17	0.17	0.17	0.19	0.21	0.16	0.15	0.17	0.17	0.20	0.20	0.18	0.21	0.17	40	36	38
1/26/2024	1.03	0*	1.15	0.86	1.24	0.88	1.13	1.23	1.16	1.00	0.95	1.17	1.10	0.99	1.13	1.06	1.07	1.00	1.07	41	32	37
1/27/2024	0	0*	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0.01	0	0	0.01	41	35	38
1/28/2024	0.40	0*	0.31	0.31	0.40	0.32	0.37	0.30	0.19	0.29	0.13	0.16	0.12	0.10	0.11	0.29	0.23	0.18	0.41	39	33	36
1/29/2024	0	0*	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	32	35
1/30/2024	0.30	0.02*	0.31	0.27	0.21	0.24	0.29	0.33	0*	0.34	0.33	0.34	0.39	0.48	0.42	0.35	0.41	0.32	0.28	34	31	33
1/31/2024	0	0.31	0	0	0.01	0	0	0	0*	0	0	0	0	0	0	0	0	0.13	0	39	33	36
Total	4.64	0.02*	5.32	4.21	5.13	3.67	4.99	5.16	4.71*	4.93	3.82	4.54	4.60	4.87	4.74	4.59	4.54	4.53	5.25	32	23	28

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-4
Rouge Valley Sewage Disposal System
Daily Precipitation for February 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
2/1/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	45	36	41
2/2/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	42	29	36
2/3/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	36	26	31
2/4/2024	0	0	0	0	0.01	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	49	23	36
2/5/2024	0	0.01	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	39	26	33
2/6/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	43	28	36
2/7/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	48	26	37
2/8/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	61	33	47
2/9/2024	0	0	0.01	0	0.01	0.04	0	0	0*	0	0	0	0	0	0	0	0	0	0	64	49	57
2/10/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	53	33	43
2/11/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	42	27	35
2/12/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	42	27	35
2/13/2024	0.02	0	0	0	0.01	0	0	0	0*	0.01	0	0	0	0	0	0	0	0	0.01	36	25	31
2/14/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	39	28	34
2/15/2024	0.11	0.12	0.11	0.09	0.08	0.09	0.10	0.12	0*	0.12	0.10	0.10	0.11	0.14	0.10	0.11	0.11	0.11	0.11	40	29	35
2/16/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	31	24	28
2/17/2024	0	0	0	0.02	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0.02	29	17	23
2/18/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	39	17	28
2/19/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	38	20	29
2/20/2024	0	0	0	0	0.01	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	47	23	35
2/21/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	61	28	45
2/22/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	54	37	46
2/23/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	54	25	40
2/24/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	34	21	28
2/25/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	51	23	37
2/26/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	55	36	46
2/27/2024	0.04	0.14	0.02	0.02	0	0.05	0.01	0	0*	0.13	0.03	0	0	0	0	0	0	0	0	73	43	58
2/28/2024	0.09	0	0.42	0.08	0.08	0.02	0.19	0.33	0*	0.11	0.32	0.37	0.31	0.12	0.07	0.34	0.38	0.15	0.10	64	22	43
2/29/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	39	21	30
Total	0.17	0.27	0.14	0.13	0.12	0.18	0.11	0.12	0.00*	0.26	0.13	0.10	0.11	0.14	0.10	0.11	0.11	0.11	0.14	47	28	37

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-5
Rouge Valley Sewage Disposal System
Daily Precipitation for March 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
3/1/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	46	27	37
3/2/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	53	37	45
3/3/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	59	33	46
3/4/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	74	40	57
3/5/2024	0.14	0.20	0.31	0.12	0.08	0.11	0.19	0.12	0*	0.17	0.21	0.24	0.18	0.25	0.34	0.20	0.40	0.15	0.10	62	43	53
3/6/2024	0	0.01	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	48	38	43
3/7/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	53	39	46
3/8/2024	0.57	0.50	0.56	0.47	0.48	0.45	0.60	0.58	0*	0.45	0.38	0.54	0.50	0.52	0.50	0.53	0.50	0.52	0.57	52	42	47
3/9/2024	0.38	0.28	0.30	0.23	0.27	0.27	0.37	0.32	0*	0.26	0.28	0.28	0.28	0.32	0.25	0.30	0.28	0.28	0.29	54	35	45
3/10/2024	0.01	0.02	0	0	0	0	0	0	0*	0	0	0	0	0.01	0.01	0	0.01	0.02	0	40	30	35
3/11/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	56	28	42
3/12/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	69	40	55
3/13/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	73	51	62
3/14/2024	0.43	0.04	0.31	0.33	0.37	0.39	0.41	0.34	0*	0.37	0.27	0.35	0.27	0.24	0.27	0.34	0.27	0.30	0.40	56	46	51
3/15/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	55	37	46
3/16/2024	0.22	0	0.12	0.20	0.26	0.25	0.21	0.10	0*	0.17	0.10	0.01	0.01	0.01	0.01	0.12	0.13	0.02	0.23	60	33	47
3/17/2024	0	0	0.01	0	0	0	0	0	0*	0	0	0.02	0	0.01	0.01	0	0	0	0	45	30	38
3/18/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	36	27	32
3/19/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	48	29	39
3/20/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0.01	0.01	0.01	0	0	0.02	0	38	23	31
3/21/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	38	19	29
3/22/2024	0.01	0	0.45	0.18	0.03	0.01	0.22	0.42	0*	0.20	0.22	0.29	0.30	0.43	0.28	0.23	0.29	0.23	0.03	35	28	32
3/23/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0.01	0.02	0	40	26	33
3/24/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	40	24	32
3/25/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	64	33	49
3/26/2024	0.37	0.24	0.41	0.36	0.28	0.41	0.37	0.35	0*	0.43	0.35	0.32	0.42	0.35	0.39	0.40	0.48	0.40	0.26	59	41	50
3/27/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	42	28	35
3/28/2024	0	0.01	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	50	26	38
3/29/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	54	27	41
3/30/2024	0.14	0.06	0.08	0.10	0.12	0.15	0.10	0.08	0*	0.10	0.03	0.03	0.04	0.03	0.03	0.08	0.08	0.06	0.15	44	38	41
3/31/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	44	38	41
Total	2.27	1.36	2.55	1.99	1.89	2.04	2.47	2.31	0*	2.15	1.84	2.08	2.01	2.18	2.10	2.20	2.45	2.02	2.03	51	33	42

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-6
Rouge Valley Sewage Disposal System
Daily Precipitation for April 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
4/1/2024	0.24	0.20	0.22	0.21	0.19	0.29	0.23	0.19	0*	0.22	0.15	0.19	0.19	0.21	0.21	0.19	0.18	0.20	0.22	54	38	46
4/2/2024	0.57	0.43	0.46	0.46	0.62	0.55	0.55	0.41	0*	0.51	0.36	0.26	0.32	0.39	0.39	0.42	0.35	0.39	0.43	49	41	45
4/3/2024	0.03	0.02	0.02	0.02	0.03	0.04	0.01	0	0*	0.03	0	0	0.04	0.02	0.01	0.01	0.01	0.01	0	48	37	43
4/4/2024	0	0.02	0.05	0.02	0.04	0.01	0.05	0.02	0*	0.01	0	0	0.01	0	0	0.03	0.04	0.02	0	51	36	44
4/5/2024	0	0.02	0	0	0	0	0.02	0	0*	0	0	0	0	0	0.02	0	0	0	0	49	34	42
4/6/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	59	38	49
4/7/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	57	32	45
4/8/2024	0.01	0	0	0.02	0	0.02	0.02	0.01	0*	0.01	0	0	0	0	0	0.01	0	0	0	71	47	59
4/9/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	76	47	62
4/10/2024	0.04	0.08	0.05	0.06	0.03	0.04	0.06	0.04	0*	0.02	0.01	0.03	0.03	0.02	0	0.04	0.03	0.03	0.06	65	48	57
4/11/2024	1.31	1.55	1.53	1.14	1.19	1.56	1.43	1.30	0*	1.74	1.51	1.28	1.32	1.65	2.03	1.42	1.52	1.78	1.14	60	46	53
4/12/2024	0.15	0.27	0.24	0.23	0.18	0.16	0.24	0.21	0*	0.23	0.10	0.21	0.15	0.21	0.31	0.23	0.27	0.26	0.17	51	46	49
4/13/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	64	42	53
4/14/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	46	63
4/15/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	47	58
4/16/2024	0	0.02	0.01	0	0	0	0	0	0	0	0	0.02	0.01	0.02	0.01	0	0	0	0	69	46	58
4/17/2024	0.43	0.25	0.30	0.29	0.54	0.39	0.57	0.47	0.37	0.23	0.16	0.39	0.37	0.31	0.55	0.31	0*	0.24	0.54	76	52	64
4/18/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	69	52	61
4/19/2024	0.45	0.39	0.41	0.38	0.23	0.43	0.40	0.37	0.36	0.39	0.36	0.36	0.34	0.43	0.37	0.41	0*	0.40	0.37	60	45	53
4/20/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	48	39	44
4/21/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	56	38	47
4/22/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0	0*	0	0	64	36	50
4/23/2024	0.09	0.10	0.05	0.05	0.02	0.15	0.04	0.04	0.06	0.06	0.02	0.09	0.09	0.11	0.18	0.03	0*	0.09	0.07	58	48	53
4/24/2024	0.03	0.01	0.01	0.02	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.01	0	0*	0.01	0.01	49	31	40
4/25/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	55	28	42
4/26/2024	0	0.01	0.02	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0*	0.01	0	63	37	50
4/27/2024	0.15	0.07	0.07	0.13	0.15	0.10	0.14	0.17	0.12	0.14	0.10	0.05	0.06	0.06	0.10	0.11	0*	0.14	0.25	81	53	67
4/28/2024	0.41	0.49	0.81	0.55	0.29	0.31	0.67	0.91	0.64	0.76	0.63	0.52	0.52	0.66	0.69	0.83	0*	0.48	0.27	80	63	72
4/29/2024	0.52	0.23	0.55	0.48	0.44	0.43	0.57	0.58	0.47	0.44	0.37	0.42	0.24	0.22	0.19	0.56	0*	0.17	0.60	82	60	71
4/30/2024	0.06	0	0	0.10	0	0.03	0.07	0.03	0.07	0.02	0.06	0.22	0.36	0.12	0.09	0.01	0*	0.32	0.01	72	54	63
Total	4.43	4.16	4.80	4.06	4.00	4.49	5.02	4.74	2.04*	4.81	3.79	3.85	3.71	4.35	5.10	4.61	2.40*	4.23	4.13	63	44	53

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-7
Rouge Valley Sewage Disposal System
Daily Precipitation for May 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
5/1/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	82	51	67
5/2/2024	0	0.11	0	0	0	0	0	0	0	0	0	0	0.03	0.16	0.02	0	0*	0.06	0	71	51	61
5/3/2024	0.19	0.15	0.18	0.28	0.49	0.16	0.29	0.25	0.18	0.24	0.13	0.19	0.24	0.19	0.23	0.26	0*	0.15	0.26	72	55	64
5/4/2024	0.01	0	0	0	0	0.01	0	0	0	0.02	0	0	0.02	0.01	0	0	0*	0	0	71	56	64
5/5/2024	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	71	54	63
5/6/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	67	48	58
5/7/2024	0	0.41	0.15	0.14	0.05	0.10	0.10	0.11	0.13	0.70	0.88	0.22	0.25	0.62	0.45	0.12	0*	0.24	0.10	69	47	58
5/8/2024	0	0	0.01	0	0	0	0.01	0	0.01	0	0	0	0.01	0	0.01	0.01	0*	0.01	0	78	52	65
5/9/2024	0.43	0.17	0.17	0.34	0.46	0.40	0.27	0.14	0.13	0.41	0.18	0.07	0.08	0.10	0.09	0.18	0*	0.16	0.40	57	50	54
5/10/2024	0	0	0	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0*	0	0	66	45	56
5/11/2024	0.28	0.26	0.35	0.30	0.35	0.27	0.36	0.33	0.28	0.36	0.36	0.29	0.31	0.26	0.31	0.34	0*	0.26	0.30	58	49	54
5/12/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	44	58
5/13/2024	0	0.06	0	0	0	0	0	0	0	0	0	0.02	0.02	0.02	0	0	0	0.04	0	82	58	70
5/14/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	56	65
5/15/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	54	65
5/16/2024	0	0	0	0	0	0	0	0.06	0	0	0	0	0	0	0	0	0	0	0	75	50	63
5/17/2024	0.01	0.05	0.04	0.03	0.03	0.01	0.03	0.08	0.11	0.03	0.03	0.12	0.04	0.05	0.09	0.04	0.15	0.04	0.02	75	62	69
5/18/2024	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0.01	0	0	76	60	68
5/19/2024	0.10	0	0.01	0.05	0.11	0.01	0.02	0.02	0.04	0.34	0.08	0.01	0.01	0	0	0.01	0.02	0	0.15	88	58	73
5/20/2024	0.14	0	1.06	0.28	0.08	0.21	0.13	0.46	0.25	0.19	0.05	0.46	0.11	0	0	1.11	0.06	0	0.04	89	61	75
5/21/2024	0	0	0	0.01	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	88	65	77
5/22/2024	0	0	0	0	0	0	0.01	0.02	0	0	0	0.01	0.01	0	0	0	0	0	0	88	65	77
5/23/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	57	69
5/24/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	57	69
5/25/2024	0.05	0.01	0.01	0.04	0.25	0.05	0.05	0.06	0.01	0.02	0.01	0	0.01	0	0	0.02	0.02	0	0.09	81	63	72
5/26/2024	0.55	0.86	0.91	0.99	0.57	1.06	0.73	0.82	1.04	0.94	0.95	0.78	0.79	1.27	0.64	0.86	0.79	0.88	0.73	79	57	68
5/27/2024	0.45	0.55	0.62	0.40	0.52	0.38	0.60	0.45	1.02	0.41	0.97	1.18	0.81	0.84	0.24	0.59	0.56	1.00	0.37	72	61	67
5/28/2024	0.01	0.02	0.01	0.01	0.01	0.02	0	0.01	0.10	0.01	0.01	0.03	0.02	0.04	0.06	0	0	0.02	0	73	56	65
5/29/2024	0.05	0.08	0.11	0.23	0.10	0.16	0.37	0	0.13	0.02	0.04	0	0	0.09	0.05	0.10	0.04	0.03	0.09	70	51	61
5/30/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	44	58
5/31/2024	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	76	48	62
Total	2.28	2.73	3.63	3.10	3.03	2.84	2.98	2.81	3.44	3.70	3.69	3.38	2.76	3.65	2.19	3.64	2.20*	2.89	2.55	75	54	65

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-8
Rouge Valley Sewage Disposal System
Daily Precipitation for June 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
6/1/2024	0.01	0.25	0.14	0.13	0.04	0.05	0.17	0.14	0.09	0.02	0.01	0.08	0.08	0.05	0.18	0.13	0.12	0.15	0.12	77	56	67
6/2/2024	0.26	0.02	0.16	0.16	0.27	0.32	0.22	0.22	0.17	0.30	0.25	0.11	0.14	0.12	0.08	0.21	0.17	0.08	0.20	76	63	70
6/3/2024	0	0.01	0.01	0	0	0.01	0.01	0	0	0	0	0	0	0.01	0	0	0	0	0	76	60	68
6/4/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	84	62	73
6/5/2024	0.20	0.53	0.66	0.34	0.23	0.37	0	0.41	0.80	1.13	1.01	0.53	0.82	0	0.48	0.48	0.67	0.65	0.23	83	66	75
6/6/2024	0	0.01	0	0	0	0	0	0	0	0	0	0.01	0	0	0.01	0	0	0	0	80	62	71
6/7/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	57	64
6/8/2024	0.40	0.50	0.37	0.35	0.20	0.39	0.40	0.37	0*	0.40	0.38	0.35	0.43	0	0.46	0.33	0.39	0.49	0.38	78	54	66
6/9/2024	0.02	0	0	0.01	0.16	0.01	0.01	0.01	0*	0.02	0	0	0	0	0	0.01	0	0	0	76	54	65
6/10/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0.40	0	0	0	0	0	70	53	62
6/11/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	72	48	60
6/12/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	85	61	73
6/13/2024	0.01	0.03	0.03	0	0.01	0.02	0.01	0.02	0*	0	0.09	0.07	0.05	0.06	0.02	0.02	0.04	0.01	0.01	91	68	80
6/14/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	83	61	72
6/15/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	79	55	67
6/16/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	84	59	72
6/17/2024	0.42	0.50	0.86	0.55	0.32	0.58	0.56	0.56	0*	0.82	0.65	0.76	0.66	0.55	0.61	0.91	0.64	0.57	0.56	95	69	82
6/18/2024	0	0	0	0.01	0	0	0.01	0	0*	0.01	0	0	0	0	0	0	0	0	0	90	72	81
6/19/2024	0.02	0.02	0.03	0	0	0.01	0	0.04	0*	0.04	0.08	0.58	0.79	0.06	0.01	0	0	0.28	0.01	91	75	83
6/20/2024	0.55	0.10	0.12	0.18	0.07	0.03	0.33	0.59	0*	0.03	0.13	1.18	0.23	0.01	0.01	0.16	0.05	0.09	0.43	92	73	83
6/21/2024	0	0.06	0.08	0.24	0.25	0	0.08	0.15	0*	0.06	0.16	0.34	0.31	0.06	0.11	0.21	0.12	0.18	0	88	68	78
6/22/2024	0	0	0	0	0.05	0	0.01	0	0*	0.01	0	0	0.01	0	0	0	0	0	0	92	72	82
6/23/2024	0.14	0.02	0.03	0.07	0.06	0.17	0.09	0.07	0*	0.04	0.01	0.05	0.03	0.03	0.04	0.04	0.01	0.02	0.08	83	69	76
6/24/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	81	65	73
6/25/2024	0.45	0.57	0.61	0.40	0.63	0.47	0.59	0.52	0*	0.48	0.54	0.50	0.60	0.60	0.47	0.60	0.62	0.64	0.57	84	67	76
6/26/2024	0.40	0	0.01	0.10	0.02	0	0.04	0	0*	0.02	0.09	0	0	0	0.07	0.05	0	0	0.22	80	65	73
6/27/2024	0	0	0	0	0	0	0	0	0*	0.02	0	0	0	0	0	0	0	0	0	75	57	66
6/28/2024	0	0.01	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	73	59	66
6/29/2024	1.11	1.91	1.39	0.97	1.12	1.05	1.08	1.36	0*	1.18	1.50	2.07	1.94	1.67	0.28	1.45	1.39	1.79	1.02	88	66	77
6/30/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0.01	0	0	0	0	75	58	67
Total	3.99	4.54	4.50	3.51	3.43	3.48	3.61	4.46	1.06*	4.58	4.90	6.63	6.09	3.63	2.83	4.60	4.22	4.95	3.83	82	63	72

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-9
Rouge Valley Sewage Disposal System
Daily Precipitation for July 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
7/1/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	75	53	64
7/2/2024	0	0	0	0	0	0	0.01	0	0*	0	0	0	0	0	0	0	0	0	0	78	58	68
7/3/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0.01	0	0	0	0	86	70	78
7/4/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	83	67	75
7/5/2024	0.09	0.02	0.02	0.05	0.20	0.10	0.18	0.35	0*	0.09	0.03	0.06	0.02	0.19	0	0.04	0	0	0.10	80	67	74
7/6/2024	0.01	0	0.01	0.01	0	0	0.01	0.01	0*	0.01	0.01	0	0	0.01	0	0.01	0	0	0	81	65	73
7/7/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	85	61	73
7/8/2024	0	0.01	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	88	68	78
7/9/2024	0.08	0.22	0.14	0.14	0.03	0.15	0.18	0.13	0*	0.04	0.08	0.15	0.12	0.17	0.98	0.15	0.12	0.24	0.09	81	71	76
7/10/2024	1.68	2.01	2.48	1.39	1.89	1.98	2.07	2.26	0*	1.57	2.48	2.22	2.39	2.07	1.92	2.26	2.56	2.27	1.22	74	65	70
7/11/2024	0	0.01	0	0	0	0	0	0	0*	0.46	0	0	0	0	0.01	0	0	0.01	0	85	63	74
7/12/2024	0.01	0.10	0.12	0.12	0.02	0.02	0.11	0.12	0*	0.12	0.04	0.03	0.02	0.01	0	0.03	0.02	0.01	0.01	83	68	76
7/13/2024	0	0	0	0	0	0.15	0	0	0*	0.02	0	0	0	0	0	0	0	0	0	87	65	76
7/14/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	86	71	79
7/15/2024	0	0.01	0.02	0	0.01	0.01	0	0.02	0*	0	0.01	0.12	0.15	0.04	0.14	0	0.11	0.05	0.01	87	71	79
7/16/2024	0.37	0.80	0.77	0.60	0.42	0.31	1.00	1.52	0*	0.63	1.19	1.08	1.76	1.07	0.72	0.56	0.97	1.16	0.54	87	69	78
7/17/2024	0	0.20	0.05	0.09	0.25	0.02	0.04	0.14	0*	0.08	0.08	0.20	0.06	0.01	0.09	0.01	0.14	0.26	0	83	68	76
7/18/2024	0	0	0	0	0	0	0	0	0*	0.01	0	0	0	0	0.01	0	0	0	0	76	59	68
7/19/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	80	56	68
7/20/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	80	61	71
7/21/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0.01	0	83	63	73
7/22/2024	0	0.05	0.25	0.01	0.02	0	0.28	0.66	0*	0.04	0.65	0.04	0.05	0.06	0.05	0.28	0.11	0.08	0.02	80	66	73
7/23/2024	0.06	0.27	0.03	0.07	0.32	0.02	0.07	0.10	0*	0	0	0.59	0.66	1.37	0.96	0	0.15	0.46	0.02	85	65	75
7/24/2024	0.01	0	0	0	0	0	0.01	0	0*	0	0	0	0.02	0.02	0.01	0	0.01	0	0	79	67	73
7/25/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	81	64	73
7/26/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	80	60	70
7/27/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	82	59	71
7/28/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	88	62	75
7/29/2024	0.06	0.72	0.11	0.06	0.01	0.59	0	0.06	0*	0.06	0.90	0.67	0.51	1.15	0.92	0.15	0.43	0.49	0.02	85	73	79
7/30/2024	0	0.09	0.12	0.07	0.11	0	0.13	0.15	0*	0.35	0.10	0.10	0	0.05	0.19	0.14	0.06	0.11	0.05	86	70	78
7/31/2024	0	0	0	0.05	0.13	0.26	0.19	0	0*	0.03	0	0	0	0	0	0	0	0	0	91	68	80
Total	2.37	4.51	4.12	2.61	3.28	3.35	4.09	5.52	0*	3.48	5.57	5.26	5.76	6.22	6.01	3.63	4.68	5.15	2.08	83	65	74

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-10
Rouge Valley Sewage Disposal System
Daily Precipitation for August 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
8/1/2024	0	0	0	0	0	0	0	0	0*	0	0	0.90	0.19	0.49	0	0	0	0.06	0	90	71	81
8/2/2024	0	0.41	0.63	0.16	0.04	0.17	0.52	0.47	0*	0.02	0.04	2.20	1.57	1.65	0.88	0.37	0.12	1.20	0	84	73	79
8/3/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	90	71	81
8/4/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	90	67	79
8/5/2024	0.11	0.08	0.12	0.08	0.06	0.06	0.13	0.09	0*	0	0.17	0.05	0.04	0.02	0.04	0.10	0.11	0.04	0.10	86	73	80
8/6/2024	1.34	0.83	1.18	1.02	1.40	1.23	1.14	0.90	0*	0.08*	1.26	1.09	1.16	1.54	1.48	0.83	1.35	0.91	1.14	73	61	67
8/7/2024	0	0	0	0	0	0	0	0	0*	0.86*	0	0	0	0	0	0	0	0	0	80	60	70
8/8/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	84	64	74
8/9/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	80	62	71
8/10/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	76	56	66
8/11/2024	0.04	0	0	0.08	0.01	0	0	0	0*	0.10	0	0	0	0	0	0	0	0	0.01	78	56	67
8/12/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	82	56	69
8/13/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	82	61	72
8/14/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	84	62	73
8/15/2024	0	0.01	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	81	63	72
8/16/2024	0.41	0.17	0.20	0.23	0.21	0.22	0.29	0.31	0*	0.14	0.13	0.30	0.32	0.27	0.16	0.25	0.20	0.20	0.25	81	66	74
8/17/2024	0.01	0.21	0	0.13	0.05	0.05	0.09	0.02	0*	0.08	0	0.02	0.06	0.19	0.24	0	0	0.03	0.02	81	67	74
8/18/2024	0.14	0.17	0.11	0.28	0.18	0.10	0.66	0.19	0*	0.08	0.30	0.21	0.13	0.08	0.08	0.26	0.17	0.28	0.16	82	67	75
8/19/2024	0	0	0	0	0	0.48	0	0	0*	0	0	0	0	0	0	0	0	0	0	74	58	66
8/20/2024	0	0	0	0	0.47	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	73	55	64
8/21/2024	0.50	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	76	51	64
8/22/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	78	53	66
8/23/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	80	56	68
8/24/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	85	61	73
8/25/2024	0.29	0.13	0.02	0.21	0.14	0	0.10	0.08	0*	0.27*	0	0	0	0	0	0.02	0.03	0	0.34	91	67	79
8/26/2024	0	0	0	0	0	0	0	0	0*	0.06*	0	0	0	0	0	0	0	0	0	92	68	80
8/27/2024	0.76	0.90	0.70	0.16	0.26	0.23	0.41	0.42	0*	0.27*	0.16	0.37	0.41	0.59	0.58	0.65	0.93	1.43	0.74	95	71	83
8/28/2024	1.19	0.53	1.10	0.01	1.43	1.35	1.02	0.53	0*	1.11*	2.48	0.71	0.12	0.17	0.98	1.28	0.58	1.10	1.52	85	70	78
8/29/2024	0	0	0.01	0	0	0	0	0	0*	0.20*	0	0	0	0	0.01	0	0	0	0	80	67	74
8/30/2024	0	0	0	0	0	0	0	0	0*	0.25*	0	0	0	0	0	0	0	0	0	91	67	79
8/31/2024	0.16	0	0.01	0.17	0.15	0.16	0.29	0.09	0*	0.20*	0	0	0	0	0	0.11	0	0	0.22	84	66	75
Total	4.79	3.44	4.07	2.36	4.25	3.89	4.36	3.01	0*	3.52*	4.54	5.85	4.00	5.00	4.45	3.76	3.49	5.25	4.28	83	63	73

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-11
Rouge Valley Sewage Disposal System
Daily Precipitation for September 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
9/1/2024	0	0	0	0	0	0	0	0	0	0.08	0	0	0	0	0	0	0	0	0	80	62	71
9/2/2024	0	0	0	0	0	0	0	0	0	0.03	0	0	0	0	0	0	0	0	0	72	52	62
9/3/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	50	62
9/4/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	54	66
9/5/2024	0	0.28	0	0	0	0	0.01	0	0	0	0	0	0	0	0.03	0	0	0	0	84	57	71
9/6/2024	0.06	0.25	0.06	0	0.13	0.05	0	0.03	0	0	0.07	0.23	0.53	0.10	0.10	0.02	0.09	0.46	0.06	75	55	65
9/7/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	47	55
9/8/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	44	59
9/9/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	52	66
9/10/2024	0	0	0.10	0.10	0	0	0.10	0.10	0	0	0	0	0	0	0	0	0	0	0	82	55	69
9/11/2024	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	83	60	72
9/12/2024	0	0	0	0	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0	85	60	73
9/13/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	62	72
9/14/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	61	72
9/15/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	62	73
9/16/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	58	70
9/17/2024	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	80	57	69
9/18/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82	62	72
9/19/2024	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	84	62	73
9/20/2024	0.01	0	0.01	0	0.01	0.02	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	83	61	72
9/21/2024	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	64	76
9/22/2024	0.39	0.32	0.36	0.25	0.13	0.26	0.33	0.28	0	0.15	0.32	0.29	0.37	0.29	0.24	0.33	0.27	0.40	0.26	83	60	72
9/23/2024	0	0	0	0	0	0	0	0	0	0.06	0	0	0	0.02	0	0	0	0	0	71	61	66
9/24/2024	0.09	0.04	0.04	0.06	0.16	0.13	0.03	0.04	0	0.01	0.06	0.06	0.05	0.08	0.01	0.04	0.07	0.11	0.07	72	61	67
9/25/2024	0.01	0	0	0.01	0.01	0.01	0.01	0	0	0	0	0	0	0	0.01	0	0	0	0	79	62	71
9/26/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	60	67
9/27/2024	0.01	0	0	0	0	0.04	0	0	0	0.01	0	0	0	0	0	0	0	0	0	74	61	68
9/28/2024	0.80	0.14	0.38	0.40	0.51	0.73	0.39	0.33	0	0	0.36	0.26	0.16	0.13	0.11	0.33	0.20	0.17	0.81	68	64	66
9/29/2024	0.02	0.01	0.03	0.04	0.02	0.04	0.03	0.06	0	0.01	0	0.01	0.01	0	0	0.04	0	0	0.02	70	64	67
9/30/2024	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	74	62	68
Total	1.39	1.05	0.98	0.86	0.97	1.29	0.93	0.87	0	0.35	0.81	0.85	1.12	0.62	0.50	0.76	0.63	1.14	1.22	78	58	68

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-12
Rouge Valley Sewage Disposal System
Daily Precipitation for October 2024

Date	Daily Precipitation (inches)																			DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
10/1/2024	0.14	0.29	0.34	0.25	0.26	0.02	0.31	0.30	0*	0*	0.30	0.33	0.27	0.24	0.24	0.19	0	0.28	0.09	78	52	65
10/2/2024	0	0.01	0.01	0	0	0	0.01	0	0*	0*	0	0	0	0	0	0	0	0	0	68	48	58
10/3/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	77	48	63
10/4/2024	0	0	0	0	0	0	0	0.01	0*	0*	0	0	0	0	0	0	0	0	0	73	52	63
10/5/2024	0.01	0	0	0	0.01	0	0.01	0	0*	0*	0	0	0	0	0	0	0	0	0	69	50	60
10/6/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	78	57	68
10/7/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	66	49	58
10/8/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	70	45	58
10/9/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	66	42	54
10/10/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	65	40	53
10/11/2024	0	0	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	79	43	61
10/12/2024	0.96	0.74	0.86	0.59	0.78	0.94	0.72	0.83	0*	0*	1.14	0.92	0.86	0.82	0.84	0.78	0.84	0.95	0.89	67	50	59
10/13/2024	0.33	0.23	0.43	0.28	0.26	0.42	0.41	0.38	0*	0*	0.49	0.44	0.37	0.31	0.36	0.34	0.41	0.41	0.29	54	48	51
10/14/2024	0.16	0.29	0.15	0.15	0.11	0.10	0.14	0.17	0*	0*	0.17	0.21	0.22	0.13	0.21	0.16	0.15	0.13	0.13	56	42	49
10/15/2024	0	0.12	0	0	0	0	0	0	0*	0*	0	0	0	0	0	0	0	0	0	54	39	47
10/16/2024	0	0.01	0	0	0	0	0	0	0	0.02	0	0	0	0	0	0	0	0	0	56	38	47
10/17/2024	0	0	0	0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	60	37	49
10/18/2024	0	0.03	0.01	0	0	0	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0	66	38	52
10/19/2024	0	0	0	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	70	40	55
10/20/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	41	58
10/21/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	51	66
10/22/2024	0.01	0	0	0	0.01	0.01	0	0	0.11*	0	0	0	0	0	0	0	0	0	0.02	76	48	62
10/23/2024	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0.01	0	0	69	46	58
10/24/2024	0	0	0	0	0	0	0	0.01	0.01	0	0	0	0	0	0	0	0	0	0	60	38	49
10/25/2024	0.03	0.02	0.03	0.03	0.03	0.04	0.05	0.03	0.03	0	0.01	0.02	0.01	0.01	0.01	0.03	0.02	0.02	0.02	61	41	51
10/26/2024	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	57	40	49
10/27/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	33	46
10/28/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	37	49
10/29/2024	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0.03	0	0	0	0	79	49	64
10/30/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	64	71
10/31/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	76	54	65
Total	1.64	1.74	1.83	1.30	1.47	1.53	1.67	1.75	0.16*	0.15*	2.11	1.92	1.74	1.51	1.69	1.50	1.43	1.79	1.44	68	45	57

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-13
Rouge Valley Sewage Disposal System
Daily Precipitation for November 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
11/1/2024	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	39	47
11/2/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	34	45
11/3/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	38	50
11/4/2024	0.04	0.03	0.03	0.03	0.02	0.06	0.06	0	0.06	0	0.03	0.04	0.05	0.04	0.02	0.03	0*	0.04	0.03	71	58	65
11/5/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	75	61	68
11/6/2024	0.03	0.11	0.12	0.14	0.04	0.05	0.14	0.14	0.11	0.64	0.39	0.08	0.03	0.09	0.22	0.03	0*	0.08	0.02	70	50	60
11/7/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	60	46	53
11/8/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	62	42	52
11/9/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	56	37	47
11/10/2024	0.74	0.70	0.73	0.57	0.63	0.68	0.72	0.70	0.74	0.80	0.75	0.73	0.72	0.72	0.68	0.77	0*	0.83	0.76	59	47	53
11/11/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	59	44	52
11/12/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	50	36	43
11/13/2024	0	0.01	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0*	0	0	53	33	43
11/14/2024	0.60	0.47	0.54	0.46	0.45	0.56	0.53	0.47	0.57	0.47	0.44	0.46	0.48	0.56	0.51	0.55	0*	0.45	0.47	51	44	48
11/15/2024	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0.01	0.01	0*	0	0	51	47	49
11/16/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	51	46	49
11/17/2024	0.03	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0	0.03	0.03	0.02	0.01	0.02	0*	0.02	0.03	55	45	50
11/18/2024	0.01	0	0	0	0.01	0.01	0	0	0.01	0	0	0	0	0	0	0.01	0*	0	0	58	40	49
11/19/2024	0.19	0.27	0.18	0.13	0.11	0.17	0.12	0.15	0.25	0.19	0.25	0.20	0.26	0.31	0.22	0.18	0*	0.28	0.15	61	47	54
11/20/2024	0.17	0.26	0.20	0.19	0.17	0.19	0.20	0.24	0.25	0.20	0.17	0.25	0.23	0.22	0.27	0.23	0*	0.23	0.17	50	37	44
11/21/2024	0.03	0.11	0.11	0.05	0.15	0.02	0.13	0.09	0.17	0.10	0.05	0.08	0.10	0.12	0.16	0.10	0*	0.18	0.08	38	32	35
11/22/2024	0	0.01	0	0.01	0.01	0	0	0	0.02	0	0	0.01	0.01	0	0	0.01	0*	0.01	0.01	46	33	40
11/23/2024	0.01	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0.01	0	46	42	44
11/24/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	43	40	42
11/25/2024	0.03	0.02	0.04	0.05	0.04	0.04	0.04	0.04	0.06	0.06	0.02	0.04	0.02	0.03	0.05	0.05	0*	0.03	0.04	51	41	46
11/26/2024	0	0.03	0	0	0	0	0	0	0.01	0	0	0	0	0.01	0.01	0	0*	0.01	0	50	33	42
11/27/2024	0.03	0	0	0.01	0.03	0.01	0.03	0.01	0	0	0	0	0	0	0	0	0*	0	0.04	47	31	39
11/28/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	42	33	38
11/29/2024	0.03	0	0.02	0.11	0.01	0.01	0.06	0.01	0.02	0.13	0.03	0.07	0.08	0.08	0.08	0.01	0*	0.03	0.10	33	24	29
11/30/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0	0*	0	0	26	23	25
Total	1.95	2.06	2.00	1.77	1.69	1.85	2.05	1.87	2.29	2.61	2.13	1.99	2.01	2.20	2.24	2.00	0.00*	2.20	1.90	53	40	47

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-14
Rouge Valley Sewage Disposal System
Daily Precipitation for December 2024

Date	Daily Precipitation (inches)																		DTW Daily Temperature (°F)		
	R-10	R-11	R-12	R-13	R-15	R-18	R-27	R-28	R-29	WTUA LR	WTUA MR	0831	0837	0843	0850	GC RG01	LV RG01	LV RG02	DTW	Max.	Min.	Avg.
12/1/2024	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0*	0	0	30	23	27
12/2/2024	0	0.05	0	0	0.06	0	0	0	0.03	0	0	0	0	0	0	0	0*	0	0	37	22	30
12/3/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0*	0	0	35	21	28
12/4/2024	0	0	0.01	0.03	0.01	0	0.03	0.03	0	0.01	0.01	0	0	0.01	0.02	0	0	0	0.03	38	24	31
12/5/2024	0	0	0	0	0	0	0	0	0	0.01	0	0.01	0	0	0.01	0	0	0	0	31	19	25
12/6/2024	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	19	27
12/7/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	28	35
12/8/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	34	43
12/9/2024	0.39	0.29	0.33	0.32	0.34	0.35	0.38	0.35	0.36	0.36	0.32	0.31	0.29	0.25	0.18	0.36	0.33	0.31	1.25	51	37	44
12/10/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	33	42
12/11/2024	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0	0	0	0	0	0.01	37	24	31
12/12/2024	0	0	0.02	0.01	0	0	0	0	0	0.01	0.01	0.05	0.03	0.03	0.02	0	0	0	0.01	24	13	19
12/13/2024	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.02	23	10	17
12/14/2024	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	37	15	26
12/15/2024	0.55	0.53	0.43	0.08	0.52	0.53	0.45	0.39	0.44	0.49	0.38	0.27	0.31	0.39	0.31	0.46	0.40	0.47	1.39	46	34	40
12/16/2024	0.21	0.18	0.18	0.17	0.17	0.19	0.16	0.16	0.22	0.22	0.15	0.16	0.15	0.09	0.17	0.19	0.22	0.19	0.19	54	39	47
12/17/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	37	41
12/18/2024	0	0	0	0	0	0	0	0	0.01	0	0	0	0	0	0	0.01	0	0	0	45	33	39
12/19/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0.01	0.01	0	0	0	0	33	29	31
12/20/2024	0.05	0.12	0.03	0.03	0.05	0.05	0.04	0.04	0*	0.05	0.02	0.06	0.04	0.05	0.05	0.03	0.06	0.09	0.07	33	25	29
12/21/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	27	15	21
12/22/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	28	11	20
12/23/2024	0.16	0.15	0.19	0.17	0.21	0.14	0.22	0.23	0*	0.17	0.13	0.23	0.24	0.23	0.22	0.22	0.17	0.16	0.19	34	25	30
12/24/2024	0	0.09	0	0	0.02	0	0	0	0*	0	0	0	0	0	0	0.01	0.04	0.09	0	36	33	35
12/25/2024	0	0	0	0	0	0	0	0	0*	0	0	0	0	0	0	0	0	0	0	37	31	34
12/26/2024	0	0.04	0.01	0	0.01	0	0	0.01	0*	0.01	0	0	0	0	0.01	0.01	0.02	0.02	0	42	36	39
12/27/2024	0.10	0.07	0.09	0.08	0.08	0.07	0.08	0.07	0*	0.07	0.03	0.10	0.07	0.05	0.03	0.11	0.08	0.07	0.09	47	37	42
12/28/2024	0	0.03	0.01	0.01	0.01	0.01	0	0	0*	0.02	0.01	0.02	0.05	0.03	0.01	0.02	0.02	0.05	0.02	58	42	50
12/29/2024	1.59	1.17	1.50	1.20	1.64	1.35	1.61	1.67	0*	1.50	1.22	1.35	1.03	0.96	0.96	1.47	1.29	1.18	1.43	46	38	42
12/30/2024	0.06	0.15	0.14	0.15	0.16	0.08	0.22	0.19	0*	0.13	0.06	0.15	0.10	0.10	0.14	0.16	0.16	0.18	0.23	49	34	42
12/31/2024	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3.11	2.89	2.94	2.25	3.28	2.77	3.19	3.14	1.08*	3.05	2.35	2.72	2.32	2.20	2.14	3.05	2.79*	2.82	4.93	39	27	34

Legend:

X.XX*	Missing or suspect data (not used).

Table 5-15
Rouge Valley Sewage Disposal System
Summary of Rainfall for Significant Storm Events for 2024

Period:1/1/2024 through 12/31/2024

Significant Storm Event No.[1]	Start Date/Time	Stop Date/Time	Duration (hours)	Preceding Week Rainfall (inches)	Event Precipitation Depth (inches)[2]				Coefficient of Variation[4]
					Minimum	Average[3]	Maximum	Std. Dev	
1	1/9/24	1/13/24	114	0.08	1.27	1.84	2.24	0.25	13%
2	1/22/24	1/31/24	206	0.09	2.24	2.67	3.20	0.64	24%
3	4/10/24	4/12/24	45	0.03	1.37	1.71	2.34	0.26	15%
4	4/28/24	4/30/24	46	0.22	0.72	1.08	1.51	0.23	21%
5	5/26/24	5/27/24	16	0.33	0.88	1.48	2.11	0.36	24%
6	6/28/24	6/29/24	16	0.67	0.27	1.35	2.07	0.44	32%
7	7/9/24	7/11/24	42	0.11	1.31	2.21	2.68	0.41	18%
8	8/6/24	8/6/24	12	0.91	0.83	1.16	1.54	0.22	19%
9	10/12/24	10/14/24	40	0.00	1.00	1.38	1.80	0.37	27%
10	12/29/24	12/30/24	29	0.31	1.28	1.47	1.86	0.25	17%

Notes:

1. Significant storm events are defined as those with at least 0.5 inches of rainfall occurring on a single day with an event total of at least 1.0 inch of rainfall. Significant storm events are separated by at least 2 consecutive days without precipitation over 0.1 inches. This storm event definition is based on the arithmetic mean of the rainfall recorded by all rain gages used in the analysis for that storm.

2. The values presented in this table are a summary of RVSDS rain gages. Individual rain gage data for significant storm events in this quarter are summarized in subsequent tables.

3. The average precipitation value is an arithmetic average of the collection of point gages.

4. The coefficient of variation (CV) is the ratio of the standard deviation to the average. It provides a normalized assessment of the degree of spatial variability for a given event. This allows comparisons to be made between events regarding their uniformity over the service area independent of the magnitude of each event. A low CV means the storm event's rainfall was evenly distributed over the district, a high CV means the storm event had pockets of intense rainfall within the district.

Table 5-16
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 1
Start Date: 1/9/2024
Stop Date: 1/13/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.20	0.36	0.54	0.89	0.93	0.93	0.99	0.99	1.83
R-11	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
R-12	0.20	0.34	0.49	0.84	1.10	1.12	1.19	1.25	2.14
R-13	0.16	0.28	0.39	0.64	0.87	0.88	0.92	0.96	1.68
R-15	0.16	0.31	0.40	0.56	0.85	0.90	0.92	1.00	1.76
R-18	0.12	0.22	0.34	0.63	0.73	0.73	0.80	0.82	1.27
R-27	0.79	0.86	0.86	0.92	1.00	1.01	1.06	1.09	1.97
R-28	0.21	0.39	0.58	1.06	1.13	1.15	1.20	1.25	2.08
R-29	0.17	0.26	0.34	0.48	0.88	1.00	1.01	1.10	1.50
WTUA LR	0.20	0.33	0.53	0.80	0.93	0.94	1.01	1.06	1.92
WTUA MR	0.22	0.33	0.47	0.72	0.76	0.76	0.79	0.81	1.52
0831	0.15	0.28	0.41	0.67	0.77	0.87	0.93	0.95	1.74
0837	0.18	0.31	0.45	0.73	0.86	0.96	1.03	1.07	1.94
0843	0.22	0.41	0.60	0.96	1.05	1.06	1.15	1.30	2.24
0850	0.14	0.28	0.41	0.67	0.86	0.99	1.06	1.13	1.99
GC RG01	0.33	0.55	0.70	0.88	0.93	0.96	1.05	1.10	1.93
LV RG01	0.29	0.48	0.62	0.79	0.84	0.93	0.97	1.03	1.92
LV RG02	0.21	0.35	0.47	0.57	0.81	0.96	0.98	1.08	1.69
DTW	0.26	0.46	0.78	0.98	1.04	1.06	1.13	1.18	2.04
Minimum	0.12	0.22	0.34	0.48	0.73	0.73	0.79	0.81	1.27
Average	0.23	0.38	0.52	0.77	0.91	0.96	1.01	1.07	1.84
Maximum	0.79	0.86	0.86	1.06	1.13	1.15	1.20	1.30	2.24
							Standard Deviation (in):		0.25
							Coefficient of Variation:		13%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	-	-	-	-	-	-	-	-	-
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-17
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 2
Start Date: 1/22/2024
Stop Date: 1/31/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.28	0.48	0.74	1.05	1.17	1.20	1.51	1.69	2.69
R-11	0.05*	0.11*	0.20*	0.30*	0.31*	0.33*	0.33*	0.33*	0.09*
R-12	0.28	0.48	0.71	1.11	1.33	1.34	1.74	1.94	2.88
R-13	0.21	0.37	0.56	0.83	0.99	1.01	1.34	1.49	2.36
R-15	0.37	0.60	0.90	1.23	1.39	1.40	1.75	2.50	3.20
R-18	0.25	0.40	0.64	0.90	1.01	1.05	1.30	1.47	2.31
R-27	0.27	0.50	0.74	1.09	1.29	1.29	1.66	1.84	2.83
R-28	0.28	0.50	0.76	1.17	1.40	1.40	1.78	1.96	2.90
R-29	0.34	0.48	0.71	1.11	1.31	1.32	2.08	2.81	3.08
WTUA LR	0.27	0.43	0.68	0.98	1.17	1.19	1.58	1.77	2.77
WTUA MR	0.26	0.45	0.67	0.98	1.11	1.11	1.41	1.54	2.24
0831	0.30	0.47	0.67	1.11	1.31	1.31	1.63	1.80	2.60
0837	0.30	0.46	0.69	1.10	1.26	1.26	1.53	1.71	2.49
0843	0.28	0.46	0.63	1.03	1.14	1.15	1.42	1.66	2.49
0850	0.31	0.57	0.82	1.22	1.31	1.32	1.60	1.81	2.60
GC RG01	0.26	0.44	0.65	1.02	1.22	1.23	1.64	1.83	2.52
LV RG01	0.30	0.47	0.66	1.02	1.22	1.22	1.62	1.74	2.41
LV RG02	0.46	0.53	0.64	1.04	1.18	1.19	1.50	2.17	2.83
DTW	0.27	0.49	0.80	1.04	1.23	1.24	1.56	1.77	2.79
Minimum	0.21	0.37	0.56	0.83	0.99	1.01	1.30	1.47	2.24
Average	0.29	0.48	0.70	1.06	1.22	1.24	1.59	1.86	2.67
Maximum	0.46	0.60	0.90	1.23	1.40	1.40	2.08	2.81	3.20
							Standard Deviation (in):		0.64
							Coefficient of Variation:		24%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	-	-	-	-	-	-	-	-	-
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	2
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	2

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-18
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 3
Start Date: 4/10/2024
Stop Date: 4/12/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.16	0.26	0.36	0.44	0.86	1.34	1.50	1.50	1.50
R-11	0.21	0.28	0.38	0.62	0.91	1.61	1.90	1.90	1.90
R-12	0.26	0.36	0.42	0.59	0.91	1.56	1.82	1.82	1.82
R-13	0.17	0.24	0.30	0.42	0.69	1.18	1.43	1.43	1.43
R-15	0.15	0.25	0.30	0.45	0.80	1.20	1.40	1.40	1.39
R-18	0.22	0.30	0.40	0.59	0.94	1.59	1.76	1.76	1.76
R-27	0.21	0.31	0.36	0.50	0.96	1.47	1.73	1.73	1.73
R-28	0.16	0.28	0.33	0.44	0.82	1.33	1.55	1.55	1.55
R-29	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
WTUA LR	0.23	0.31	0.44	0.65	1.07	1.75	1.99	1.99	1.99
WTUA MR	0.23	0.28	0.37	0.51	0.94	1.52	1.62	1.62	1.62
0831	0.15	0.25	0.31	0.46	0.72	1.29	1.52	1.52	1.52
0837	0.17	0.29	0.35	0.47	0.75	1.35	1.50	1.50	1.50
0843	0.23	0.29	0.34	0.62	0.98	1.67	1.88	1.88	1.87
0850	0.28	0.36	0.50	0.82	1.21	2.04	2.34	2.34	2.34
GC RG01	0.23	0.32	0.37	0.53	0.85	1.45	1.69	1.69	1.68
LV RG01	0.23	0.28	0.38	0.52	0.88	1.54	1.82	1.82	1.82
LV RG02	0.27	0.34	0.40	0.67	1.07	1.80	2.07	2.07	2.07
DTW	0.16	0.26	0.35	0.41	0.75	1.17	1.37	1.37	1.37
Minimum	0.15	0.24	0.30	0.41	0.69	1.17	1.37	1.37	1.37
Average	0.21	0.29	0.37	0.54	0.90	1.49	1.72	1.72	1.71
Maximum	0.28	0.36	0.50	0.82	1.21	2.04	2.34	2.34	2.34
							Standard Deviation (in):		0.26
							Coefficient of Variation:		15%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	-	-	-	-	-	-	-	-	-
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-19
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 4
Start Date: 4/28/2024
Stop Date: 4/30/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.22	0.33	0.36	0.50	0.58	0.58	0.99	0.99	0.99
R-11	0.16	0.28	0.37	0.44	0.44	0.49	0.72	0.72	0.72
R-12	0.47	0.70	0.76	0.80	0.80	0.82	1.36	1.36	1.36
R-13	0.40	0.50	0.53	0.55	0.58	0.58	1.13	1.13	1.13
R-15	0.18	0.29	0.32	0.43	0.44	0.44	0.73	0.73	0.73
R-18	0.16	0.28	0.30	0.40	0.45	0.46	0.77	0.77	0.76
R-27	0.43	0.62	0.65	0.67	0.67	0.67	1.31	1.31	1.31
R-28	0.62	0.83	0.88	0.91	0.91	0.92	1.52	1.52	1.51
R-29	0.36	0.52	0.60	0.64	0.64	0.64	1.18	1.18	1.17
WTUA LR	0.39	0.67	0.73	0.74	0.74	0.77	1.22	1.22	1.22
WTUA MR	0.37	0.51	0.58	0.63	0.63	0.63	1.06	1.06	1.06
0831	0.23	0.37	0.45	0.51	0.64	0.64	1.16	1.16	1.16
0837	0.36	0.36	0.40	0.47	0.60	0.60	1.12	1.12	1.12
0843	0.23	0.33	0.46	0.56	0.56	0.66	1.00	1.00	1.00
0850	0.27	0.35	0.47	0.56	0.56	0.70	0.97	0.97	0.97
GC RG01	0.49	0.75	0.80	0.83	0.83	0.83	1.40	1.40	1.40
LV RG01	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
LV RG02	0.32	0.33	0.40	0.46	0.49	0.49	0.97	0.97	0.97
DTW	0.19	0.30	0.45	0.56	0.61	0.61	0.88	0.88	0.88
Minimum	0.16	0.28	0.30	0.40	0.44	0.44	0.72	0.72	0.72
Average	0.33	0.46	0.53	0.59	0.62	0.64	1.08	1.08	1.08
Maximum	0.62	0.83	0.88	0.91	0.91	0.92	1.52	1.52	1.51
							Standard Deviation (in):		0.23
							Coefficient of Variation:		21%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	-	-	-	-	-	-	-	-	-
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-20
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 5
Start Date: 5/26/2024
Stop Date: 5/27/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.41	0.55	0.55	0.55	0.99	1.00	1.01	1.06	1.00
R-11	0.71	0.85	0.86	0.86	1.36	1.41	1.42	1.51	1.41
R-12	0.71	0.88	0.91	0.91	1.49	1.53	1.54	1.65	1.53
R-13	0.81	0.99	0.99	0.99	1.38	1.39	1.40	1.63	1.39
R-15	0.39	0.55	0.56	0.57	1.06	1.09	1.10	1.20	1.08
R-18	0.85	1.06	1.06	1.06	1.42	1.44	1.46	1.62	1.44
R-27	0.54	0.71	0.73	0.73	1.30	1.33	1.33	1.70	1.33
R-28	0.57	0.74	0.82	0.82	1.18	1.27	1.28	1.28	1.27
R-29	0.80	1.01	1.04	1.04	1.99	2.06	2.15	2.29	2.06
WTUA LR	0.75	0.94	0.94	0.94	1.33	1.35	1.36	1.38	1.35
WTUA MR	0.79	0.96	0.97	0.97	1.85	1.92	1.92	1.97	1.92
0831	1.04	1.18	1.18	1.18	1.95	1.96	1.97	1.99	1.96
0837	0.71	0.80	0.81	0.81	1.56	1.60	1.60	1.62	1.60
0843	1.04	1.24	1.26	1.27	2.07	2.11	2.12	2.24	2.11
0850	0.37	0.63	0.64	0.64	0.83	0.88	0.91	0.99	0.88
GC RG01	0.69	0.83	0.86	0.86	1.41	1.45	1.45	1.55	1.45
LV RG01	0.60	0.73	0.79	0.79	1.28	1.35	1.35	1.39	1.35
LV RG02	0.90	1.00	1.00	1.00	1.79	1.88	1.88	1.93	1.88
DTW	0.48	0.71	0.73	0.73	1.07	1.10	1.10	1.19	1.10
Minimum	0.37	0.55	0.55	0.55	0.83	0.88	0.91	0.99	0.88
Average	0.69	0.86	0.88	0.88	1.44	1.48	1.49	1.59	1.48
Maximum	1.04	1.24	1.26	1.27	2.07	2.11	2.15	2.29	2.11

Standard Deviation (in):	0.36
Coefficient of Variation:	24%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	< 1	< 1	< 1	< 1	2	< 1	< 1	< 1	2
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	1	< 1	< 1	< 1	1
0831	1	1	< 1	< 1	2	< 1	< 1	< 1	2
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	1	1	< 1	< 1	2	< 1	< 1	< 1	2
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	1	1	< 1	< 1	2	< 1	< 1	< 1	2

\- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-21
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 6
Start Date: 6/28/2024
Stop Date: 6/29/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.54	0.65	0.65	1.02	1.10	1.11	1.11	1.11	1.11
R-11	0.48	0.86	1.04	1.68	1.92	1.92	1.92	1.92	1.92
R-12	0.59	0.67	0.70	1.38	1.39	1.39	1.39	1.39	1.39
R-13	0.40	0.49	0.50	0.93	0.97	0.97	0.97	0.97	0.97
R-15	0.44	0.69	0.72	0.99	1.08	1.12	1.12	1.12	1.11
R-18	0.44	0.55	0.55	0.95	1.01	1.05	1.05	1.05	1.05
R-27	0.43	0.51	0.53	1.00	1.07	1.08	1.08	1.08	1.08
R-28	0.70	0.79	0.81	1.34	1.36	1.36	1.36	1.36	1.36
R-29	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
WTUA LR	0.31	0.58	0.85	1.12	1.18	1.18	1.18	1.18	1.18
WTUA MR	0.61	0.76	0.80	1.49	1.50	1.50	1.50	1.50	1.50
0831	0.67	1.07	1.18	2.05	2.07	2.07	2.07	2.07	2.07
0837	0.80	1.17	1.28	1.93	1.94	1.94	1.94	1.94	1.94
0843	0.63	0.91	1.02	1.65	1.67	1.67	1.67	1.67	1.67
0850	0.07	0.13	0.17	0.24	0.27	0.28	0.29	0.29	0.27
GC RG01	0.77	0.87	0.89	1.43	1.45	1.45	1.45	1.45	1.45
LV RG01	0.56	0.72	0.75	1.38	1.39	1.39	1.39	1.39	1.39
LV RG02	0.63	0.91	0.97	1.75	1.79	1.79	1.79	1.79	1.79
DTW	0.54	0.63	0.69	0.91	1.02	1.02	1.02	1.02	1.02
Minimum	0.07	0.13	0.17	0.24	0.27	0.28	0.29	0.29	0.27
Average	0.53	0.72	0.78	1.29	1.34	1.35	1.35	1.35	1.35
Maximum	0.80	1.17	1.28	2.05	2.07	2.07	2.07	2.07	2.07

Standard Deviation (in):	0.44
Coefficient of Variation:	32%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	1	1	< 1	< 1	< 1	1
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	-	-	-	-	-	-	-	-	-
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	4	2	< 1	< 1	< 1	4
0837	< 1	1	< 1	3	1	< 1	< 1	< 1	3
0843	< 1	< 1	< 1	1	< 1	< 1	< 1	< 1	1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	2	< 1	< 1	< 1	< 1	2
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	1	< 1	< 1	< 1	< 1	1
Maximum	< 1	1	< 1	4	2	< 1	< 1	< 1	4

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-22
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 7
Start Date: 7/9/2024
Stop Date: 7/11/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.52	0.87	1.03	1.27	1.40	1.76	1.76	1.77	1.76
R-11	0.62	0.97	1.12	1.29	1.98	2.22	2.24	2.34	2.24
R-12	0.69	1.08	1.22	1.48	2.33	2.62	2.62	2.74	2.62
R-13	0.35	0.67	0.80	1.00	1.24	1.53	1.53	1.65	1.53
R-15	0.42	0.79	1.02	1.26	1.67	1.92	1.92	1.94	1.92
R-18	0.53	0.80	0.95	1.18	1.81	2.13	2.13	2.15	2.13
R-27	0.76	1.12	1.31	1.67	1.90	2.25	2.25	2.36	2.25
R-28	0.76	1.11	1.31	1.61	2.20	2.39	2.39	2.51	2.39
R-29	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
WTUA LR	0.24	0.44	0.66	0.97	1.34	1.59	2.05	2.18	1.67
WTUA MR	0.63	0.92	1.12	1.36	2.34	2.56	2.56	2.60	2.56
0831	0.62	1.02	1.22	1.55	2.20	2.37	2.37	2.40	2.37
0837	0.64	1.04	1.20	1.51	2.32	2.51	2.51	2.53	2.51
0843	0.56	0.81	0.93	1.27	2.02	2.23	2.24	2.25	2.24
0850	0.59	0.86	1.04	1.41	1.91	2.57	2.59	2.59	2.59
GC RG01	0.69	1.06	1.19	1.44	2.12	2.41	2.41	2.44	2.41
LV RG01	0.54	0.87	1.14	1.40	2.42	2.68	2.68	2.70	2.68
LV RG02	0.68	0.95	1.08	1.36	2.20	2.51	2.52	2.53	2.52
DTW	0.34	0.59	0.99	1.05	1.10	1.31	1.31	1.32	1.31
Minimum	0.24	0.44	0.66	0.97	1.10	1.31	1.31	1.32	1.31
Average	0.57	0.89	1.07	1.34	1.92	2.20	2.23	2.28	2.21
Maximum	0.76	1.12	1.31	1.67	2.42	2.68	2.68	2.74	2.68
							Standard Deviation (in):		0.41
							Coefficient of Variation:		18%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	< 1	2	1	< 1	< 1	2
R-12	< 1	< 1	< 1	< 1	4	3	2	1	4
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	1	1	< 1	< 1	1
R-27	< 1	< 1	1	1	1	2	< 1	< 1	2
R-28	< 1	< 1	1	1	3	2	1	< 1	3
R-29	-	-	-	-	-	-	-	-	-
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	4	3	2	< 1	4
0831	< 1	< 1	< 1	1	3	2	< 1	< 1	3
0837	< 1	< 1	< 1	< 1	4	3	1	< 1	4
0843	< 1	< 1	< 1	< 1	2	1	< 1	< 1	2
0850	< 1	< 1	< 1	< 1	1	3	2	< 1	3
GC RG01	< 1	< 1	< 1	< 1	2	2	1	< 1	2
LV RG01	< 1	< 1	< 1	< 1	4	4	2	1	4
LV RG02	< 1	< 1	< 1	< 1	3	3	1	< 1	3
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	2	2	1	< 1	2
Maximum	< 1	< 1	> 1	1	4	4	2	1	> 4

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-23
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 8
Start Date: 8/6/2024
Stop Date: 8/6/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.59	0.96	1.02	1.18	1.34	1.34	1.34	1.34	1.34
R-11	0.43	0.56	0.64	0.76	0.83	0.83	0.83	0.83	0.83
R-12	0.51	0.63	0.78	0.89	1.18	1.18	1.18	1.18	1.18
R-13	0.69	0.79	0.85	0.98	1.02	1.02	1.02	1.02	1.02
R-15	0.78	1.11	1.17	1.28	1.40	1.40	1.40	1.40	1.39
R-18	0.50	0.88	0.94	1.12	1.23	1.23	1.23	1.23	1.23
R-27	0.76	0.91	1.00	1.12	1.14	1.14	1.14	1.14	1.14
R-28	0.40	0.58	0.66	0.76	0.90	0.90	0.90	0.90	0.90
R-29	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
WTUA LR	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
WTUA MR	0.60	0.67	0.86	0.98	1.26	1.26	1.26	1.26	1.26
0831	0.54	0.74	0.80	0.83	1.09	1.09	1.09	1.09	1.09
0837	0.60	0.84	0.92	0.94	1.16	1.16	1.16	1.16	1.16
0843	0.67	0.99	1.11	1.15	1.54	1.54	1.54	1.54	1.54
0850	0.66	0.89	0.97	1.01	1.48	1.48	1.48	1.48	1.48
GC RG01	0.44	0.58	0.67	0.78	0.83	0.83	0.83	0.83	0.83
LV RG01	0.71	0.90	0.97	1.08	1.35	1.35	1.35	1.35	1.35
LV RG02	0.44	0.58	0.65	0.75	0.91	0.91	0.91	0.91	0.91
DTW	0.39	0.73	0.95	1.04	1.14	1.14	1.14	1.14	1.14
Minimum	0.39	0.56	0.64	0.75	0.83	0.83	0.83	0.83	0.83
Average	0.57	0.78	0.88	0.98	1.16	1.16	1.16	1.16	1.16
Maximum	0.78	1.11	1.17	1.28	1.54	1.54	1.54	1.54	1.54

Standard Deviation (in):	0.22
Coefficient of Variation:	19%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	-	-	-	-	-	-	-	-	-
WTUA LR	-	-	-	-	-	-	-	-	-
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-24
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 9
Start Date: 10/12/2024
Stop Date: 10/14/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.34	0.55	0.74	0.96	1.06	1.11	1.45	1.45	1.45
R-11	0.18	0.33	0.45	0.67	0.87	0.95	1.11	1.37	1.00
R-12	0.28	0.44	0.53	0.86	0.94	1.15	1.44	1.44	1.44
R-13	0.22	0.31	0.42	0.59	0.64	0.75	1.02	1.02	1.02
R-15	0.30	0.42	0.52	0.76	0.82	0.91	1.15	1.15	1.15
R-18	0.39	0.58	0.74	0.94	1.08	1.14	1.46	1.46	1.46
R-27	0.27	0.37	0.50	0.72	0.78	0.92	1.27	1.27	1.27
R-28	0.28	0.42	0.52	0.83	0.91	1.04	1.38	1.38	1.38
R-29	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
WTUA LR	0.01*	0.01*	0.01*	0.01*	0.01*	0.02*	0.03*	0.05*	0.02*
WTUA MR	0.38	0.64	0.76	1.15	1.25	1.39	1.80	1.80	1.80
0831	0.30	0.47	0.59	0.92	1.06	1.13	1.57	1.57	1.57
0837	0.31	0.41	0.61	0.86	0.98	1.03	1.45	1.45	1.44
0843	0.30	0.38	0.60	0.82	0.93	1.00	1.26	1.26	1.26
0850	0.30	0.40	0.65	0.84	0.94	1.04	1.41	1.41	1.41
GC RG01	0.25	0.37	0.50	0.78	0.83	0.97	1.28	1.28	1.28
LV RG01	0.31	0.45	0.48	0.85	0.94	1.08	1.40	1.40	1.40
LV RG02	0.30	0.54	0.58	0.95	1.08	1.16	1.49	1.49	1.49
DTW	0.33	0.50	0.83	0.89	0.95	1.00	1.31	1.31	1.31
Minimum	0.18	0.33	0.45	0.67	0.78	0.91	1.11	1.15	1.00
Average	0.30	0.45	0.60	0.86	0.96	1.06	1.39	1.41	1.38
Maximum	0.39	0.64	0.83	1.15	1.25	1.39	1.80	1.80	1.80
								Standard Deviation (in):	0.37
								Coefficient of Variation:	27%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	-	-	-	-	-	-	-	-	-
WTUA LR	-	-	-	-	-	-	-	-	-
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

Table 5-25
Rouge Valley Sewage Disposal System
Rainfall Event Summary Table

Significant Storm Event 10
Start Date: 12/29/2024
Stop Date: 12/30/2024

Gage ID	Peak Rainfall (in)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Event Total
R-10	0.15	0.28	0.37	0.69	1.11	1.60	1.60	1.60	1.60
R-11	0.17	0.27	0.32	0.44	0.83	1.26	1.32	1.32	1.32
R-12	0.15	0.28	0.34	0.56	1.01	1.63	1.64	1.64	1.63
R-13	0.14	0.24	0.27	0.45	0.81	1.33	1.35	1.35	1.35
R-15	0.23	0.31	0.35	0.62	1.18	1.77	1.78	1.78	1.77
R-18	0.16	0.25	0.33	0.60	0.98	1.38	1.40	1.40	1.40
R-27	0.20	0.30	0.34	0.61	1.10	1.81	1.83	1.83	1.82
R-28	0.30	0.34	0.41	0.68	1.21	1.85	1.86	1.86	1.86
R-29	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*	0.00*
WTUA LR	0.19	0.30	0.35	0.57	1.04	1.60	1.63	1.63	1.63
WTUA MR	0.16	0.27	0.33	0.45	0.85	1.27	1.28	1.28	1.28
0831	0.26	0.31	0.34	0.61	0.96	1.49	1.50	1.50	1.50
0837	0.12	0.22	0.27	0.42	0.72	1.11	1.13	1.13	1.13
0843	0.17	0.28	0.32	0.43	0.74	1.04	1.06	1.06	1.06
0850	0.18	0.27	0.31	0.42	0.75	1.04	1.10	1.10	1.09
GC RG01	0.16	0.27	0.38	0.57	1.02	1.61	1.63	1.63	1.63
LV RG01	0.15	0.26	0.34	0.48	0.90	1.43	1.45	1.45	1.45
LV RG02	0.18	0.28	0.32	0.49	0.86	1.32	1.36	1.36	1.35
DTW	0.21	0.29	0.40	0.57	1.01	1.64	1.65	1.65	1.65
Minimum	0.14	0.24	0.27	0.44	0.81	1.26	1.28	1.28	1.28
Average	0.18	0.28	0.34	0.54	0.95	1.45	1.48	1.48	1.47
Maximum	0.30	0.34	0.41	0.69	1.21	1.85	1.86	1.86	1.86
							Standard Deviation (in):		0.25
							Coefficient of Variation:		17%

X.XX* Missing or suspect data (not used).

Gage ID	Recurrence Interval (years)								
	1-Hour	2-Hour	3-Hour	6-Hour	12-Hour	24-Hour	2-Day	3-Day	Maximum
R-10	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-11	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-12	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-13	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-18	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-27	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-28	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
R-29	-	-	-	-	-	-	-	-	-
WTUA LR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
WTUA MR	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0831	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0837	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0843	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
0850	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
GC RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG01	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
LV RG02	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
DTW	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Minimum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Average	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

- Missing or suspect data (not used).

Notes:

1) Return periods determined from point precipitation frequency (PF) estimates from NOAA Atlas 14, Volume 8, Version 2 published in 2013. NOAA Atlas 14 is the current reference document for return frequency as of 2013.

2) Return periods calculated by linear interpolation between the published whole number month or year frequencies.

6.0 Flow Meter Summary

Tables 6-1 through 6-10 list the peak hourly flow rates and peak hydraulic grade lines for the RVSDS flow meters for each significant storm event. Symbols are used to identify the peak hydraulic grade lines conditions as: within the pipe, surcharging above the crown of the pipe but below grade, surcharging above the crown of the pipe but grade elevation is unknown, surcharging above grade, or surcharging exceeded the level sensors top of range.

Table 6-11 provides a flow rate continuity check between meter groupings. The incremental flow rate for each meter grouping is the sum of the downstream flow meters minus the sum of the upstream flow meters. Estimating incremental flow rates between meter groupings helps evaluate the flow meter operations and helps to identify potential metering issues.

Table 6-12 lists the monthly average dry weather flow rates and estimated per capita flow rates for multiple meter groupings. Estimating per capita flow rates throughout the RVSDS helps evaluate the flow meter operations and helps to identify potential metering issues.

Figure 6-1 plots the sum of the monthly customer flow rates versus the sum of the monthly outlet meter flow rates for each month in 2024. Comparing these values to the 1:1 line provides a valuable assessment of the estimated community flow rates. Estimated interceptor infiltration and inflow has not been deducted from community flow rates.

Table 6-1
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 1

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 1 1/9/2024 - 1/13/2024 1.84 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	15.35	1/9/24 20:20	798.81	1.64	○	1/9/24 20:35
	P-1	NAI	48	740.82	716.31	19.02	1/9/24 21:25	717.85	1.54	○	1/9/24 21:45
	P-3	MRIR	36	681.37	652.48	19.06	1/9/24 21:20	654.09	1.61	○	1/9/24 21:15
	P-26	PWI	30	649.24	647.86	1.93	1/9/24 22:25	648.40	0.54	○	1/9/24 22:30
	P-7	PWI	48	649.09	625.23	2.29	1/9/24 23:30	626.42	1.19	○	1/9/24 23:45
	LV-16	CS	48	-	627.38	4.51	1/9/24 14:40	628.35	0.97	○	1/9/24 15:05
	FE-22	RVI	48	685.04	644.88	1.28	1/13/24 10:30	645.50	0.62	○	1/13/24 15:00
	P-8	RVI	48	645.40	621.80	2.52	1/13/24 12:10	622.49	0.69	○	1/13/24 12:10
	WE-14	CS	42	-	613.48	6.66	1/9/24 20:05	615.05	1.57	○	1/9/24 20:35
	LV-15	CS	60	636.29	617.03	3.16	1/9/24 19:35	618.64	1.61	○	1/9/24 19:50
	M-22 MP#1	CS	42	630.49	614.41	-	-	618.24	3.83	⦿	1/9/24 20:45
	M-22 MP#2	CS	42	630.49	614.41	-	-	621.83	7.42	⦿	1/10/24 4:00
	M-2	CS	27	636.70	612.39	7.44	1/9/24 19:35	613.91	1.52	○	1/9/24 20:10
	M-1	CS	72	630.59	607.59	14.77	1/9/24 19:00	611.95	4.36	○	1/9/24 21:10
	LV-14	CS	60	612.02	605.57	4.92	1/9/24 20:00	606.41	0.84	○	1/9/24 20:20
	P-28	RVI	54	629.02	607.92	4.39	1/9/24 20:20	609.65	1.73	○	1/9/24 21:25
	P-29	CS	42	-	-	8.19	1/9/24 21:45	-	1.90	○	1/9/24 21:40
	LV-20	CS	54	-	-	-	-	-	0.16	○	1/10/24 20:00
	LV-BASIN	RVI	54	632.00	602.01	19.39	1/9/24 22:30	606.07	4.06	○	1/10/24 2:05
	LV-4	CS	30	652.59	638.51	7.01	1/9/24 19:20	640.26	1.75	○	1/9/24 19:45
	LV-11	CS	42	-	-	9.46	1/9/24 20:00	-	0.81	○	1/13/24 15:20
	P-12	RVI	60	613.41	597.67	30.01	1/10/24 2:25	600.08	2.41	○	1/9/24 22:05
	P-9	MRIR	42	610.36	597.01	13.64	1/9/24 21:20	599.01	2.00	○	1/9/24 21:55
	P-10	RVI	66	607.65	595.62	44.89	1/9/24 20:35	598.33	2.71	○	1/9/24 21:20
	P-11	MRPIE	48	607.91	596.68	28.63	1/9/24 20:50	599.45	2.77	○	1/9/24 21:10
	P-13	MRPIE	54	613.22	586.85	27.05	1/9/24 21:50	589.65	2.80	○	1/9/24 21:45
	P-35	MRIR	54	597.62	584.15	34.69	1/9/24 21:05	587.34	3.19	○	1/9/24 21:40
	P-34	RVI	62	595.60	582.30	43.66	1/9/24 21:10	585.97	3.67	○	1/9/24 21:50
	P-33	MRPIE	48	597.01	585.22	27.35	1/9/24 21:10	587.25	2.03	○	1/9/24 21:25
	P-32	MRIR	66	597.03	578.79	38.21	1/9/24 23:00	582.50	3.71	○	1/9/24 22:25
	P-31	RVI	78	599.00	578.71	65.63	1/9/24 22:00	582.91	4.20	○	1/9/24 22:15
	P-30	MRPIE	60	593.00	580.29	36.78	1/9/24 21:40	583.45	3.16	○	1/9/24 22:15
	P-14	RVI	78	604.91	570.93	91.58	1/9/24 23:05	575.33	4.40	○	1/9/24 23:05
Lower Rouge	P-15	WRVI	24	667.57	651.67	2.75	1/9/24 22:05	652.76	1.09	○	1/9/24 20:55
	P-17	LRIR	30	641.21	632.39	6.19	1/9/24 22:00	633.96	1.57	○	1/9/24 22:45
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	5.78	1/9/24 20:15	-	1.10	○	1/9/24 20:35
	P-19	RVI	48	630.34	621.54	13.61	1/9/24 21:10	623.32	1.78	○	1/9/24 20:55
	WE-28	CS	30	-	-	3.69	1/9/24 20:00	-	0.84	○	1/9/24 20:40
	P-21	RVI	54	620.17	608.14	20.95	1/9/24 20:45	609.84	1.70	○	1/9/24 20:55
	P-25	RVI	60	598.36	588.06	38.28	1/9/24 20:40	590.34	2.28	○	1/9/24 20:50
	P-20	WI	48	630.66	619.72	8.19	1/9/24 20:20	621.69	1.97	○	1/9/24 20:45
	P-24	RVI	36	594.24	584.52	14.81	1/9/24 21:25	585.84	1.32	○	1/9/24 21:40
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	140.95	1/9/24 22:40	565.80	9.99	⦿	1/9/24 21:25
	WC-S-2	MRPIE	66	616.00	570.66	28.08	1/9/24 18:40	580.40	9.74	⦿	1/9/24 22:30
	WC-S-3	MRIR	72	613.51	570.84	75.21	1/9/24 22:10	580.59	9.75	⦿	1/9/24 22:40

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⦸
Surcharging sewer, grade elevation known:	⦿
Above grade:	●
Data Not Available:	-

Table 6-2
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 2

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 2 1/22/2024-1/31/2024 2.67					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	19.56	1/26/24 4:30	799.05	1.88	○	1/26/24 4:30
	P-1	NAI	48	740.82	716.31	27.00	1/26/24 5:25	718.27	1.96	○	1/26/24 5:45
	P-3	MRIR	36	681.37	652.48	24.89	1/26/24 6:25	654.40	1.92	○	1/26/24 6:50
	P-26	PWI	30	649.24	647.86	4.76	1/26/24 7:40	648.77	0.91	○	1/26/24 7:00
	P-7	PWI	48	649.09	625.23	5.02	1/26/24 8:20	626.97	1.74	○	1/26/24 8:15
	LV-16	CS	48	-	627.38	7.52	1/26/24 9:30	630.13	2.75	○	1/26/24 5:40
	FE-22	RVI	48	685.04	644.88	3.12	1/27/24 9:00	645.66	0.78	○	1/26/24 19:00
	P-8	RVI	48	645.40	621.80	4.97	1/27/24 10:40	623.20	1.40	○	1/26/24 9:10
	WE-14	CS	42	-	613.48	13.04	1/26/24 9:50	622.77	9.29	⊗	1/26/24 10:10
	LV-15	CS	60	636.29	617.03	5.92	1/27/24 4:30	621.75	4.72	○	1/27/24 4:30
	M-22 MP#1	CS	42	630.49	614.41	-	-	625.24	10.83	⦿	1/26/24 17:30
	M-22 MP#2	CS	42	630.49	614.41	-	-	625.06	10.65	⦿	1/26/24 21:35
	M-2	CS	27	636.70	612.39	17.11	1/26/24 4:30	621.24	8.85	⦿	1/26/24 9:25
	M-1	CS	72	630.59	607.59	37.16	1/26/24 4:20	618.25	10.66	⦿	1/26/24 5:40
	LV-14	CS	60	612.02	605.57	14.80	1/26/24 6:05	611.37	5.80	⦿	1/26/24 8:45
	P-28	RVI	54	629.02	607.92	11.71	1/26/24 5:40	617.01	9.09	⦿	1/26/24 11:50
	P-29	CS	42	-	-	10.31	1/28/24 19:25	-	4.45	⊗	1/26/24 5:35
	LV-20	CS	54	-	-	-	-	-	0.20	○	1/26/24 4:50
	LV-BASIN	RVI	54	632.00	602.01	30.03	1/28/24 15:45	614.83	12.82	⦿	1/26/24 11:50
	LV-4	CS	30	652.59	638.51	11.17	1/26/24 5:00	641.10	2.59	⦿	1/26/24 5:10
	LV-11	CS	42	-	-	27.71	1/26/24 8:10	-	9.85	⊗	1/26/24 11:45
	P-12	RVI	60	613.41	597.67	56.89	1/29/24 9:45	609.88	12.21	⦿	1/26/24 11:35
	P-9	MRIR	42	610.36	597.01	23.24	1/26/24 11:50	608.12	11.11	⦿	1/26/24 11:50
	P-10	RVI	66	607.65	595.62	70.46	1/26/24 20:25	>606.51	>10.89	⊘	1/26/24 4:20
	P-11	MRPIE	48	607.91	596.68	36.15	1/26/24 13:55	604.41	7.73	⦿	1/27/24 3:00
	P-13	MRPIE	54	613.22	586.85	36.67	1/26/24 4:25	599.55	12.70	⦿	1/26/24 8:05
	P-35	MRIR	54	597.62	584.15	52.56	1/26/24 8:30	594.10	9.95	⦿	1/26/24 9:55
	P-34	RVI	62	595.60	582.30	71.00	1/26/24 5:50	592.12	9.82	⦿	1/27/24 23:25
	P-33	MRPIE	48	597.01	585.22	37.22	1/26/24 5:55	595.77	10.55	⦿	1/27/24 2:20
	P-32	MRIR	66	597.03	578.79	56.79	1/26/24 11:55	593.28	14.49	⦿	1/27/24 1:45
	P-31	RVI	78	599.00	578.71	115.10	1/26/24 10:55	592.60	13.89	⦿	1/26/24 19:10
	P-30	MRPIE	60	593.00	580.29	59.11	1/26/24 13:50	593.81	13.52	●	1/27/24 1:50
	P-14	RVI	78	604.91	570.93	124.62	1/27/24 22:10	>584.56	>13.63	⊘	1/26/24 3:35
Lower Rouge	P-15	WRVI	24	667.57	651.67	6.81	1/26/24 8:15	660.26	8.59	⦿	1/26/24 11:45
	P-17	LRIR	30	641.21	632.39	10.18	1/26/24 13:45	634.54	2.15	○	1/26/24 11:35
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	12.69	1/26/24 8:20	-	2.49	⊗	1/26/24 7:50
	P-19	RVI	48	630.34	621.54	31.59	1/26/24 12:30	624.32	2.78	○	1/26/24 12:05
	WE-28	CS	30	-	-	8.18	1/26/24 4:50	-	1.48	○	1/26/24 5:25
	P-21	RVI	54	620.17	608.14	43.17	1/26/24 4:55	612.04	3.90	○	1/26/24 6:15
	P-25	RVI	60	598.36	588.06	53.51	1/26/24 5:40	598.89	10.83	●	1/26/24 5:55
	P-20	WI	48	630.66	619.72	14.40	1/26/24 3:25	623.25	3.53	○	1/26/24 4:55
	P-24	RVI	36	594.24	584.52	21.12	1/26/24 2:00	587.14	2.62	○	1/27/24 15:05
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	185.76	1/27/24 11:10	>565.81	>10.00	⊘	1/24/24 20:15
	WC-S-2	MRPIE	66	616.00	570.66	46.40	1/27/24 1:00	>580.66	>10.00	⊘	1/24/24 21:50
	WC-S-3	MRIR	72	613.51	570.84	135.34	1/27/24 3:10	>580.84	>10.00	⊘	1/26/24 1:40

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key

Within sewer: ○
Surcharging sewer, grade elevation unknown: ⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor: ⊘
Surcharging sewer, grade elevation known: ⦿
Above grade: ●
Data Not Available: -

Notes

1. Confirmed CSO/SSO from flow meter manholes have been reported on MiWaters as discharges and are listed in Section 7 of this report. Estimated peak recorded depths above grade does not confirm CSO/SSO. Some flow meters manholes are located within the Rouge River flood plain and the manholes are submerged (without discharge) during large wet weather events.

Table 6-3
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 3

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 3 4/10/2024-4/12/2024 1.71 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	17.12	4/11/24 22:25	798.91	1.74	○	4/11/24 22:40
	P-1	NAI	48	740.82	716.31	21.86	4/11/24 23:20	718.01	1.70	○	4/11/24 23:50
	P-3	MRIR	36	681.37	652.48	19.74	4/12/24 0:05	654.10	1.62	○	4/12/24 0:45
	P-26	PWI	30	649.24	647.86	2.44	4/11/24 23:40	648.50	0.64	○	4/12/24 0:55
	P-7	PWI	48	649.09	625.23	2.88	4/12/24 1:30	626.56	1.33	○	4/12/24 1:50
	LV-16	CS	48	-	627.38	5.59	4/12/24 0:20	629.62	2.24	○	4/12/24 14:25
	FE-22	RVI	48	685.04	644.88	1.90	4/12/24 18:05	645.53	0.65	○	4/12/24 11:00
	P-8	RVI	48	645.40	621.80	3.29	4/12/24 18:15	622.55	0.75	○	4/12/24 17:45
	WE-14	CS	42	-	613.48	8.64	4/11/24 21:20	615.36	1.88	○	4/11/24 21:35
	LV-15	CS	60	636.29	617.03	3.14	4/12/24 6:40	620.39	3.36	○	4/11/24 23:55
	M-22 MP#1	CS	42	630.49	614.41	-	-	620.82	6.41	◉	4/12/24 0:05
	M-22 MP#2	CS	42	630.49	614.41	-	-	623.06	8.65	◉	4/12/24 11:00
	M-2	CS	27	636.70	612.39	9.79	4/11/24 23:00	614.21	1.82	○	4/11/24 23:10
	M-1	CS	72	630.59	607.59	17.70	4/12/24 0:20	613.80	6.21	◉	4/12/24 0:10
	LV-14	CS	60	612.02	605.57	7.45	4/11/24 21:35	606.62	1.05	○	4/11/24 22:10
	P-28	RVI	54	629.02	607.92	5.44	4/12/24 2:05	611.74	3.82	○	4/12/24 0:55
	P-29	CS	42	-	-	11.54	4/12/24 1:15	-	4.06	⊗	4/12/24 0:50
	LV-20	CS	54	-	-	-	-	-	0.24	○	4/11/24 6:00
	LV-BASIN	RVI	54	632.00	602.01	23.09	4/11/24 21:45	607.03	5.02	◉	4/11/24 23:40
	LV-4	CS	30	652.59	638.51	9.18	4/11/24 22:15	640.50	1.99	○	4/11/24 22:10
	LV-11	CS	42	-	-	15.04	4/11/24 22:20	-	1.33	○	4/11/24 22:25
	P-12	RVI	60	613.41	597.67	46.36	4/12/24 1:30	600.80	3.13	○	4/12/24 1:05
	P-9	MRIR	42	610.36	597.01	22.11	4/12/24 0:50	600.05	3.04	○	4/12/24 1:10
	P-10	RVI	66	607.65	595.62	65.87	4/12/24 0:20	599.21	3.59	○	4/12/24 0:45
	P-11	MRPIE	48	607.91	596.68	34.13	4/12/24 1:30	599.94	3.26	○	4/12/24 1:50
	P-13	MRPIE	54	613.22	586.85	33.31	4/11/24 23:55	590.52	3.67	○	4/12/24 2:25
	P-35	MRIR	54	597.62	584.15	46.55	4/11/24 23:50	588.88	4.73	◉	4/12/24 2:20
	P-34	RVI	62	595.60	582.30	52.05	4/12/24 11:15	587.98	5.68	◉	4/12/24 1:55
	P-33	MRPIE	48	597.01	585.22	34.08	4/11/24 22:55	588.59	3.37	○	4/12/24 2:10
	P-32	MRIR	66	597.03	578.79	51.64	4/11/24 23:05	585.78	6.99	◉	4/12/24 1:55
	P-31	RVI	78	599.00	578.71	97.24	4/12/24 2:15	586.11	7.40	◉	4/12/24 1:50
	P-30	MRPIE	60	593.00	580.29	48.56	4/11/24 23:05	-	-	-	-
	P-14	RVI	78	604.91	570.93	112.13	4/12/24 4:25	578.82	7.89	◉	4/12/24 1:20
Lower Rouge	P-15	WRVI	24	667.57	651.67	4.32	4/11/24 23:00	653.38	1.71	○	4/11/24 23:55
	P-17	LRIR	30	641.21	632.39	7.69	4/11/24 22:40	634.32	1.93	○	4/11/24 23:20
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	9.08	4/11/24 23:55	-	1.47	○	4/12/24 0:00
	P-19	RVI	48	630.34	621.54	18.96	4/11/24 23:15	623.63	2.09	○	4/11/24 23:35
	WE-28	CS	30	-	-	5.33	4/11/24 21:25	-	1.04	○	4/11/24 21:40
	P-21	RVI	54	620.17	608.14	26.12	4/11/24 22:25	610.07	1.93	○	4/11/24 22:05
	P-25	RVI	60	598.36	588.06	45.44	4/11/24 23:25	590.69	2.63	○	4/12/24 0:10
	P-20	WI	48	630.66	619.72	11.72	4/11/24 21:35	622.13	2.41	○	4/11/24 22:15
	P-24	RVI	36	594.24	584.52	18.68	4/11/24 22:05	586.21	1.69	○	4/12/24 0:10
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	167.39	4/12/24 3:55	>565.81	>10.00	⊘	4/12/24 0:05
	WC-S-2	MRPIE	66	616.00	570.66	33.74	4/11/24 13:30	>580.66	>10.00	⊘	4/11/24 23:25
	WC-S-3	MRIR	72	613.51	570.84	88.09	4/12/24 15:15	>580.84	>10.00	⊘	4/12/24 0:50

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⊘
Surcharging sewer, grade elevation known:	◉
Above grade:	●
Data Not Available:	-

Table 6-4
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 4

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 4 4/28/2024-4/30/2024 1.08 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	12.37	4/28/24 11:15	798.63	1.46	○	4/28/24 10:55
	P-1	NAI	48	740.82	716.31	15.45	4/28/24 12:55	717.68	1.37	○	4/28/24 13:00
	P-3	MRIR	36	681.37	652.48	15.00	4/28/24 13:20	653.91	1.43	○	4/28/24 13:00
	P-26	PWI	30	649.24	647.86	1.18	4/28/24 12:55	648.22	0.36	○	4/28/24 13:05
	P-7	PWI	48	649.09	625.23	2.25	4/28/24 15:30	626.40	1.17	○	4/28/24 14:55
	LV-16	CS	48	-	627.38	4.84	4/28/24 10:55	628.37	0.99	○	4/28/24 11:20
	FE-22	RVI	48	685.04	644.88	1.55	4/28/24 10:40	645.50	0.62	○	4/28/24 12:00
	P-8	RVI	48	645.40	621.80	2.88	4/28/24 12:20	622.51	0.71	○	4/28/24 11:20
	WE-14	CS	42	-	613.48	7.12	4/28/24 9:05	615.12	1.64	○	4/28/24 9:25
	LV-15	CS	60	636.29	617.03	3.52	4/28/24 8:25	618.83	1.80	○	4/28/24 9:50
	M-22 MP#1	CS	42	630.49	614.41	-	-	619.10	4.69	◉	4/28/24 10:55
	M-22 MP#2	CS	42	630.49	614.41	-	-	621.55	7.14	◉	4/28/24 14:40
	M-2	CS	27	636.70	612.39	8.20	4/28/24 8:40	614.08	1.69	○	4/28/24 9:05
	M-1	CS	72	630.59	607.59	20.01	4/28/24 8:50	613.14	5.55	○	4/28/24 10:20
	LV-14	CS	60	612.02	605.57	7.42	4/28/24 8:50	606.62	1.05	○	4/28/24 9:10
	P-28	RVI	54	629.02	607.92	4.51	4/28/24 9:35	609.52	1.60	○	4/28/24 11:35
	P-29	CS	42	-	-	7.46	4/28/24 11:10	-	1.81	○	4/28/24 11:55
	LV-20	CS	54	-	-	-	-	-	0.20	○	4/29/24 16:40
	LV-BASIN	RVI	54	632.00	602.01	19.50	4/28/24 13:45	605.46	3.45	○	4/28/24 12:00
	LV-4	CS	30	652.59	638.51	6.45	4/28/24 9:50	640.13	1.62	○	4/28/24 10:15
	LV-11	CS	42	-	-	7.85	4/28/24 9:50	-	0.98	○	4/28/24 10:05
	P-12	RVI	60	613.41	597.67	29.79	4/28/24 13:05	600.05	2.38	○	4/28/24 12:15
	P-9	MRIR	42	610.36	597.01	13.27	4/28/24 12:55	598.93	1.92	○	4/28/24 12:50
	P-10	RVI	66	607.65	595.62	45.65	4/28/24 11:50	598.44	2.82	○	4/28/24 11:40
	P-11	MRPIE	48	607.91	596.68	28.91	4/28/24 10:45	599.48	2.80	○	4/28/24 11:35
	P-13	MRPIE	54	613.22	586.85	28.82	4/28/24 10:20	589.81	2.96	○	4/28/24 10:55
	P-35	MRIR	54	597.62	584.15	33.83	4/28/24 11:55	587.35	3.20	○	4/28/24 11:00
	P-34	RVI	62	595.60	582.30	46.12	4/28/24 10:15	586.00	3.70	○	4/28/24 11:10
	P-33	MRPIE	48	597.01	585.22	29.51	4/28/24 9:50	-	-	-	-
	P-32	MRIR	66	597.03	578.79	41.84	4/28/24 10:35	582.66	3.87	○	4/28/24 11:40
	P-31	RVI	78	599.00	578.71	74.38	4/28/24 10:35	-	-	-	-
	P-30	MRPIE	60	593.00	580.29	36.64	4/28/24 10:55	583.49	3.20	○	4/28/24 11:30
	P-14	RVI	78	604.91	570.93	95.19	4/28/24 13:00	576.94	6.01	○	4/28/24 11:55
Lower Rouge	P-15	WRVI	24	667.57	651.67	2.45	4/29/24 19:50	652.70	1.03	○	4/29/24 20:10
	P-17	LRIR	30	641.21	632.39	5.52	4/29/24 22:45	633.86	1.47	○	4/29/24 23:30
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	7.66	4/28/24 10:30	-	1.31	○	4/28/24 11:05
	P-19	RVI	48	630.34	621.54	13.84	4/29/24 13:20	623.29	1.75	○	4/29/24 13:25
	WE-28	CS	30	-	-	4.60	4/28/24 8:45	-	0.96	○	4/28/24 9:10
	P-21	RVI	54	620.17	608.14	20.09	4/28/24 9:55	609.83	1.69	○	4/28/24 10:10
	P-25	RVI	60	598.36	588.06	41.41	4/30/24 0:45	590.28	2.22	○	4/30/24 0:40
	P-20	WI	48	630.66	619.72	11.44	4/28/24 8:45	622.06	2.34	○	4/28/24 9:10
	P-24	RVI	36	594.24	584.52	16.84	4/28/24 9:50	585.94	1.42	○	4/28/24 9:45
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	145.41	4/28/24 13:00	>565.81	>10.00	⊘	4/28/24 10:15
	WC-S-2	MRPIE	66	616.00	570.66	25.25	4/29/24 20:35	>580.65	>9.99	⊘	4/28/24 12:45
	WC-S-3	MRIR	72	613.51	570.84	76.34	4/28/24 13:10	>580.83	>9.99	⊘	4/28/24 11:05

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⊘
Surcharging sewer, grade elevation known:	◉
Above grade:	●
Data Not Available:	-

Table 6-5
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 5

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 5 5/26/2024-5/27/2024 1.48 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	11.37	5/26/24 20:00	798.58	1.41	○	5/26/24 20:10
	P-1	NAI	48	740.82	716.31	13.36	5/26/24 21:05	717.56	1.25	○	5/26/24 21:25
	P-3	MRIR	36	681.37	652.48	13.72	5/26/24 21:55	653.86	1.38	○	5/26/24 22:25
	P-26	PWI	30	649.24	647.86	1.00	5/26/24 22:25	648.19	0.33	○	5/26/24 22:40
	P-7	PWI	48	649.09	625.23	1.86	5/26/24 20:30	626.32	1.09	○	5/26/24 21:05
	LV-16	CS	48	-	627.38	5.75	5/26/24 19:30	628.47	1.09	○	5/26/24 19:50
	FE-22	RVI	48	685.04	644.88	1.77	5/27/24 8:50	-	-	-	-
	P-8	RVI	48	645.40	621.80	2.69	5/27/24 8:50	622.49	0.69	○	5/27/24 8:45
	WE-14	CS	42	-	613.48	7.29	5/26/24 20:10	615.17	1.69	○	5/26/24 20:45
	LV-15	CS	60	636.29	617.03	3.82	5/27/24 5:40	619.90	2.87	○	5/27/24 8:20
	M-22 MP#1	CS	42	630.49	614.41	-	-	620.37	5.96	◉	5/27/24 8:20
	M-22 MP#2	CS	42	630.49	614.41	-	-	622.02	7.61	◉	5/27/24 6:45
	M-2	CS	27	636.70	612.39	8.29	5/27/24 6:40	614.07	1.68	○	5/27/24 6:50
	M-1	CS	72	630.59	607.59	17.73	5/27/24 5:50	613.00	5.41	○	5/27/24 7:55
	LV-14	CS	60	612.02	605.57	8.92	5/27/24 6:25	606.73	1.16	○	5/27/24 6:45
	P-28	RVI	54	629.02	607.92	5.56	5/27/24 6:50	609.77	1.85	○	5/27/24 8:50
	P-29	CS	42	-	-	8.98	5/27/24 8:10	-	2.09	○	5/27/24 8:45
	LV-20	CS	54	-	-	-	-	-	0.21	○	5/27/24 8:45
	LV-BASIN	RVI	54	632.00	602.01	19.50	5/26/24 21:45	605.83	3.82	○	5/27/24 8:50
	LV-4	CS	30	652.59	638.51	8.53	5/27/24 5:50	640.47	1.96	○	5/27/24 6:15
	LV-11	CS	42	-	-	11.45	5/27/24 8:50	-	1.10	○	5/27/24 8:50
	P-12	RVI	60	613.41	597.67	31.34	5/27/24 8:50	600.09	2.42	○	5/27/24 8:50
	P-9	MRIR	42	610.36	597.01	14.76	5/27/24 8:50	599.01	2.00	○	5/27/24 8:50
	P-10	RVI	66	607.65	595.62	57.08	5/27/24 8:50	598.37	2.75	○	5/27/24 8:50
	P-11	MRPIE	48	607.91	596.68	30.39	5/27/24 8:20	599.58	2.90	○	5/27/24 8:30
	P-13	MRPIE	54	613.22	586.85	38.19	5/27/24 8:30	590.53	3.68	○	5/27/24 8:20
	P-35	MRIR	54	597.62	584.15	33.49	5/27/24 8:50	587.58	3.43	○	5/27/24 8:45
	P-34	RVI	62	595.60	582.30	50.34	5/27/24 8:50	586.37	4.07	○	5/27/24 8:50
	P-33	MRPIE	48	597.01	585.22	28.74	5/27/24 7:15	-	-	-	-
	P-32	MRIR	66	597.03	578.79	40.62	5/27/24 7:40	583.27	4.48	○	5/27/24 8:50
	P-31	RVI	78	599.00	578.71	72.30	5/27/24 7:40	581.31	2.60	○	5/26/24 16:50
	P-30	MRPIE	60	593.00	580.29	38.17	5/27/24 8:10	583.76	3.47	○	5/27/24 8:50
	P-14	RVI	78	604.91	570.93	89.71	5/26/24 23:55	578.90	7.97	◉	5/27/24 8:50
Lower Rouge	P-15	WRVI	24	667.57	651.67	2.43	5/26/24 21:10	652.69	1.02	○	5/26/24 21:35
	P-17	LRIR	30	641.21	632.39	3.50	5/26/24 19:30	633.51	1.12	○	5/26/24 19:45
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	6.36	5/26/24 21:45	-	1.19	○	5/26/24 22:05
	P-19	RVI	48	630.34	621.54	12.90	5/26/24 20:20	623.23	1.69	○	5/26/24 20:35
	WE-28	CS	30	-	-	4.43	5/27/24 6:25	-	0.94	○	5/26/24 20:30
	P-21	RVI	54	620.17	608.14	20.97	5/26/24 20:35	609.87	1.73	○	5/26/24 20:50
	P-25	RVI	60	598.36	588.06	39.44	5/27/24 8:05	590.26	2.20	○	5/26/24 21:50
	P-20	WI	48	630.66	619.72	12.89	5/26/24 20:30	622.34	2.62	○	5/26/24 20:45
	P-24	RVI	36	594.24	584.52	17.90	5/26/24 21:35	586.02	1.50	○	5/26/24 21:40
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	134.52	5/27/24 8:50	>565.81	>10.00	⊘	5/26/24 22:05
	WC-S-2	MRPIE	66	616.00	570.66	22.91	5/27/24 2:20	>580.65	>9.99	⊘	5/27/24 8:25
	WC-S-3	MRIR	72	613.51	570.84	60.77	5/27/24 8:50	>580.84	>10.00	⊘	5/27/24 8:10

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⊘
Surcharging sewer, grade elevation known:	◉
Above grade:	●
Data Not Available:	-

Table 6-6
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 6

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 6 6/28/2024-6/29/2024 1.35 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	16.17	6/29/24 8:05	798.89	1.72	○	6/29/24 8:30
	P-1	NAI	48	740.82	716.31	20.65	6/29/24 9:10	717.96	1.65	○	6/29/24 9:35
	P-3	MRIR	36	681.37	652.48	18.90	6/29/24 9:35	654.17	1.69	○	6/29/24 9:50
	P-26	PWI	30	649.24	647.86	2.51	6/29/24 9:55	648.53	0.67	○	6/29/24 10:15
	P-7	PWI	48	649.09	625.23	3.10	6/29/24 11:30	626.59	1.36	○	6/29/24 12:00
	LV-16	CS	48	-	627.38	6.55	6/29/24 7:25	629.06	1.68	○	6/29/24 14:35
	FE-22	RVI	48	685.04	644.88	1.64	6/29/24 9:15	-	-	-	-
	P-8	RVI	48	645.40	621.80	3.00	6/29/24 10:55	622.53	0.73	○	6/29/24 10:50
	WE-14	CS	42	-	613.48	8.49	6/29/24 8:20	615.41	1.93	○	6/29/24 8:45
	LV-15	CS	60	636.29	617.03	4.71	6/29/24 7:15	620.72	3.69	○	6/29/24 10:30
	M-22 MP#1	CS	42	630.49	614.41	-	-	621.11	6.70	◉	6/29/24 10:35
	M-22 MP#2	CS	42	630.49	614.41	-	-	622.31	7.90	◉	6/29/24 15:20
	M-2	CS	27	636.70	612.39	9.77	6/29/24 9:05	614.36	1.97	○	6/29/24 8:20
	M-1	CS	72	630.59	607.59	19.28	6/29/24 9:55	614.64	7.05	◉	6/29/24 9:30
	LV-14	CS	60	612.02	605.57	11.77	6/29/24 7:55	606.95	1.38	○	6/29/24 8:15
	P-28	RVI	54	629.02	607.92	7.06	6/29/24 8:15	611.44	3.52	○	6/29/24 11:05
	P-29	CS	42	-	-	13.13	6/29/24 9:30	-	3.76	⊗	6/29/24 11:05
	LV-20	CS	54	-	-	-	-	-	0.23	○	6/29/24 7:10
	LV-BASIN	RVI	54	632.00	602.01	24.03	6/29/24 10:40	606.39	4.38	○	6/29/24 10:50
	LV-4	CS	30	652.59	638.51	10.58	6/29/24 7:35	640.82	2.31	○	6/29/24 7:55
	LV-11	CS	42	-	-	16.34	6/29/24 10:05	-	1.37	○	6/29/24 10:25
	P-12	RVI	60	613.41	597.67	39.74	6/29/24 11:10	600.69	3.02	○	6/29/24 12:15
	P-9	MRIR	42	610.36	597.01	21.49	6/29/24 12:05	599.94	2.93	○	6/29/24 12:20
	P-10	RVI	66	607.65	595.62	74.32	6/29/24 12:15	599.18	3.56	○	6/29/24 12:45
	P-11	MRPIE	48	607.91	596.68	34.75	6/29/24 10:25	600.10	3.42	○	6/29/24 10:35
	P-13	MRPIE	54	613.22	586.85	37.52	6/29/24 8:40	592.83	5.98	◉	6/29/24 11:20
	P-35	MRIR	54	597.62	584.15	46.18	6/29/24 14:55	590.85	6.70	◉	6/29/24 11:05
	P-34	RVI	62	595.60	582.30	76.96	6/29/24 13:25	590.23	7.93	◉	6/29/24 11:05
	P-33	MRPIE	48	597.01	585.22	0.01	6/29/24 0:45	-	-	-	-
	P-32	MRIR	66	597.03	578.79	47.31	6/29/24 11:40	587.74	8.95	◉	6/29/24 10:10
	P-31	RVI	78	599.00	578.71	97.97	6/29/24 12:20	588.14	9.43	◉	6/29/24 10:10
	P-30	MRPIE	60	593.00	580.29	48.95	6/29/24 12:30	588.14	7.85	◉	6/29/24 10:10
	P-14	RVI	78	604.91	570.93	118.03	6/29/24 14:45	582.33	11.40	◉	6/29/24 10:00
Lower Rouge	P-15	WRVI	24	667.57	651.67	2.59	6/29/24 9:40	652.74	1.07	○	6/29/24 9:55
	P-17	LRIR	30	641.21	632.39	4.87	6/29/24 7:55	633.74	1.35	○	6/29/24 8:15
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	8.10	6/29/24 9:45	-	1.36	○	6/29/24 10:20
	P-19	RVI	48	630.34	621.54	13.01	6/29/24 9:15	623.24	1.70	○	6/29/24 9:45
	WE-28	CS	30	-	-	4.53	6/29/24 8:05	-	0.96	○	6/29/24 8:25
	P-21	RVI	54	620.17	608.14	20.96	6/29/24 9:00	609.85	1.71	○	6/29/24 9:55
	P-25	RVI	60	598.36	588.06	39.20	6/29/24 10:35	590.42	2.36	○	6/29/24 10:40
	P-20	WI	48	630.66	619.72	12.82	6/29/24 8:40	622.29	2.57	○	6/29/24 9:10
	P-24	RVI	36	594.24	584.52	17.98	6/29/24 9:45	586.02	1.50	○	6/29/24 10:10
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	154.27	6/29/24 11:55	>565.81	>10.00	⊘	6/29/24 12:30
	WC-S-2	MRPIE	66	616.00	570.66	27.60	6/29/24 14:10	>580.66	>10.00	⊘	6/29/24 9:15
	WC-S-3	MRIR	72	613.51	570.84	91.28	6/29/24 11:55	580.84	10.00	⊘	6/29/24 8:30

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⊘
Surcharging sewer, grade elevation known:	◉
Above grade:	●
Data Not Available:	-

Table 6-7
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 7

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 7 7/9-11/2024 2.21 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	18.05	7/10/24 11:40	798.98	1.81	○	7/10/24 11:50
	P-1	NAI	48	740.82	716.31	22.07	7/10/24 12:35	718.00	1.69	○	7/10/24 12:55
	P-3	MRIR	36	681.37	652.48	20.81	7/10/24 13:40	654.20	1.72	○	7/10/24 14:10
	P-26	PWI	30	649.24	647.86	3.22	7/10/24 13:30	648.63	0.77	○	7/10/24 14:15
	P-7	PWI	48	649.09	625.23	4.01	7/10/24 15:40	626.76	1.53	○	7/10/24 15:40
	LV-16	CS	48	-	627.38	9.18	7/10/24 10:45	630.32	2.94	○	7/10/24 11:00
	FE-22	RVI	48	685.04	644.88	2.74	7/10/24 15:15	645.56	0.68	○	7/10/24 20:00
	P-8	RVI	48	645.40	621.80	3.31	7/10/24 20:15	622.55	0.75	○	7/10/24 14:10
	WE-14	CS	42	-	613.48	13.21	7/10/24 13:55	617.37	3.89	⊗	7/10/24 15:35
	LV-15	CS	60	636.29	617.03	5.22	7/10/24 14:25	623.65	6.62	⦿	7/10/24 15:50
	M-22 MP#1	CS	42	630.49	614.41	-	-	624.02	9.61	⦿	7/10/24 16:45
	M-22 MP#2	CS	42	630.49	614.41	-	-	623.84	9.43	⦿	7/10/24 23:50
	M-2	CS	27	636.70	612.39	12.26	7/10/24 11:10	616.21	3.82	⦿	7/10/24 15:25
	M-1	CS	72	630.59	607.59	28.57	7/10/24 10:25	616.31	8.72	⦿	7/10/24 17:30
	LV-14	CS	60	612.02	605.57	13.86	7/10/24 10:20	608.45	2.88	○	7/10/24 15:50
	P-28	RVI	54	629.02	607.92	7.24	7/10/24 14:50	615.59	7.67	⦿	7/10/24 14:20
	P-29	CS	42	-	-	11.07	7/11/24 0:15	-	4.44	⊗	7/10/24 15:10
	LV-20	CS	54	-	-	-	-	-	0.19	○	7/10/24 5:30
	LV-BASIN	RVI	54	632.00	602.01	23.57	7/10/24 23:55	612.35	10.34	⦿	7/10/24 15:40
	LV-4	CS	30	652.59	638.51	10.18	7/10/24 12:00	640.76	2.25	○	7/10/24 12:30
	LV-11	CS	42	-	-	23.28	7/10/24 13:40	-	5.50	⊗	7/10/24 15:30
	P-12	RVI	60	613.41	597.67	46.70	7/11/24 0:25	606.54	8.87	⦿	7/10/24 15:05
	P-9	MRIR	42	610.36	597.01	24.50	7/10/24 14:15	598.39	1.38	○	7/10/24 4:30
	P-10	RVI	66	607.65	595.62	92.51	7/10/24 17:40	605.23	9.61	⦿	7/10/24 14:40
	P-11	MRPIE	48	607.91	596.68	35.92	7/10/24 17:25	604.88	8.20	⦿	7/10/24 16:15
	P-13	MRPIE	54	613.22	586.85	37.01	7/10/24 5:10	597.91	11.06	⦿	7/10/24 14:25
	P-35	MRIR	54	597.62	584.15	48.98	7/10/24 14:45	594.25	10.10	⦿	7/10/24 13:40
	P-34	RVI	62	595.60	582.30	84.07	7/10/24 17:30	592.19	9.89	⦿	7/11/24 1:10
	P-33	MRPIE	48	597.01	585.22	44.28	7/10/24 15:45	-	-	-	-
	P-32	MRIR	66	597.03	578.79	57.14	7/10/24 17:20	591.50	12.71	⦿	7/10/24 14:30
	P-31	RVI	78	599.00	578.71	111.40	7/10/24 14:20	591.84	13.13	⦿	7/10/24 14:25
	P-30	MRPIE	60	593.00	580.29	55.27	7/10/24 16:45	591.82	11.53	⦿	7/10/24 14:25
	P-14	RVI	78	604.91	570.93	126.73	7/11/24 2:35	584.73	13.80	⦿	7/10/24 12:25
Lower Rouge	P-15	WRVI	24	667.57	651.67	3.46	7/10/24 14:45	653.02	1.35	○	7/10/24 14:50
	P-17	LRIR	30	641.21	632.39	5.70	7/10/24 15:10	633.88	1.49	○	7/10/24 11:15
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	10.41	7/10/24 14:55	-	1.73	○	7/10/24 14:50
	P-19	RVI	48	630.34	621.54	17.44	7/10/24 14:55	623.48	1.94	○	7/10/24 14:35
	WE-28	CS	30	-	-	5.19	7/10/24 4:15	-	1.04	○	7/10/24 4:30
	P-21	RVI	54	620.17	608.14	24.51	7/10/24 14:20	610.00	1.86	○	7/10/24 14:15
	P-25	RVI	60	598.36	588.06	40.75	7/10/24 11:05	590.65	2.59	○	7/10/24 15:15
	P-20	WI	48	630.66	619.72	13.33	7/10/24 4:20	622.39	2.67	○	7/10/24 5:05
	P-24	RVI	36	594.24	584.52	19.84	7/10/24 5:05	588.50	3.98	⦿	7/10/24 15:20
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	152.15	7/10/24 15:05	>565.81	>10.00	⦸	7/10/24 12:55
	WC-S-2	MRPIE	66	616.00	570.66	35.82	7/10/24 20:20	>580.66	>10.00	⦸	7/10/24 7:10
	WC-S-3	MRIR	72	613.51	570.84	118.34	7/10/24 14:50	>580.84	>10.00	⦸	7/10/24 7:55

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⦸
Surcharging sewer, grade elevation known:	⦿
Above grade:	●
Data Not Available:	-

Table 6-8
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 8

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 8 8/6/2024 1.16 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	15.57	8/6/24 13:55	798.83	1.66	○	8/6/24 14:10
	P-1	NAI	48	740.82	716.31	18.24	8/6/24 14:55	717.76	1.45	○	8/6/24 14:55
	P-3	MRIR	36	681.37	652.48	17.23	8/6/24 14:55	653.81	1.33	○	8/6/24 14:50
	P-26	PWI	30	649.24	647.86	1.37	8/6/24 14:55	648.22	0.36	○	8/6/24 14:50
	P-7	PWI	48	649.09	625.23	2.48	8/6/24 13:55	626.43	1.20	○	8/6/24 14:00
	LV-16	CS	48	-	627.38	6.56	8/6/24 13:25	628.62	1.24	○	8/6/24 13:35
	FE-22	RVI	48	685.04	644.88	1.80	8/6/24 5:40	645.42	0.54	○	8/6/24 14:00
	P-8	RVI	48	645.40	621.80	2.14	8/6/24 14:55	622.41	0.61	○	8/6/24 13:45
	WE-14	CS	42	-	613.48	7.21	8/6/24 13:55	615.16	1.68	○	8/6/24 14:25
	LV-15	CS	60	636.29	617.03	3.36	8/6/24 13:15	619.86	2.83	○	8/6/24 14:55
	M-22 MP#1	CS	42	630.49	614.41	-	-	620.27	5.86	⦿	8/6/24 14:55
	M-22 MP#2	CS	42	630.49	614.41	-	-	621.24	6.83	⦿	8/6/24 14:55
	M-2	CS	27	636.70	612.39	7.71	8/6/24 13:40	613.97	1.58	○	8/6/24 14:00
	M-1	CS	72	630.59	607.59	18.98	8/6/24 14:00	612.55	4.96	○	8/6/24 14:55
	LV-14	CS	60	612.02	605.57	9.04	8/6/24 13:50	606.76	1.19	○	8/6/24 14:15
	P-28	RVI	54	629.02	607.92	5.72	8/6/24 14:10	609.87	1.95	○	8/6/24 14:55
	P-29	CS	42	-	-	7.74	8/6/24 14:55	-	2.16	○	8/6/24 14:55
	LV-20	CS	54	-	-	-	-	-	0.26	○	8/6/24 12:10
	LV-BASIN	RVI	54	632.00	602.01	22.91	8/6/24 12:50	606.02	4.01	○	8/6/24 14:55
	LV-4	CS	30	652.59	638.51	7.96	8/6/24 13:30	640.38	1.87	○	8/6/24 13:50
	LV-11	CS	42	-	-	13.74	8/6/24 14:25	-	1.25	○	8/6/24 14:35
	P-12	RVI	60	613.41	597.67	35.06	8/6/24 14:55	600.16	2.49	○	8/6/24 14:55
	P-9	MRIR	42	610.36	597.01	17.59	8/6/24 14:55	599.27	2.26	○	8/6/24 14:55
	P-10	RVI	66	607.65	595.62	59.36	8/6/24 14:55	598.43	2.81	○	8/6/24 14:55
	P-11	MRPIE	48	607.91	596.68	28.23	8/6/24 14:55	599.15	2.47	○	8/6/24 14:55
	P-13	MRPIE	54	613.22	586.85	34.40	8/6/24 14:55	590.23	3.38	○	8/6/24 14:55
	P-35	MRIR	54	597.62	584.15	38.28	8/6/24 14:55	587.48	3.33	○	8/6/24 14:55
	P-34	RVI	62	595.60	582.30	50.85	8/6/24 14:55	586.26	3.96	○	8/6/24 14:55
	P-33	MRPIE	48	597.01	585.22	33.62	8/6/24 14:40	-	-	-	-
	P-32	MRIR	66	597.03	578.79	43.22	8/6/24 14:35	582.33	3.54	○	8/6/24 14:55
	P-31	RVI	78	599.00	578.71	72.68	8/6/24 14:55	582.80	4.09	○	8/6/24 14:55
	P-30	MRPIE	60	593.00	580.29	39.39	8/6/24 14:55	583.44	3.15	○	8/6/24 14:55
	P-14	RVI	78	604.91	570.93	73.93	8/6/24 14:55	574.74	3.81	○	8/6/24 14:55
Lower Rouge	P-15	WRVI	24	667.57	651.67	2.05	8/6/24 14:55	>652.62	>0.95	⦸	8/6/24 14:55
	P-17	LRIR	30	641.21	632.39	4.11	8/6/24 13:40	633.59	1.20	○	8/6/24 13:45
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	5.37	8/6/24 14:55	-	0.95	○	8/6/24 14:55
	P-19	RVI	48	630.34	621.54	11.99	8/6/24 14:10	623.14	1.60	○	8/6/24 14:30
	WE-28	CS	30	-	-	3.60	8/6/24 13:40	-	0.85	○	8/6/24 14:05
	P-21	RVI	54	620.17	608.14	18.33	8/6/24 14:10	609.75	1.61	○	8/6/24 14:40
	P-25	RVI	60	598.36	588.06	37.83	8/6/24 14:50	>590.40	>2.34	⦸	8/6/24 14:55
	P-20	WI	48	630.66	619.72	13.39	8/6/24 14:10	622.43	2.71	○	8/6/24 14:25
	P-24	RVI	36	594.24	584.52	18.33	8/6/24 14:50	-	-	-	-
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	112.56	8/6/24 14:55	>565.81	>10.00	⦸	8/6/24 14:20
	WC-S-2	MRPIE	66	616.00	570.66	32.90	8/6/24 14:55	-	-	-	-
	WC-S-3	MRIR	72	613.51	570.84	50.74	8/6/24 14:55	579.91	9.07	⦿	8/6/24 14:55

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⦸
Surcharging sewer, grade elevation known:	⦿
Above grade:	●
Data Not Available:	-

Table 6-9
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 9

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 9 10/12-14/2024 1.38 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	10.13	10/13/2024 12:05	798.49	1.32	○	10/13/2024 12:50
	P-1	NAI	48	740.82	716.31	12.32	10/13/2024 12:55	717.51	1.20	○	10/13/2024 13:40
	P-3	MRIR	36	681.37	652.48	12.60	10/13/2024 14:10	653.67	1.19	○	10/13/2024 14:15
	P-26	PWI	30	649.24	647.86	0.65	10/13/2024 14:35	648.12	0.26	○	10/13/2024 14:55
	P-7	PWI	48	649.09	625.23	1.55	10/13/2024 16:25	626.23	1.00	○	10/13/2024 16:20
	LV-16	CS	48	-	627.38	3.55	10/12/2024 20:05	628.25	0.87	○	10/12/2024 20:30
	FE-22	RVI	48	685.04	644.88	0.92	10/13/2024 10:15	645.42	0.54	○	10/13/2024 10:00
	P-8	RVI	48	645.40	621.80	2.04	10/13/2024 11:55	622.41	0.61	○	10/13/2024 11:15
	WE-14	CS	42	-	613.48	5.07	10/13/2024 13:45	614.84	1.36	○	10/13/2024 13:50
	LV-15	CS	60	636.29	617.03	2.51	10/12/2024 22:55	618.47	1.44	○	10/12/2024 23:30
	M-22 MP#1	CS	42	630.49	614.41	-	-	618.49	4.08	◉	10/13/2024 0:15
	M-22 MP#2	CS	42	630.49	614.41	-	-	620.33	5.92	◉	10/13/2024 4:55
	M-2	CS	27	636.70	612.39	5.22	10/12/2024 23:00	613.64	1.25	○	10/12/2024 23:25
	M-1	CS	72	630.59	607.59	11.35	10/12/2024 23:15	610.63	3.04	○	10/13/2024 0:15
	LV-14	CS	60	612.02	605.57	4.21	10/12/2024 20:25	606.36	0.79	○	10/12/2024 21:00
	P-28	RVI	54	629.02	607.92	2.34	10/13/2024 22:15	608.92	1.00	○	10/13/2024 22:35
	P-29	CS	42	-	-	4.60	10/12/2024 22:40	-	1.24	○	10/13/2024 22:20
	LV-20	CS	54	-	-	-	-	-	0.19	-	10/13/2024 11:55
	LV-BASIN	RVI	54	632.00	602.01	13.02	10/13/2024 0:05	604.54	2.53	○	10/13/2024 0:00
	LV-4	CS	30	652.59	638.51	4.58	10/13/2024 21:00	639.88	1.37	○	10/12/2024 23:15
	LV-11	CS	42	-	-	4.73	10/12/2024 23:20	-	0.76	○	10/12/2024 23:40
	P-12	RVI	60	613.41	597.67	17.85	10/13/2024 0:45	599.68	2.01	○	10/13/2024 0:25
	P-9	MRIR	42	610.36	597.01	7.59	10/13/2024 0:05	598.38	1.37	○	10/13/2024 0:25
	P-10	RVI	66	607.65	595.62	37.41	10/13/2024 0:15	597.80	2.18	○	10/13/2024 0:15
	P-11	MRPIE	48	607.91	596.68	21.41	10/13/2024 1:00	598.97	2.29	○	10/13/2024 1:05
	P-13	MRPIE	54	613.22	586.85	25.99	10/12/2024 22:20	589.50	2.65	○	10/12/2024 22:45
	P-35	MRIR	54	597.62	584.15	24.31	10/13/2024 0:25	586.82	2.67	○	10/13/2024 1:15
	P-34	RVI	62	595.60	582.30	31.13	10/13/2024 0:15	585.43	3.13	○	10/13/2024 0:45
	P-33	MRPIE	48	597.01	585.22	24.83	10/12/2024 23:55	586.92	1.70	○	10/13/2024 0:05
	P-32	MRIR	66	597.03	578.79	30.26	10/13/2024 0:55	581.54	2.75	○	10/13/2024 1:05
	P-31	RVI	78	599.00	578.71	46.75	10/13/2024 0:45	581.94	3.23	○	10/13/2024 1:25
	P-30	MRPIE	60	593.00	580.29	28.66	10/13/2024 0:55	583.03	2.74	○	10/13/2024 1:05
	P-14	RVI	78	604.91	570.93	72.03	10/13/2024 1:40	574.71	3.78	○	10/13/2024 1:30
Lower Rouge	P-15	WRVI	24	667.57	651.67	1.57	10/13/2024 21:10	652.54	0.87	○	10/13/2024 20:35
	P-17	LRIR	30	641.21	632.39	4.60	10/13/2024 20:40	633.68	1.29	○	10/13/2024 21:10
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	3.38	10/13/2024 0:55	-	0.87	○	10/13/2024 1:15
	P-19	RVI	48	630.34	621.54	7.58	10/13/2024 21:05	622.85	1.31	○	10/13/2024 21:25
	WE-28	CS	30	-	-	2.02	10/12/2024 23:05	-	0.55	○	10/12/2024 23:15
	P-21	RVI	54	620.17	608.14	11.12	10/13/2024 21:40	609.36	1.22	○	10/13/2024 22:05
	P-25	RVI	60	598.36	588.06	33.44	10/12/2024 23:50	589.78	1.72	○	10/13/2024 0:35
	P-20	WI	48	630.66	619.72	8.50	10/12/2024 23:20	621.70	1.98	○	10/12/2024 23:50
	P-24	RVI	36	594.24	584.52	13.52	10/13/2024 0:35	585.78	1.26	○	10/13/2024 0:50
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	110.01	10/13/2024 4:20	565.80	9.99	◉	10/13/2024 1:55
	WC-S-2	MRPIE	66	616.00	570.66	17.61	10/13/2024 2:35	579.76	9.10	◉	10/13/2024 2:10
	WC-S-3	MRIR	72	613.51	570.84	30.42	10/13/2024 2:05	579.23	8.39	◉	10/13/2024 1:15

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⊘
Surcharging sewer, grade elevation known:	◉
Above grade:	●
Data Not Available:	-

Table 6-10
Rouge Valley Sewage Disposal System
Peak Hydraulic Gradeline Summary for Significant Storm Event 10

Branch	Meter	Interceptor or Community Sewer	Sewer Height (inches)	Manhole Rim (feet, NAVD88)	Sewer Invert (feet, NAVD88)	Event 10 12/29-30/2024 1.47 in					
						Peak Recorded Hourly Flow Rate (cfs)	Time	Peak Recorded Depth (feet)			Time
								Elevation (NAVD88)	Above Invert	-	
Middle Rouge	BG-1	HRTS	42	821.59	797.17	13.28	12/29/2024 15:55	798.69	1.52	○	12/29/2024 16:35
	P-1	NAI	48	740.82	716.31	16.31	12/29/2024 17:35	717.69	1.38	○	12/29/2024 17:20
	P-3	MRIR	36	681.37	652.48	17.33	12/29/2024 18:10	653.87	1.39	○	12/29/2024 18:50
	P-26	PWI	30	649.24	647.86	1.47	12/29/2024 18:25	648.33	0.47	○	12/29/2024 18:35
	P-7	PWI	48	649.09	625.23	2.16	12/29/2024 19:25	626.37	1.14	○	12/29/2024 19:25
	LV-16	CS	48	-	627.38	4.46	12/29/2024 18:10	628.37	0.99	○	12/29/2024 18:30
	FE-22	RVI	48	685.04	644.88	1.16	12/30/2024 8:05	645.46	0.58	○	12/30/2024 8:00
	P-8	RVI	48	645.40	621.80	2.28	12/29/2024 14:05	622.45	0.65	○	12/29/2024 13:15
	WE-14	CS	42	-	613.48	7.57	12/29/2024 16:10	615.22	1.74	○	12/29/2024 16:35
	LV-15	CS	60	636.29	617.03	3.22	12/29/2024 18:15	619.82	2.79	○	12/29/2024 17:05
	M-22 MP#1	CS	42	630.49	614.41	-	-	620.39	5.98	◉	12/29/2024 17:00
	M-22 MP#2	CS	42	630.49	614.41	-	-	623.04	8.63	◉	12/30/2024 7:15
	M-2	CS	27	636.70	612.39	8.91	12/30/2024 1:10	614.08	1.69	○	12/29/2024 23:50
	M-1	CS	72	630.59	607.59	17.50	12/29/2024 18:05	614.26	6.67	◉	12/30/2024 2:50
	LV-14	CS	60	612.02	605.57	5.84	12/30/2024 1:05	606.51	0.94	○	12/29/2024 16:15
	P-28	RVI	54	629.02	607.92	3.56	12/29/2024 22:05	610.38	2.46	○	12/29/2024 20:30
	P-29	CS	42	-	-	8.56	12/29/2024 17:25	-	2.72	○	12/29/2024 21:05
	LV-20	CS	54	-	-	-	-	-	-	-	-
	LV-BASIN	RVI	54	632.00	602.01	35.76	12/30/2024 1:10	605.97	3.96	○	12/29/2024 19:20
	LV-4	CS	30	652.59	638.51	7.46	12/29/2024 15:20	640.31	1.80	○	12/29/2024 15:40
	LV-11	CS	42	-	-	11.73	12/29/2024 18:50	-	1.17	○	12/29/2024 19:15
	P-12	RVI	60	613.41	597.67	36.28	12/29/2024 20:25	600.36	2.69	○	12/30/2024 2:00
	P-9	MRIR	42	610.36	597.01	19.37	12/30/2024 1:50	599.61	2.60	○	12/30/2024 2:15
	P-10	RVI	66	607.65	595.62	63.58	12/30/2024 2:00	598.71	3.09	○	12/30/2024 2:30
	P-11	MRPIE	48	607.91	596.68	32.00	12/30/2024 2:25	599.76	3.08	○	12/29/2024 19:25
	P-13	MRPIE	54	613.22	586.85	32.64	12/29/2024 17:30	592.00	5.15	◉	12/30/2024 3:35
	P-35	MRIR	54	597.62	584.15	42.07	12/29/2024 21:35	590.49	6.34	◉	12/30/2024 3:25
	P-34	RVI	62	595.60	582.30	58.83	12/29/2024 21:35	589.88	7.58	◉	12/30/2024 3:30
	P-33	MRPIE	48	597.01	585.22	32.46	12/29/2024 18:30	590.34	5.12	◉	12/30/2024 3:25
	P-32	MRIR	66	597.03	578.79	44.31	12/30/2024 1:40	587.70	8.91	◉	12/30/2024 3:40
	P-31	RVI	78	599.00	578.71	88.90	12/30/2024 2:35	587.94	9.23	◉	12/30/2024 3:25
	P-30	MRPIE	60	593.00	580.29	44.11	12/30/2024 3:05	588.05	7.76	◉	12/30/2024 3:45
	P-14	RVI	78	604.91	570.93	106.60	12/30/2024 7:40	581.64	10.71	◉	12/30/2024 3:30
Lower Rouge	P-15	WRVI	24	667.57	651.67	2.25	12/29/2024 16:20	652.81	1.14	○	12/29/2024 16:40
	P-17	LRIR	30	641.21	632.39	4.54	12/30/2024 2:35	633.65	1.26	○	12/29/2024 15:40
	FE-19	CS	-	-	-	0.00	-	-	-	-	-
	WE-25	CS	27	-	-	6.37	12/29/2024 16:30	-	1.18	○	12/29/2024 16:50
	P-19	RVI	48	630.34	621.54	9.92	12/29/2024 16:35	-	-	-	-
	WE-28	CS	30	-	-	4.13	12/29/2024 15:20	-	0.90	○	12/29/2024 15:30
	P-21	RVI	54	620.17	608.14	21.74	12/30/2024 3:55	-	-	-	-
	P-25	RVI	60	598.36	588.06	38.25	12/30/2024 5:05	590.36	2.30	○	12/29/2024 22:15
	P-20	WI	48	630.66	619.72	10.02	12/29/2024 15:35	621.94	2.22	○	12/29/2024 16:10
	P-24	RVI	36	594.24	584.52	16.40	12/29/2024 16:15	585.93	1.41	○	12/29/2024 16:30
RVSDS Outlet	WC-S-1	RVI	102	587.95	555.81	148.39	12/29/2024 23:35	565.81	10.00	◉	12/29/2024 15:15
	WC-S-2	MRPIE	66	616.00	570.66	31.53	12/30/2024 3:30	580.65	9.99	◉	12/29/2024 16:50
	WC-S-3	MRIR	72	613.51	570.84	81.20	12/30/2024 4:25	580.84	10.00	◉	12/29/2024 17:15

Interceptor Key	
CS	Community Sewer
HRTS	Huron Rouge Trunk Sewer
LRIR	Lower Rouge Interceptor Relief
NWI	Northwest Interceptor
MRPIE	Middle Rouge Parkway Interceptor Extension
MRIR	Middle Rouge Interceptor Relief
NAI	Northville Arm Interceptor
PWI	Parkway Interceptor
RVI	Rouge Valley Interceptor
WI	Wayne Interceptor
WRVI	Wayne-Romulus-Van Buren Interceptor

Key	
Within sewer:	○
Surcharging sewer, grade elevation unknown:	⊗
Surcharging sewer, surcharging level exceeded top of range for level sensor:	⊘
Surcharging sewer, grade elevation known:	◉
Above grade:	●
Data Not Available:	-

Table 6-11
Rouge Valley Sewage Disposal System
Flow Rate Continuity Check

Meter Grouping	Relative Location	Monthly Average Dry Weather Flow Rate (cfs)												Annual Average (cfs)
		Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	
Comparison 1														
[WC-S-2] + [WC-S-3] + [P-14]	Downstream	65.1	69.2	63.9	74.4	65.4	57.3	64.4	54.3	45.0	41.0	42.5	46.7	62.1
[P-30] + [P-31]+ [P-32]	Upstream	56.6	65.2	61.0	69.9	62.2	53.5	59.1	50.1	43.3	39.2	40.1	43.1	57.8
	Incremental	8.5	4.0	2.9	4.5	3.2	3.8	5.3	4.2	1.7	1.8	2.4	3.6	4.3
Comparison 2														
[WC-S-2] + [WC-S-3] + [P-14]	Downstream	65.1	69.2	63.9	74.4	65.4	57.3	64.4	54.3	45.0	41.0	42.5	46.7	62.1
[P-9] + [P-10] + [P-11] + [P-13]	Upstream	50.4	60.6	55.1	64.4	58.6	52.5	58.1	49.9	42.2	38.4	39.1	42.3	54.6
	Incremental	14.7	8.6	8.8	10.0	6.8	4.8	6.3	4.4	2.8	2.6	3.4	4.4	7.5
Comparison 3														
[P-30] + [P-31]+ [P-32]	Downstream	56.6	65.2	61.0	69.9	62.2	53.5	59.1	50.1	43.3	39.2	40.1	43.1	57.8
[P-13] + [P-33] + [P-34]+ [P-35]	Upstream	54.3	63.5	57.8	66.4	58.9	53.7	60.2	51.4	44.5	40.2	40.4	43.9	56.7
	Incremental	2.3	1.7	3.2	3.5	3.3	-0.2	-1.1	-1.3	-1.2	-1.0	-0.3	-0.8	1.1
Comparison 4														
[P-33] + [P-34] + [P-35]	Downstream	44.5	51.7	46.9	53.2	47.8	44.5	49.5	41.8	37.8	34.3	34.3	37.1	46.4
[P-9] + [P-10] + [P-11]	Upstream	40.6	48.8	44.3	51.2	47.5	43.3	47.5	40.3	35.5	32.5	33.0	35.5	44.3
	Incremental	3.9	2.9	2.6	2.0	0.3	1.2	2.0	1.5	2.3	1.8	1.3	1.6	2.1
Comparison 5														
[WC-S-1]	Downstream	55.3	62.7	58.3	64.9	58.3	52.5	55.1	47.8	43.7	42.6	42.9	45.2	55.4
[P-14]+[P-24]+[P-25]	Upstream	57.1	65.5	61.5	68.7	62.2	55.2	57.4	51.5	48.1	45.0	45.9	49.0	58.5
	Incremental	-1.8	-2.8	-3.2	-3.8	-3.9	-2.7	-2.3	-3.7	-4.4	-2.4	-3.0	-3.8	-3.1
Comparison 6														
[P-24] + [P-25]	Downstream	17.2	21.0	19.4	22.0	19.3	16.0	15.1	14.4	14.8	13.8	14.0	15.3	17.7
[P-20] + [P-21]	Upstream	12.7	15.5	13.7	14.7	13.0	11.1	10.7	9.4	9.2	8.7	8.8	9.7	12.2
	Incremental	4.5	5.5	5.7	7.3	6.3	4.9	4.4	5.0	5.6	5.1	5.2	5.6	5.5
Comparison 7														
[P-21]	Downstream	9.8	10.6	9.1	10.9	9.8	8.4	8.1	7.2	7.2	6.8	6.8	7.1	9.0
[P-19] + [WE-28]	Upstream	8.7	9.8	8.6	10.1	9.0	7.5	7.2	6.3	6.2	5.9	5.9	6.2	8.1
	Incremental	1.1	0.8	0.5	0.8	0.8	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9
Comparison 8														
[P-19]	Downstream	7.1	8.0	7.0	8.1	7.3	6.0	5.7	5.2	5.2	4.9	4.9	5.1	6.6
[P-17] + [WE-25] + [FE-19]	Upstream	5.9	6.7	5.8	6.7	6.1	5.3	5.3	4.9	4.8	4.4	4.4	4.5	5.7
	Incremental	1.2	1.3	1.2	1.4	1.2	0.7	0.4	0.3	0.4	0.5	0.5	0.6	0.9
Comparison 9														
[P-3] + [P-26]	Downstream	11.6	11.8	11.1	11.3	11.0	10.6	11.0	10.8	10.3	9.5	9.7	9.8	11.0
[P-1]	Upstream	9.9	10.2	9.5	10.1	9.8	9.1	9.5	9.4	9.1	8.6	8.6	8.9	9.6
	Incremental	1.7	1.6	1.6	1.2	1.2	1.5	1.5	1.4	1.2	0.9	1.1	0.9	1.4
Comparison 10														
[P-1]	Downstream	9.9	10.2	9.5	10.1	9.8	9.1	9.5	9.4	9.1	8.6	8.6	8.9	9.6
[BG-1]	Upstream	8.0	8.1	7.6	8.0	7.8	7.4	7.7	7.7	7.4	6.9	7.1	7.3	7.7
	Incremental	1.9	2.1	1.9	2.1	2.0	1.7	1.8	1.7	1.7	1.7	1.5	1.6	1.9
Comparison 11														
[P-12]	Downstream	15.1	18.2	16.0	18.9	15.8	14.1	16.6	13.7	11.5	10.4	10.8	11.8	15.5
[LV-Basin] + [LV-11]	Upstream	15.0	17.4	15.7	17.6	15.1	13.7	15.6	12.8	11.1	10.1	10.5	11.6	14.9
	Incremental	0.1	0.8	0.3	1.3	0.7	0.4	1.0	0.9	0.4	0.3	0.3	0.2	0.6

Table 6-12

Rouge Valley Sewage Disposal System

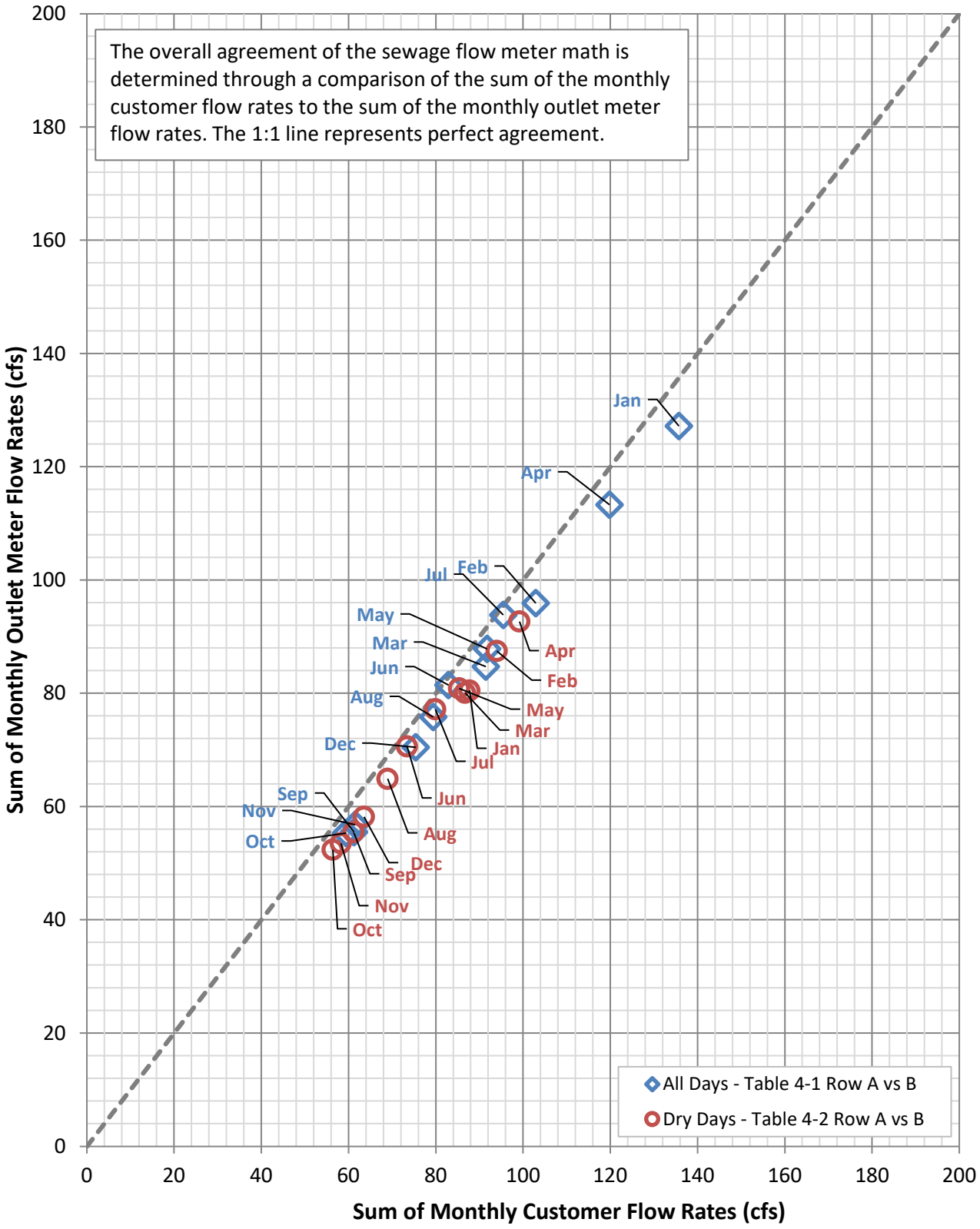
Monthly Average Dry Weather Flow Rate Versus Residential Population Check

Meter Grouping	Year 2020 Residential Population	Metric	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Estimated Annual Average	Percent of Area as Residential	Residential Area (acres)	Total Developed Land (Acres)
[BG-1]	51,761	cfs	8.0	8.1	7.6	8.0	7.8	7.4	7.7	7.7	7.4	6.9	7.1	7.3	7.6	62%	7,768	12,473
		GPCD	*100.1*	*101.6*	*95.3*	*100.2*	*97.6*	*92.3*	*96.0*	*95.6*	*92.1*	*86.8*	*88.1*	*91.0*	*94.7*			
[P-1]	57,801	cfs	9.9	10.2	9.5	10.1	9.8	9.1	9.5	9.4	9.1	8.6	8.6	8.9	9.4	63%	8,421	13,361
		GPCD	*110.3*	*114.1*	*106.4*	*112.4*	*109.2*	*102.0*	*106.0*	*104.9*	*101.4*	*96.2*	*96.5*	*100.0*	*104.9*			
[P-3] + [P-26]	63,945	cfs	11.6	11.8	11.1	11.3	11.0	10.6	11.0	10.8	10.3	9.5	9.7	9.8	10.7	63%	8,762	13,982
		GPCD	*116.7*	*119.1*	*112.6*	*113.8*	*111.2*	*107.3*	*111.4*	*108.7*	*104.4*	*96.5*	*98.1*	*99.6*	*108.2*			
[P-3] + [P-7]	68,199	cfs	12.4	13.0	12.1	12.4	12.0	11.6	12.2	11.7	11.2	10.4	10.5	10.7	11.7	62%	9,264	15,018
		GPCD	*118.0*	*122.8*	*114.7*	*117.6*	*114.1*	*109.5*	*115.7*	*111.2*	*105.9*	*98.3*	*99.7*	*101.3*	*110.7*			
[P-8]	8,156	cfs	2.0	2.4	2.0	2.4	2.2	2.0	2.0	1.7	1.6	1.5	1.6	1.6	1.9	42%	378	892
		GPCD	*155.8*	*187.0*	*160.5*	*191.8*	*175.5*	*156.9*	*156.8*	*132.4*	*127.3*	*122.6*	*124.3*	*130.5*	*151.6*			
[LV-16]	4,737	cfs	1.6	2.2	1.8	2.2	1.9	1.6	2.3	1.4	1.3	1.2	1.1	1.2	1.6	62%	599	963
		GPCD	*215.4*	*297.9*	*252.0*	*299.1*	*256.5*	*220.8*	*307.9*	*194.8*	*172.2*	*159.2*	*154.7*	*167.8*	*224.6*			
[LV-15]	7,162	cfs	1.1	1.3	1.2	1.2	1.3	1.2	1.2	0.9	0.8	0.8	0.7	0.8	1.1	81%	484	596
		GPCD	*101.6*	*118.6*	*111.0*	*112.8*	*114.9*	*104.4*	*110.6*	*83.3*	*75.3*	*72.0*	*67.2*	*71.3*	*95.2*			
[WE-14]	27,348	cfs	4.4	5.0	4.5	5.0	4.7	4.3	4.6	3.9	3.8	3.6	3.6	3.8	4.3	60%	2,000	3,348
		GPCD	*102.9*	*119.0*	*106.0*	*117.9*	*110.1*	*100.6*	*108.8*	*91.6*	*90.3*	*85.0*	*86.2*	*89.0*	*100.5*			
[M-2]	13,503	cfs	2.7	2.8	2.6	3.2	2.8	2.3	2.3	1.7	1.6	1.5	1.6	1.7	2.2	81%	1,143	1,409
		GPCD	*127.1*	*134.5*	*122.9*	*151.7*	*132.8*	*108.8*	*111.0*	*83.2*	*78.5*	*70.9*	*74.9*	*83.4*	*106.5*			
[M-1]	14,646	cfs	3.1	3.3	3.4	4.0	3.3	2.8	2.8	2.3	2.0	1.9	2.0	2.2	2.8	81%	1,181	1,453
		GPCD	*137.9*	*144.4*	*149.0*	*176.1*	*147.7*	*122.2*	*123.2*	*100.7*	*89.8*	*82.0*	*86.6*	*98.1*	*121.4*			
[LV-14]	7,518	cfs	1.5	1.9	1.8	2.1	1.8	1.5	1.7	1.3	1.1	1.0	1.0	1.2	1.5	56%	573	1,029
		GPCD	*133.1*	*161.6*	*151.2*	*179.8*	*152.2*	*128.3*	*142.1*	*109.4*	*92.6*	*86.2*	*89.4*	*99.1*	*126.9*			
[LV-11] + [LV-4]	27,381	cfs	7.0	7.9	7.0	8.2	6.9	6.5	7.4	5.9	5.2	4.9	5.0	5.4	6.4	49%	2,439	5,018
		GPCD	*165.4*	*187.3*	*164.9*	*193.7*	*163.6*	*152.4*	*174.3*	*139.2*	*122.3*	*116.2*	*117.5*	*128.4*	*152.0*			
[LV-11] + [LV-Basin]	67,144	cfs	15.0	17.4	15.7	17.6	15.1	13.7	15.6	12.8	11.1	10.1	10.5	11.6	13.8	64%	7,708	11,998
		GPCD	*144.3*	*167.2*	*151.0*	*169.4*	*145.5*	*131.9*	*150.1*	*123.7*	*106.7*	*97.5*	*101.0*	*111.9*	*133.2*			
[P-12]	67,562	cfs	15.1	18.2	16.0	18.9	15.8	14.1	16.6	13.7	11.5	10.4	10.8	11.8	14.4	61%	7,733	12,722
		GPCD	*144.4*	*174.1*	*153.3*	*180.5*	*151.4*	*134.8*	*158.3*	*130.9*	*109.7*	*99.9*	*103.0*	*113.1*	*137.6*			
[P-9] + [P-10] + [P-11]	232,873	cfs	40.6	48.8	44.3	51.2	47.5	43.3	47.5	40.3	35.5	32.5	33.0	35.5	41.6	64%	24,438	38,468
		GPCD	*112.7*	*135.5*	*122.9*	*142.0*	*131.9*	*120.1*	*131.7*	*111.8*	*98.6*	*90.2*	*91.7*	*98.5*	*115.6*			
[P-13]	49,861	cfs	9.8	11.7	10.8	13.2	11.1	9.2	10.6	9.7	6.7	5.9	6.1	6.9	9.3	73%	3,636	4,961
		GPCD	*127.2*	*152.2*	*140.2*	*171.2*	*143.9*	*119.0*	*137.5*	*125.2*	*86.7*	*76.0*	*78.8*	*89.0*	*120.5*			
[WC-S-2] + [WC-S-3] + [P-14]	324,125	cfs	65.1	69.2	63.9	74.4	65.4	57.3	64.4	54.3	45.0	41.0	42.5	46.7	57.4	66%	30,460	46,337
		GPCD	*129.8*	*138.1*	*127.3*	*148.3*	*130.3*	*114.2*	*128.3*	*108.3*	*89.8*	*81.8*	*84.7*	*93.1*	*114.4*			
[P-15]	7,363	cfs	1.7	1.7	1.5	1.7	1.5	1.4	1.2	1.1	1.0	1.0	1.0	1.0	1.3	36%	1,626	4,471
		GPCD	*146.2*	*147.8*	*133.1*	*151.2*	*135.9*	*122.2*	*107.7*	*96.0*	*91.9*	*86.7*	*90.3*	*90.8*	*116.5*			
[P-17]	10,325	cfs	2.9	3.2	2.8	3.0	2.9	2.6	2.5	2.8	2.6	2.5	2.4	2.4	2.7	37%	2,476	6,748
		GPCD	*183.3*	*197.3*	*177.9*	*188.8*	*180.9*	*163.3*	*157.9*	*174.8*	*164.5*	*158.1*	*152.5*	*150.9*	*170.7*			
[WE-25]	15,856	cfs	3.0	3.6	3.0	3.7	3.2	2.7	2.7	2.1	2.2	1.9	1.9	2.1	2.7	70%	1,503	2,141
		GPCD	*120.4*	*145.7*	*121.7*	*150.0*	*130.3*	*111.0*	*111.4*	*85.4*	*87.7*	*77.2*	*78.5*	*84.5*	*108.5*			
[P-19] - [FE-19]	32,757	cfs	7.1	8.0	7.0	8.1	7.3	6.0	5.7	5.2	5.2	4.9	4.9	5.1	6.2	46%	4,454	9,630
		GPCD	*140.9*	*158.0*	*138.1*	*159.7*	*143.6*	*118.6*	*111.7*	*102.5*	*102.1*	*95.9*	*95.9*	*99.8*	*122.1*			
[WE-28]	13,428	cfs	1.5	1.8	1.6	2.0	1.8	1.5	1.6	1.1	1.0	1.0	1.0	1.1	1.4	72%	931	1,294
		GPCD	*74.0*	*87.0*	*74.9*	*94.9*	*84.4*	*73.9*	*75.0*	*52.2*	*50.5*	*50.5*	*48.3*	*53.4*	*68.2*			
[P-21] - [FE-19]	51,479	cfs	9.8	10.6	9.1	10.9	9.8	8.4	8.1	7.2	7.2	6.8	6.8	7.1	8.5	50%	5,665	11,264
		GPCD	*123.1*	*133.6*	*113.8*	*137.0*	*122.7*	*105.8*	*101.6*	*90.2*	*89.8*	*84.7*	*85.3*	*89.5*	*106.3*			
[P-25] - [FE-19]	67,371	cfs	11.6	12.5	11.3	13.7	11.8	9.8	9.5	9.7	10.5	9.9	10.0	10.6	10.9	54%	6,687	12,479
		GPCD	*111.1*	*119.8*	*108.1*	*131.2*	*113.3*	*93.8*	*90.9*	*93.2*	*101.0*	*94.8*	*95.5*	*101.9*	*104.5*			
[P-20]	12,544	cfs	2.9	4.8	4.6	3.8	3.3	2.7	2.6	2.3	2.1	1.9	2.0	2.6	3.0	12%	731	6,147
		GPCD	*150.2*	*248.1*	*237.0*	*194.2*	*167.8*	*139.6*	*133.9*	*116.2*	*106.6*	*98.4*	*103.8*	*132.6*	*152.0*			
[P-24]	29,697	cfs	5.6	8.5	8.2	8.3	7.5	6.3	5.6	4.7	4.3	3.9	4.0	4.7	6.0	66%	2,294	3,498
		GPCD	*122.1*	*185.6*	*177.7*	*181.6*	*164.0*	*136.1*	*122.6*	*101.3*	*92.7*	*84.3*	*87.6*	*102.9*	*129.6*			
[WC-S-1] + [WC-S-2] + [WC-S-3] - [FE-19]	421,193	cfs	80.5	87.4	80.1	92.7	80.9	70.6	77.2	64.9	55.4	52.4	53.5	58.2	71.1	59%	39,441	67,194
		GPCD	*123.5*	*134.2*	*122.8*	*142.2*	*124.1*	*108.4*	*118.4*	*99.6*	*85.1*	*80.3*	*82.1*	*89.3*	*109.1*			

Legend:

xx.x	Per capita flow rates are greater than the district-wide average by 20% or more.
xx.x	Per capita flow rates are less than the district-wide average by 20% or more.

Figure 6-1
Rouge Valley Sewage Disposal System
End of System Monthly Flow Rate Comparison



7.0 Report of Discharge

This section summarizes the estimated Sanitary Sewer Overflow (SSO) discharges, Retention Treatment Basin (RTB) discharges, uncontrolled Combined Sewer Overflow (CSO) discharges, and any other known discharges from Wayne County owned and/or operated assets within the RVSDS which occurred during 2024. SSO/RTB/CSO discharges related to community owed and/or operated assets, if any, are not documented in this report. Detailed information regarding discharges is available on the Michigan Department of Environment, Great Lakes, and Energy (EGLE) MiWaters website (https://miwaters.deq.state.mi.us/).

Table 7-1 presents the estimated SSO discharges from three former combined sewer overflow outfalls (M-21, M-22 and M-25) on the Middle Rouge Interceptor. These former combined sewer overflow outfalls remain open pending completion of the Long-Term Corrective Action Plan under Final Order of Abatement 2117 (AFO-SW12-002), as amended.

Table 7-2 presents the estimated RTB discharges from the Dearborn Heights CSO RTB, Inkster CSO RTB, and Redford CSO RTB which are operated by Wayne County.

Table 7-3 presents the estimated CSO discharges from the uncontrolled CSO regulators/outfalls.

Figures A1 through A8 in Appendix A show the locations of the outfalls and facilities mentioned above.

Table 7-1
Rouge Valley Sewage Disposal System
Estimated SSO from Regulators/Outfalls M-21, M-22 and M-25

Significant Storm Event	Date	Precipitation (inches)	Estimated SSO Discharge (MG)		
			Outfall M-21	Outfall M-22	Outfall M-25
1	January 9, 2024 – January 13, 2024	1.84	0	0	0
2	January 22, 2024 – January 31, 2024	2.67	4.1	6.5	0
3	April 10, 2024 – April 12, 2024	1.71	0	0	0
4	April 28, 2024 – April 30, 2024	1.08	0	0	0
5	May 26, 2024 – May 27, 2024	1.48	0	0	0
6	June 28, 2024 – June 29, 2024	1.35	0	0	0
7	July 9, 2024 – July 11, 2024	2.21	0.1	5.0	0
8	August 6, 2024	1.16	0	0	0
9	October 12, 2024 – October 14, 2024	1.38	0	0	0
10	December 29, 2024 – December 30, 2024	1.47	0	0	0
Total			4.2	11.5	0

Table 7-2
Rouge Valley Sewage Disposal System
Estimated RTB Discharge from Wayne County Operated CSO RTBs

Significant Storm Event	Date	Precipitation (inches)	Estimated RTB Discharge (MG)		
			Dearborn Heights CSO RTB	Inkster CSO RTB	Redford CSO RTB
1	January 9, 2024 – January 13, 2024	1.84	0	0	0
2	January 22, 2024 – January 31, 2024	2.67	11.3	5.7	0
3	April 10, 2024 – April 12, 2024	1.71	0	0	0
4	April 28, 2024 – April 30, 2024	1.08	0	0	0
5	May 26, 2024 – May 27, 2024	1.48	0	0	0
6	June 28, 2024 – June 29, 2024	1.35	0	0	0
7	July 9, 2024 – July 11, 2024	2.21	0	0.47	1.98
8	August 6, 2024	1.16	0	0	0
9	October 12, 2024 – October 14, 2024	1.38	0	0	0
10	December 29, 2024 – December 30, 2024	1.47	0	0	0
Total			11.3	6.2	2.0

Table 7-3
Rouge Valley Sewage Disposal System
Estimated CSO from Uncontrolled CSO Regulators/Outfalls

Significant Storm Event	Date	Precipitation (inches)	Estimated Uncontrolled CSO Discharge (MG)												
			MI0051489			MI0051462	MI0051535							MI0051471	Total
			M-13	M-14	U-1	L-41	U-2	U-3	U-4	U-5	U-9	U-10	U-11	010	
1	January 9, 2024 – January 13, 2024	1.84	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.3
2	January 22, 2024 – January 31, 2024	2.67	2.2	1.8	1.9	15.0	10.6	0.3	0.1	0.6	1.3	0.5	3.1	6.7	44.1
3	April 10, 2024 – April 12, 2024	1.71	0.3	0.2	0.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	5.4
-	April 17, 2024	0.57	0.1	0.1	0.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.8
-	April 19, 2024	0.40	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.4
4	April 28, 2024 – April 30, 2024	1.08	0.5	0.5	0.5	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	10.3
5	May 26, 2024 – May 27, 2024	1.48	0.3	0.2	0.2	3.1	6.7	0.2	0.1	0.4	0.8	0.3	1.9	1.9	16.1
-	June 5, 2024	0.66	0.1	0.1	0.1	0.2	2.7	0.1	0.0	0.2	0.3	0.1	0.8	0.0	4.7
-	June 20, 2024	0.08	0.2	0.2	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
-	June 25, 2024	0.59	0.2	0.2	0.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.7
6	June 28, 2024 – June 29, 2024	1.35	0.3	0.3	0.3	2.8	8.6	0.2	0.1	0.5	1.1	0.4	2.5	1.4	18.5
7	July 9, 2024 – July 11, 2024	2.21	0.5	0.4	0.4	4.9	20.9	0.6	0.3	1.3	2.6	1.0	6.0	2.7	41.6

Table 7-3 continued
Rouge Valley Sewage Disposal System
Estimated CSO from Uncontrolled CSO Regulators/Outfalls

Significant Storm Event	Date	Precipitation (inches)	Estimated Uncontrolled CSO Discharge (MG)												
			MI0051489			MI0051462	MI0051535							MI0051471	Total
			M-13	M-14	U-1	L-41	U-2	U-3	U-4	U-5	U-9	U-10	U-11	010	
-	July 16, 2024	0.92	0.3	0.3	0.3	2.8	3.5	0.1	0.0	0.2	0.4	0.2	1.0	1.5	10.6
-	July 22, 2024	0.28	0.2	0.2	0.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	4.1
-	August 2, 2024	0.48	0.2	0.1	0.1	2.1	57.5	1.5	0.7	3.4	7.1	2.7	16.6	1.3	93.3
8	August 6, 2024	1.16	0.3	0.2	0.3	3.6	5.2	0.1	0.1	0.3	0.6	0.2	1.5	2.2	14.6
-	August 18, 2024	0.66	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.9
-	August 28, 2024	0.95	0.3	0.2	0.3	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	4.4
9	October 12, 2024 – October 14, 2024	1.38	0.3	0.2	0.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	4.0
-	November 10, 2024	0.72	0.1	0.1	0.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.8
10	December 29, 2024 – December 30, 2024	1.47	0.2	0.2	0.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.9
Total			6.6	5.5	5.8	62.8	116	3.1	1.4	6.9	14.2	5.4	33.4	37.0	297.8

8.0 Data Edits and Flow Meter Reports

The flow monitoring data were reviewed and edited as summarized on Table 8-1. Figure 8-1 shows charts of the flow meter maintenance issue that occurred during the quarter.

Figures 8-2 through 8-44 are detailed quarterly reports for each flow meter. These figures show a plot of the daily average flow rate with wet and dry days identified and daily total precipitation, a plot of the typical weekday and weekend diurnal pattern, a summary table of monthly flow rate statistics, and a summary table of significant storm event statistics.

Table 8-1
Rouge Valley Sewage Disposal System
Notable Data Edits

Meter	Period		Issue	Fix Applied
	Start	Stop		
P-8	8/27/2024	8/28/2024	Missing data due to a power outage.	Correlation to Meter P-1
P-9	7/10/2024	7/15/2024	Missing data due to monitor issue. The monitor was replaced.	Correlation to Meter P-35
P-17	11/14/2024	11/15/2024	Missing data due to a monitor error.	Correlation to Meter P-19
P-19	8/27/2024	8/28/2024	Missing data due to a power outage.	Correlation to Meter P-1
	12/21/2024	12/31/2024	Missing data due to loss of power in cabinet.	Correlation to Meter P-15 & P-17
P-21	12/21/2024	12/31/2024	Missing data due to a monitor error.	Correlation to Meter P25
P-24	8/27/2024	8/29/2024	Missing data due to a power outage.	Correlation to Meter P-20
P-30	2/16/2024	4/26/2024	Temporarily removed for sewer work on 2/16/2024 and reinstalled on 4/26/24.	Correlation to Meter P-32
P-31	4/26/2024	6/5/2024	Temporarily removed for sewer work on 4/26/2024 and reinstalled on 6/5/2024.	Correlation to Meter P-32
P-33	6/5/2024	7/1/2024	Temporarily removed for sewer work on 6/5/2024 and reinstalled on 7/1/2024.	Correlation to Meter P-11
	12/4/2024	12/12/2024	Missing data due to water damage in meter.	Correlation to Meter P-32
P-34	5/20/2024	5/23/2024	Missing data due to a monitor error.	Correlation to Meter P-35
LV-Basin	5/24/2024	5/25/2024	Missing data due to a monitor error.	Diurnal Pattern
LV-11	1/8/2024	1/18/2024	This is a local meter, the data for this meter is inconsistent and typically has unexpected shifts.	Correlation to LV-14
	9/5/2024	9/8/2024	Bad flow rate data.	Diurnal Pattern
FE-22	1/1/2024	12/31/2024	This is a local meter, the data for this meter is inconsistent and typically has unexpected shifts.	Correlation to Meter P-8
M-2	9/12/2024	9/18/2024	No data.	Correlation to Meter LV-14
M-22	10/16/2024	12/4/2024	No data due to temporary removal.	No Fix, this meter is used for SSO reporting, missing data during dry weather period
WC-S-2	7/1/2024	7/8/2024	Bad flow rate data.	Estimated with a rating curve of Depth vs Flow Rate
	7/23/2024	8/26/2024	Bad flow rate and depth data.	Correlation to Meter WC-S-3

Figure 8-1
Rouge Valley Sewage Disposal System
2024 Flow Rate Flags

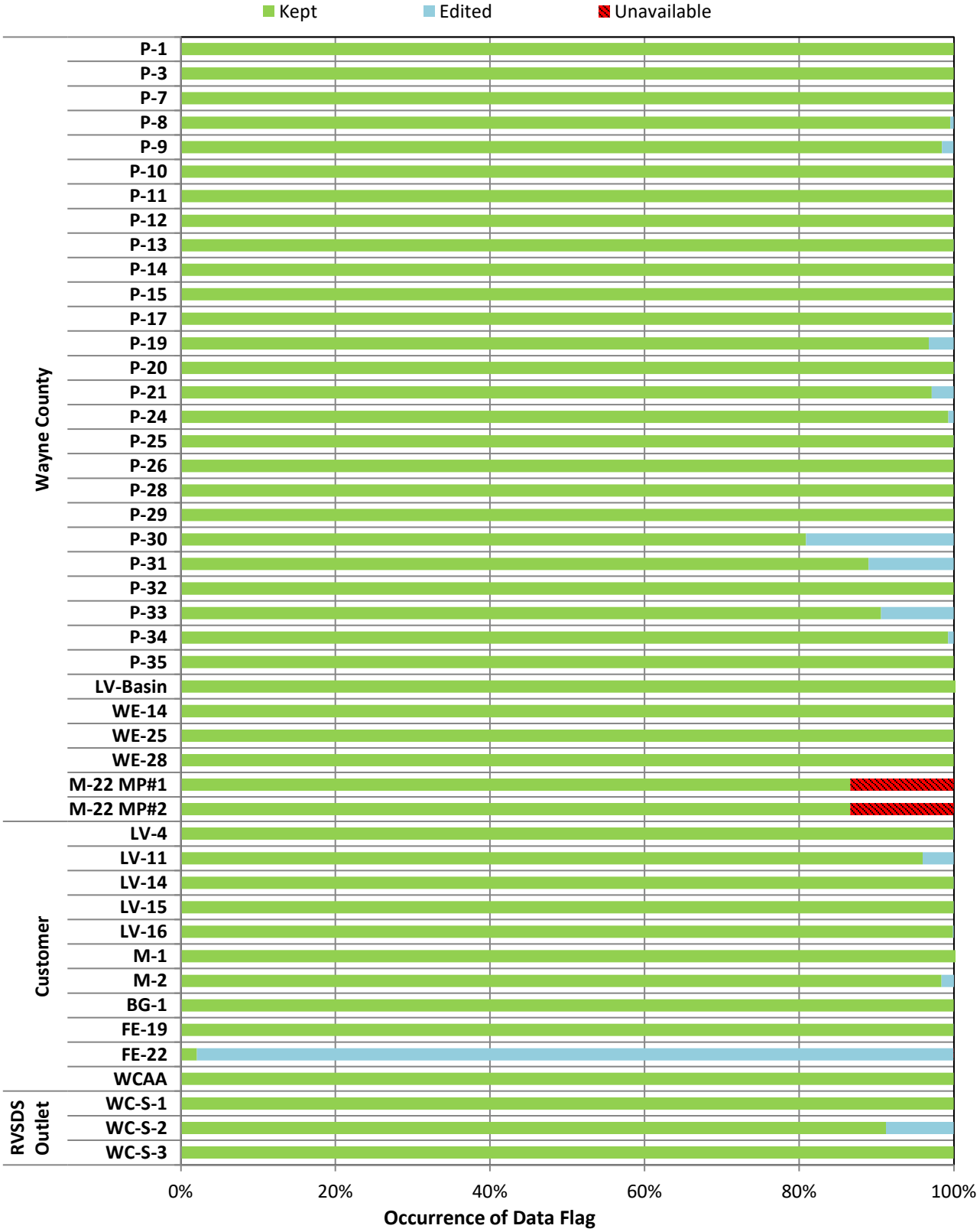
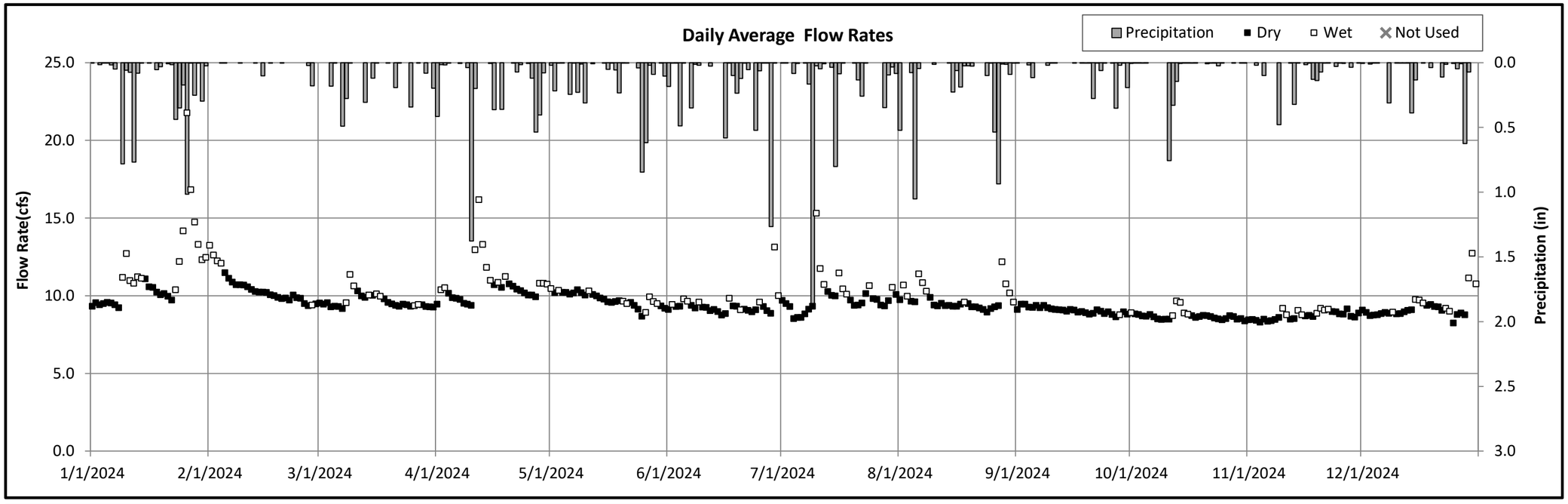


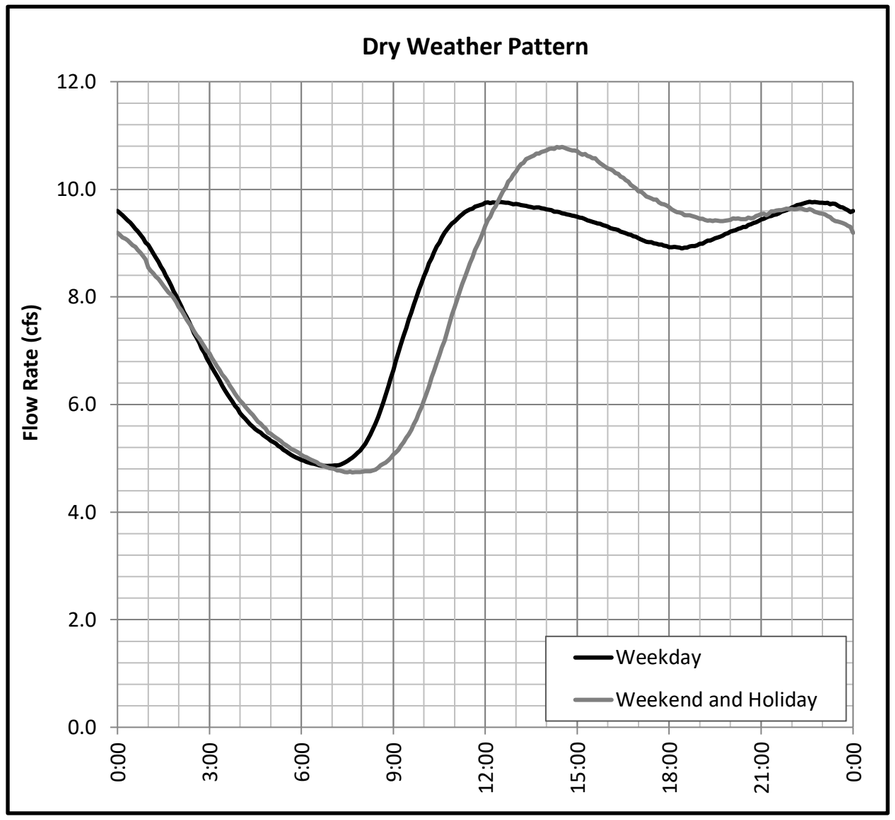
Figure 8-2
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-1
Interceptor Manhole ID: NAI 1-13A

Location: 5 Mile Road and Hines Drive
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

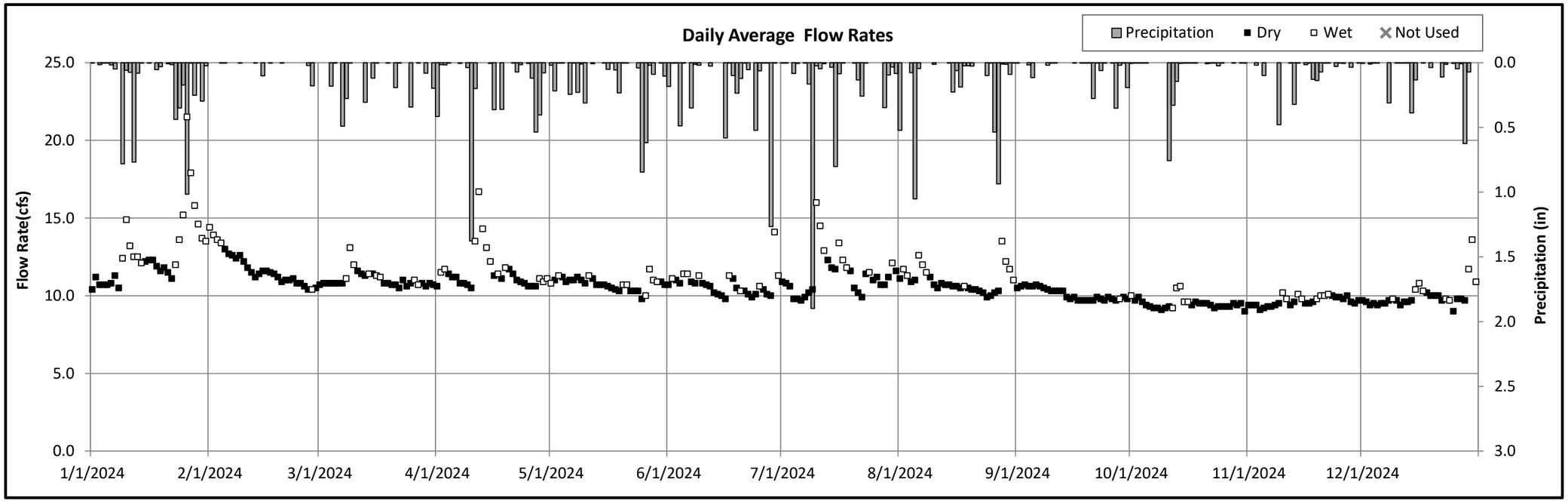
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	11.4	228.8	9.9	197.6	16	15
Feb-24	10.5	196.8	10.2	191.2	24	5
Mar-24	9.7	193.4	9.5	190.6	23	8
Apr-24	10.7	207.8	10.1	194.9	18	12
May-24	9.8	195.9	9.8	195.7	22	9
Jun-24	9.4	182.1	9.1	176.9	21	9
Jul-24	10.0	199.7	9.5	189.9	23	8
Aug-24	9.8	195.5	9.4	188.0	21	10
Sep-24	9.1	175.6	9.1	175.8	29	1
Oct-24	8.7	174.3	8.6	172.5	25	6
Nov-24	8.7	169.3	8.6	167.4	22	8
Dec-24	9.3	185.8	8.9	179.2	22	9

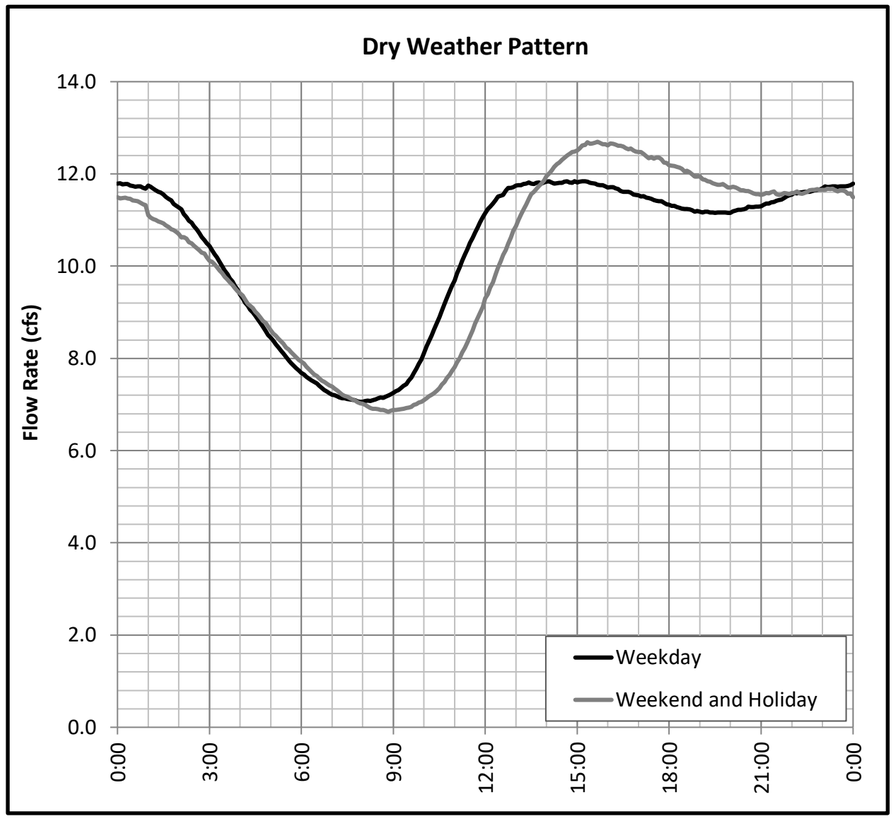
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	19.02	1/9/24 21:25	1.54	1/9/24 21:45
2	1.66	1/22/2024	1/31/2024	27.00	1/26/24 5:25	1.96	1/26/24 5:45
3	1.71	4/10/2024	4/12/2024	21.86	4/11/24 23:20	1.70	4/11/24 23:50
4	1.08	4/28/2024	4/30/2024	15.45	4/28/24 12:55	1.37	4/28/24 13:00
5	1.48	5/26/2024	5/27/2024	13.36	5/26/24 21:05	1.25	5/26/24 21:25
6	1.35	6/28/2024	6/29/2024	20.65	6/29/24 9:10	1.65	6/29/24 9:35
7	2.21	7/9/2024	7/11/2024	22.07	7/10/24 12:35	1.69	7/10/24 12:55
8	1.16	8/6/2024	8/6/2024	18.24	8/6/24 14:55	1.45	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	12.32	10/13/24 12:55	1.20	10/13/24 13:40
10	1.10	10/28/2021	10/30/2021	16.31	12/29/24 17:35	1.38	12/29/24 17:20

Figure 8-3
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-3 **Location: Plymouth Road East of I-275** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: MRIR 5C-01 **Interceptor Branch: Middle Rouge**





Monthly Statistics

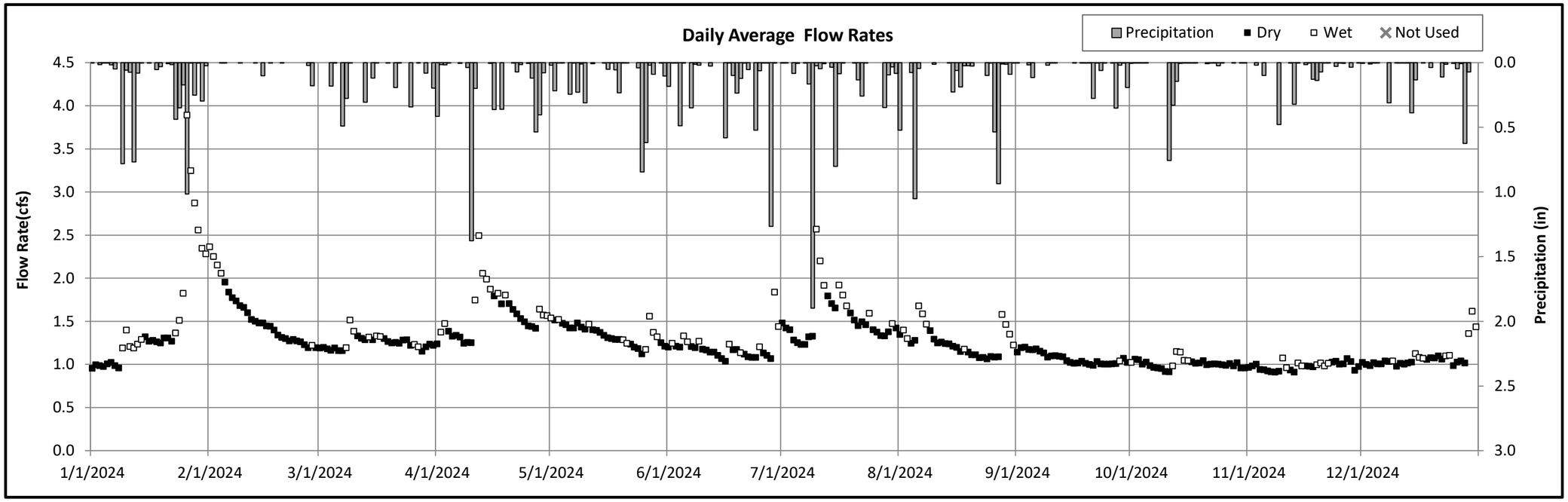
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	12.8	256.2	11.3	226.6	16	15
Feb-24	11.8	220.7	11.5	215.4	24	5
Mar-24	11.0	220.9	10.9	217.8	23	8
Apr-24	11.6	223.9	11.0	212.4	18	12
May-24	10.8	215.7	10.7	214.4	22	9
Jun-24	10.7	207.9	10.4	202.1	21	9
Jul-24	11.4	227.8	10.8	215.9	23	8
Aug-24	11.0	219.5	10.5	211.3	21	10
Sep-24	10.1	195.7	10.1	195.9	29	1
Oct-24	9.5	190.1	9.4	188.0	25	6
Nov-24	9.7	187.3	9.5	185.1	22	8
Dec-24	10.0	200.0	9.7	193.5	22	9

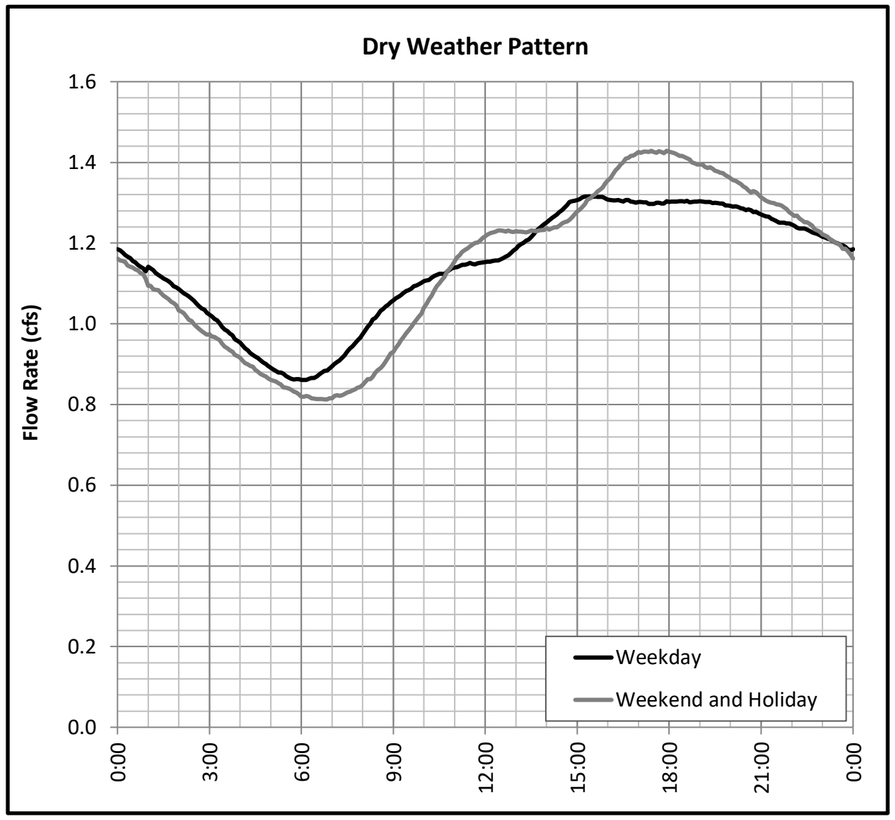
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	19.06	1/9/24 21:20	1.61	1/9/24 21:15
2	1.66	1/22/2024	1/31/2024	24.89	1/26/24 6:25	1.92	1/26/24 6:50
3	1.71	4/10/2024	4/12/2024	19.74	4/12/24 0:05	1.62	4/12/24 0:45
4	1.08	4/28/2024	4/30/2024	15.00	4/28/24 13:20	1.43	4/28/24 13:00
5	1.48	5/26/2024	5/27/2024	13.72	5/26/24 21:55	1.38	5/26/24 22:25
6	1.35	6/28/2024	6/29/2024	18.90	6/29/24 9:35	1.69	6/29/24 9:50
7	2.21	7/9/2024	7/11/2024	20.81	7/10/24 13:40	1.72	7/10/24 14:10
8	1.16	8/6/2024	8/6/2024	17.23	8/6/24 14:55	1.33	8/6/24 14:50
9	2.04	10/24/2021	10/25/2021	12.60	10/13/24 14:10	1.19	10/13/24 14:15
10	1.10	10/28/2021	10/30/2021	17.33	12/29/24 18:10	1.39	12/29/24 18:50

Figure 8-4
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-7 **Location: Joy Road West of Farmington Road** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: PWI I-03 **Interceptor Branch: Middle Rouge**





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	1.5	30.7	1.1	22.7	16	15
Feb-24	1.6	29.2	1.5	27.5	24	5
Mar-24	1.3	25.1	1.2	24.7	23	8
Apr-24	1.6	30.7	1.5	28.1	18	12
May-24	1.4	27.1	1.3	26.9	22	9
Jun-24	1.2	23.1	1.1	22.0	21	9
Jul-24	1.5	31.0	1.4	28.6	23	8
Aug-24	1.3	25.3	1.2	23.8	21	10
Sep-24	1.1	20.8	1.1	20.8	29	1
Oct-24	1.0	20.2	1.0	19.9	25	6
Nov-24	1.0	19.0	1.0	18.8	22	8
Dec-24	1.1	21.7	1.0	20.6	22	9

Statistics for Significant Wet Weather Events

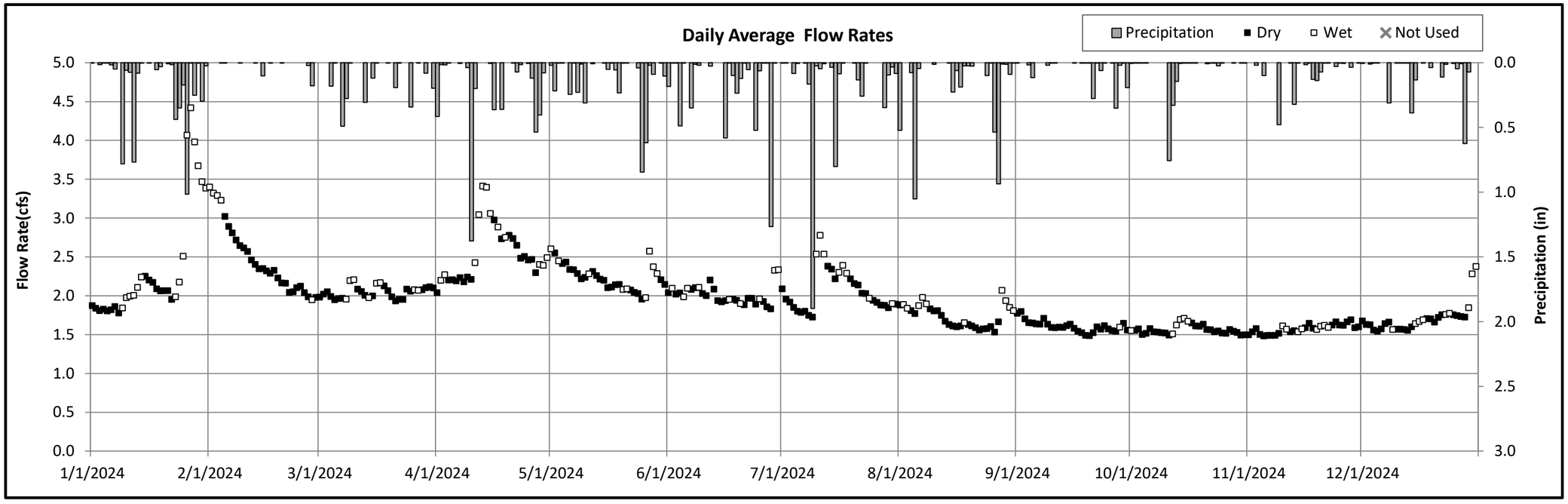
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	2.29	1/9/24 23:30	1.19	1/9/24 23:45
2	1.66	1/22/2024	1/31/2024	5.02	1/26/24 8:20	1.74	1/26/24 8:15
3	1.71	4/10/2024	4/12/2024	2.88	4/12/24 1:30	1.33	4/12/24 1:50
4	1.08	4/28/2024	4/30/2024	2.25	4/28/24 15:30	1.17	4/28/24 14:55
5	1.48	5/26/2024	5/27/2024	1.86	5/26/24 20:30	1.09	5/26/24 21:05
6	1.35	6/28/2024	6/29/2024	3.10	6/29/24 11:30	1.36	6/29/24 12:00
7	2.21	7/9/2024	7/11/2024	4.01	7/10/24 15:40	1.53	7/10/24 15:40
8	1.16	8/6/2024	8/6/2024	2.48	8/6/24 13:55	1.20	8/6/24 14:00
9	2.04	10/24/2021	10/25/2021	1.55	10/13/24 16:25	1.00	10/13/24 16:20
10	1.10	10/28/2021	10/30/2021	2.16	12/29/24 19:25	1.14	12/29/24 19:25

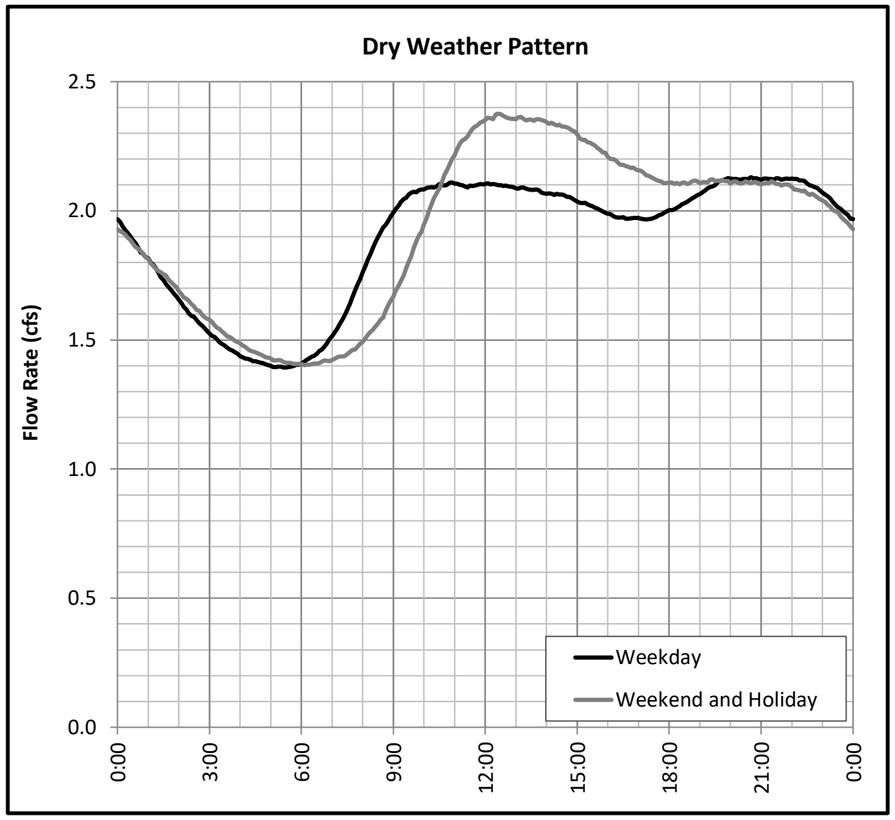
Figure 8-5
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-8
Interceptor Manhole ID: RVI 9-20

Location: Joy Road West of Farmington Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	2.4	47.4	2.0	39.4	16	15
Feb-24	2.5	46.4	2.4	44.2	24	5
Mar-24	2.0	41.0	2.0	40.6	23	8
Apr-24	2.5	49.3	2.4	46.9	18	12
May-24	2.2	44.9	2.2	44.4	22	9
Jun-24	2.0	39.0	2.0	38.4	21	9
Jul-24	2.1	41.5	2.0	39.6	23	8
Aug-24	1.7	34.8	1.7	33.5	21	10
Sep-24	1.6	31.1	1.6	31.1	29	1
Oct-24	1.6	31.3	1.5	31.0	25	6
Nov-24	1.6	30.5	1.6	30.4	22	8
Dec-24	1.7	34.1	1.6	33.0	22	9

Statistics for Significant Wet Weather Events

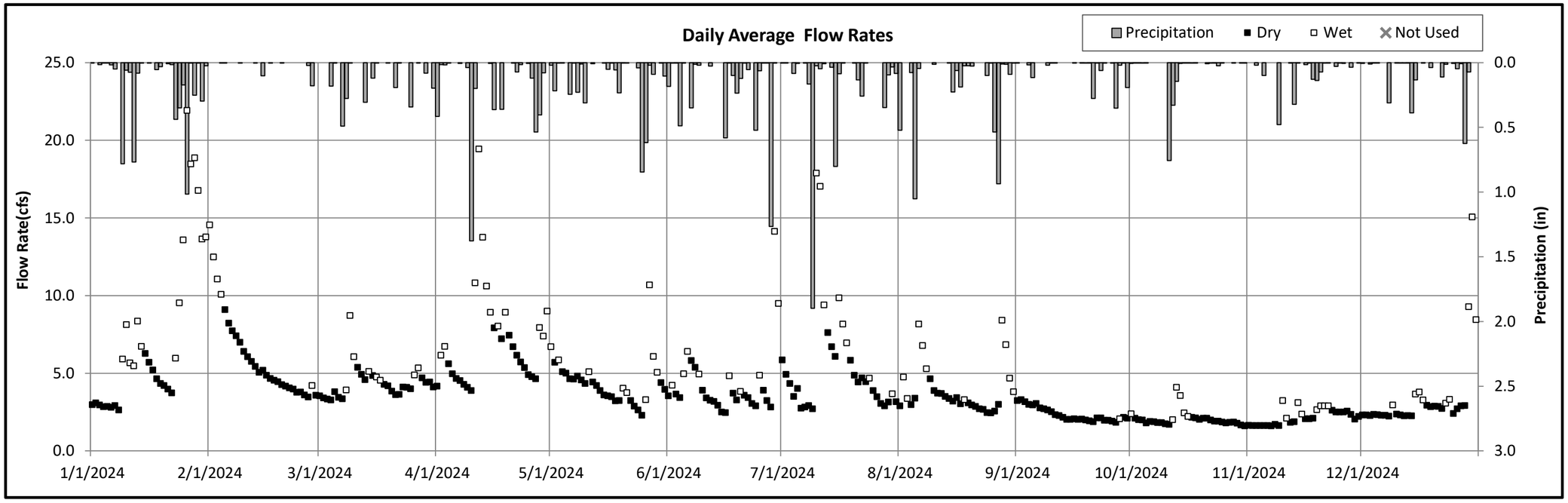
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	2.52	1/13/24 12:10	0.69	1/13/24 12:10
2	1.66	1/22/2024	1/31/2024	4.97	1/27/24 10:40	1.40	1/26/24 9:10
3	1.71	4/10/2024	4/12/2024	3.29	4/12/24 18:15	0.75	4/12/24 17:45
4	1.08	4/28/2024	4/30/2024	2.88	4/28/24 12:20	0.71	4/28/24 11:20
5	1.48	5/26/2024	5/27/2024	2.69	5/27/24 8:50	0.69	5/27/24 8:45
6	1.35	6/28/2024	6/29/2024	3.00	6/29/24 10:55	0.73	6/29/24 10:50
7	2.21	7/9/2024	7/11/2024	3.31	7/10/24 20:15	0.75	7/10/24 14:10
8	1.16	8/6/2024	8/6/2024	2.14	8/6/24 14:55	0.61	8/6/24 13:45
9	2.04	10/24/2021	10/25/2021	2.04	10/13/24 11:55	0.61	10/13/24 11:15
10	1.10	10/28/2021	10/30/2021	2.28	12/29/24 14:05	0.65	12/29/24 13:15

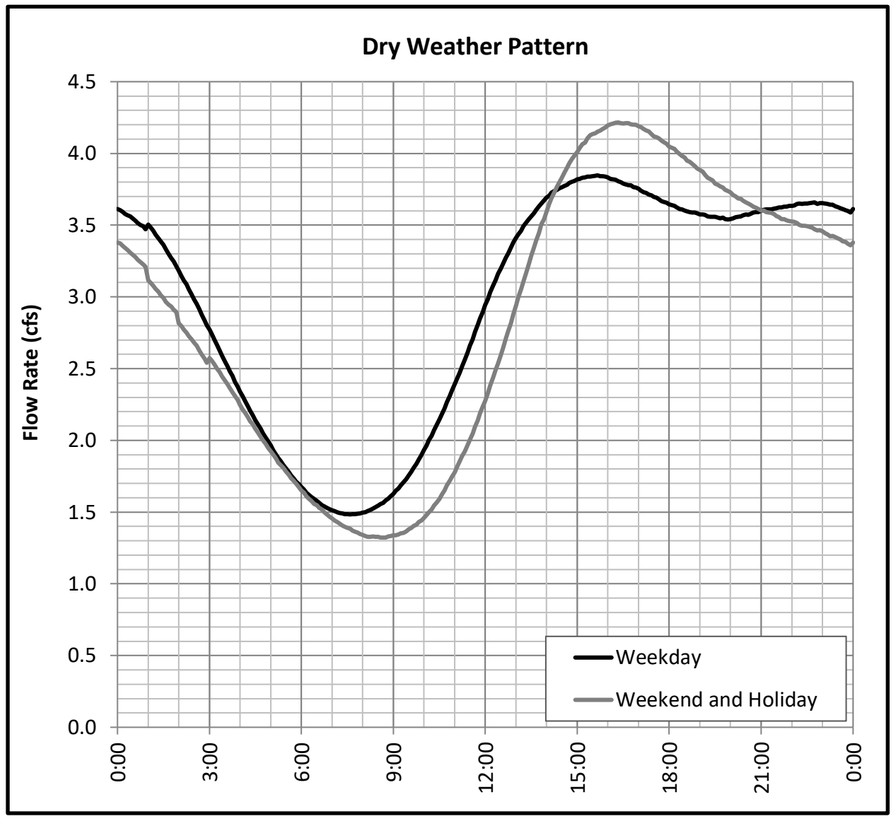
Figure 8-6
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-9
Interceptor Manhole ID: NHV 3-34

Location: Hines Drive East of Inkster Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	7.5	151.1	3.8	76.5	16	15
Feb-24	6.2	115.6	5.3	98.8	24	5
Mar-24	4.4	88.3	4.1	81.3	23	8
Apr-24	7.2	138.7	5.4	104.5	18	12
May-24	4.5	89.3	4.0	79.9	22	9
Jun-24	4.4	84.6	3.5	67.7	21	9
Jul-24	5.7	113.6	4.3	85.4	23	8
Aug-24	3.9	78.7	3.2	63.3	21	10
Sep-24	2.3	45.4	2.3	45.6	29	1
Oct-24	2.1	41.4	1.9	38.0	25	6
Nov-24	2.2	42.6	2.0	38.7	22	8
Dec-24	3.5	69.7	2.5	50.1	22	9

Statistics for Significant Wet Weather Events

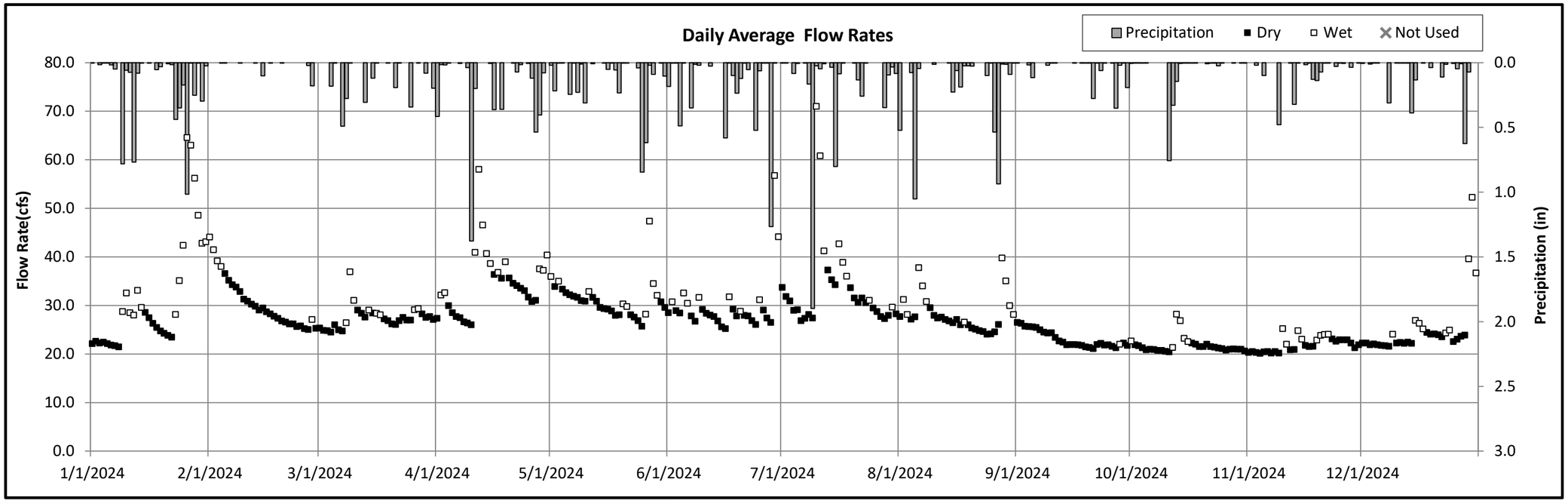
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	13.64	1/9/24 21:20	2.00	1/9/24 21:55
2	1.66	1/22/2024	1/31/2024	23.24	1/26/24 11:50	11.11	1/26/24 11:50
3	1.71	4/10/2024	4/12/2024	22.11	4/12/24 0:50	3.04	4/12/24 1:10
4	1.08	4/28/2024	4/30/2024	13.27	4/28/24 12:55	1.92	4/28/24 12:50
5	1.48	5/26/2024	5/27/2024	14.76	5/27/24 8:50	2.00	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	21.49	6/29/24 12:05	2.93	6/29/24 12:20
7	2.21	7/9/2024	7/11/2024	24.50	7/10/24 14:15	1.38	7/10/24 4:30
8	1.16	8/6/2024	8/6/2024	17.59	8/6/24 14:55	2.26	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	7.59	10/13/24 0:05	1.37	10/13/24 0:25
10	1.10	10/28/2021	10/30/2021	19.37	12/30/24 1:50	2.60	12/30/24 2:15

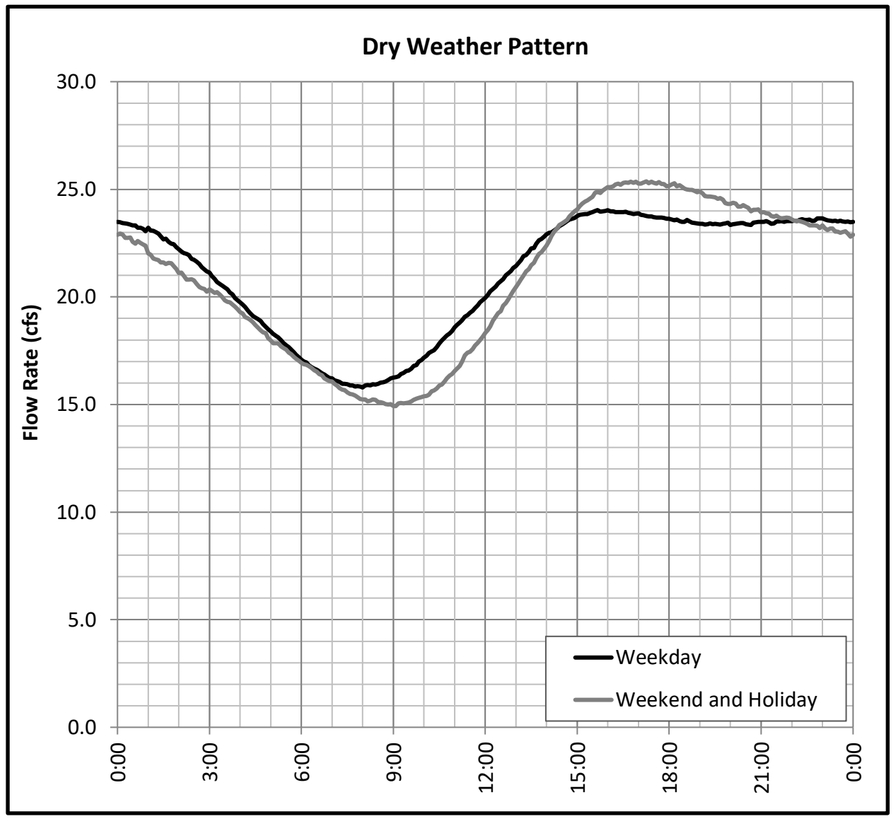
Figure 8-7
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-10
Interceptor Manhole ID: RVI 6-50

Location: Hines Drive East of Inkster Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	31.8	636.5	23.8	476.4	16	15
Feb-24	30.6	573.8	29.1	545.1	24	5
Mar-24	27.5	550.6	26.7	534.6	23	8
Apr-24	34.6	669.9	30.9	599.1	18	12
May-24	31.2	625.2	30.1	602.4	22	9
Jun-24	29.9	580.3	27.6	535.4	21	9
Jul-24	33.9	678.3	30.4	608.2	23	8
Aug-24	28.2	565.1	26.3	527.5	21	10
Sep-24	23.1	447.0	23.1	447.7	29	1
Oct-24	21.8	435.9	21.2	424.5	25	6
Nov-24	22.0	426.0	21.3	413.7	22	8
Dec-24	25.2	504.1	22.7	455.1	22	9

Statistics for Significant Wet Weather Events

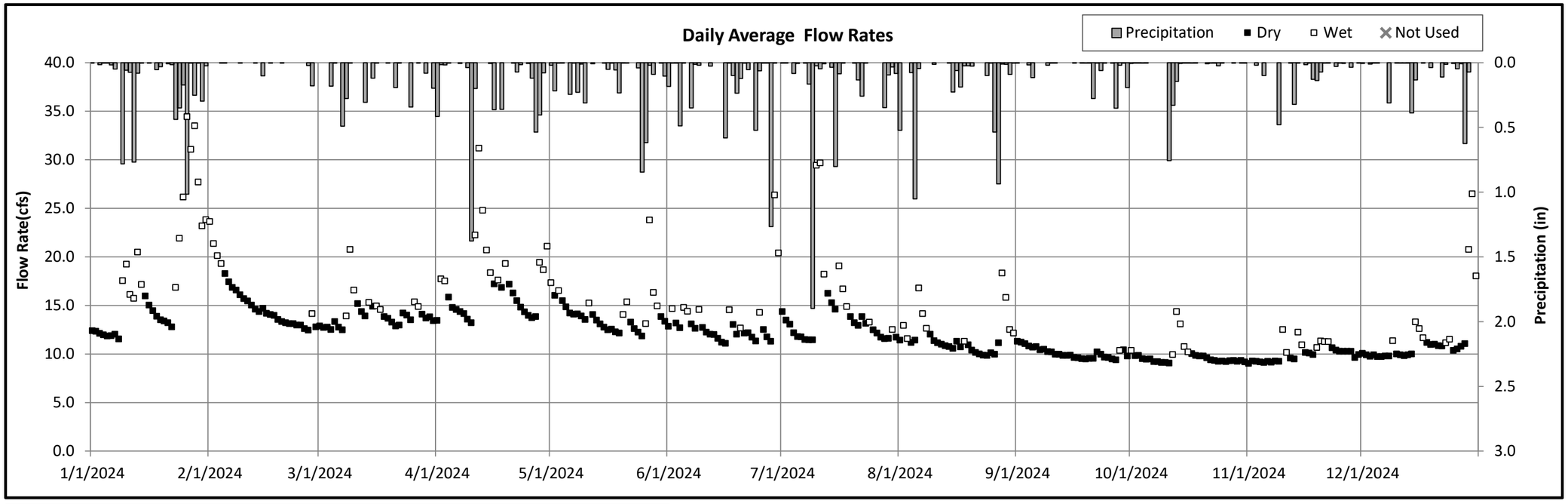
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	44.89	1/9/24 20:35	2.71	1/9/24 21:20
2	1.66	1/22/2024	1/31/2024	70.46	1/26/24 20:25	10.89	1/26/24 4:20
3	1.71	4/10/2024	4/12/2024	65.87	4/12/24 0:20	3.59	4/12/24 0:45
4	1.08	4/28/2024	4/30/2024	45.65	4/28/24 11:50	2.82	4/28/24 11:40
5	1.48	5/26/2024	5/27/2024	57.08	5/27/24 8:50	2.75	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	74.32	6/29/24 12:15	3.56	6/29/24 12:45
7	2.21	7/9/2024	7/11/2024	92.51	7/10/24 17:40	9.61	7/10/24 14:40
8	1.16	8/6/2024	8/6/2024	59.36	8/6/24 14:55	2.81	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	37.41	10/13/24 0:15	2.18	10/13/24 0:15
10	1.10	10/28/2021	10/30/2021	63.58	12/30/24 2:00	3.09	12/30/24 2:30

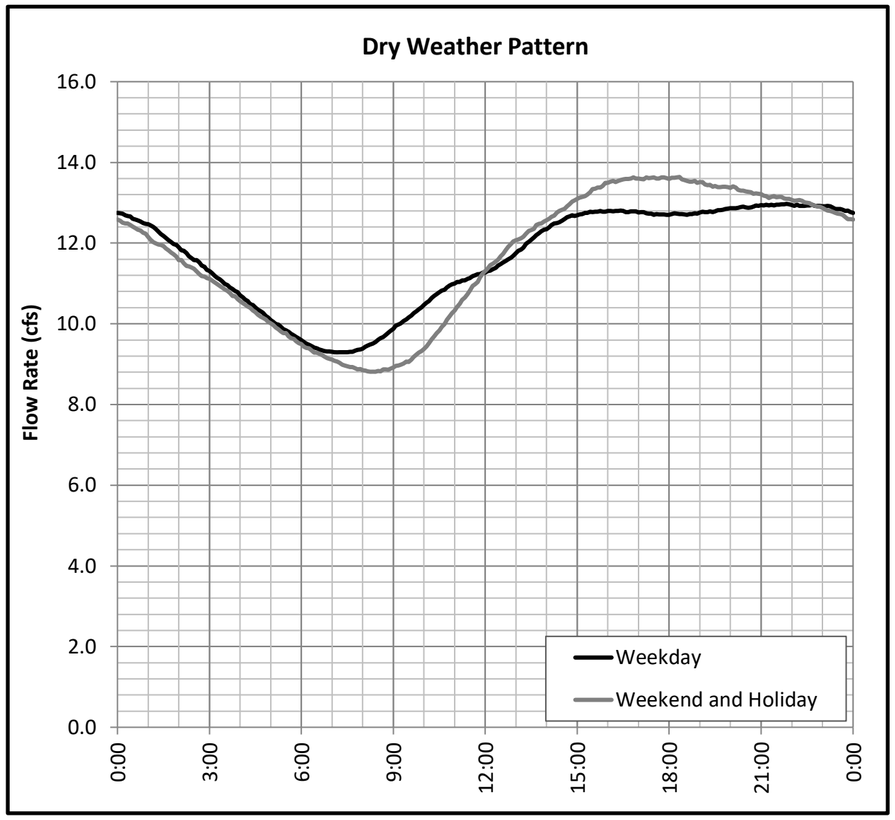
Figure 8-8
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-11
Interceptor Manhole ID: MR II-18

Location: Hines Drive East of Inkster Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	17.9	357.6	13.0	261.0	16	15
Feb-24	15.4	288.3	14.5	271.3	24	5
Mar-24	14.1	282.8	13.5	271.1	23	8
Apr-24	17.2	333.8	14.9	288.5	18	12
May-24	14.3	286.4	13.5	269.9	22	9
Jun-24	13.4	259.9	12.2	235.8	21	9
Jul-24	14.5	290.4	12.8	257.4	23	8
Aug-24	11.8	235.6	10.8	215.9	21	10
Sep-24	10.1	195.8	10.1	195.7	29	1
Oct-24	9.8	196.8	9.4	189.0	25	6
Nov-24	10.1	196.5	9.7	188.3	22	8
Dec-24	11.7	234.4	10.3	205.7	22	9

Statistics for Significant Wet Weather Events

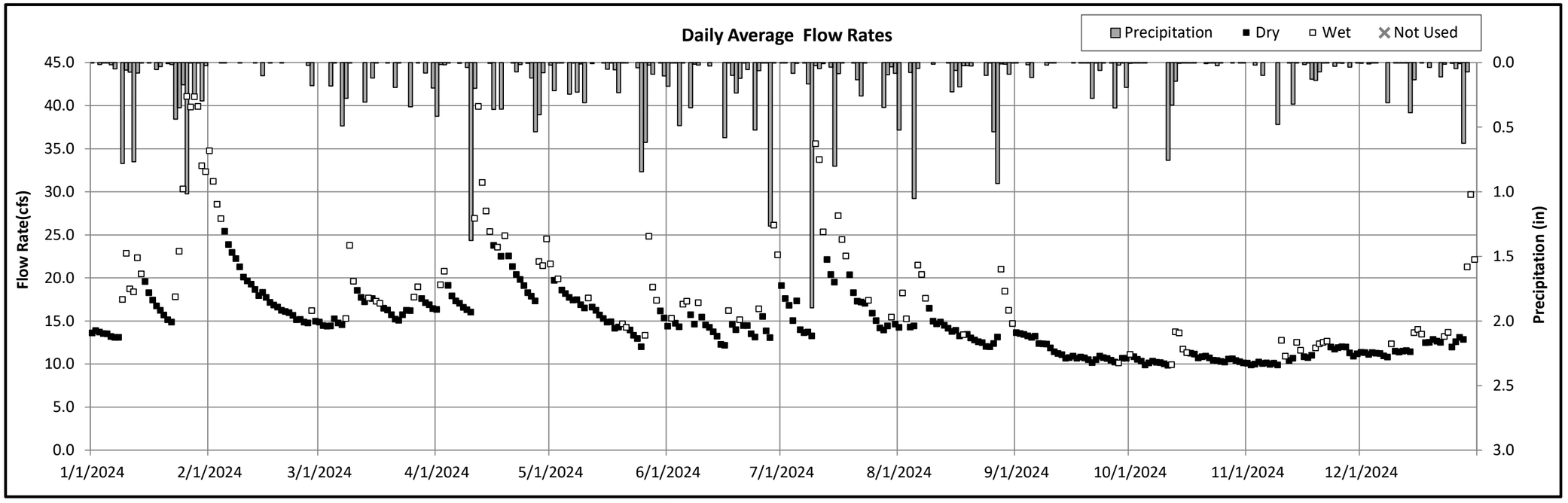
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	28.63	1/9/24 20:50	2.77	1/9/24 21:10
2	1.66	1/22/2024	1/31/2024	36.15	1/26/24 13:55	7.73	1/27/24 3:00
3	1.71	4/10/2024	4/12/2024	34.13	4/12/24 1:30	3.26	4/12/24 1:50
4	1.08	4/28/2024	4/30/2024	28.91	4/28/24 10:45	2.80	4/28/24 11:35
5	1.48	5/26/2024	5/27/2024	30.39	5/27/24 8:20	2.90	5/27/24 8:30
6	1.35	6/28/2024	6/29/2024	34.75	6/29/24 10:25	3.42	6/29/24 10:35
7	2.21	7/9/2024	7/11/2024	35.92	7/10/24 17:25	8.20	7/10/24 16:15
8	1.16	8/6/2024	8/6/2024	28.23	8/6/24 14:55	2.47	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	21.41	10/13/24 1:00	2.29	10/13/24 1:05
10	1.10	10/28/2021	10/30/2021	32.00	12/30/24 2:25	3.08	12/29/24 19:25

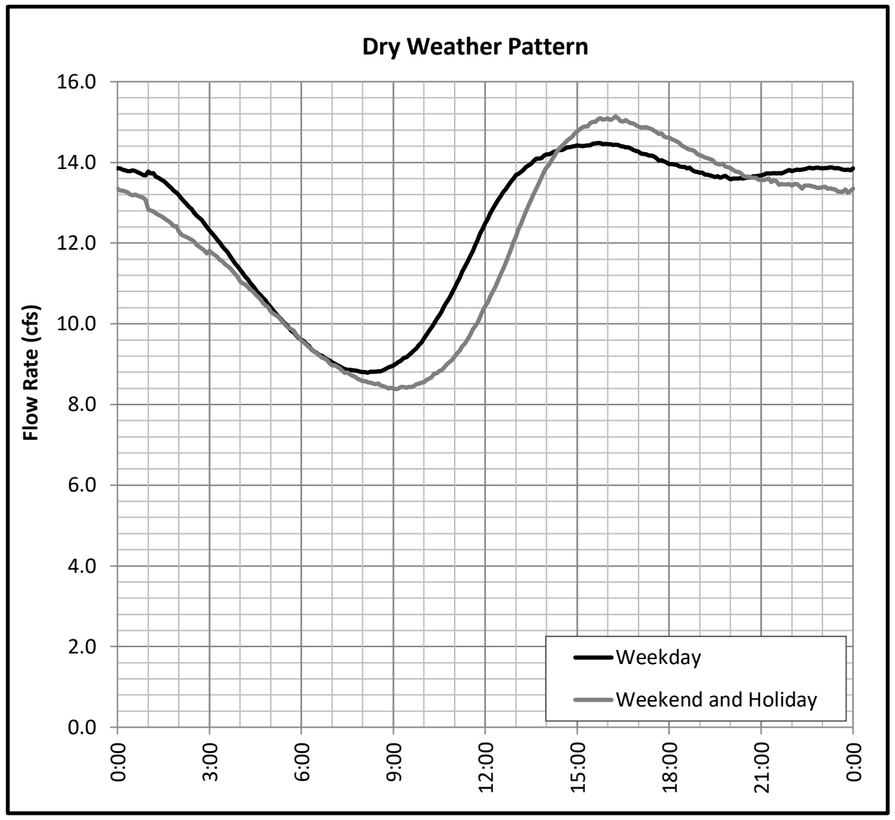
Figure 8-9
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-12
Interceptor Manhole ID: RVI 12-01

Location: Inkster Road North of Hines Drive
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	21.3	426.6	15.1	302.4	16	15
Feb-24	19.8	371.2	18.2	341.1	24	5
Mar-24	16.6	333.6	16.0	321.2	23	8
Apr-24	21.6	418.0	18.9	365.8	18	12
May-24	16.5	330.1	15.8	317.0	22	9
Jun-24	15.3	296.8	14.1	273.2	21	9
Jul-24	18.8	376.4	16.6	331.6	23	8
Aug-24	15.0	299.9	13.7	274.1	21	10
Sep-24	11.4	221.5	11.5	222.4	29	1
Oct-24	10.7	214.9	10.4	209.3	25	6
Nov-24	11.1	215.8	10.8	208.7	22	8
Dec-24	13.3	267.2	11.8	236.8	22	9

Statistics for Significant Wet Weather Events

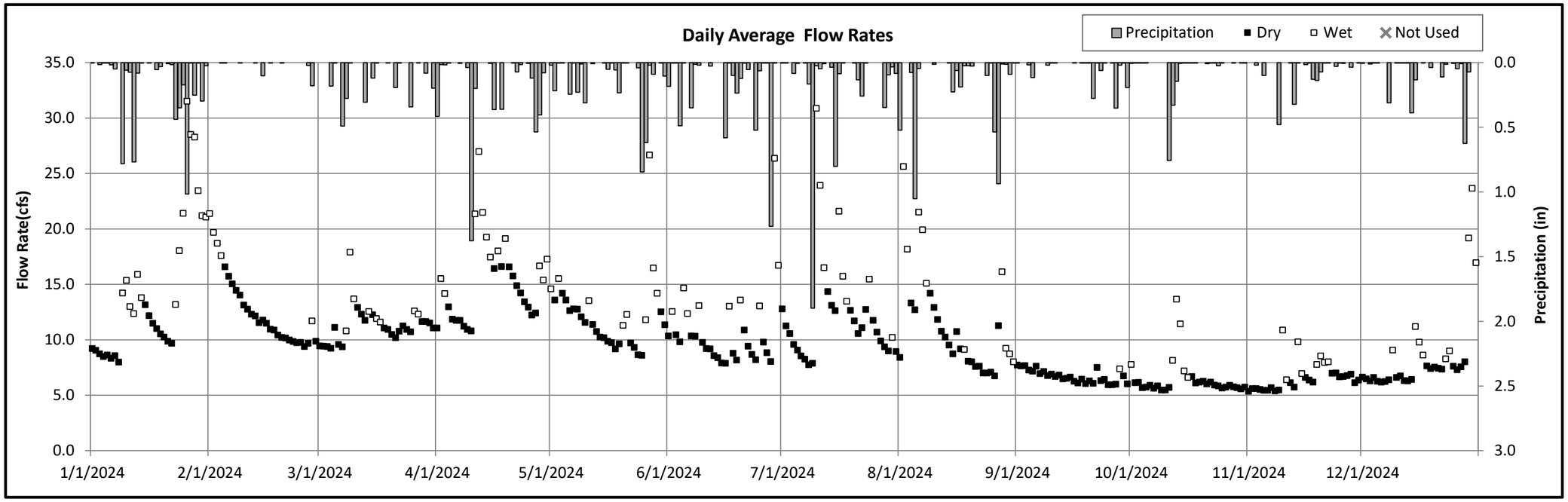
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	30.01	1/10/24 2:25	2.41	1/9/24 22:05
2	1.66	1/22/2024	1/31/2024	56.89	1/29/24 9:45	12.21	1/26/24 11:35
3	1.71	4/10/2024	4/12/2024	46.36	4/12/24 1:30	3.13	4/12/24 1:05
4	1.08	4/28/2024	4/30/2024	29.79	4/28/24 13:05	2.38	4/28/24 12:15
5	1.48	5/26/2024	5/27/2024	31.34	5/27/24 8:50	2.42	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	39.74	6/29/24 11:10	3.02	6/29/24 12:15
7	2.21	7/9/2024	7/11/2024	46.70	7/11/24 0:25	8.87	7/10/24 15:05
8	1.16	8/6/2024	8/6/2024	35.06	8/6/24 14:55	2.49	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	17.85	10/13/24 0:45	2.01	10/13/24 0:25
10	1.10	10/28/2021	10/30/2021	36.28	12/29/24 20:25	2.69	12/30/24 2:00

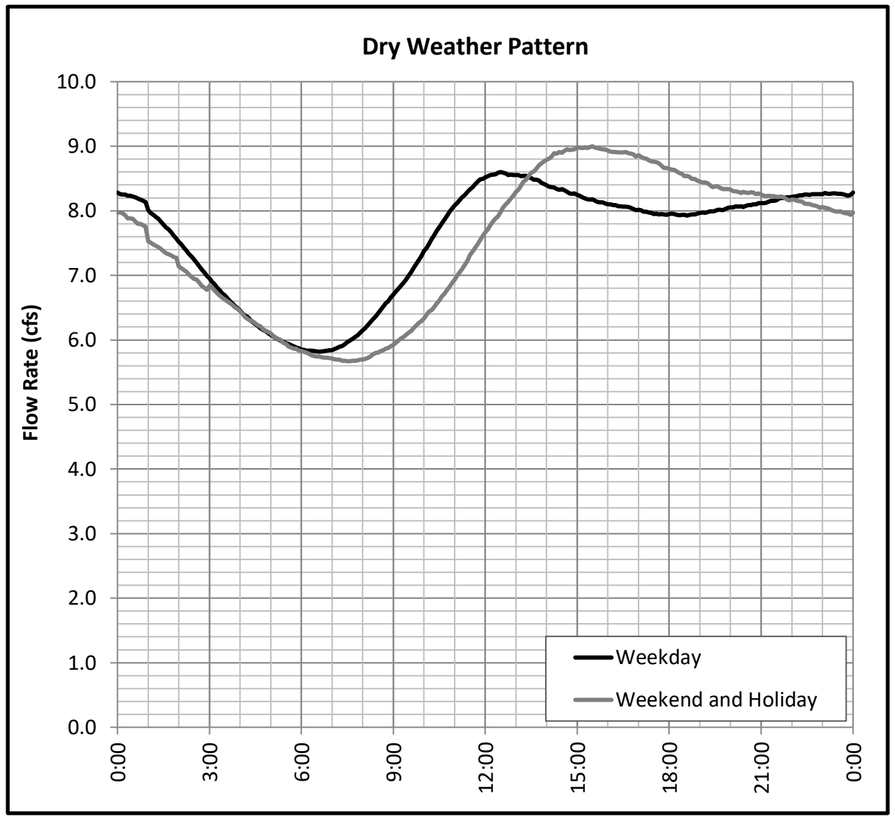
Figure 8-10
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-13
Interceptor Manhole ID: MR IV -07

Location: Telegraph Road North of Joy Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	14.5	289.8	9.8	196.7	16	15
Feb-24	12.8	239.7	11.7	220.0	24	5
Mar-24	11.4	227.6	10.8	216.7	23	8
Apr-24	15.3	297.5	13.2	256.1	18	12
May-24	12.3	246.0	11.1	222.4	22	9
Jun-24	10.9	212.1	9.2	178.0	21	9
Jul-24	12.6	253.2	10.6	212.6	23	8
Aug-24	11.4	229.0	9.7	193.5	21	10
Sep-24	6.7	130.1	6.7	129.6	29	1
Oct-24	6.5	130.2	5.9	117.5	25	6
Nov-24	6.7	129.3	6.1	117.9	22	8
Dec-24	8.6	172.4	6.9	137.6	22	9

Statistics for Significant Wet Weather Events

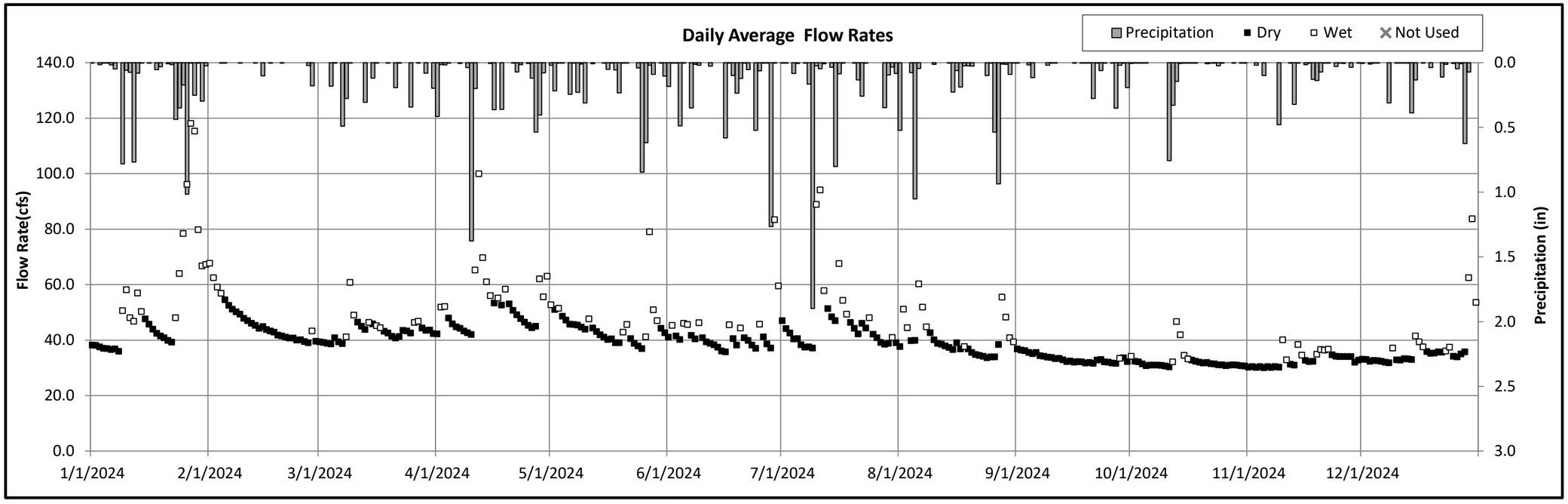
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	27.05	1/9/24 21:50	2.80	1/9/24 21:45
2	1.66	1/22/2024	1/31/2024	36.67	1/26/24 4:25	12.70	1/26/24 8:05
3	1.71	4/10/2024	4/12/2024	33.31	4/11/24 23:55	3.67	4/12/24 2:25
4	1.08	4/28/2024	4/30/2024	28.82	4/28/24 10:20	2.96	4/28/24 10:55
5	1.48	5/26/2024	5/27/2024	38.19	5/27/24 8:30	3.68	5/27/24 8:20
6	1.35	6/28/2024	6/29/2024	37.52	6/29/24 8:40	5.98	6/29/24 11:20
7	2.21	7/9/2024	7/11/2024	37.01	7/10/24 5:10	11.06	7/10/24 14:25
8	1.16	8/6/2024	8/6/2024	34.40	8/6/24 14:55	3.38	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	25.99	10/12/24 22:20	2.65	10/12/24 22:45
10	1.10	10/28/2021	10/30/2021	32.64	12/29/24 17:30	5.15	12/30/24 3:35

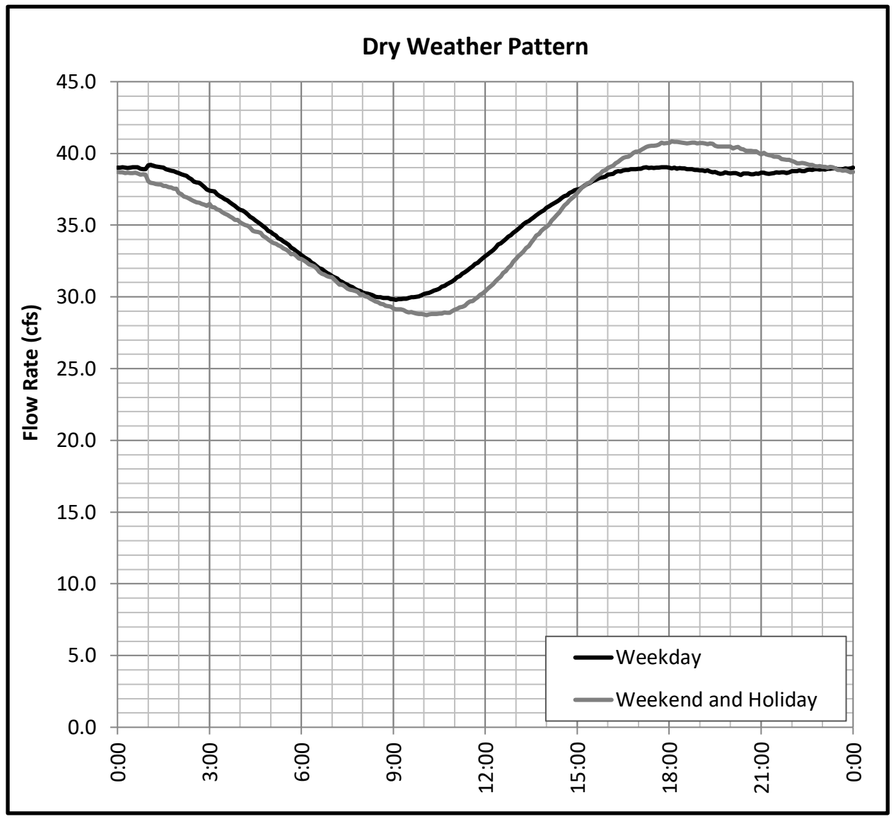
Figure 8-11
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-14
Interceptor Manhole ID: RVI 4-16A

Location: Brady Road near Willoway Road
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

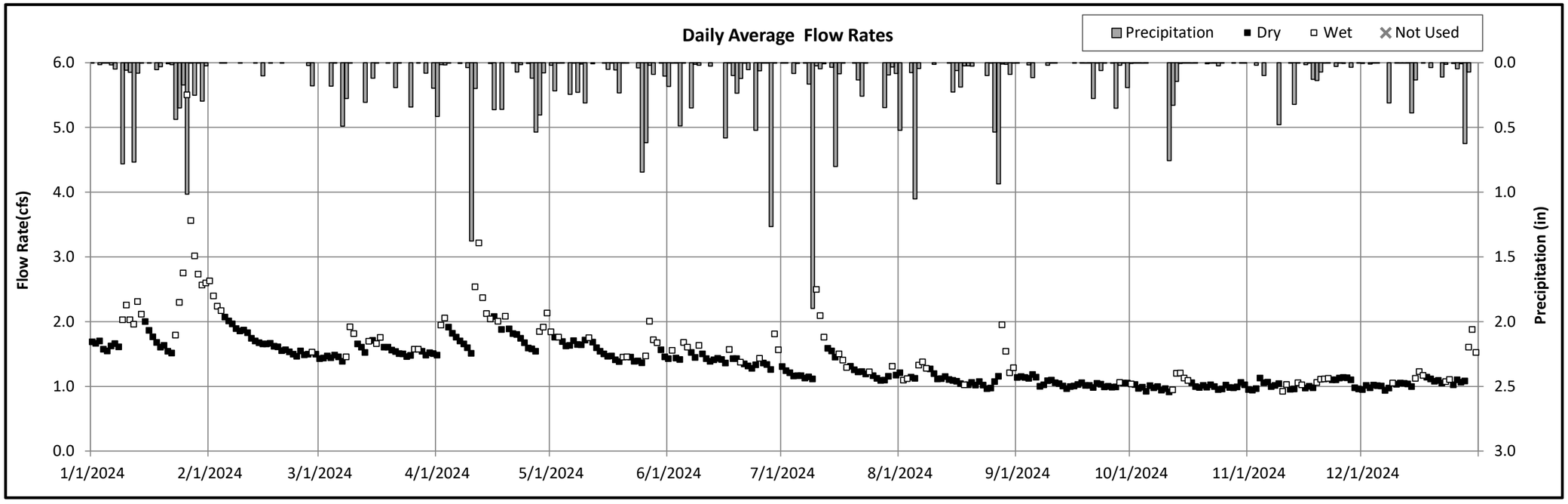
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	54.3	1087.3	39.9	798.7	16	15
Feb-24	46.8	876.5	44.4	833.1	24	5
Mar-24	43.5	871.3	42.1	843.2	23	8
Apr-24	53.0	1027.9	46.7	905.2	18	12
May-24	45.2	905.1	42.8	857.9	22	9
Jun-24	42.8	830.0	39.2	759.5	21	9
Jul-24	47.6	952.8	42.3	847.8	23	8
Aug-24	40.5	810.8	37.2	744.6	21	10
Sep-24	33.3	646.2	33.3	646.1	29	1
Oct-24	32.4	649.4	31.3	626.8	25	6
Nov-24	33.1	641.1	31.9	618.2	22	8
Dec-24	37.7	756.3	33.7	675.2	22	9

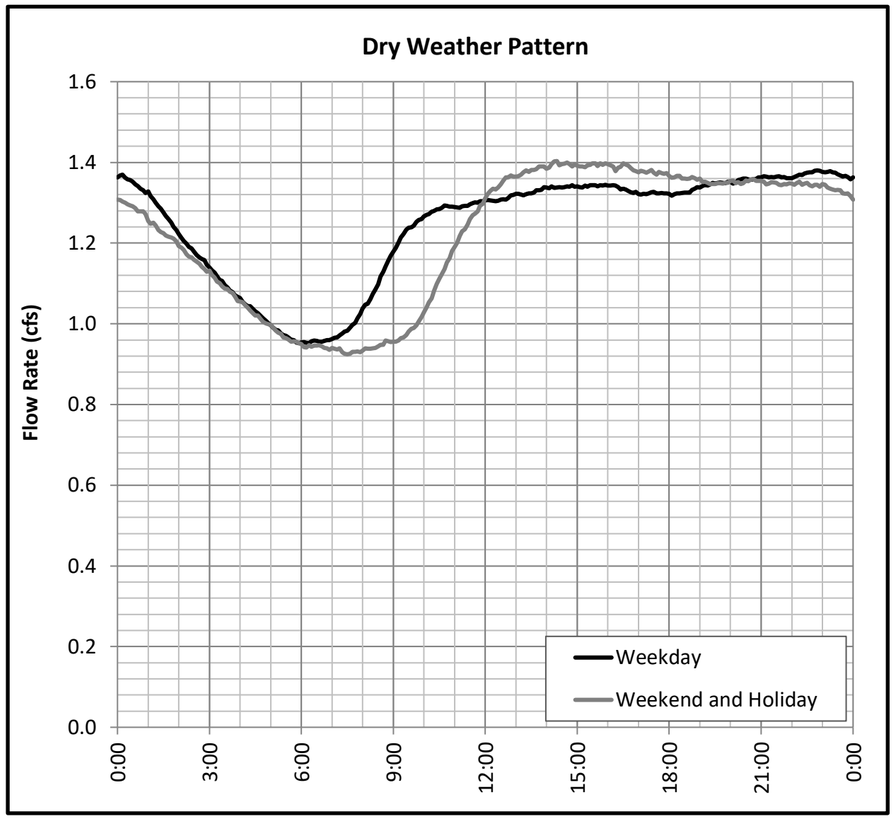
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	91.58	1/9/24 23:05	4.40	1/9/24 23:05
2	1.66	1/22/2024	1/31/2024	124.62	1/27/24 22:10	13.63	1/26/24 3:35
3	1.71	4/10/2024	4/12/2024	112.13	4/12/24 4:25	7.89	4/12/24 1:20
4	1.08	4/28/2024	4/30/2024	95.19	4/28/24 13:00	6.01	4/28/24 11:55
5	1.48	5/26/2024	5/27/2024	89.71	5/26/24 23:55	7.97	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	118.03	6/29/24 14:45	11.40	6/29/24 10:00
7	2.21	7/9/2024	7/11/2024	126.73	7/11/24 2:35	13.80	7/10/24 12:25
8	1.16	8/6/2024	8/6/2024	73.93	8/6/24 14:55	3.81	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	72.03	10/13/24 1:40	3.78	10/13/24 1:30
10	1.10	10/28/2021	10/30/2021	106.60	12/30/24 7:40	10.71	12/30/24 3:30

Figure 8-12
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-15 **Location: Ecorse Road and Hannan Road** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: WRVI - 54 **Interceptor Branch: Lower Rouge**





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	2.1	42.8	1.7	33.4	16	15
Feb-24	1.8	33.2	1.7	31.6	24	5
Mar-24	1.6	31.2	1.5	30.4	23	8
Apr-24	1.9	37.0	1.7	33.4	18	12
May-24	1.6	31.8	1.5	31.0	22	9
Jun-24	1.4	28.1	1.4	27.0	21	9
Jul-24	1.3	26.7	1.2	24.6	23	8
Aug-24	1.2	23.4	1.1	21.9	21	10
Sep-24	1.0	20.3	1.0	20.3	29	1
Oct-24	1.0	20.2	1.0	19.8	25	6
Nov-24	1.0	20.1	1.0	19.9	22	8
Dec-24	1.1	22.3	1.0	20.7	22	9

Statistics for Significant Wet Weather Events

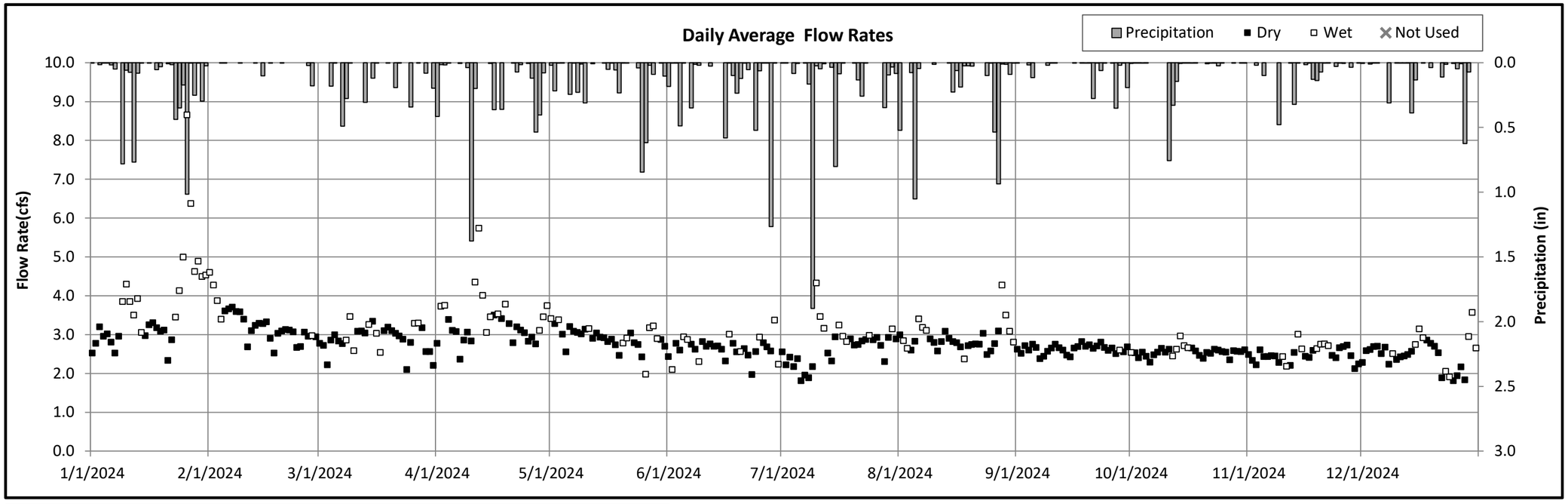
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	2.75	1/9/24 22:05	1.09	1/9/24 20:55
2	1.66	1/22/2024	1/31/2024	6.81	1/26/24 8:15	8.59	1/26/24 11:45
3	1.71	4/10/2024	4/12/2024	4.32	4/11/24 23:00	1.71	4/11/24 23:55
4	1.08	4/28/2024	4/30/2024	2.45	4/29/24 19:50	1.03	4/29/24 20:10
5	1.48	5/26/2024	5/27/2024	2.43	5/26/24 21:10	1.02	5/26/24 21:35
6	1.35	6/28/2024	6/29/2024	2.59	6/29/24 9:40	1.07	6/29/24 9:55
7	2.21	7/9/2024	7/11/2024	3.46	7/10/24 14:45	1.35	7/10/24 14:50
8	1.16	8/6/2024	8/6/2024	2.05	8/6/24 14:55	0.95	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	1.57	10/13/24 21:10	0.87	10/13/24 20:35
10	1.10	10/28/2021	10/30/2021	2.25	12/29/24 16:20	1.14	12/29/24 16:40

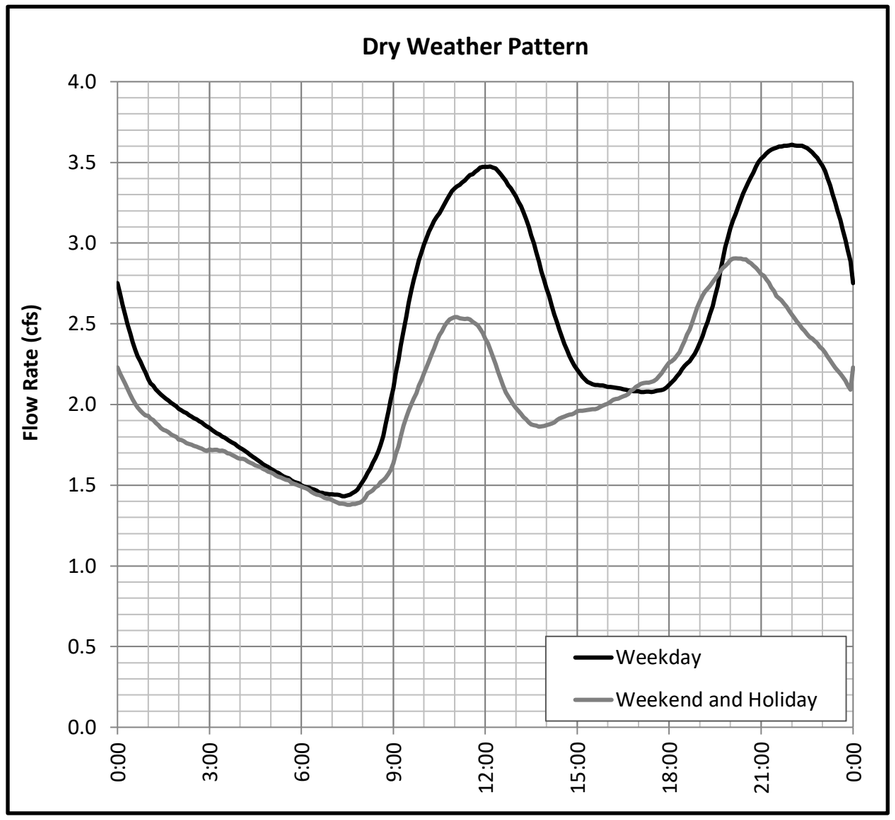
Figure 8-13
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-17
Interceptor Manhole ID: LRIR 9-17

Location: North of Michigan Avenue along Railroad
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	3.7	74.6	2.9	58.7	16	15
Feb-24	3.3	61.2	3.2	59.1	24	5
Mar-24	2.9	58.0	2.8	56.9	23	8
Apr-24	3.3	64.6	3.0	58.5	18	12
May-24	2.9	58.5	2.9	57.9	22	9
Jun-24	2.6	51.1	2.6	50.6	21	9
Jul-24	2.7	54.4	2.5	50.5	23	8
Aug-24	2.9	58.1	2.8	56.0	21	10
Sep-24	2.6	50.9	2.6	50.9	29	1
Oct-24	2.6	51.1	2.5	50.6	25	6
Nov-24	2.5	48.3	2.4	47.2	22	8
Dec-24	2.5	50.1	2.4	48.3	22	9

Statistics for Significant Wet Weather Events

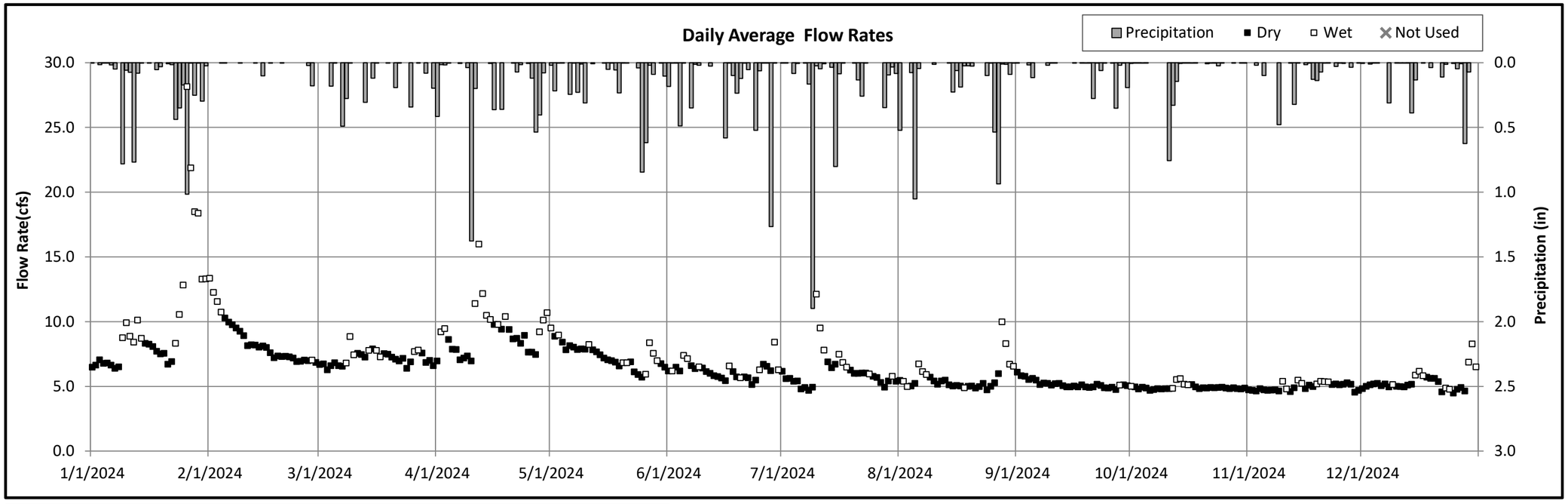
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	6.19	1/9/24 22:00	1.57	1/9/24 22:45
2	1.66	1/22/2024	1/31/2024	10.18	1/26/24 13:45	2.15	1/26/24 11:35
3	1.71	4/10/2024	4/12/2024	7.69	4/11/24 22:40	1.93	4/11/24 23:20
4	1.08	4/28/2024	4/30/2024	5.52	4/29/24 22:45	1.47	4/29/24 23:30
5	1.48	5/26/2024	5/27/2024	3.50	5/26/24 19:30	1.12	5/26/24 19:45
6	1.35	6/28/2024	6/29/2024	4.87	6/29/24 7:55	1.35	6/29/24 8:15
7	2.21	7/9/2024	7/11/2024	5.70	7/10/24 15:10	1.49	7/10/24 11:15
8	1.16	8/6/2024	8/6/2024	4.11	8/6/24 13:40	1.20	8/6/24 13:45
9	2.04	10/24/2021	10/25/2021	4.60	10/13/24 20:40	1.29	10/13/24 21:10
10	1.10	10/28/2021	10/30/2021	4.54	12/30/24 2:35	1.26	12/29/24 15:40

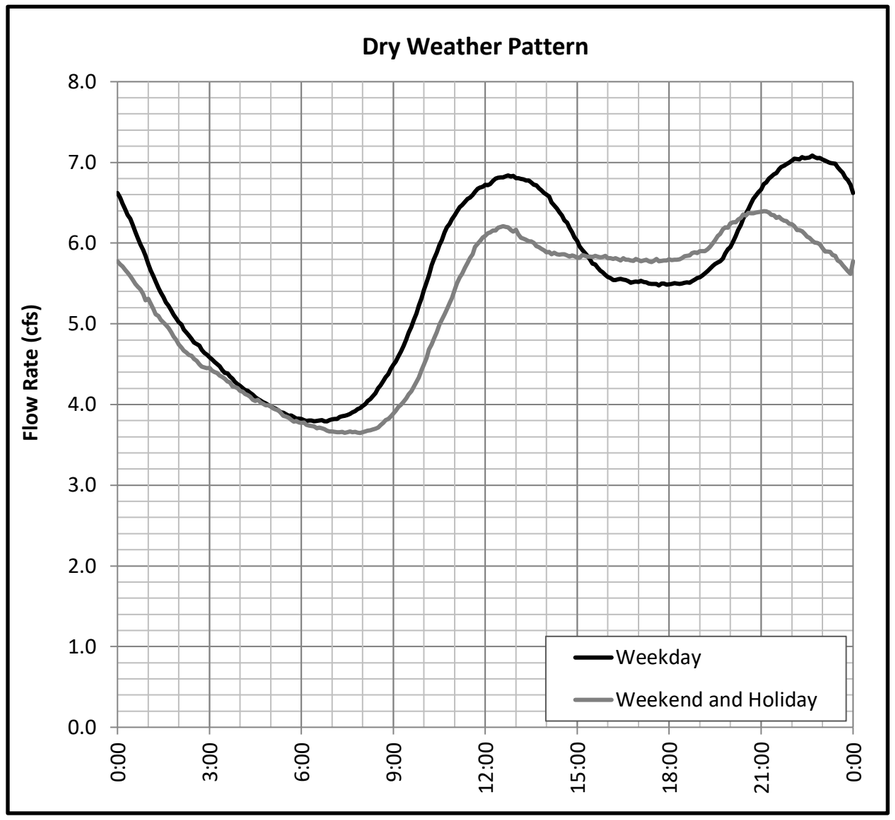
Figure 8-14
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-19
Interceptor Manhole ID: RVI 15-17

Location: Josephine Street and Lower Rouge River
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	10.1	203.0	7.1	143.0	16	15
Feb-24	8.5	159.7	8.0	150.1	24	5
Mar-24	7.2	143.7	7.0	140.2	23	8
Apr-24	9.2	177.5	8.1	156.9	18	12
May-24	7.4	148.2	7.3	145.9	22	9
Jun-24	6.2	120.6	6.0	116.6	21	9
Jul-24	6.2	124.2	5.7	113.4	23	8
Aug-24	5.6	112.9	5.2	104.1	21	10
Sep-24	5.2	100.2	5.2	100.3	29	1
Oct-24	4.9	98.7	4.9	97.4	25	6
Nov-24	5.0	96.3	4.9	94.2	22	8
Dec-24	5.3	107.0	5.1	101.3	22	9

Statistics for Significant Wet Weather Events

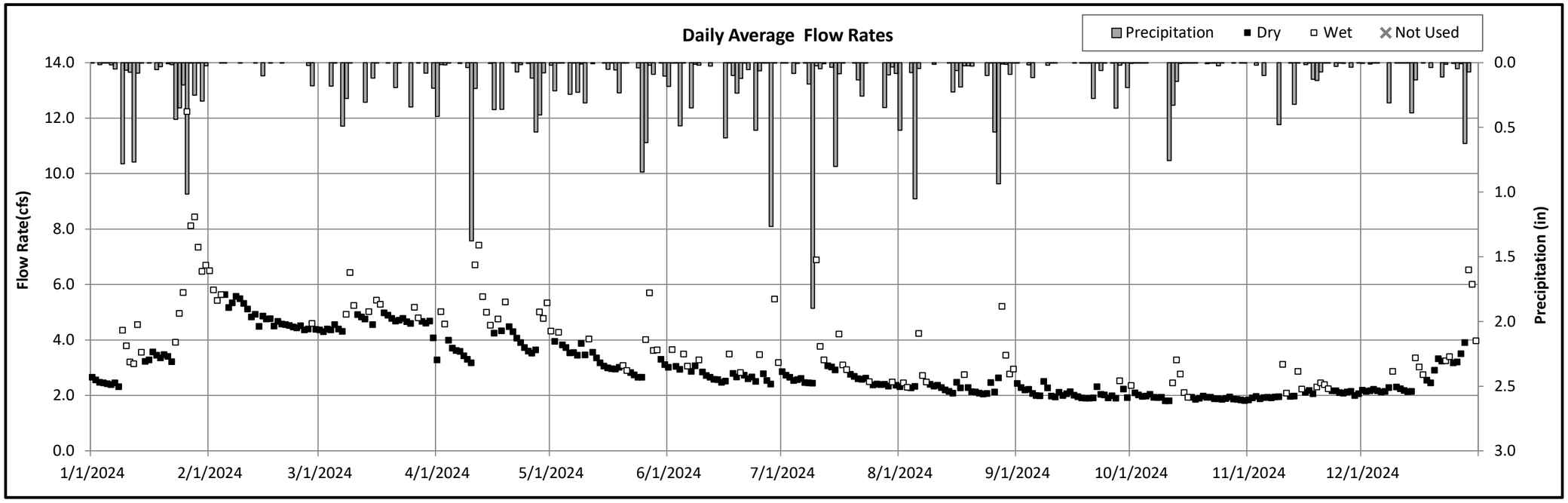
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	13.61	1/9/24 21:10	1.78	1/9/24 20:55
2	1.66	1/22/2024	1/31/2024	31.59	1/26/24 12:30	2.78	1/26/24 12:05
3	1.71	4/10/2024	4/12/2024	18.96	4/11/24 23:15	2.09	4/11/24 23:35
4	1.08	4/28/2024	4/30/2024	13.84	4/29/24 13:20	1.75	4/29/24 13:25
5	1.48	5/26/2024	5/27/2024	12.90	5/26/24 20:20	1.69	5/26/24 20:35
6	1.35	6/28/2024	6/29/2024	13.01	6/29/24 9:15	1.70	6/29/24 9:45
7	2.21	7/9/2024	7/11/2024	17.44	7/10/24 14:55	1.94	7/10/24 14:35
8	1.16	8/6/2024	8/6/2024	11.99	8/6/24 14:10	1.60	8/6/24 14:30
9	2.04	10/24/2021	10/25/2021	7.58	10/13/24 21:05	1.31	10/13/24 21:25
10	1.10	10/28/2021	10/30/2021	9.92	12/29/24 16:35	-	-

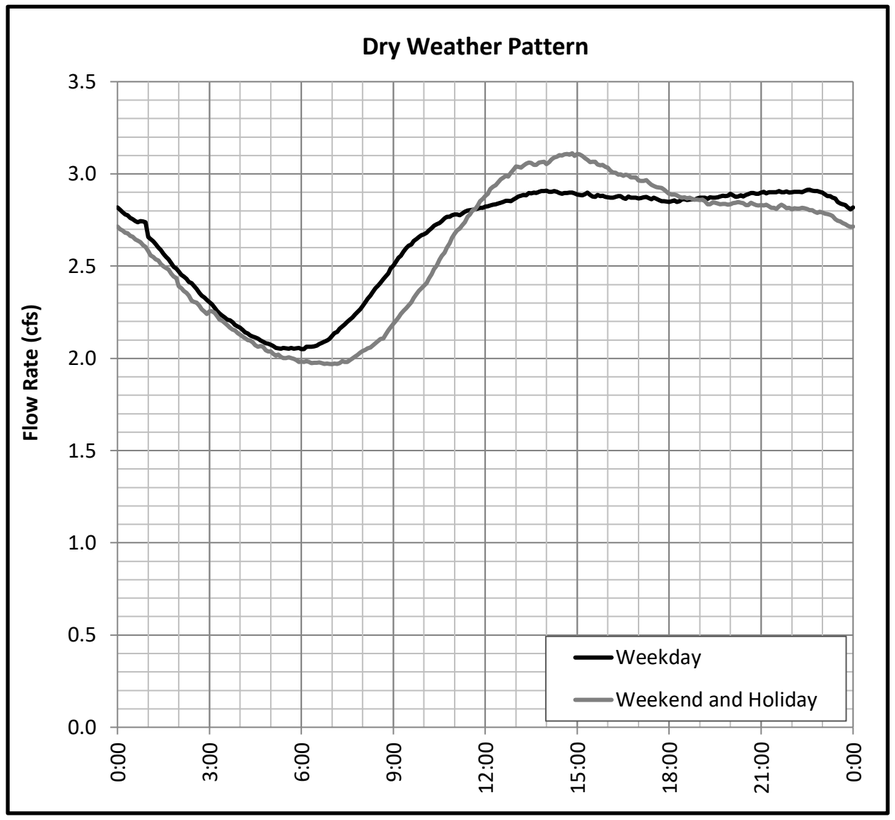
Figure 8-15
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-20
Interceptor Manhole ID: WI E-35

Location: Michigan Avenue and Henry Ruff Road
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	4.3	86.0	2.9	58.4	16	15
Feb-24	4.9	92.7	4.8	90.2	24	5
Mar-24	4.8	95.7	4.6	92.2	23	8
Apr-24	4.4	85.2	3.8	73.1	18	12
May-24	3.5	69.3	3.3	65.2	22	9
Jun-24	3.0	57.4	2.7	52.5	21	9
Jul-24	2.9	57.5	2.6	52.1	23	8
Aug-24	2.5	50.8	2.3	45.2	21	10
Sep-24	2.1	40.4	2.1	40.1	29	1
Oct-24	2.0	40.5	1.9	38.2	25	6
Nov-24	2.1	41.3	2.0	39.0	22	8
Dec-24	3.0	59.3	2.6	51.5	22	9

Statistics for Significant Wet Weather Events

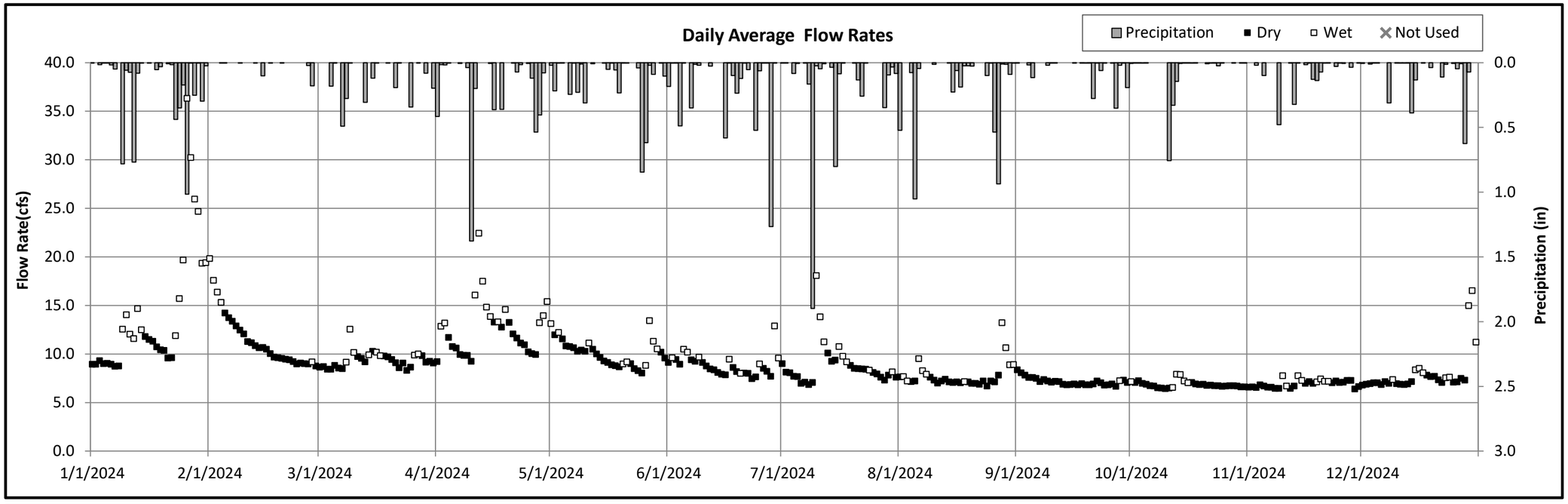
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	8.19	1/9/24 20:20	1.97	1/9/24 20:45
2	1.66	1/22/2024	1/31/2024	14.40	1/26/24 3:25	3.53	1/26/24 4:55
3	1.71	4/10/2024	4/12/2024	11.72	4/11/24 21:35	2.41	4/11/24 22:15
4	1.08	4/28/2024	4/30/2024	11.44	4/28/24 8:45	2.34	4/28/24 9:10
5	1.48	5/26/2024	5/27/2024	12.89	5/26/24 20:30	2.62	5/26/24 20:45
6	1.35	6/28/2024	6/29/2024	12.82	6/29/24 8:40	2.57	6/29/24 9:10
7	2.21	7/9/2024	7/11/2024	13.33	7/10/24 4:20	2.67	7/10/24 5:05
8	1.16	8/6/2024	8/6/2024	13.39	8/6/24 14:10	2.71	8/6/24 14:25
9	2.04	10/24/2021	10/25/2021	8.50	10/12/24 23:20	1.98	10/12/24 23:50
10	1.10	10/28/2021	10/30/2021	10.02	12/29/24 15:35	2.22	12/29/24 16:10

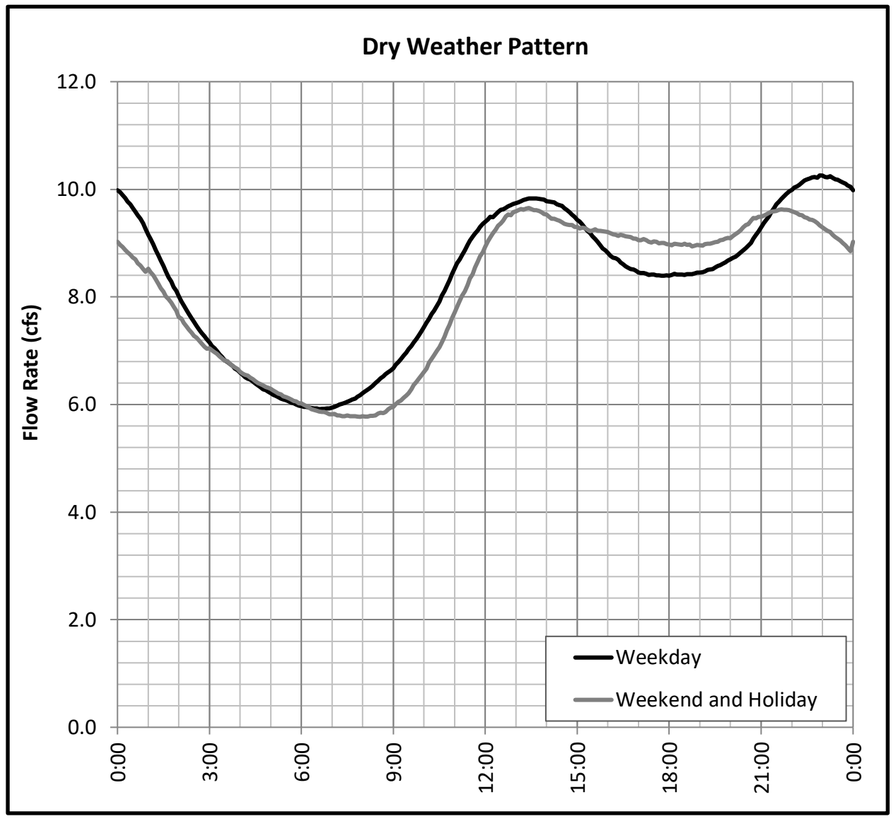
Figure 8-16
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-21
Interceptor Manhole ID: RVI 14-19

Location: Merriman Road and Lower Rouge River
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	14.1	282.7	9.8	196.5	16	15
Feb-24	11.5	215.7	10.6	199.5	24	5
Mar-24	9.4	187.5	9.1	181.7	23	8
Apr-24	12.6	244.0	10.9	211.5	18	12
May-24	10.1	202.7	9.8	195.8	22	9
Jun-24	8.9	171.8	8.4	163.4	21	9
Jul-24	8.9	178.1	8.1	162.2	23	8
Aug-24	7.7	155.2	7.2	143.9	21	10
Sep-24	7.2	138.7	7.2	138.6	29	1
Oct-24	6.9	137.3	6.8	135.2	25	6
Nov-24	6.9	134.3	6.8	131.7	22	8
Dec-24	8.0	159.6	7.1	142.8	22	9

Statistics for Significant Wet Weather Events

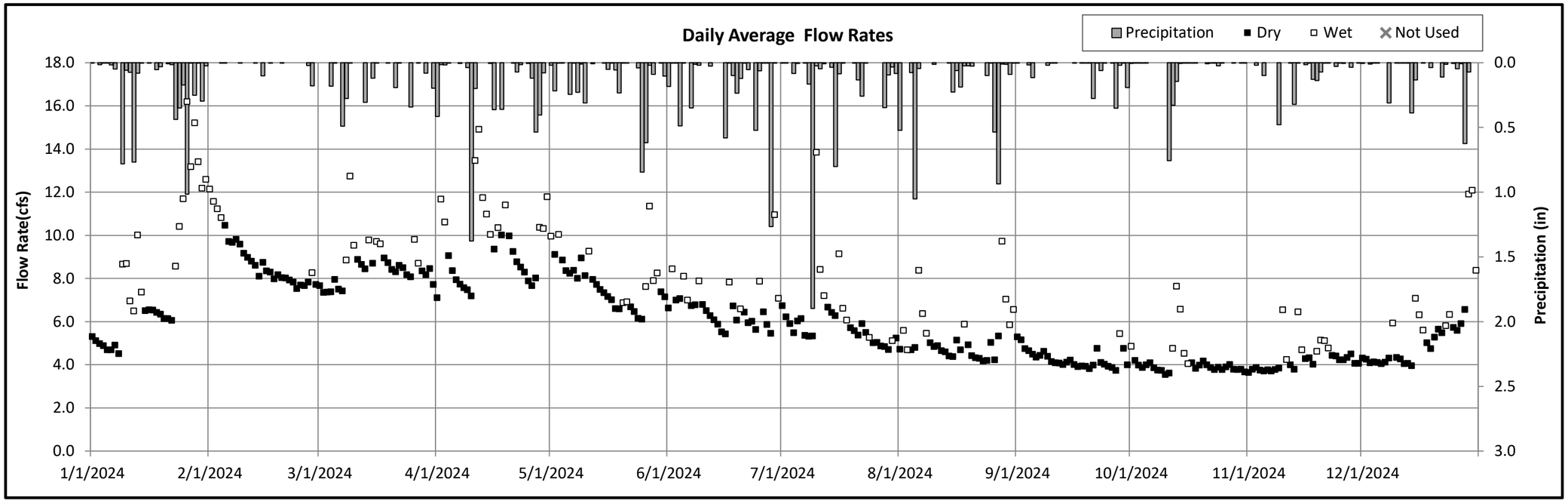
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	20.95	1/9/24 20:45	1.70	1/9/24 20:55
2	1.66	1/22/2024	1/31/2024	43.17	1/26/24 4:55	3.90	1/26/24 6:15
3	1.71	4/10/2024	4/12/2024	26.12	4/11/24 22:25	1.93	4/11/24 22:05
4	1.08	4/28/2024	4/30/2024	20.09	4/28/24 9:55	1.69	4/28/24 10:10
5	1.48	5/26/2024	5/27/2024	20.97	5/26/24 20:35	1.73	5/26/24 20:50
6	1.35	6/28/2024	6/29/2024	20.96	6/29/24 9:00	1.71	6/29/24 9:55
7	2.21	7/9/2024	7/11/2024	24.51	7/10/24 14:20	1.86	7/10/24 14:15
8	1.16	8/6/2024	8/6/2024	18.33	8/6/24 14:10	1.61	8/6/24 14:40
9	2.04	10/24/2021	10/25/2021	11.12	10/13/24 21:40	1.22	10/13/24 22:05
10	1.10	10/28/2021	10/30/2021	21.74	12/30/24 3:55	-	-

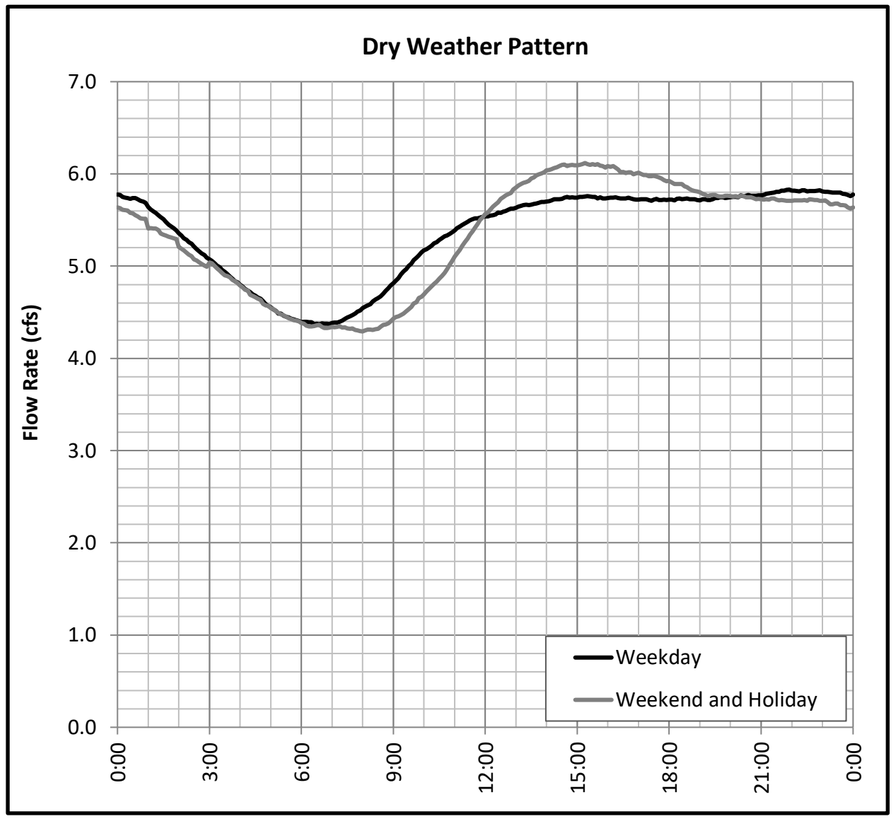
Figure 8-17
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-24
Interceptor Manhole ID: WI E-08

Location: Michigan Avenue West of Beech Daly Road
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	8.1	162.5	5.6	112.4	16	15
Feb-24	8.9	167.2	8.5	159.9	24	5
Mar-24	8.6	172.3	8.2	163.6	23	8
Apr-24	9.6	186.0	8.3	161.8	18	12
May-24	7.9	157.7	7.5	151.0	22	9
Jun-24	6.8	131.2	6.3	121.2	21	9
Jul-24	6.2	123.6	5.6	112.9	23	8
Aug-24	5.3	105.5	4.7	93.2	21	10
Sep-24	4.3	83.3	4.3	82.6	29	1
Oct-24	4.2	83.6	3.9	77.7	25	6
Nov-24	4.3	84.1	4.0	78.0	22	8
Dec-24	5.6	112.1	4.7	94.7	22	9

Statistics for Significant Wet Weather Events

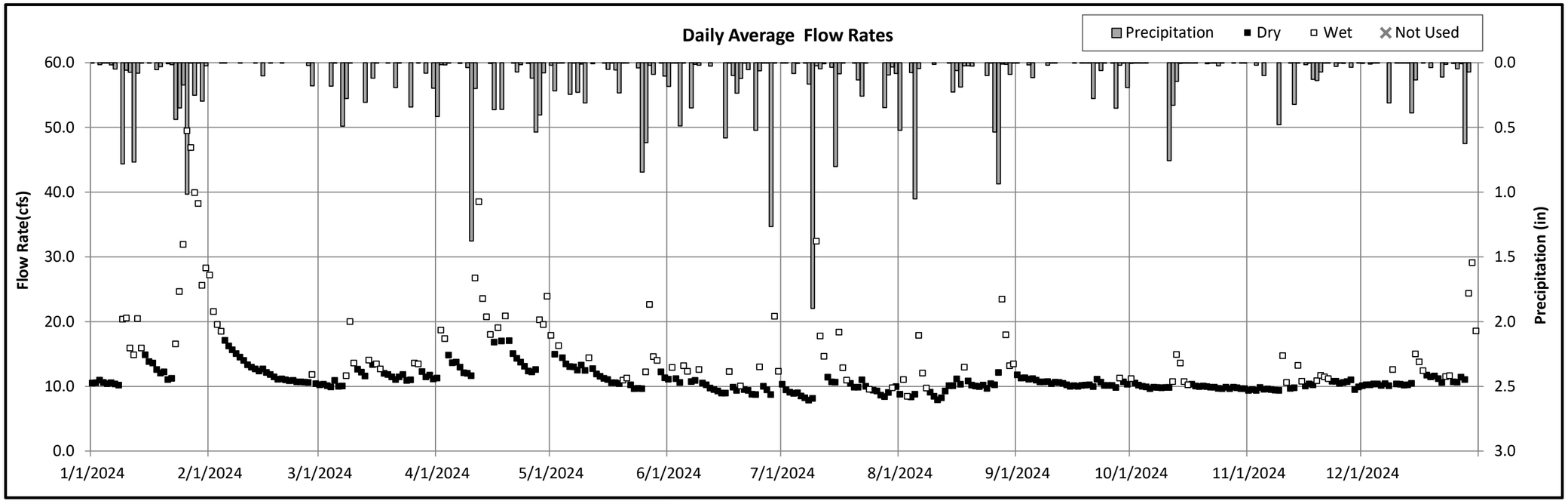
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	14.81	1/9/24 21:25	1.32	1/9/24 21:40
2	1.66	1/22/2024	1/31/2024	21.12	1/26/24 2:00	2.62	1/27/24 15:05
3	1.71	4/10/2024	4/12/2024	18.68	4/11/24 22:05	1.69	4/12/24 0:10
4	1.08	4/28/2024	4/30/2024	16.84	4/28/24 9:50	1.42	4/28/24 9:45
5	1.48	5/26/2024	5/27/2024	17.90	5/26/24 21:35	1.50	5/26/24 21:40
6	1.35	6/28/2024	6/29/2024	17.98	6/29/24 9:45	1.50	6/29/24 10:10
7	2.21	7/9/2024	7/11/2024	19.84	7/10/24 5:05	3.98	7/10/24 15:20
8	1.16	8/6/2024	8/6/2024	18.33	8/6/24 14:50	-	-
9	2.04	10/24/2021	10/25/2021	13.52	10/13/24 0:35	1.26	10/13/24 0:50
10	1.10	10/28/2021	10/30/2021	16.40	12/29/24 16:15	1.41	12/29/24 16:30

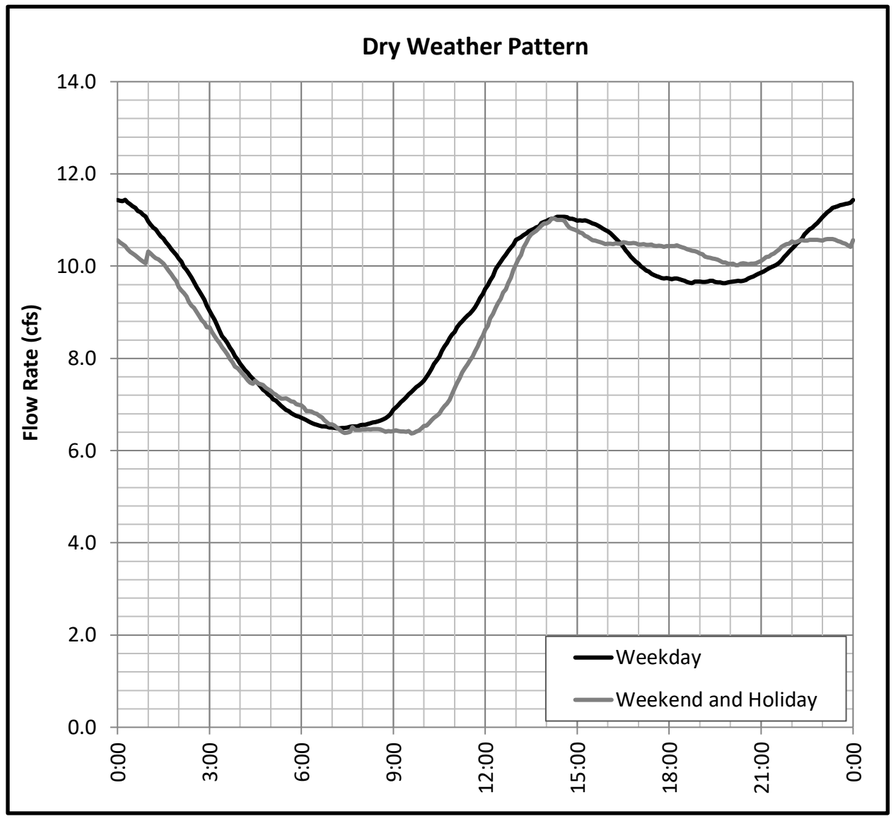
Figure 8-18
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-25
Interceptor Manhole ID: RVI 5-14

Location: Lower Rouge River West of Beech Daly Road
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	19.2	384.5	11.6	232.1	16	15
Feb-24	13.7	257.4	12.5	234.1	24	5
Mar-24	12.0	240.2	11.3	225.9	23	8
Apr-24	17.1	331.9	13.7	265.2	18	12
May-24	12.7	254.6	11.8	236.6	22	9
Jun-24	10.8	209.9	9.8	189.6	21	9
Jul-24	11.1	222.4	9.5	189.8	23	8
Aug-24	11.1	222.4	9.7	194.6	21	10
Sep-24	10.6	204.6	10.5	204.1	29	1
Oct-24	10.3	205.7	9.9	197.9	25	6
Nov-24	10.5	202.7	10.0	193.1	22	8
Dec-24	12.3	247.3	10.6	212.8	22	9

Statistics for Significant Wet Weather Events

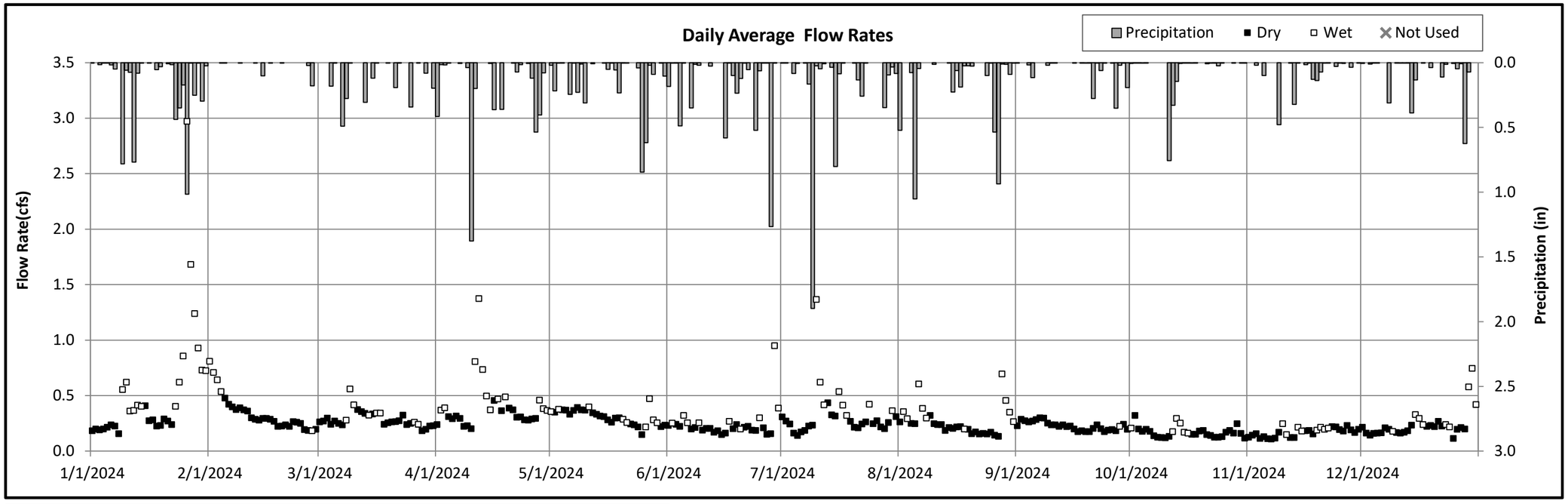
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	38.28	1/9/24 20:40	2.28	1/9/24 20:50
2	1.66	1/22/2024	1/31/2024	53.51	1/26/24 5:40	10.83	1/26/24 5:55
3	1.71	4/10/2024	4/12/2024	45.44	4/11/24 23:25	2.63	4/12/24 0:10
4	1.08	4/28/2024	4/30/2024	41.41	4/30/24 0:45	2.22	4/30/24 0:40
5	1.48	5/26/2024	5/27/2024	39.44	5/27/24 8:05	2.20	5/26/24 21:50
6	1.35	6/28/2024	6/29/2024	39.20	6/29/24 10:35	2.36	6/29/24 10:40
7	2.21	7/9/2024	7/11/2024	40.75	7/10/24 11:05	2.59	7/10/24 15:15
8	1.16	8/6/2024	8/6/2024	37.83	8/6/24 14:50	2.34	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	33.44	10/12/24 23:50	1.72	10/13/24 0:35
10	1.10	10/28/2021	10/30/2021	38.25	12/30/24 5:05	2.30	12/29/24 22:15

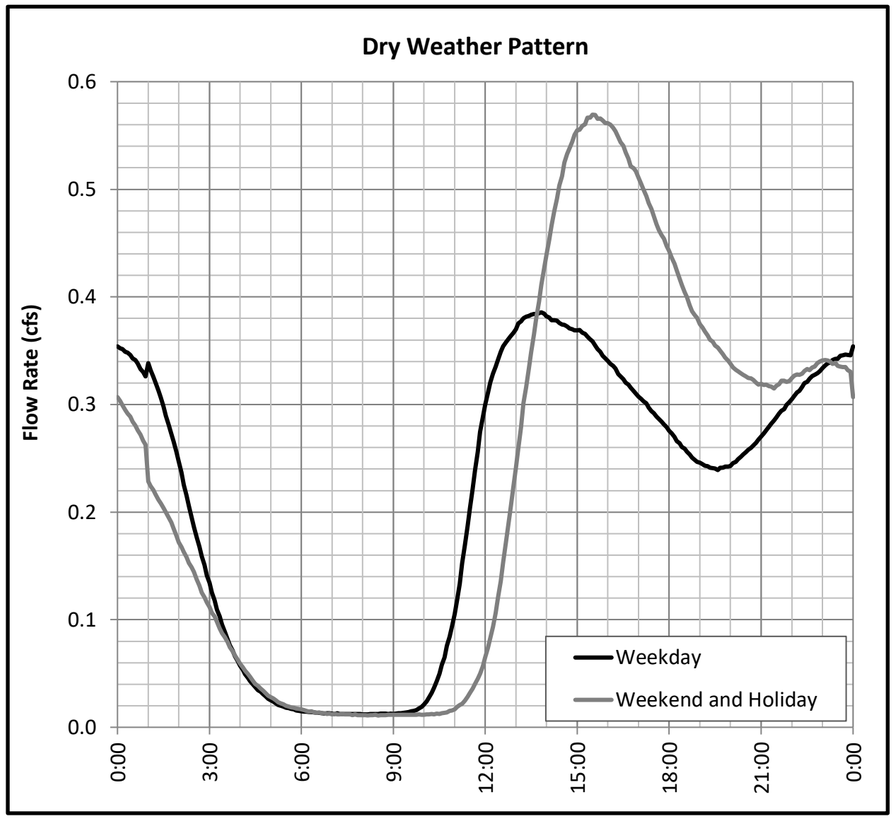
Figure 8-19
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-26
Interceptor Manhole ID: PWI 2-05

Location: Plymouth Road East of I-275
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

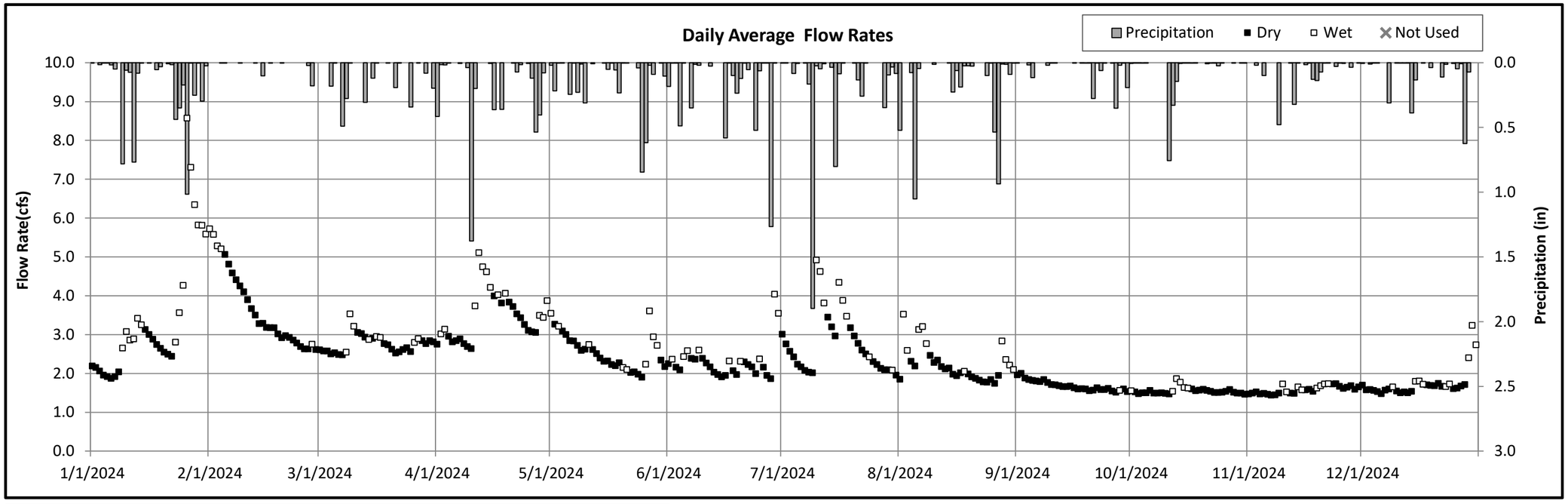
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	0.5	10.8	0.2	4.8	16	15
Feb-24	0.3	6.4	0.3	5.5	24	5
Mar-24	0.3	5.8	0.3	5.4	23	8
Apr-24	0.4	7.8	0.3	5.8	18	12
May-24	0.3	6.2	0.3	6.0	22	9
Jun-24	0.2	4.7	0.2	3.8	21	9
Jul-24	0.3	6.6	0.2	5.0	23	8
Aug-24	0.3	5.3	0.2	4.1	21	10
Sep-24	0.2	4.4	0.2	4.4	29	1
Oct-24	0.2	3.4	0.2	3.3	25	6
Nov-24	0.2	3.3	0.2	3.1	22	8
Dec-24	0.2	4.8	0.2	3.8	22	9

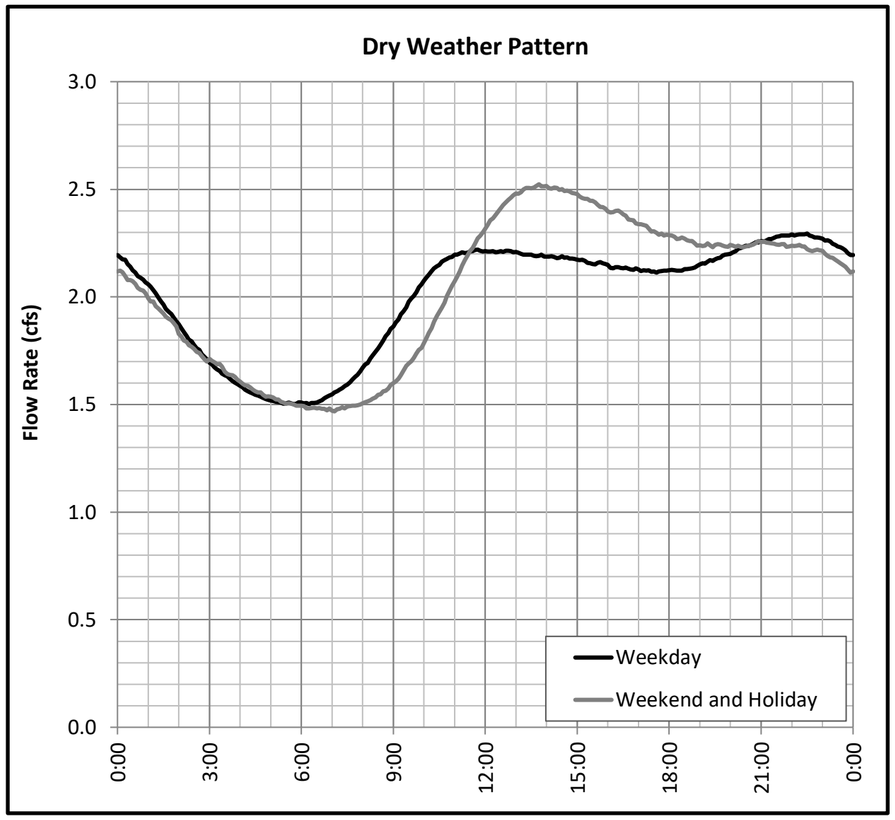
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	1.93	1/9/24 22:25	0.54	1/9/24 22:30
2	1.66	1/22/2024	1/31/2024	4.76	1/26/24 7:40	0.91	1/26/24 7:00
3	1.71	4/10/2024	4/12/2024	2.44	4/11/24 23:40	0.64	4/12/24 0:55
4	1.08	4/28/2024	4/30/2024	1.18	4/28/24 12:55	0.36	4/28/24 13:05
5	1.48	5/26/2024	5/27/2024	1.00	5/26/24 22:25	0.33	5/26/24 22:40
6	1.35	6/28/2024	6/29/2024	2.51	6/29/24 9:55	0.67	6/29/24 10:15
7	2.21	7/9/2024	7/11/2024	3.22	7/10/24 13:30	0.77	7/10/24 14:15
8	1.16	8/6/2024	8/6/2024	1.37	8/6/24 14:55	0.36	8/6/24 14:50
9	2.04	10/24/2021	10/25/2021	0.65	10/13/24 14:35	0.26	10/13/24 14:55
10	1.10	10/28/2021	10/30/2021	1.47	12/29/24 18:25	0.47	12/29/24 18:35

Figure 8-20
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-28 **Location: Inkster Road south of Rougeway Street** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: **Interceptor Branch: Middle Rouge**





Monthly Statistics

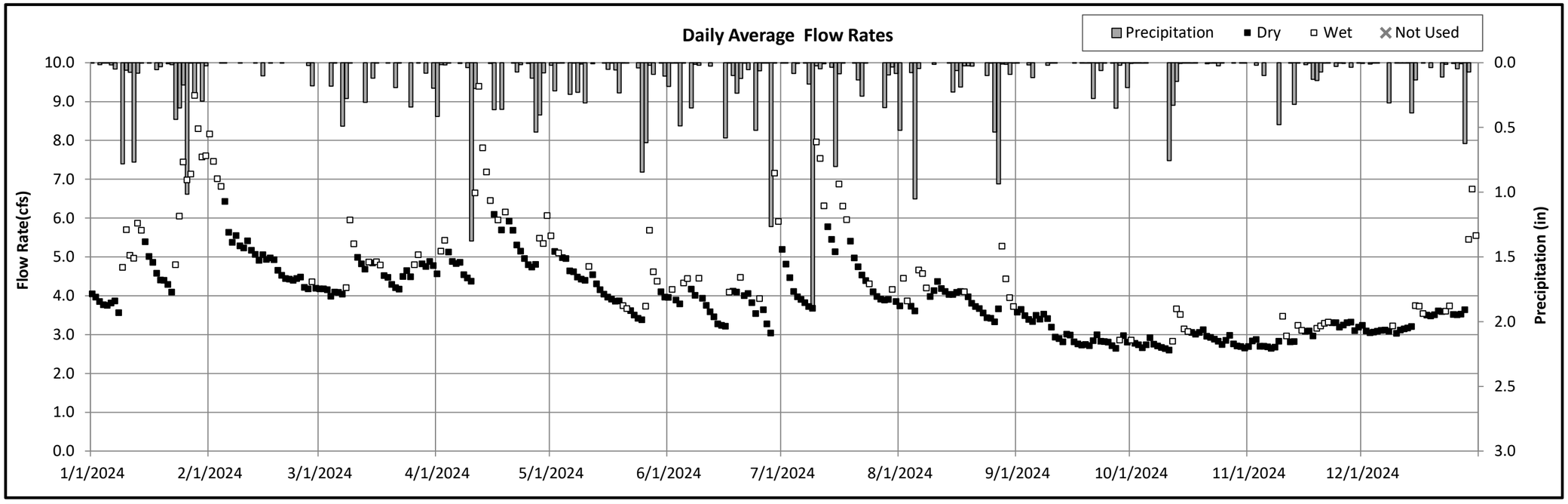
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	3.4	68.6	2.4	47.5	16	15
Feb-24	3.7	69.1	3.4	64.4	24	5
Mar-24	2.8	55.4	2.7	54.0	23	8
Apr-24	3.5	67.6	3.2	61.5	18	12
May-24	2.6	51.4	2.5	49.4	22	9
Jun-24	2.3	44.7	2.1	41.2	21	9
Jul-24	2.8	56.4	2.5	50.2	23	8
Aug-24	2.2	44.7	2.0	40.5	21	10
Sep-24	1.7	32.6	1.7	32.7	29	1
Oct-24	1.5	31.0	1.5	30.5	25	6
Nov-24	1.6	30.7	1.6	30.2	22	8
Dec-24	1.7	34.9	1.6	32.1	22	9

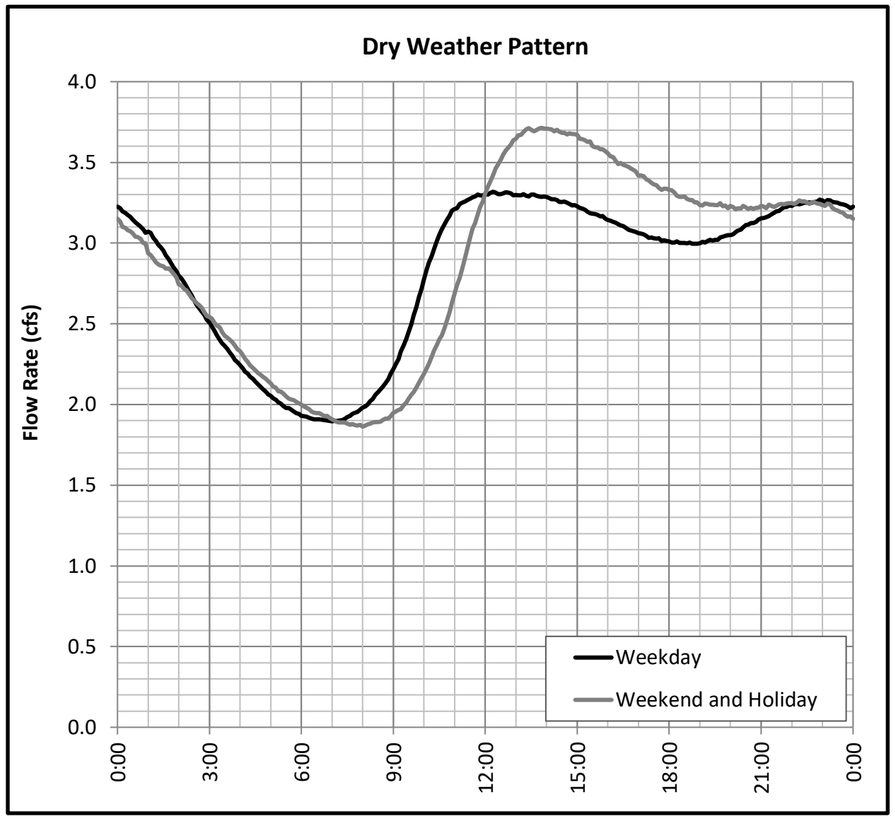
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	4.39	1/9/24 20:20	1.73	1/9/24 21:25
2	1.66	1/22/2024	1/31/2024	11.71	1/26/24 5:40	9.09	1/26/24 11:50
3	1.71	4/10/2024	4/12/2024	5.44	4/12/24 2:05	3.82	4/12/24 0:55
4	1.08	4/28/2024	4/30/2024	4.51	4/28/24 9:35	1.60	4/28/24 11:35
5	1.48	5/26/2024	5/27/2024	5.56	5/27/24 6:50	1.85	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	7.06	6/29/24 8:15	3.52	6/29/24 11:05
7	2.21	7/9/2024	7/11/2024	7.24	7/10/24 14:50	7.67	7/10/24 14:20
8	1.16	8/6/2024	8/6/2024	5.72	8/6/24 14:10	1.95	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	2.34	10/13/24 22:15	1.00	10/13/24 22:35
10	1.10	10/28/2021	10/30/2021	3.56	12/29/24 22:05	2.46	12/29/24 20:30

Figure 8-21
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-29 **Location: Along Rouge River, Inkster Road south of Rougeway Street** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: **Interceptor Branch: Middle Rouge**





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	5.3	106.4	4.2	84.7	16	15
Feb-24	5.2	98.0	4.9	92.0	24	5
Mar-24	4.6	92.0	4.5	89.3	23	8
Apr-24	5.6	108.5	5.0	97.8	18	12
May-24	4.3	86.2	4.2	84.0	22	9
Jun-24	4.0	78.0	3.7	71.8	21	9
Jul-24	4.9	97.6	4.4	88.6	23	8
Aug-24	4.0	80.0	3.8	76.9	21	10
Sep-24	3.0	58.9	3.0	59.0	29	1
Oct-24	2.9	57.8	2.8	56.4	25	6
Nov-24	3.0	58.9	3.0	57.6	22	8
Dec-24	3.6	72.2	3.3	65.9	22	9

Statistics for Significant Wet Weather Events

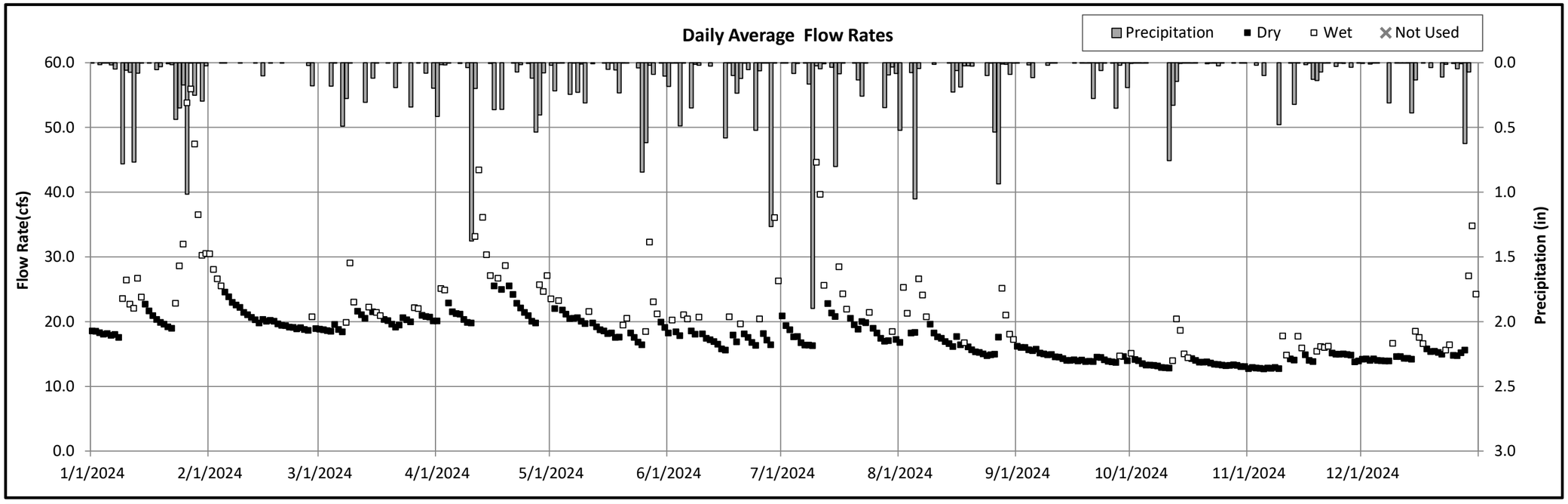
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	8.19	1/9/24 21:45	1.90	1/9/24 21:40
2	1.66	1/22/2024	1/31/2024	10.31	1/28/24 19:25	4.45	1/26/24 5:35
3	1.71	4/10/2024	4/12/2024	11.54	4/12/24 1:15	4.06	4/12/24 0:50
4	1.08	4/28/2024	4/30/2024	7.46	4/28/24 11:10	1.81	4/28/24 11:55
5	1.48	5/26/2024	5/27/2024	8.98	5/27/24 8:10	2.09	5/27/24 8:45
6	1.35	6/28/2024	6/29/2024	13.13	6/29/24 9:30	3.76	6/29/24 11:05
7	2.21	7/9/2024	7/11/2024	11.07	7/11/24 0:15	4.44	7/10/24 15:10
8	1.16	8/6/2024	8/6/2024	7.74	8/6/24 14:55	2.16	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	4.60	10/12/24 22:40	1.24	10/13/24 22:20
10	1.10	10/28/2021	10/30/2021	8.56	12/29/24 17:25	2.72	12/29/24 21:05

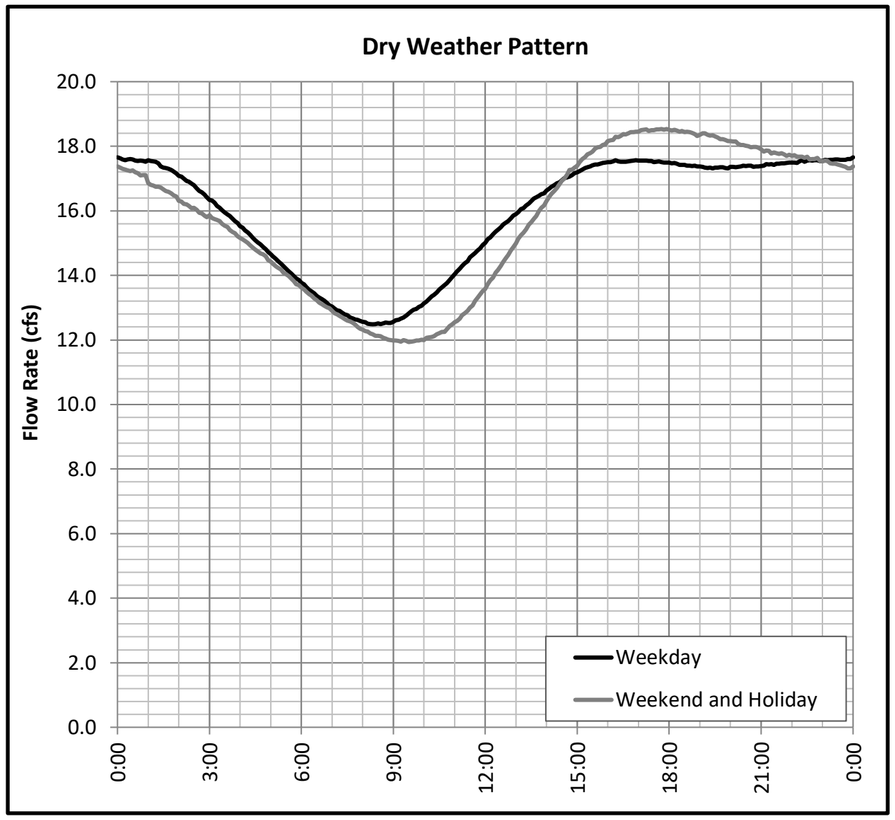
Figure 8-22
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-30
Interceptor Manhole ID: MR 1-11

Location: Hines Drive and Outer Drive
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	25.5	511.3	19.2	385.7	16	15
Feb-24	21.5	402.1	20.4	383.2	24	5
Mar-24	20.6	412.8	19.9	399.0	23	8
Apr-24	24.9	482.7	21.9	424.4	18	12
May-24	20.2	404.0	19.2	384.3	22	9
Jun-24	19.0	367.9	17.3	335.8	21	9
Jul-24	21.1	422.5	18.7	374.1	23	8
Aug-24	18.2	365.4	16.6	333.2	21	10
Sep-24	14.6	282.6	14.6	282.6	29	1
Oct-24	14.0	279.7	13.4	268.7	25	6
Nov-24	14.4	280.1	13.8	267.5	22	8
Dec-24	16.4	328.6	14.6	292.5	22	9

Statistics for Significant Wet Weather Events

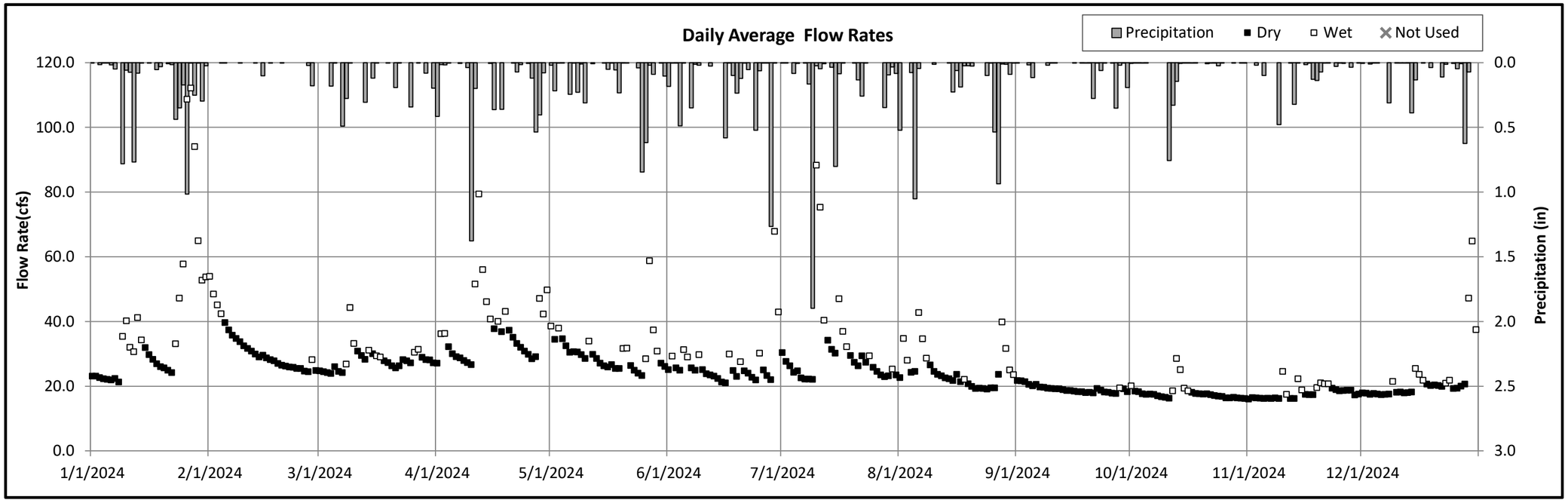
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	36.78	1/9/24 21:40	3.16	1/9/24 22:15
2	1.66	1/22/2024	1/31/2024	59.11	1/26/24 13:50	13.52	1/27/24 1:50
3	1.71	4/10/2024	4/12/2024	48.56	4/11/24 23:05	-	-
4	1.08	4/28/2024	4/30/2024	36.64	4/28/24 10:55	3.20	4/28/24 11:30
5	1.48	5/26/2024	5/27/2024	38.17	5/27/24 8:10	3.47	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	48.95	6/29/24 12:30	7.85	6/29/24 10:10
7	2.21	7/9/2024	7/11/2024	55.27	7/10/24 16:45	11.53	7/10/24 14:25
8	1.16	8/6/2024	8/6/2024	39.39	8/6/24 14:55	3.15	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	28.66	10/13/24 0:55	2.74	10/13/24 1:05
10	1.10	10/28/2021	10/30/2021	44.11	12/30/24 3:05	7.76	12/30/24 3:45

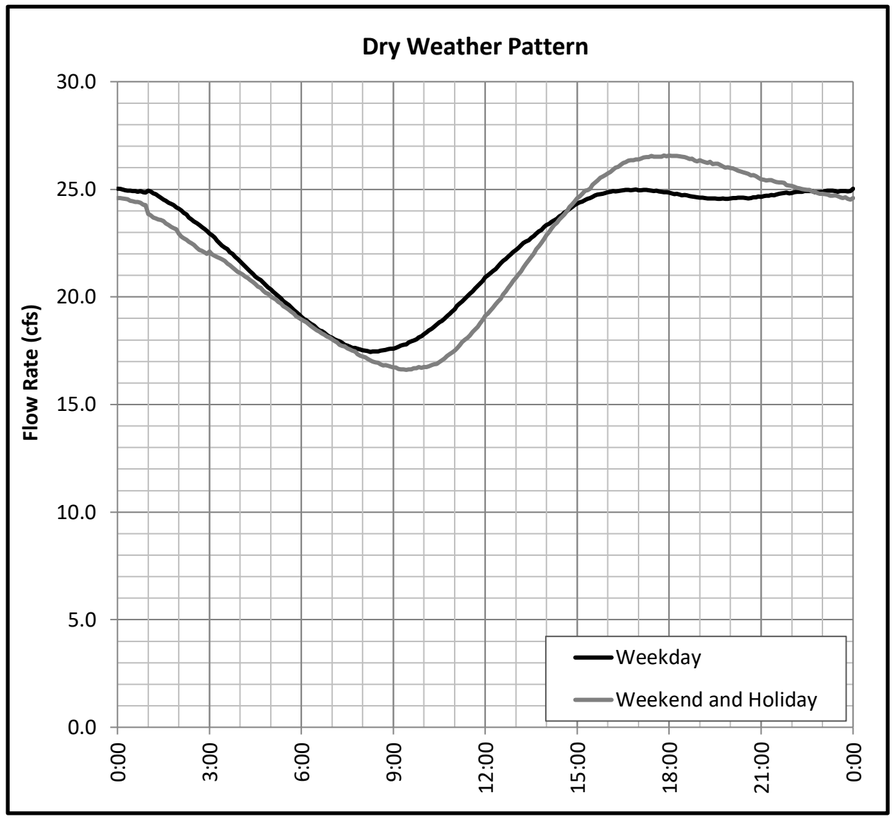
Figure 8-23
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-31
Interceptor Manhole ID: RVI 6-12

Location: Hines Drive and Outer Drive
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	39.8	797.6	24.8	496.1	16	15
Feb-24	31.8	596.8	29.4	550.8	24	5
Mar-24	28.2	565.3	26.9	539.4	23	8
Apr-24	37.6	728.8	31.1	602.3	18	12
May-24	30.6	612.2	28.1	563.0	22	9
Jun-24	27.2	526.8	23.7	459.2	21	9
Jul-24	31.5	630.7	26.1	523.7	23	8
Aug-24	24.9	498.6	21.9	439.6	21	10
Sep-24	19.1	370.9	19.1	370.7	29	1
Oct-24	18.0	360.5	17.1	342.9	25	6
Nov-24	18.1	351.2	17.2	333.5	22	8
Dec-24	22.5	449.9	18.7	374.7	22	9

Statistics for Significant Wet Weather Events

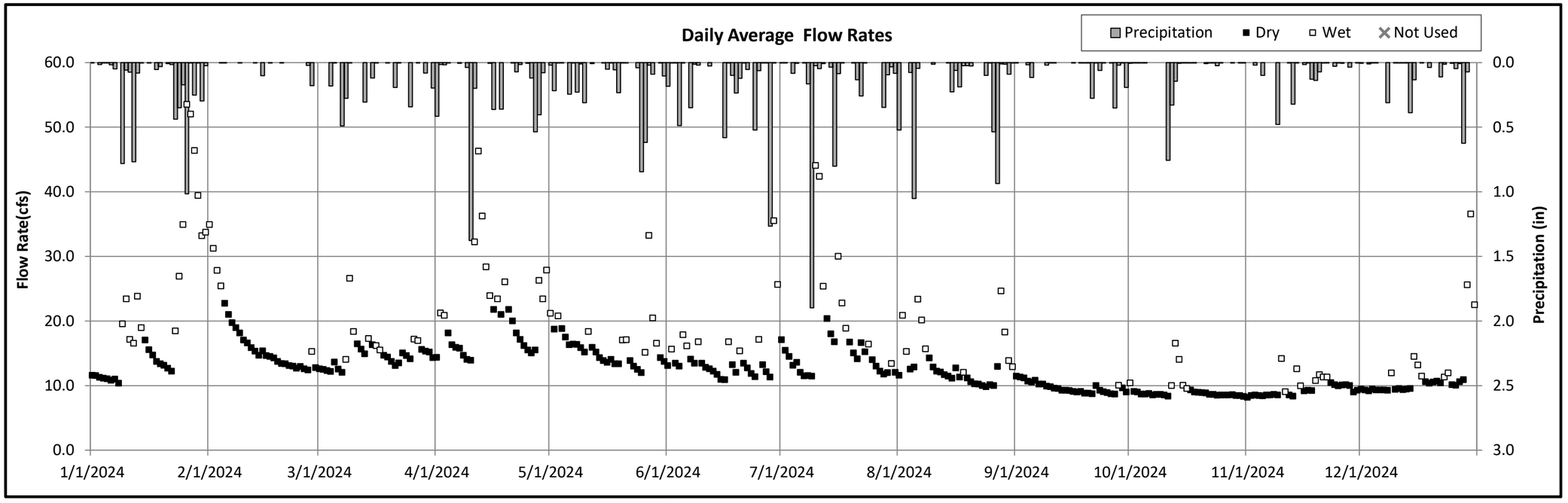
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	65.63	1/9/24 22:00	4.20	1/9/24 22:15
2	1.66	1/22/2024	1/31/2024	115.10	1/26/24 10:55	13.89	1/26/24 19:10
3	1.71	4/10/2024	4/12/2024	97.24	4/12/24 2:15	7.40	4/12/24 1:50
4	1.08	4/28/2024	4/30/2024	74.38	4/28/24 10:35	-	-
5	1.48	5/26/2024	5/27/2024	72.30	5/27/24 7:40	2.60	5/26/24 16:50
6	1.35	6/28/2024	6/29/2024	97.97	6/29/24 12:20	9.43	6/29/24 10:10
7	2.21	7/9/2024	7/11/2024	111.40	7/10/24 14:20	13.13	7/10/24 14:25
8	1.16	8/6/2024	8/6/2024	72.68	8/6/24 14:55	4.09	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	46.75	10/13/24 0:45	3.23	10/13/24 1:25
10	1.10	10/28/2021	10/30/2021	88.90	12/30/24 2:35	9.23	12/30/24 3:25

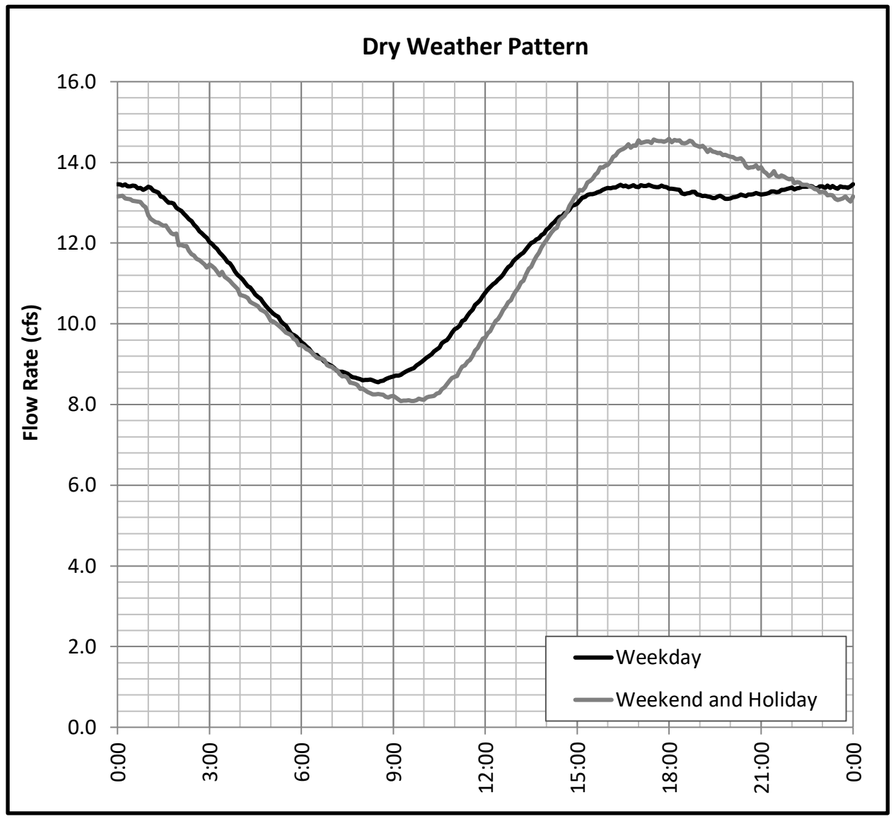
Figure 8-24
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-32
Interceptor Manhole ID: MRIR 2-21

Location: Hines Drive and Outer Drive
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	21.3	426.1	12.6	252.0	16	15
Feb-24	17.4	325.4	15.4	288.0	24	5
Mar-24	15.1	301.7	14.1	282.9	23	8
Apr-24	21.4	414.5	17.0	328.7	18	12
May-24	16.4	328.4	14.9	298.9	22	9
Jun-24	14.7	284.3	12.5	243.0	21	9
Jul-24	17.5	350.0	14.3	285.9	23	8
Aug-24	13.5	270.8	11.5	230.7	21	10
Sep-24	9.7	187.2	9.6	187.0	29	1
Oct-24	9.3	185.8	8.7	173.9	25	6
Nov-24	9.7	187.8	9.1	176.0	22	8
Dec-24	12.1	242.5	9.8	196.9	22	9

Statistics for Significant Wet Weather Events

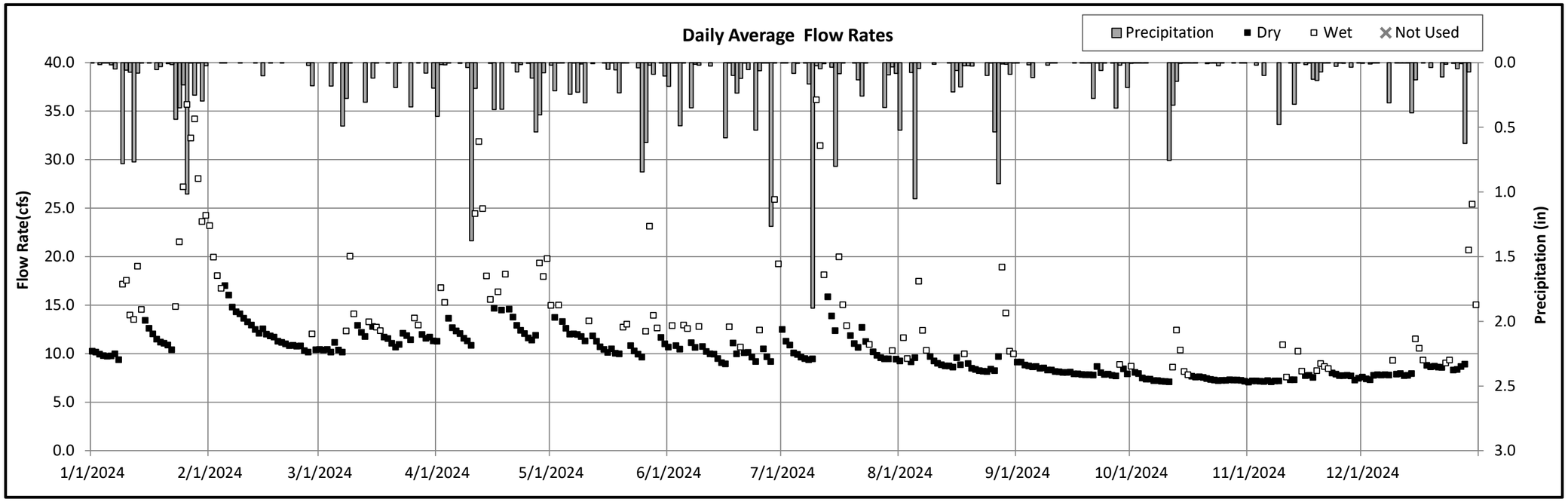
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	38.21	1/9/24 23:00	3.71	1/9/24 22:25
2	1.66	1/22/2024	1/31/2024	56.79	1/26/24 11:55	14.49	1/27/24 1:45
3	1.71	4/10/2024	4/12/2024	51.64	4/11/24 23:05	6.99	4/12/24 1:55
4	1.08	4/28/2024	4/30/2024	41.84	4/28/24 10:35	3.87	4/28/24 11:40
5	1.48	5/26/2024	5/27/2024	40.62	5/27/24 7:40	4.48	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	47.31	6/29/24 11:40	8.95	6/29/24 10:10
7	2.21	7/9/2024	7/11/2024	57.14	7/10/24 17:20	12.71	7/10/24 14:30
8	1.16	8/6/2024	8/6/2024	43.22	8/6/24 14:35	3.54	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	30.26	10/13/24 0:55	2.75	10/13/24 1:05
10	1.10	10/28/2021	10/30/2021	44.31	12/30/24 1:40	8.91	12/30/24 3:40

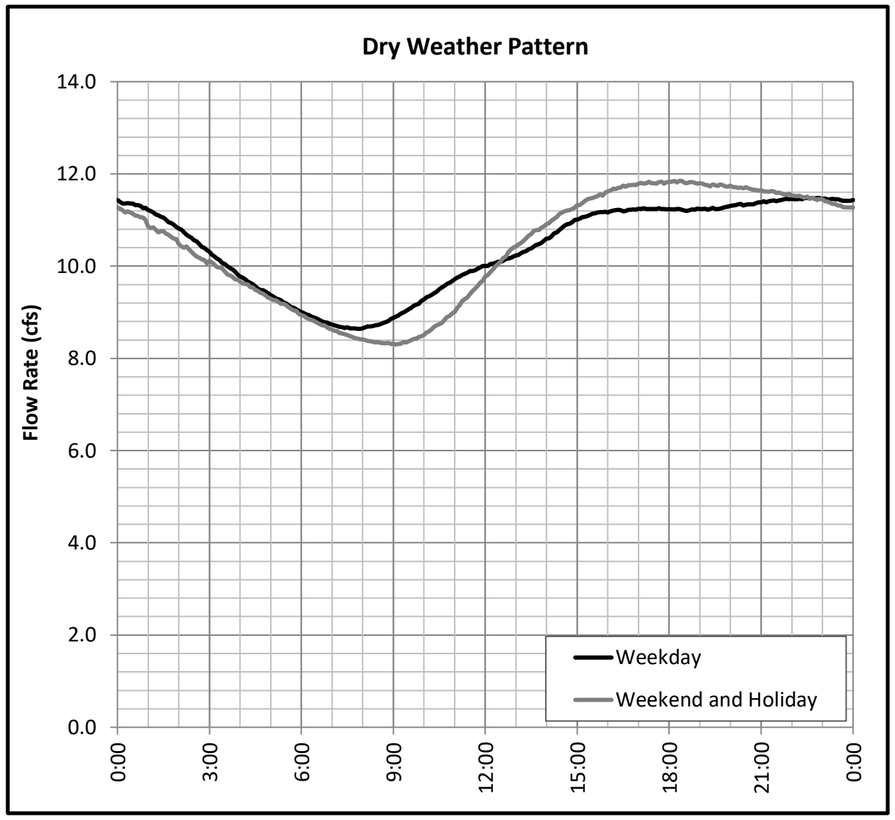
Figure 8-25
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-33
Interceptor Manhole ID: MR 2-1

Location: Hines Drive West of Telegraph Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	16.4	329.1	10.7	215.4	16	15
Feb-24	13.3	249.6	12.3	231.4	24	5
Mar-24	12.0	240.3	11.3	226.9	23	8
Apr-24	15.5	299.8	12.5	242.9	18	12
May-24	12.2	244.3	11.2	224.8	22	9
Jun-24	11.5	222.1	10.1	195.2	21	9
Jul-24	13.1	261.7	10.9	217.8	23	8
Aug-24	10.0	200.7	8.9	177.4	21	10
Sep-24	8.2	159.8	8.2	159.4	29	1
Oct-24	7.8	155.3	7.4	147.7	25	6
Nov-24	7.8	151.7	7.4	144.0	22	8
Dec-24	9.6	192.8	8.1	162.2	22	9

Statistics for Significant Wet Weather Events

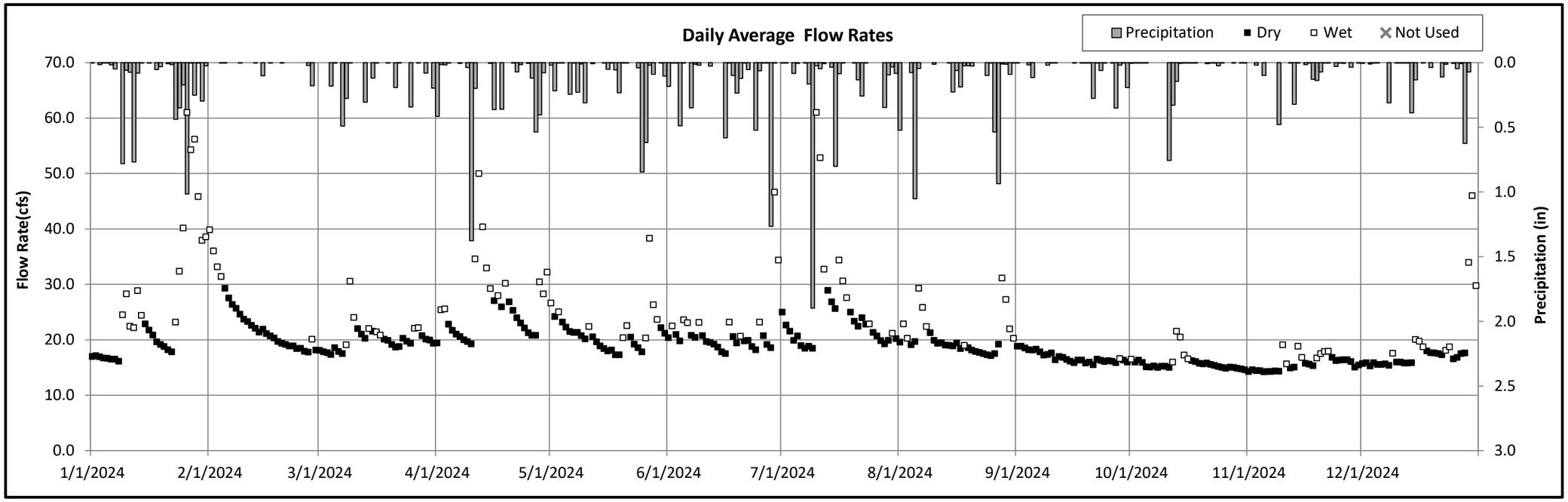
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	27.35	1/9/24 21:10	2.03	1/9/24 21:25
2	1.66	1/22/2024	1/31/2024	37.22	1/26/24 5:55	10.55	1/27/24 2:20
3	1.71	4/10/2024	4/12/2024	34.08	4/11/24 22:55	3.37	4/12/24 2:10
4	1.08	4/28/2024	4/30/2024	29.51	4/28/24 9:50	-	-
5	1.48	5/26/2024	5/27/2024	28.74	5/27/24 7:15	-	-
6	1.35	6/28/2024	6/29/2024	0.01	6/29/24 0:45	-	-
7	2.21	7/9/2024	7/11/2024	44.28	7/10/24 15:45	-	-
8	1.16	8/6/2024	8/6/2024	33.62	8/6/24 14:40	-	-
9	2.04	10/24/2021	10/25/2021	24.83	10/12/24 23:55	1.70	10/13/24 0:05
10	1.10	10/28/2021	10/30/2021	32.46	12/29/24 18:30	5.12	12/30/24 3:25

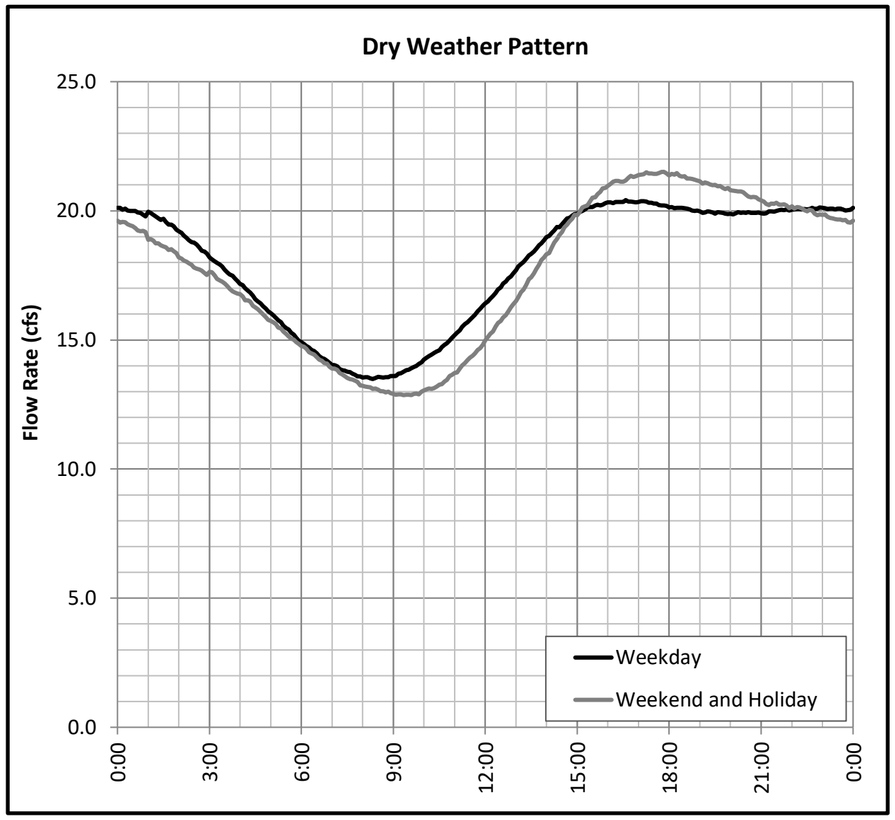
Figure 8-26
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-34
Interceptor Manhole ID: RVI 6-28

Location: Hines Drive West of Telegraph Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	26.9	538.1	18.3	366.2	16	15
Feb-24	23.4	438.0	21.5	403.8	24	5
Mar-24	20.3	405.8	19.4	388.2	23	8
Apr-24	26.3	509.7	22.3	432.4	18	12
May-24	21.5	431.6	20.1	402.8	22	9
Jun-24	21.7	420.6	19.5	379.0	21	9
Jul-24	25.4	509.1	21.9	439.5	23	8
Aug-24	20.5	409.8	18.8	375.8	21	10
Sep-24	16.8	326.4	16.8	326.5	29	1
Oct-24	15.9	317.9	15.3	307.5	25	6
Nov-24	15.8	306.8	15.2	294.7	22	8
Dec-24	18.8	376.8	16.4	328.3	22	9

Statistics for Significant Wet Weather Events

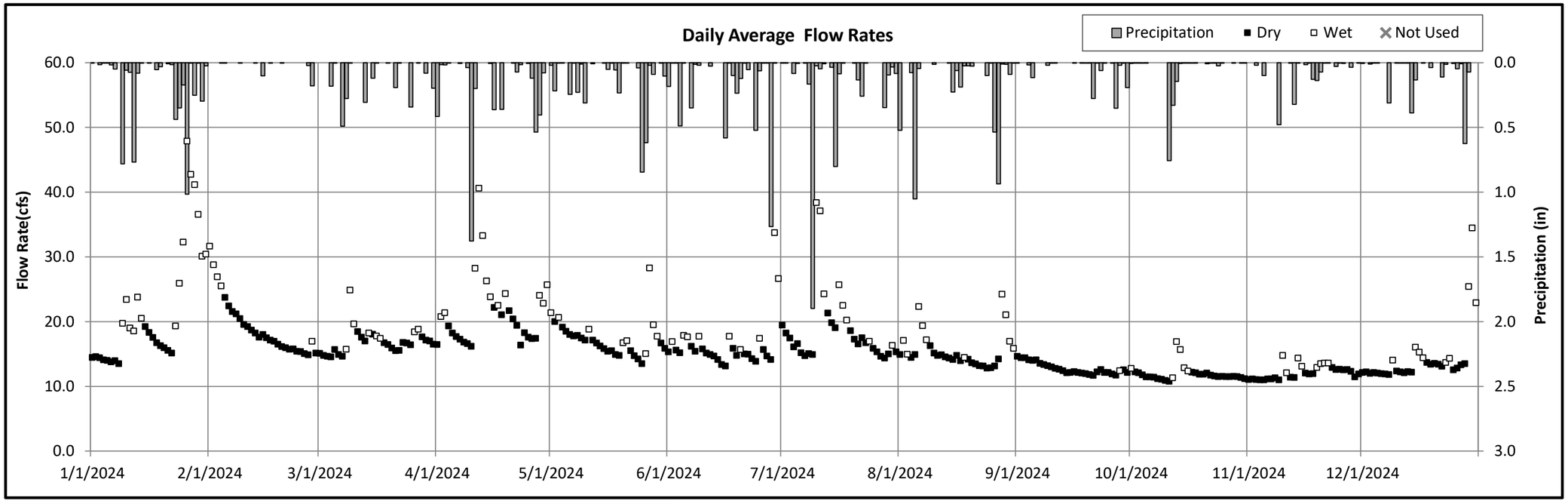
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	43.66	1/9/24 21:10	3.67	1/9/24 21:50
2	1.66	1/22/2024	1/31/2024	71.00	1/26/24 5:50	9.82	1/27/24 23:25
3	1.71	4/10/2024	4/12/2024	52.05	4/12/24 11:15	5.68	4/12/24 1:55
4	1.08	4/28/2024	4/30/2024	46.12	4/28/24 10:15	3.70	4/28/24 11:10
5	1.48	5/26/2024	5/27/2024	50.34	5/27/24 8:50	4.07	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	76.96	6/29/24 13:25	7.93	6/29/24 11:05
7	2.21	7/9/2024	7/11/2024	84.07	7/10/24 17:30	9.89	7/11/24 1:10
8	1.16	8/6/2024	8/6/2024	50.85	8/6/24 14:55	3.96	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	31.13	10/13/24 0:15	3.13	10/13/24 0:45
10	1.10	10/28/2021	10/30/2021	58.83	12/29/24 21:35	7.58	12/30/24 3:30

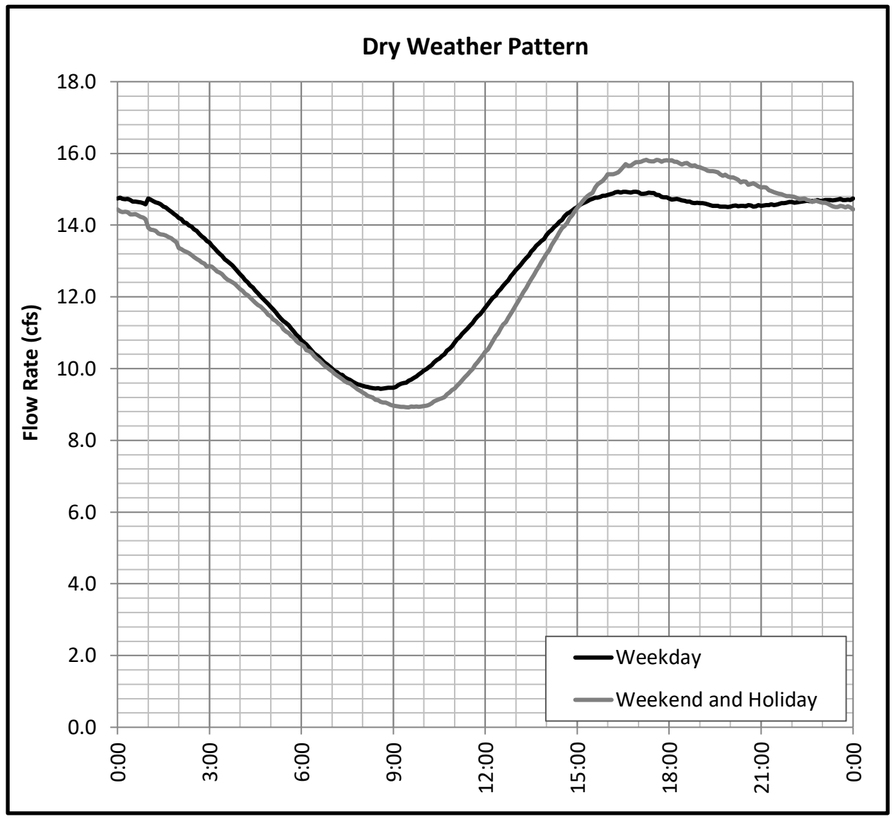
Figure 8-27
Rouge Valley Sewage Disposal System
Meter Report

Meter: P-35
Interceptor Manhole ID: MRIR 3-1

Location: Hines Drive West of Telegraph Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	21.9	438.7	15.5	309.8	16	15
Feb-24	19.2	360.6	17.8	334.4	24	5
Mar-24	16.9	339.0	16.2	325.5	23	8
Apr-24	21.5	416.3	18.4	355.8	18	12
May-24	17.4	347.8	16.5	330.5	22	9
Jun-24	16.4	318.9	14.9	288.1	21	9
Jul-24	18.9	379.0	16.7	335.4	23	8
Aug-24	15.5	311.0	14.2	284.0	21	10
Sep-24	12.7	247.1	12.8	247.4	29	1
Oct-24	12.0	239.9	11.6	231.8	25	6
Nov-24	12.2	236.1	11.7	226.8	22	8
Dec-24	14.4	289.0	12.6	251.8	22	9

Statistics for Significant Wet Weather Events

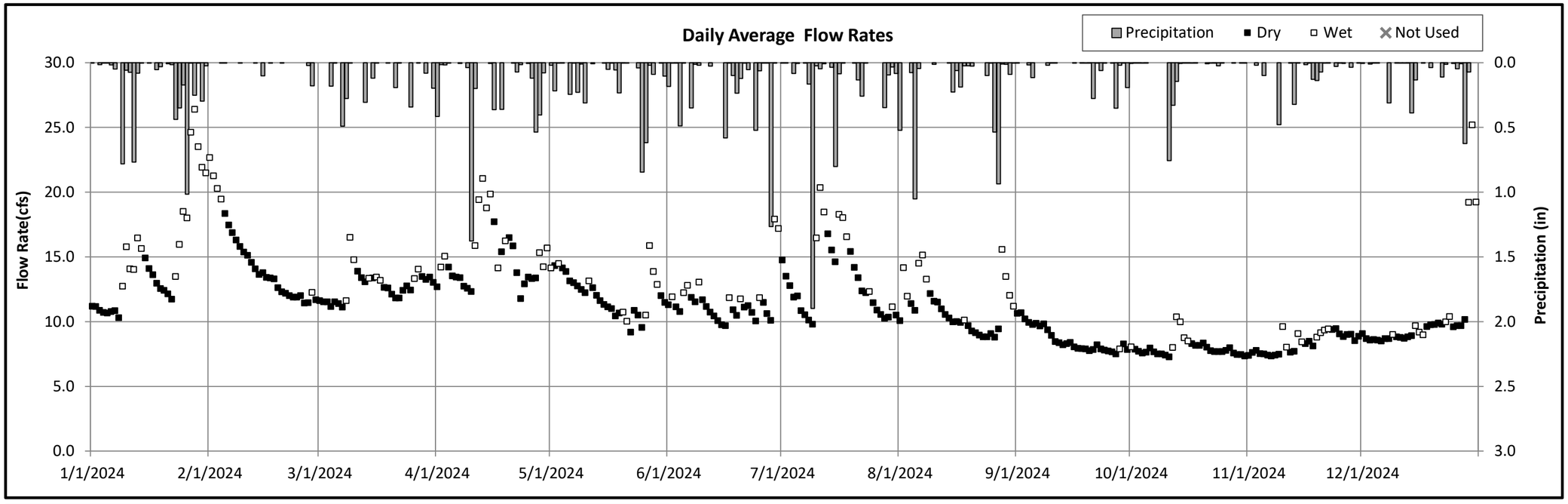
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	34.69	1/9/24 21:05	3.19	1/9/24 21:40
2	1.66	1/22/2024	1/31/2024	52.56	1/26/24 8:30	9.95	1/26/24 9:55
3	1.71	4/10/2024	4/12/2024	46.55	4/11/24 23:50	4.73	4/12/24 2:20
4	1.08	4/28/2024	4/30/2024	33.83	4/28/24 11:55	3.20	4/28/24 11:00
5	1.48	5/26/2024	5/27/2024	33.49	5/27/24 8:50	3.43	5/27/24 8:45
6	1.35	6/28/2024	6/29/2024	46.18	6/29/24 14:55	6.70	6/29/24 11:05
7	2.21	7/9/2024	7/11/2024	48.98	7/10/24 14:45	10.10	7/10/24 13:40
8	1.16	8/6/2024	8/6/2024	38.28	8/6/24 14:55	3.33	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	24.31	10/13/24 0:25	2.67	10/13/24 1:15
10	1.10	10/28/2021	10/30/2021	42.07	12/29/24 21:35	6.34	12/30/24 3:25

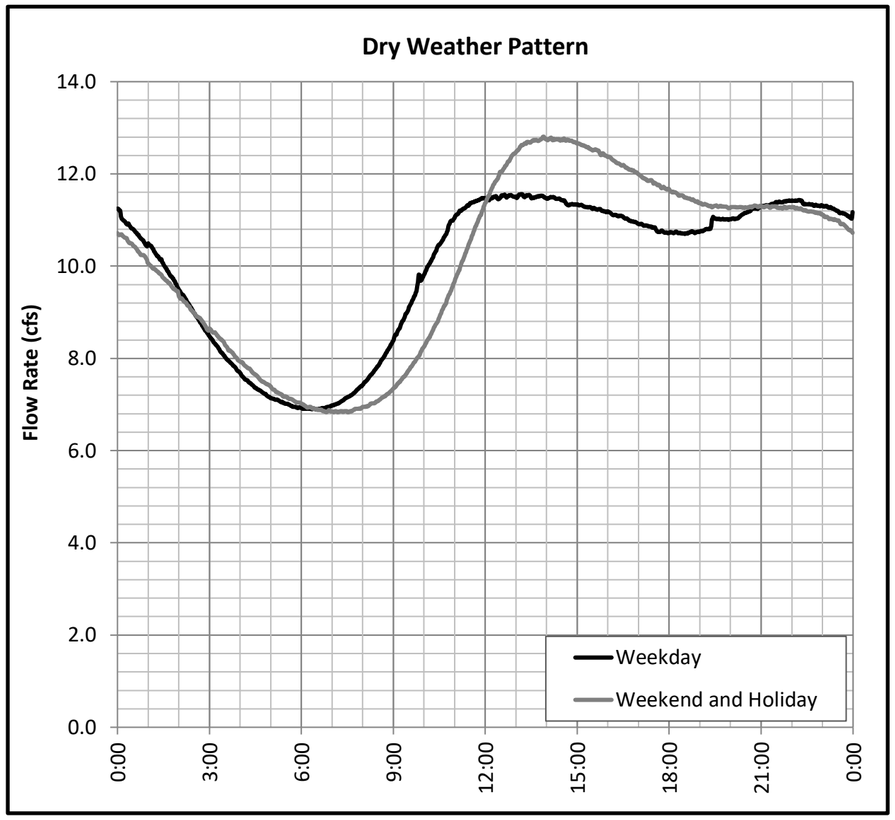
Figure 8-28
Rouge Valley Sewage Disposal System
Meter Report

Meter: LV-Basin
Interceptor Manhole ID: RVI 12-12

Location: Inkster Road and Oakley Street
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	15.0	299.6	11.9	239.0	16	15
Feb-24	14.7	275.8	13.8	258.4	24	5
Mar-24	12.8	255.7	12.4	248.6	23	8
Apr-24	15.0	290.1	13.8	268.1	18	12
May-24	12.1	243.0	11.8	237.1	22	9
Jun-24	11.6	224.5	10.8	209.4	21	9
Jul-24	13.4	269.1	12.4	248.0	23	8
Aug-24	11.1	221.5	10.1	201.5	21	10
Sep-24	8.6	167.2	8.6	167.7	29	1
Oct-24	8.0	159.7	7.7	155.0	25	6
Nov-24	8.4	162.7	8.2	158.5	22	8
Dec-24	10.4	208.2	9.2	183.3	22	9

Statistics for Significant Wet Weather Events

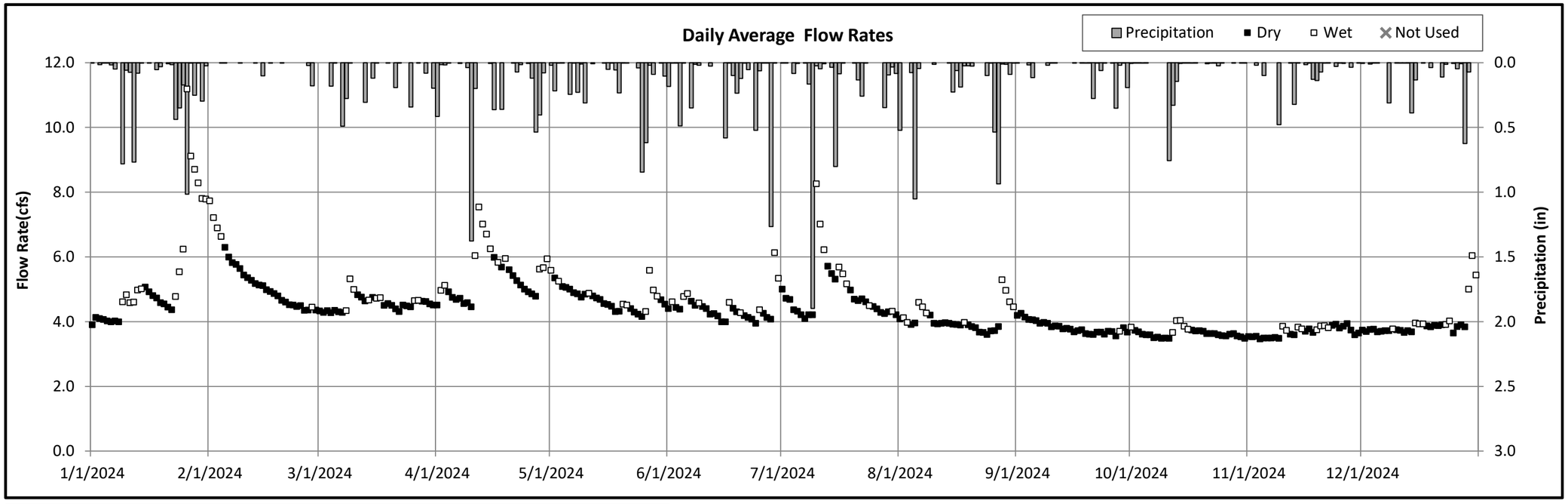
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	19.39	1/9/24 22:30	4.06	1/10/24 2:05
2	1.66	1/22/2024	1/31/2024	30.03	1/28/24 15:45	12.82	1/26/24 11:50
3	1.71	4/10/2024	4/12/2024	23.09	4/11/24 21:45	5.02	4/11/24 23:40
4	1.08	4/28/2024	4/30/2024	19.50	4/28/24 13:45	3.45	4/28/24 12:00
5	1.48	5/26/2024	5/27/2024	19.50	5/26/24 21:45	3.82	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	24.03	6/29/24 10:40	4.38	6/29/24 10:50
7	2.21	7/9/2024	7/11/2024	23.57	7/10/24 23:55	10.34	7/10/24 15:40
8	1.16	8/6/2024	8/6/2024	22.91	8/6/24 12:50	4.01	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	13.02	10/13/24 0:05	2.53	10/13/24 0:00
10	1.10	10/28/2021	10/30/2021	35.76	12/30/24 1:10	3.96	12/29/24 19:20

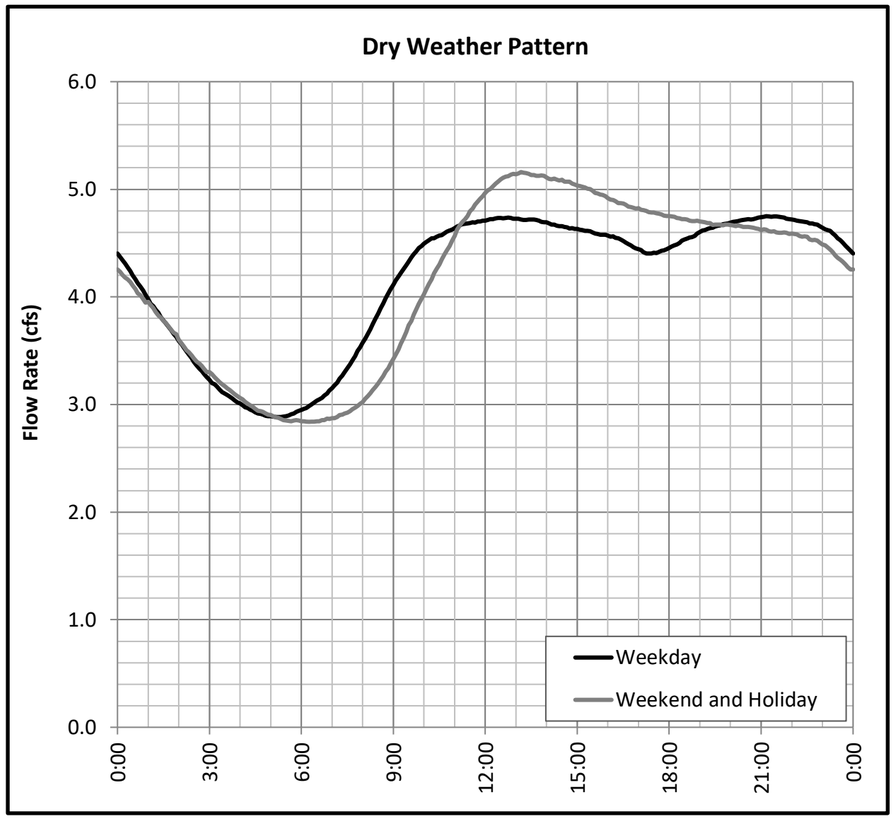
Figure 8-29
Rouge Valley Sewage Disposal System
Meter Report

Meter: WE-14
Interceptor Manhole ID: --

Location: Hines Drive West of Merriman
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	5.4	108.4	4.4	87.2	16	15
Feb-24	5.3	99.4	5.0	94.4	24	5
Mar-24	4.6	91.3	4.5	89.8	23	8
Apr-24	5.4	105.0	5.0	96.7	18	12
May-24	4.7	94.9	4.7	93.4	22	9
Jun-24	4.4	85.9	4.3	82.5	21	9
Jul-24	4.9	98.5	4.6	92.2	23	8
Aug-24	4.1	81.5	3.9	77.6	21	10
Sep-24	3.8	74.0	3.8	74.1	29	1
Oct-24	3.6	73.1	3.6	72.1	25	6
Nov-24	3.7	71.6	3.6	70.7	22	8
Dec-24	4.0	79.4	3.8	75.5	22	9

Statistics for Significant Wet Weather Events

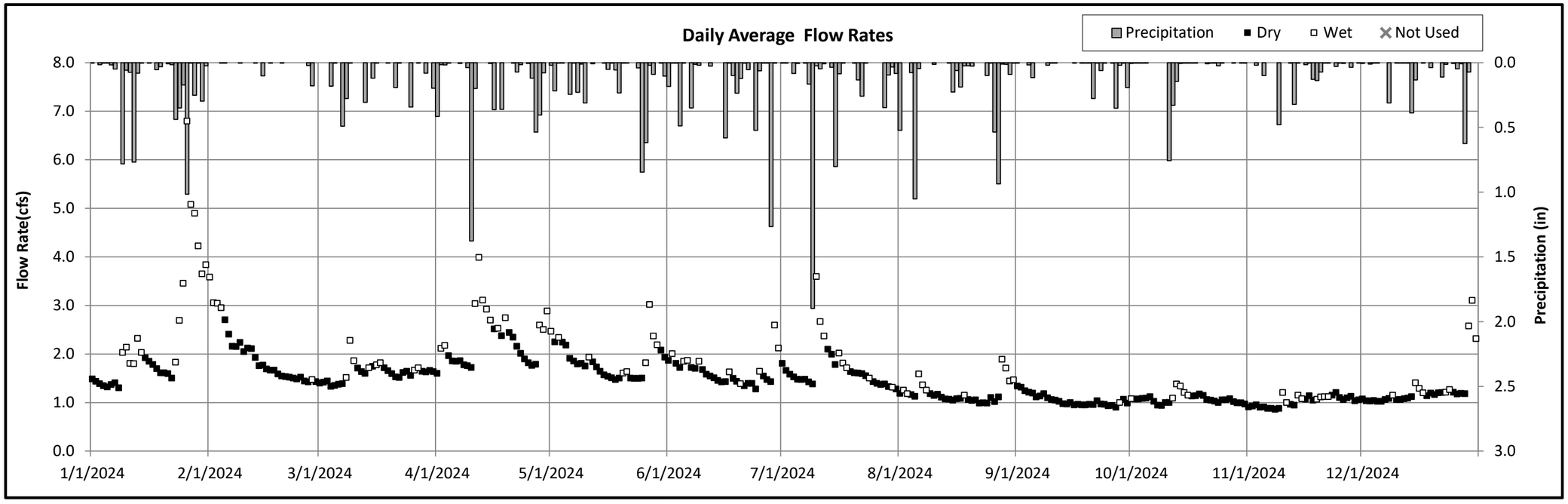
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	6.66	1/9/24 20:05	1.57	1/9/24 20:35
2	1.66	1/22/2024	1/31/2024	13.04	1/26/24 9:50	9.29	1/26/24 10:10
3	1.71	4/10/2024	4/12/2024	8.64	4/11/24 21:20	1.88	4/11/24 21:35
4	1.08	4/28/2024	4/30/2024	7.12	4/28/24 9:05	1.64	4/28/24 9:25
5	1.48	5/26/2024	5/27/2024	7.29	5/26/24 20:10	1.69	5/26/24 20:45
6	1.35	6/28/2024	6/29/2024	8.49	6/29/24 8:20	1.93	6/29/24 8:45
7	2.21	7/9/2024	7/11/2024	13.21	7/10/24 13:55	3.89	7/10/24 15:35
8	1.16	8/6/2024	8/6/2024	7.21	8/6/24 13:55	1.68	8/6/24 14:25
9	2.04	10/24/2021	10/25/2021	5.07	10/13/24 13:45	1.36	10/13/24 13:50
10	1.10	10/28/2021	10/30/2021	7.57	12/29/24 16:10	1.74	12/29/24 16:35

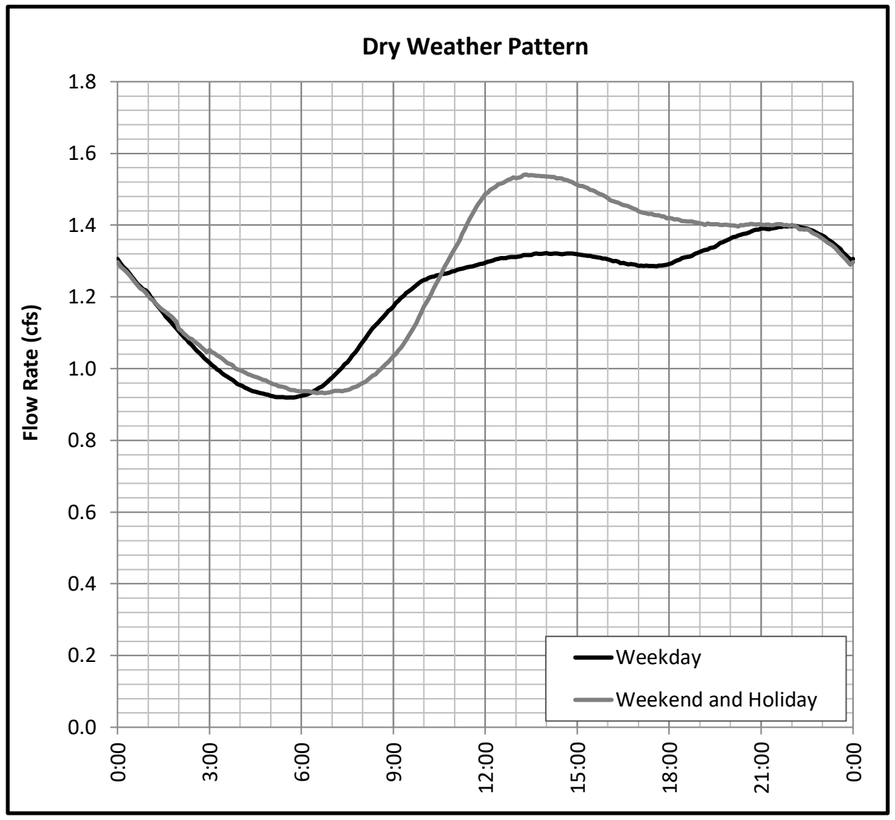
Figure 8-30
Rouge Valley Sewage Disposal System
Meter Report

Meter: WE-28
Interceptor Manhole ID: --

Location: Merriman Road and Lower Rouge River
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

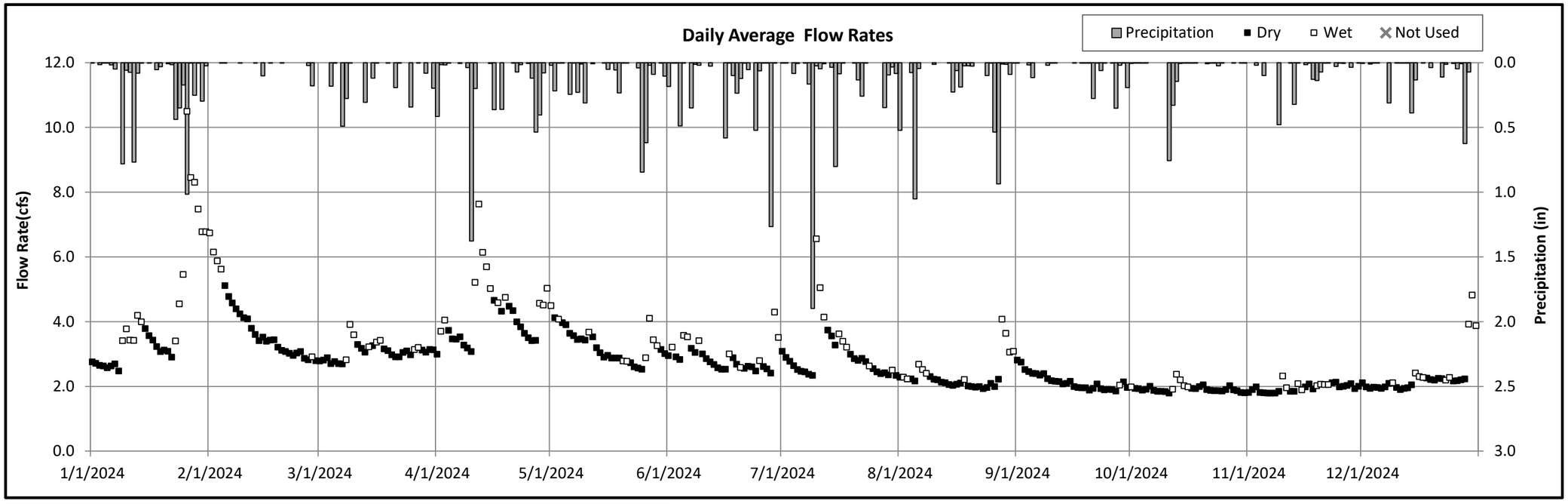
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	2.4	47.3	1.5	30.8	16	15
Feb-24	2.0	37.2	1.8	33.9	24	5
Mar-24	1.6	32.4	1.6	31.2	23	8
Apr-24	2.3	44.5	2.0	38.2	18	12
May-24	1.9	37.5	1.8	35.1	22	9
Jun-24	1.6	31.8	1.5	29.8	21	9
Jul-24	1.7	34.1	1.6	31.2	23	8
Aug-24	1.2	23.9	1.1	21.7	21	10
Sep-24	1.0	20.3	1.0	20.3	29	1
Oct-24	1.1	21.6	1.0	21.0	25	6
Nov-24	1.0	20.0	1.0	19.5	22	8
Dec-24	1.3	25.8	1.1	22.2	22	9

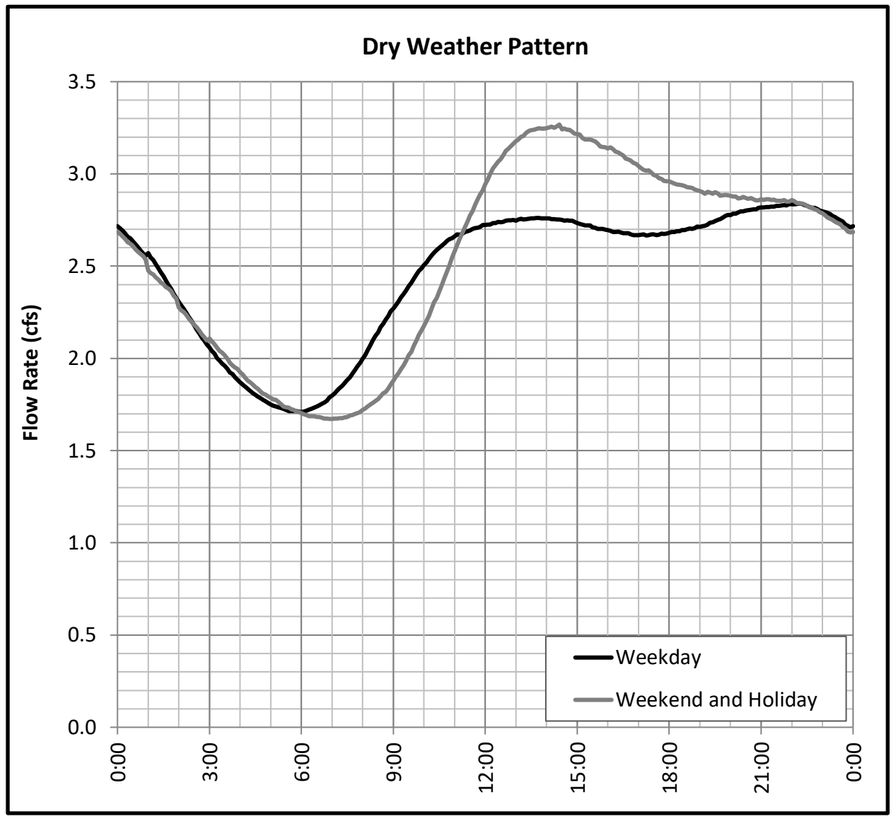
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	3.69	1/9/24 20:00	0.84	1/9/24 20:40
2	1.66	1/22/2024	1/31/2024	8.18	1/26/24 4:50	1.48	1/26/24 5:25
3	1.71	4/10/2024	4/12/2024	5.33	4/11/24 21:25	1.04	4/11/24 21:40
4	1.08	4/28/2024	4/30/2024	4.60	4/28/24 8:45	0.96	4/28/24 9:10
5	1.48	5/26/2024	5/27/2024	4.43	5/27/24 6:25	0.94	5/26/24 20:30
6	1.35	6/28/2024	6/29/2024	4.53	6/29/24 8:05	0.96	6/29/24 8:25
7	2.21	7/9/2024	7/11/2024	5.19	7/10/24 4:15	1.04	7/10/24 4:30
8	1.16	8/6/2024	8/6/2024	3.60	8/6/24 13:40	0.85	8/6/24 14:05
9	2.04	10/24/2021	10/25/2021	2.02	10/12/24 23:05	0.55	10/12/24 23:15
10	1.10	10/28/2021	10/30/2021	4.13	12/29/24 15:20	0.90	12/29/24 15:30

Figure 8-31
Rouge Valley Sewage Disposal System
Meter Report

Meter: WE-25 **Location: Thinbark Road at Lower Rouge River** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: -- **Interceptor Branch: Lower Rouge**





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	4.2	84.8	3.0	59.2	16	15
Feb-24	3.9	73.1	3.6	67.0	24	5
Mar-24	3.1	61.6	3.0	59.8	23	8
Apr-24	4.2	82.2	3.7	71.4	18	12
May-24	3.3	65.8	3.2	64.0	22	9
Jun-24	2.9	56.3	2.7	52.8	21	9
Jul-24	3.0	60.7	2.7	54.7	23	8
Aug-24	2.3	46.6	2.1	42.0	21	10
Sep-24	2.1	41.6	2.2	41.7	29	1
Oct-24	1.9	38.6	1.9	37.9	25	6
Nov-24	2.0	38.0	1.9	37.4	22	8
Dec-24	2.3	46.4	2.1	41.6	22	9

Statistics for Significant Wet Weather Events

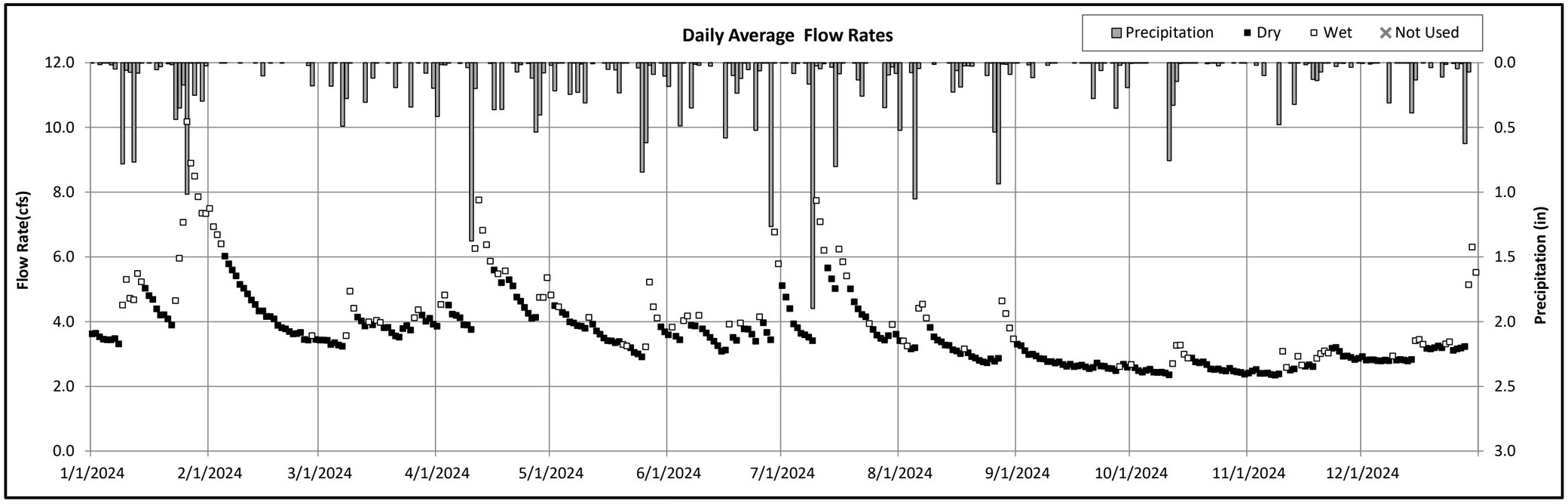
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	5.78	1/9/24 20:15	1.10	1/9/24 20:35
2	1.66	1/22/2024	1/31/2024	12.69	1/26/24 8:20	2.49	1/26/24 7:50
3	1.71	4/10/2024	4/12/2024	9.08	4/11/24 23:55	1.47	4/12/24 0:00
4	1.08	4/28/2024	4/30/2024	7.66	4/28/24 10:30	1.31	4/28/24 11:05
5	1.48	5/26/2024	5/27/2024	6.36	5/26/24 21:45	1.19	5/26/24 22:05
6	1.35	6/28/2024	6/29/2024	8.10	6/29/24 9:45	1.36	6/29/24 10:20
7	2.21	7/9/2024	7/11/2024	10.41	7/10/24 14:55	1.73	7/10/24 14:50
8	1.16	8/6/2024	8/6/2024	5.37	8/6/24 14:55	0.95	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	3.38	10/13/24 0:55	0.87	10/13/24 1:15
10	1.10	10/28/2021	10/30/2021	6.37	12/29/24 16:30	1.18	12/29/24 16:50

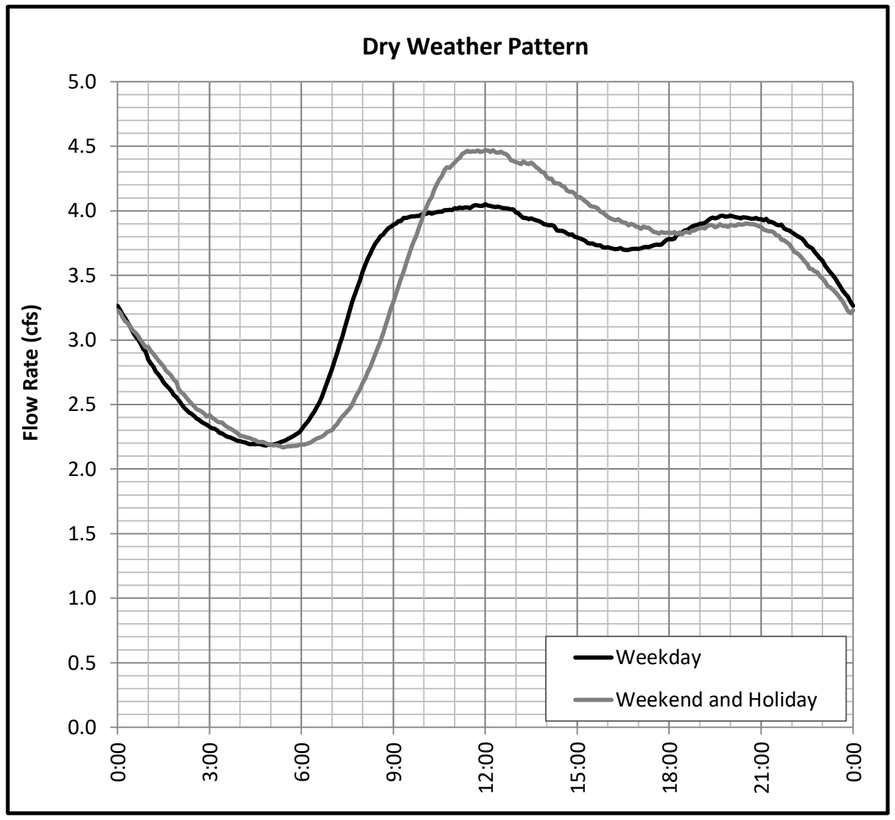
Figure 8-32
Rouge Valley Sewage Disposal System
Meter Report

Meter: LV-4
Interceptor Manhole ID: --

Location: Alpine Road and 5 Mile Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

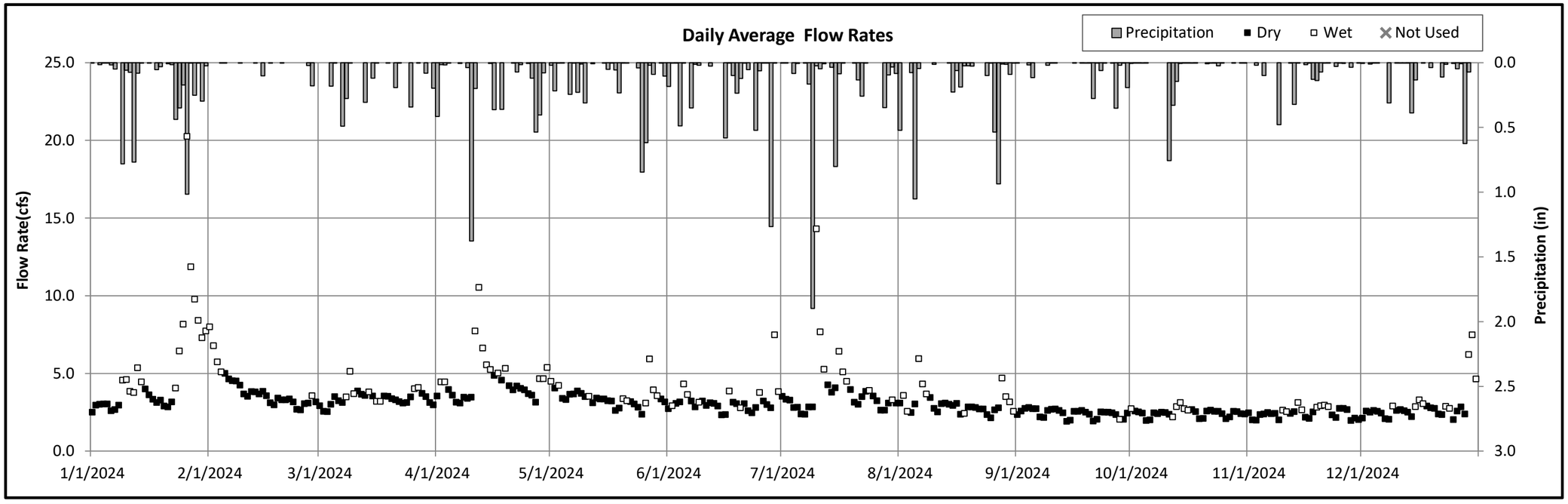
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	5.2	104.0	3.9	79.1	16	15
Feb-24	4.7	87.6	4.4	81.6	24	5
Mar-24	3.8	76.7	3.7	74.3	23	8
Apr-24	4.9	95.8	4.4	86.1	18	12
May-24	3.8	75.8	3.7	73.2	22	9
Jun-24	3.8	74.6	3.6	68.9	21	9
Jul-24	4.6	92.0	4.2	83.6	23	8
Aug-24	3.4	67.4	3.1	62.2	21	10
Sep-24	2.7	53.2	2.7	53.3	29	1
Oct-24	2.6	52.3	2.5	50.6	25	6
Nov-24	2.7	52.8	2.7	51.6	22	8
Dec-24	3.3	65.9	3.0	59.4	22	9

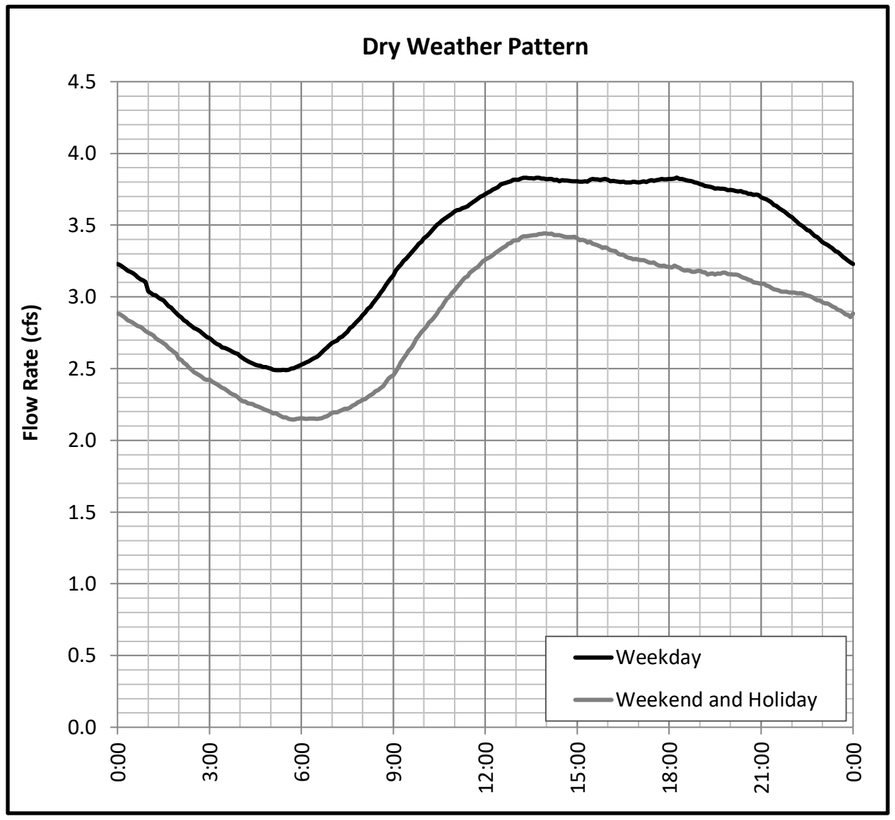
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	7.01	1/9/24 19:20	1.75	1/9/24 19:45
2	1.66	1/22/2024	1/31/2024	11.17	1/26/24 5:00	2.59	1/26/24 5:10
3	1.71	4/10/2024	4/12/2024	9.18	4/11/24 22:15	1.99	4/11/24 22:10
4	1.08	4/28/2024	4/30/2024	6.45	4/28/24 9:50	1.62	4/28/24 10:15
5	1.48	5/26/2024	5/27/2024	8.53	5/27/24 5:50	1.96	5/27/24 6:15
6	1.35	6/28/2024	6/29/2024	10.58	6/29/24 7:35	2.31	6/29/24 7:55
7	2.21	7/9/2024	7/11/2024	10.18	7/10/24 12:00	2.25	7/10/24 12:30
8	1.16	8/6/2024	8/6/2024	7.96	8/6/24 13:30	1.87	8/6/24 13:50
9	2.04	10/24/2021	10/25/2021	4.58	10/13/24 21:00	1.37	10/12/24 23:15
10	1.10	10/28/2021	10/30/2021	7.46	12/29/24 15:20	1.80	12/29/24 15:40

Figure 8-33
Rouge Valley Sewage Disposal System
Meter Report

Meter: LV-11 **Location: Lyndon Road and Inkster Road** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: **Interceptor Branch: Middle Rouge**





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	5.1	103.1	3.1	61.3	16	15
Feb-24	4.0	74.4	3.6	67.2	24	5
Mar-24	3.4	68.5	3.3	65.7	23	8
Apr-24	4.6	88.8	3.8	73.0	18	12
May-24	3.5	69.4	3.3	65.7	22	9
Jun-24	3.2	62.5	2.9	56.3	21	9
Jul-24	4.0	80.3	3.2	64.4	23	8
Aug-24	3.1	61.4	2.8	55.9	21	10
Sep-24	2.4	46.9	2.4	47.2	29	1
Oct-24	2.5	49.2	2.4	48.0	25	6
Nov-24	2.4	47.5	2.3	44.9	22	8
Dec-24	2.9	58.5	2.5	49.6	22	9

Statistics for Significant Wet Weather Events

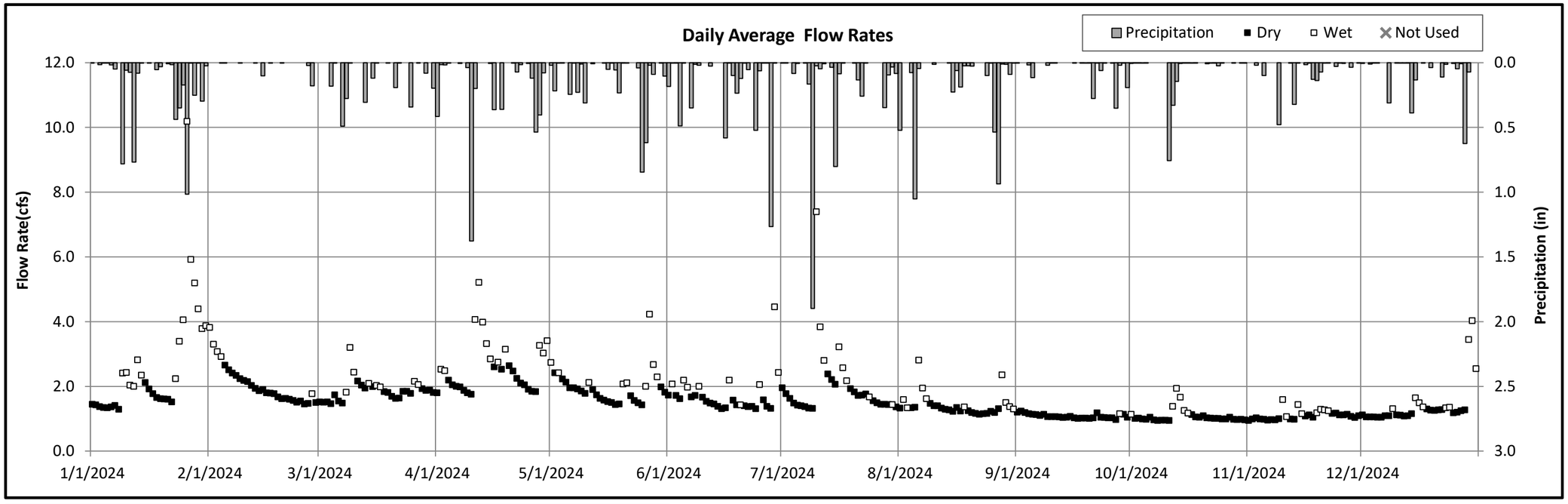
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	9.46	1/9/24 20:00	0.81	1/13/24 15:20
2	1.66	1/22/2024	1/31/2024	27.71	1/26/24 8:10	9.85	1/26/24 11:45
3	1.71	4/10/2024	4/12/2024	15.04	4/11/24 22:20	1.33	4/11/24 22:25
4	1.08	4/28/2024	4/30/2024	7.85	4/28/24 9:50	0.98	4/28/24 10:05
5	1.48	5/26/2024	5/27/2024	11.45	5/27/24 8:50	1.10	5/27/24 8:50
6	1.35	6/28/2024	6/29/2024	16.34	6/29/24 10:05	1.37	6/29/24 10:25
7	2.21	7/9/2024	7/11/2024	23.28	7/10/24 13:40	5.50	7/10/24 15:30
8	1.16	8/6/2024	8/6/2024	13.74	8/6/24 14:25	1.25	8/6/24 14:35
9	2.04	10/24/2021	10/25/2021	4.73	10/12/24 23:20	0.76	10/12/24 23:40
10	1.10	10/28/2021	10/30/2021	11.73	12/29/24 18:50	1.17	12/29/24 19:15

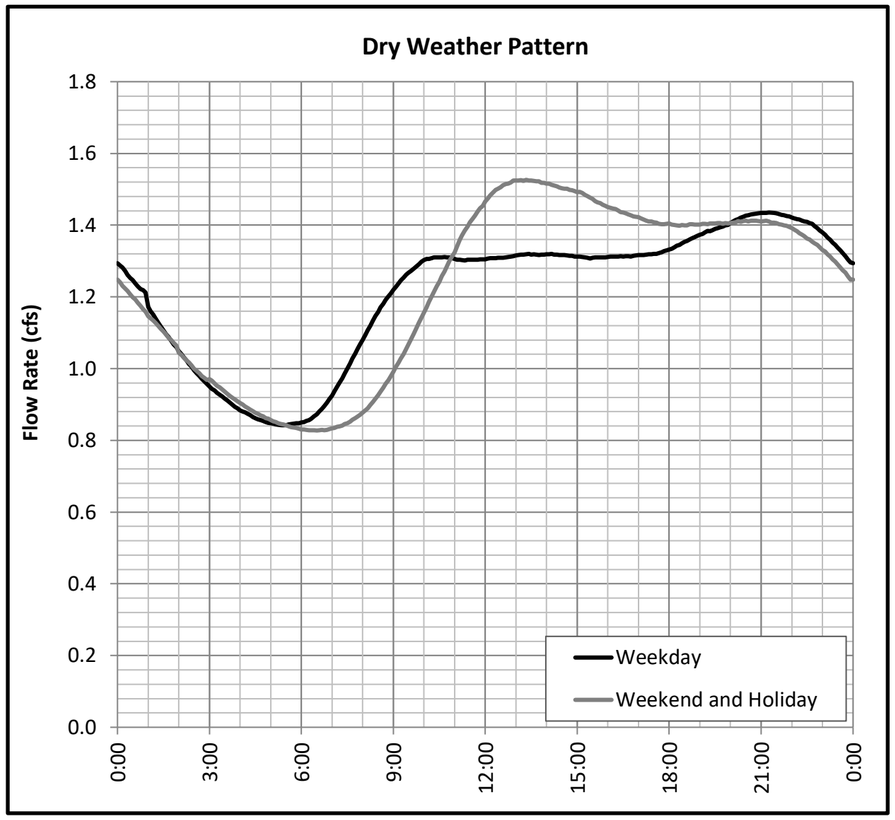
Figure 8-34
Rouge Valley Sewage Disposal System
Meter Report

Meter: LV-14
Interceptor Manhole ID: --

Location: West of Cavell South of Ann Arbor Trail
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	2.6	52.9	1.5	31.0	16	15
Feb-24	2.1	38.8	1.9	35.2	24	5
Mar-24	1.9	37.6	1.8	35.2	23	8
Apr-24	2.6	50.2	2.1	40.5	18	12
May-24	2.0	39.8	1.8	35.5	22	9
Jun-24	1.7	33.7	1.5	28.9	21	9
Jul-24	2.0	40.8	1.7	33.1	23	8
Aug-24	1.4	28.4	1.3	25.5	21	10
Sep-24	1.1	20.9	1.1	20.9	29	1
Oct-24	1.1	21.7	1.0	20.1	25	6
Nov-24	1.1	21.4	1.0	20.2	22	8
Dec-24	1.4	28.4	1.2	23.1	22	9

Statistics for Significant Wet Weather Events

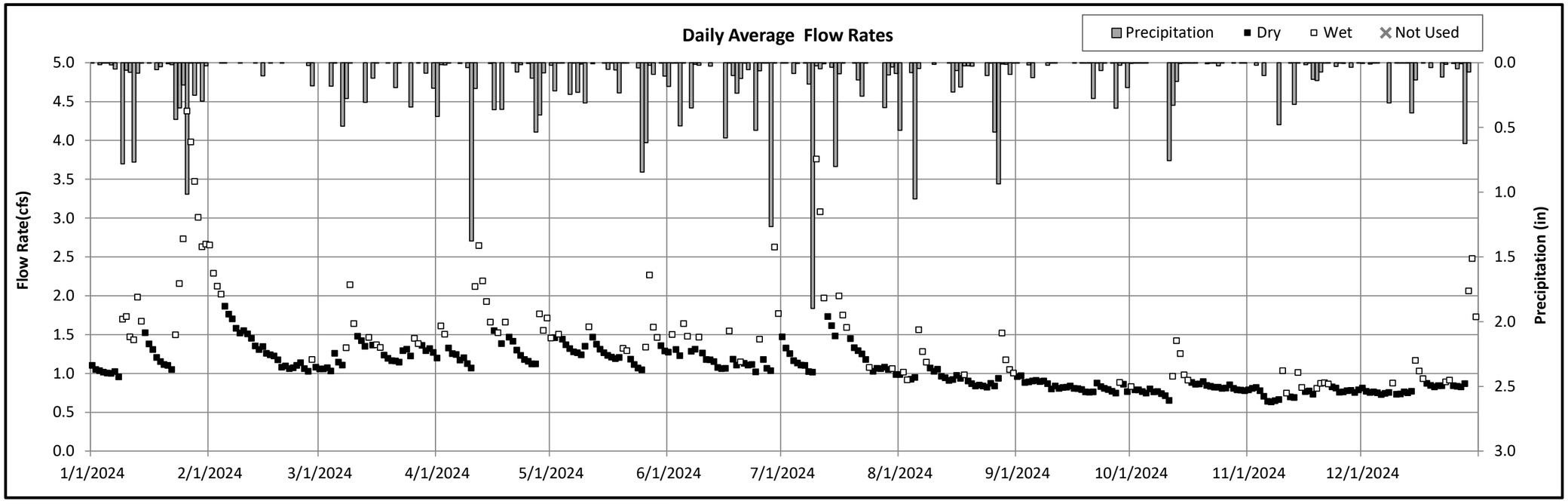
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	4.92	1/9/24 20:00	0.84	1/9/24 20:20
2	1.66	1/22/2024	1/31/2024	14.80	1/26/24 6:05	5.80	1/26/24 8:45
3	1.71	4/10/2024	4/12/2024	7.45	4/11/24 21:35	1.05	4/11/24 22:10
4	1.08	4/28/2024	4/30/2024	7.42	4/28/24 8:50	1.05	4/28/24 9:10
5	1.48	5/26/2024	5/27/2024	8.92	5/27/24 6:25	1.16	5/27/24 6:45
6	1.35	6/28/2024	6/29/2024	11.77	6/29/24 7:55	1.38	6/29/24 8:15
7	2.21	7/9/2024	7/11/2024	13.86	7/10/24 10:20	2.88	7/10/24 15:50
8	1.16	8/6/2024	8/6/2024	9.04	8/6/24 13:50	1.19	8/6/24 14:15
9	2.04	10/24/2021	10/25/2021	4.21	10/12/24 20:25	0.79	10/12/24 21:00
10	1.10	10/28/2021	10/30/2021	5.84	12/30/24 1:05	0.94	12/29/24 16:15

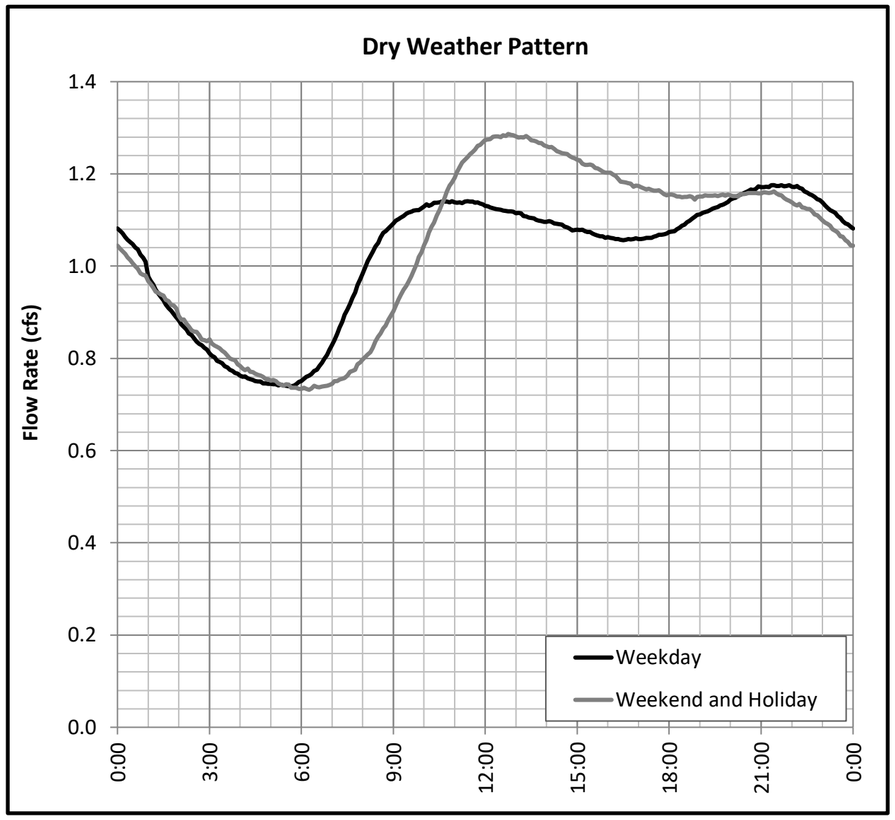
Figure 8-35
Rouge Valley Sewage Disposal System
Meter Report

Meter: LV-15
Interceptor Manhole ID: --

Location: Merriman Road at Geraldine Street
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

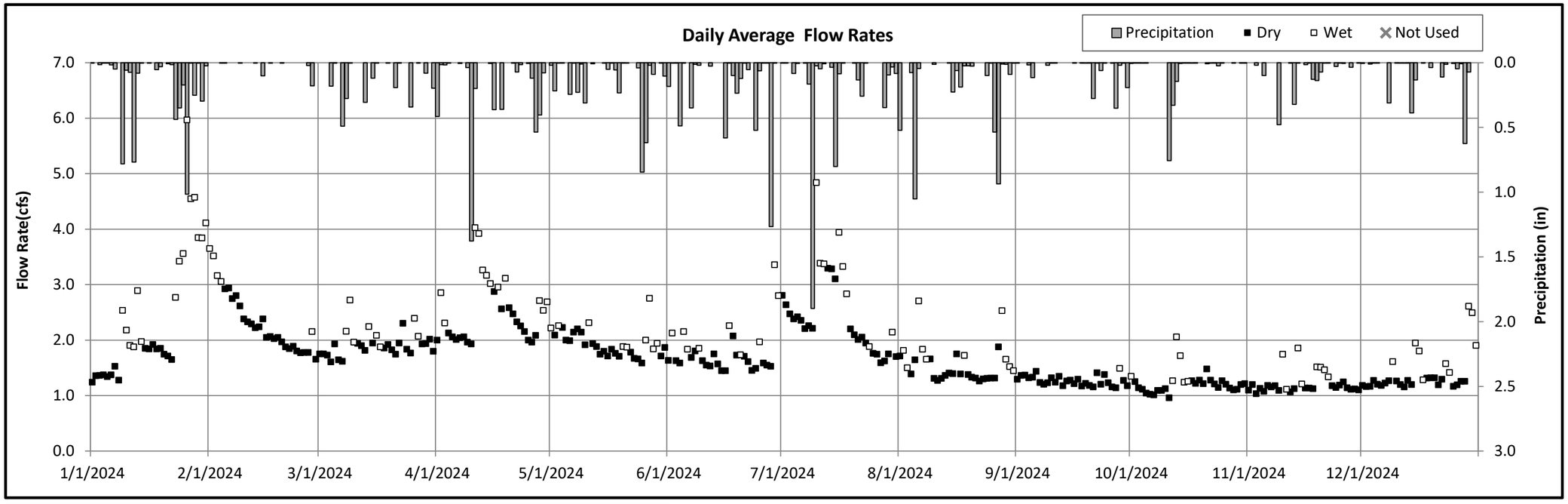
Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	1.8	35.2	1.1	22.6	16	15
Feb-24	1.4	27.0	1.3	24.6	24	5
Mar-24	1.3	26.1	1.2	24.6	23	8
Apr-24	1.5	28.7	1.2	24.2	18	12
May-24	1.3	27.0	1.3	25.5	22	9
Jun-24	1.3	25.1	1.2	22.4	21	9
Jul-24	1.4	28.7	1.2	24.5	23	8
Aug-24	1.0	20.1	0.9	18.5	21	10
Sep-24	0.8	16.2	0.8	16.2	29	1
Oct-24	0.8	17.0	0.8	16.0	25	6
Nov-24	0.8	15.1	0.7	14.4	22	8
Dec-24	1.0	19.0	0.8	15.8	22	9

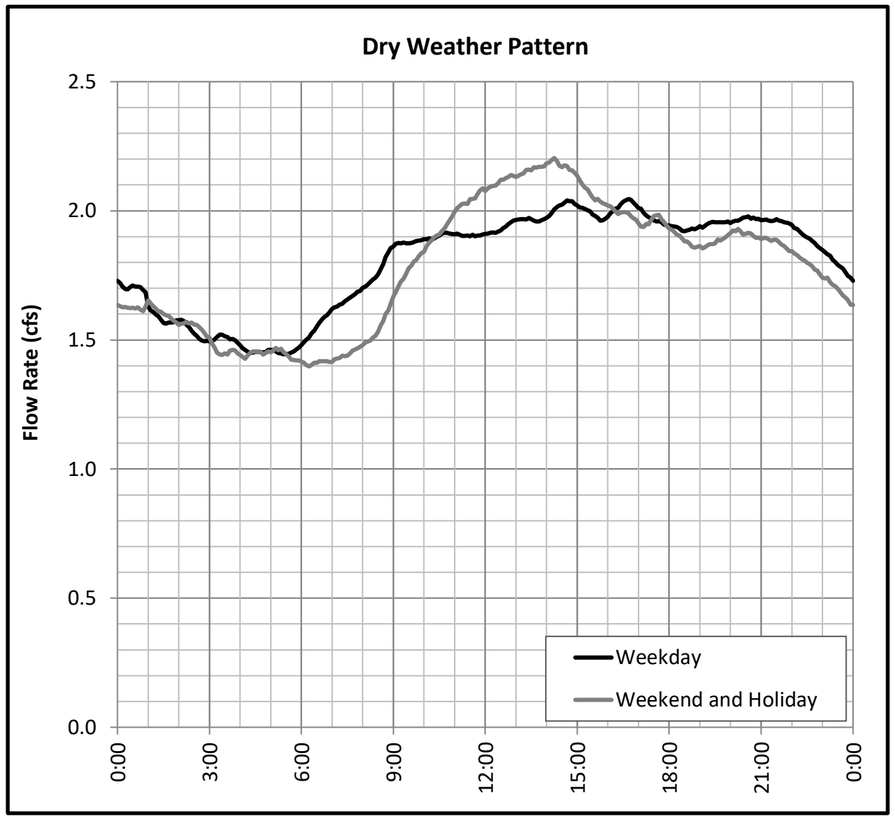
Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	3.16	1/9/24 19:35	1.61	1/9/24 19:50
2	1.66	1/22/2024	1/31/2024	5.92	1/27/24 4:30	4.72	1/27/24 4:30
3	1.71	4/10/2024	4/12/2024	3.14	4/12/24 6:40	3.36	4/11/24 23:55
4	1.08	4/28/2024	4/30/2024	3.52	4/28/24 8:25	1.80	4/28/24 9:50
5	1.48	5/26/2024	5/27/2024	3.82	5/27/24 5:40	2.87	5/27/24 8:20
6	1.35	6/28/2024	6/29/2024	4.71	6/29/24 7:15	3.69	6/29/24 10:30
7	2.21	7/9/2024	7/11/2024	5.22	7/10/24 14:25	6.62	7/10/24 15:50
8	1.16	8/6/2024	8/6/2024	3.36	8/6/24 13:15	2.83	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	2.51	10/12/24 22:55	1.44	10/12/24 23:30
10	1.10	10/28/2021	10/30/2021	3.22	12/29/24 18:15	2.79	12/29/24 17:05

Figure 8-36
Rouge Valley Sewage Disposal System
Meter Report

Meter: LV-16 **Location: 8914 Farmington Road** **Period: 1/1/2024 through 12/31/2024**
Interceptor Manhole ID: -- **Interceptor Branch: Middle Rouge**





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	2.4	48.6	1.6	31.6	16	15
Feb-24	2.3	43.9	2.2	40.9	24	5
Mar-24	1.9	38.8	1.8	37.0	23	8
Apr-24	2.5	49.1	2.2	42.5	18	12
May-24	1.9	39.1	1.9	37.7	22	9
Jun-24	1.8	34.9	1.6	31.4	21	9
Jul-24	2.5	50.2	2.3	45.2	23	8
Aug-24	1.6	31.3	1.4	28.6	21	10
Sep-24	1.3	24.6	1.3	24.5	29	1
Oct-24	1.2	24.6	1.2	23.4	25	6
Nov-24	1.2	23.7	1.1	22.0	22	8
Dec-24	1.4	28.2	1.2	24.6	22	9

Statistics for Significant Wet Weather Events

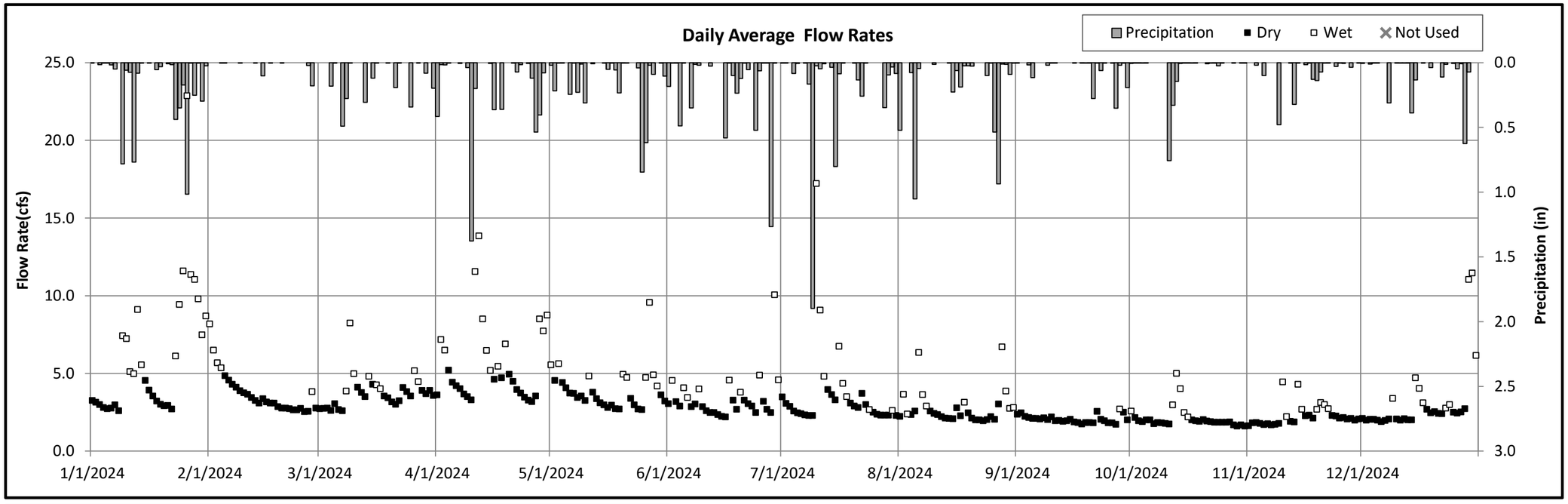
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	4.51	1/9/24 14:40	0.97	1/9/24 15:05
2	1.66	1/22/2024	1/31/2024	7.52	1/26/24 9:30	2.75	1/26/24 5:40
3	1.71	4/10/2024	4/12/2024	5.59	4/12/24 0:20	2.24	4/12/24 14:25
4	1.08	4/28/2024	4/30/2024	4.84	4/28/24 10:55	0.99	4/28/24 11:20
5	1.48	5/26/2024	5/27/2024	5.75	5/26/24 19:30	1.09	5/26/24 19:50
6	1.35	6/28/2024	6/29/2024	6.55	6/29/24 7:25	1.68	6/29/24 14:35
7	2.21	7/9/2024	7/11/2024	9.18	7/10/24 10:45	2.94	7/10/24 11:00
8	1.16	8/6/2024	8/6/2024	6.56	8/6/24 13:25	1.24	8/6/24 13:35
9	2.04	10/24/2021	10/25/2021	3.55	10/12/24 20:05	0.87	10/12/24 20:30
10	1.10	10/28/2021	10/30/2021	4.46	12/29/24 18:10	0.99	12/29/24 18:30

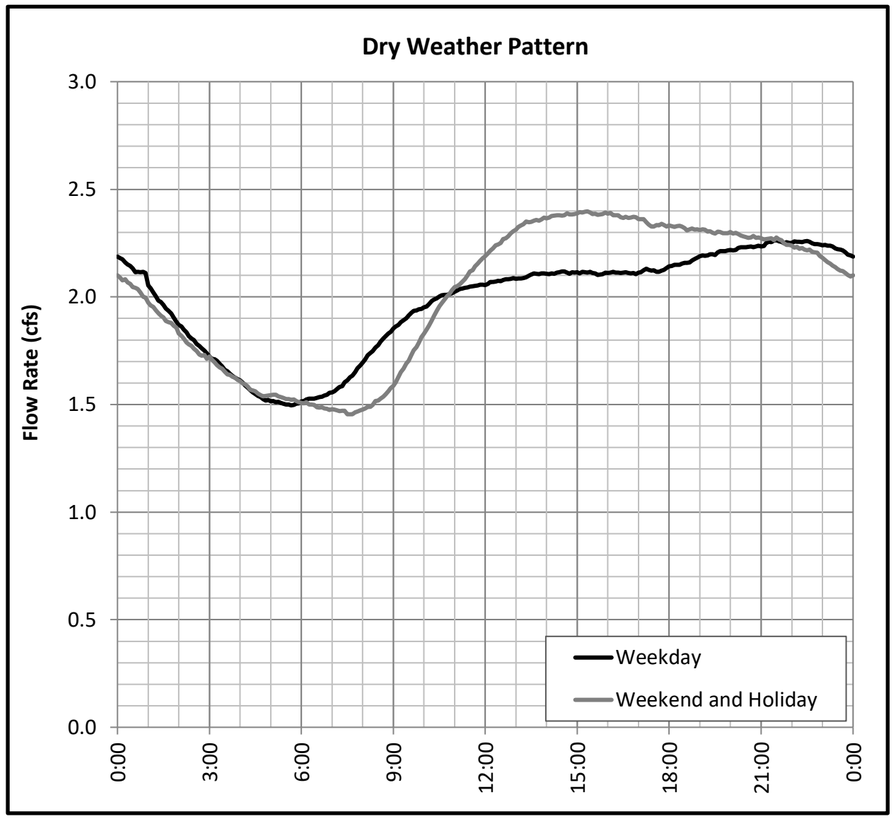
Figure 8-37
Rouge Valley Sewage Disposal System
Meter Report

Meter: M-1
Interceptor Manhole ID: --

Location: Middlebelt Road North of Rush
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	6.1	121.4	3.1	62.6	16	15
Feb-24	3.7	69.9	3.3	61.3	24	5
Mar-24	3.8	75.9	3.4	67.7	23	8
Apr-24	5.6	108.8	4.0	77.4	18	12
May-24	4.0	79.3	3.3	67.1	22	9
Jun-24	3.4	66.0	2.8	53.7	21	9
Jul-24	3.7	74.4	2.8	55.9	23	8
Aug-24	2.8	55.6	2.3	45.7	21	10
Sep-24	2.1	39.9	2.0	39.4	29	1
Oct-24	2.1	42.5	1.9	37.3	25	6
Nov-24	2.3	44.2	2.0	38.0	22	8
Dec-24	3.2	63.7	2.2	44.5	22	9

Statistics for Significant Wet Weather Events

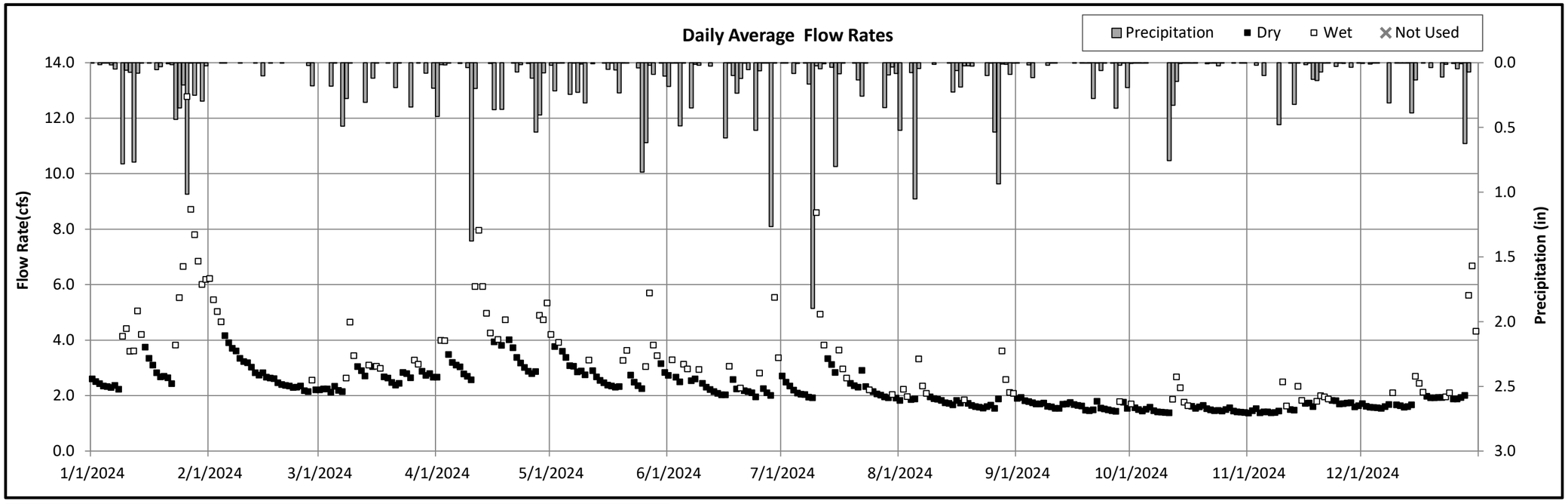
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	14.77	1/9/24 19:00	4.36	1/9/24 21:10
2	1.66	1/22/2024	1/31/2024	37.16	1/26/24 4:20	10.66	1/26/24 5:40
3	1.71	4/10/2024	4/12/2024	17.70	4/12/24 0:20	6.21	4/12/24 0:10
4	1.08	4/28/2024	4/30/2024	20.01	4/28/24 8:50	5.55	4/28/24 10:20
5	1.48	5/26/2024	5/27/2024	17.73	5/27/24 5:50	5.41	5/27/24 7:55
6	1.35	6/28/2024	6/29/2024	19.28	6/29/24 9:55	7.05	6/29/24 9:30
7	2.21	7/9/2024	7/11/2024	28.57	7/10/24 10:25	8.72	7/10/24 17:30
8	1.16	8/6/2024	8/6/2024	18.98	8/6/24 14:00	4.96	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	11.35	10/12/24 23:15	3.04	10/13/24 0:15
10	1.10	10/28/2021	10/30/2021	17.50	12/29/24 18:05	6.67	12/30/24 2:50

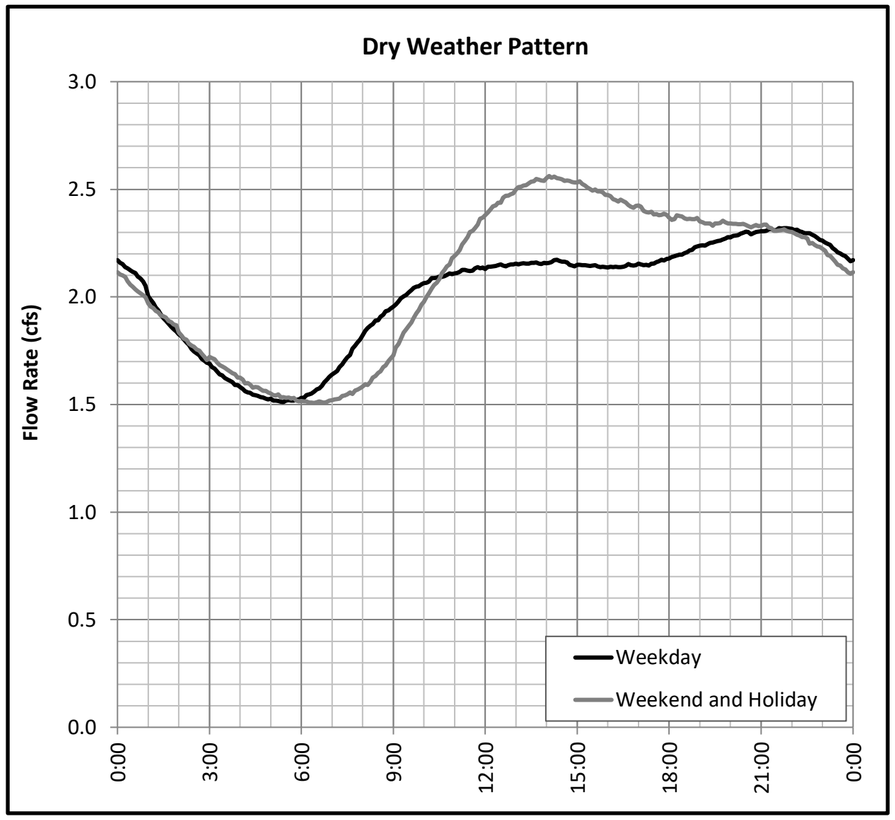
Figure 8-38
Rouge Valley Sewage Disposal System
Meter Report

Meter: M-2
Interceptor Manhole ID: --

Location: Merriman Road South of Hines Drive
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	4.3	85.2	2.7	53.2	16	15
Feb-24	3.1	59.0	2.8	52.7	24	5
Mar-24	2.8	55.1	2.6	51.4	23	8
Apr-24	3.9	76.1	3.2	61.5	18	12
May-24	3.1	61.6	2.8	55.6	22	9
Jun-24	2.6	49.8	2.3	44.1	21	9
Jul-24	2.7	54.4	2.3	46.5	23	8
Aug-24	2.0	39.2	1.7	34.8	21	10
Sep-24	1.6	31.9	1.6	31.8	29	1
Oct-24	1.6	31.6	1.5	29.7	25	6
Nov-24	1.7	32.5	1.6	30.3	22	8
Dec-24	2.2	44.2	1.7	34.9	22	9

Statistics for Significant Wet Weather Events

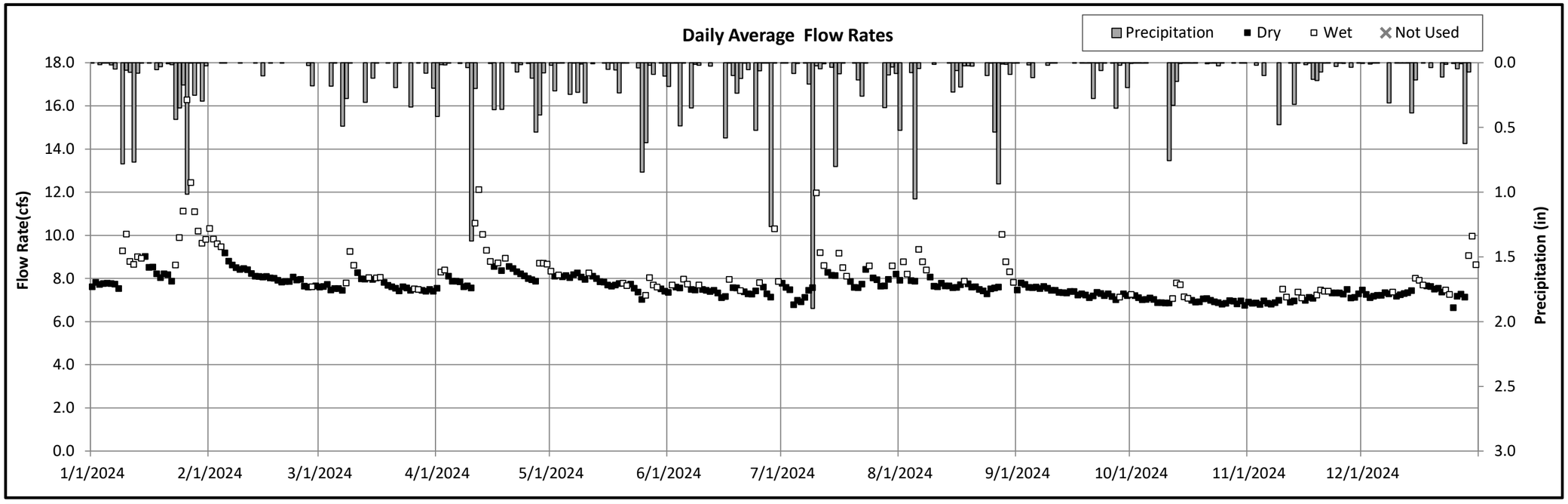
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	7.44	1/9/24 19:35	1.52	1/9/24 20:10
2	1.66	1/22/2024	1/31/2024	17.11	1/26/24 4:30	8.85	1/26/24 9:25
3	1.71	4/10/2024	4/12/2024	9.79	4/11/24 23:00	1.82	4/11/24 23:10
4	1.08	4/28/2024	4/30/2024	8.20	4/28/24 8:40	1.69	4/28/24 9:05
5	1.48	5/26/2024	5/27/2024	8.29	5/27/24 6:40	1.68	5/27/24 6:50
6	1.35	6/28/2024	6/29/2024	9.77	6/29/24 9:05	1.97	6/29/24 8:20
7	2.21	7/9/2024	7/11/2024	12.26	7/10/24 11:10	3.82	7/10/24 15:25
8	1.16	8/6/2024	8/6/2024	7.71	8/6/24 13:40	1.58	8/6/24 14:00
9	2.04	10/24/2021	10/25/2021	5.22	10/12/24 23:00	1.25	10/12/24 23:25
10	1.10	10/28/2021	10/30/2021	8.91	12/30/24 1:10	1.69	12/29/24 23:50

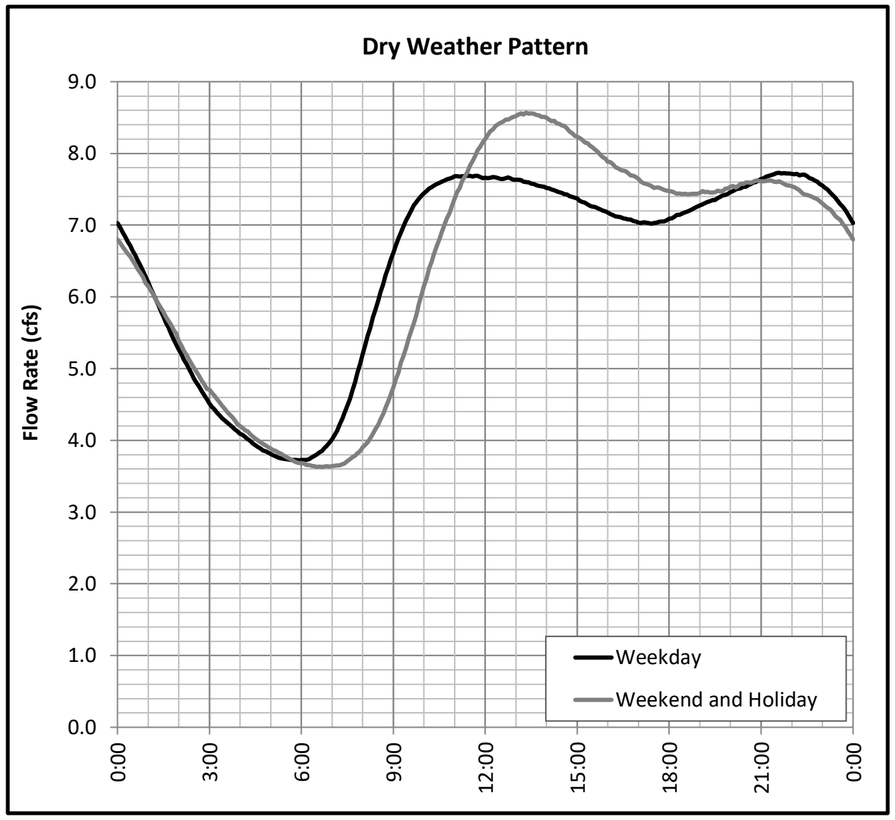
Figure 8-39
Rouge Valley Sewage Disposal System
Meter Report

Meter: BG-1
Interceptor Manhole ID: NT 25

Location: 8 Mile Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	9.1	182.3	8.0	160.6	16	15
Feb-24	8.3	156.4	8.1	152.5	24	5
Mar-24	7.8	155.3	7.6	152.9	23	8
Apr-24	8.5	165.2	8.0	155.6	18	12
May-24	7.8	156.9	7.8	156.6	22	9
Jun-24	7.6	147.2	7.4	143.4	21	9
Jul-24	8.0	161.2	7.7	154.0	23	8
Aug-24	8.0	159.6	7.7	153.4	21	10
Sep-24	7.4	142.9	7.4	143.0	29	1
Oct-24	7.0	140.7	6.9	139.2	25	6
Nov-24	7.1	138.1	7.1	136.7	22	8
Dec-24	7.5	151.1	7.3	146.1	22	9

Statistics for Significant Wet Weather Events

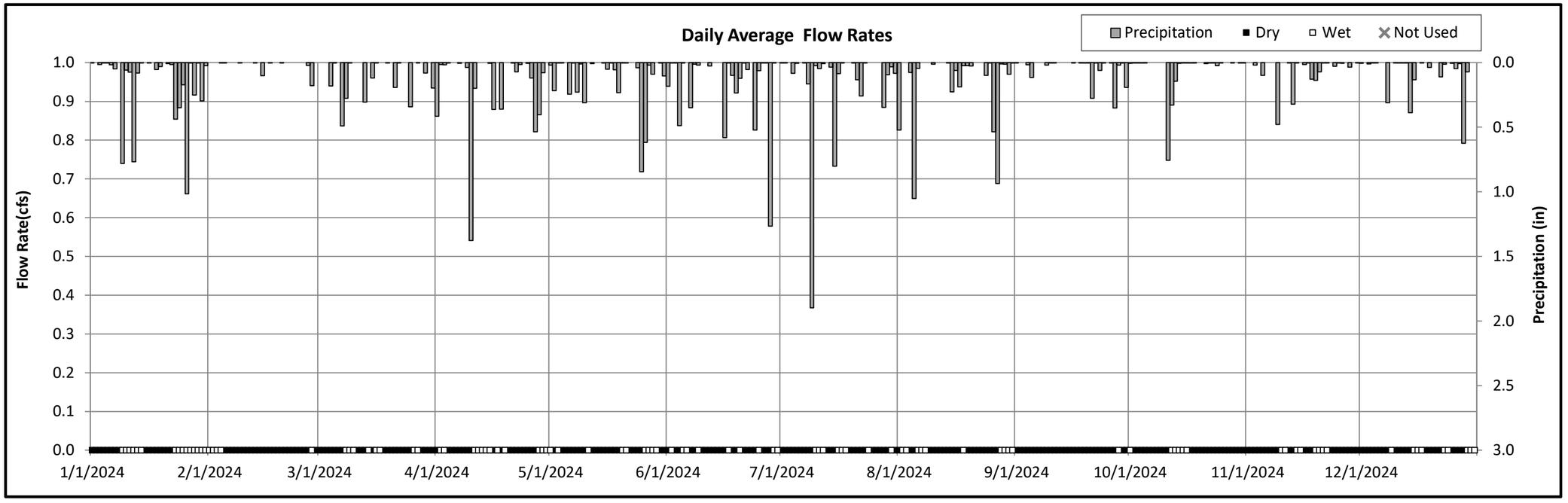
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	15.35	1/9/24 20:20	1.64	1/9/24 20:35
2	1.66	1/22/2024	1/31/2024	19.56	1/26/24 4:30	1.88	1/26/24 4:30
3	1.71	4/10/2024	4/12/2024	17.12	4/11/24 22:25	1.74	4/11/24 22:40
4	1.08	4/28/2024	4/30/2024	12.37	4/28/24 11:15	1.46	4/28/24 10:55
5	1.48	5/26/2024	5/27/2024	11.37	5/26/24 20:00	1.41	5/26/24 20:10
6	1.35	6/28/2024	6/29/2024	16.17	6/29/24 8:05	1.72	6/29/24 8:30
7	2.21	7/9/2024	7/11/2024	18.05	7/10/24 11:40	1.81	7/10/24 11:50
8	1.16	8/6/2024	8/6/2024	15.57	8/6/24 13:55	1.66	8/6/24 14:10
9	2.04	10/24/2021	10/25/2021	10.13	10/13/24 12:05	1.32	10/13/24 12:50
10	1.10	10/28/2021	10/30/2021	13.28	12/29/24 15:55	1.52	12/29/24 16:35

Figure 8-40
Rouge Valley Sewage Disposal System
Meter Report

Meter: FE-19
Interceptor Manhole ID: --

Location: Haggerty Road North of Michigan Avenue
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024



Dry weather pattern not applicable to this meter

Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	0.0	0.0	0.0	0.0	16	15
Feb-24	0.0	0.0	0.0	0.0	24	5
Mar-24	0.0	0.0	0.0	0.0	23	8
Apr-24	0.0	0.0	0.0	0.0	18	12
May-24	0.0	0.0	0.0	0.0	22	9
Jun-24	0.0	0.0	0.0	0.0	21	9
Jul-24	0.0	0.0	0.0	0.0	23	8
Aug-24	0.0	0.0	0.0	0.0	21	10
Sep-24	0.0	0.0	0.0	0.0	29	1
Oct-24	0.0	0.0	0.0	0.0	25	6
Nov-24	0.0	0.0	0.0	0.0	22	8
Dec-24	0.0	0.0	0.0	0.0	22	9

Statistics for Significant Wet Weather Events

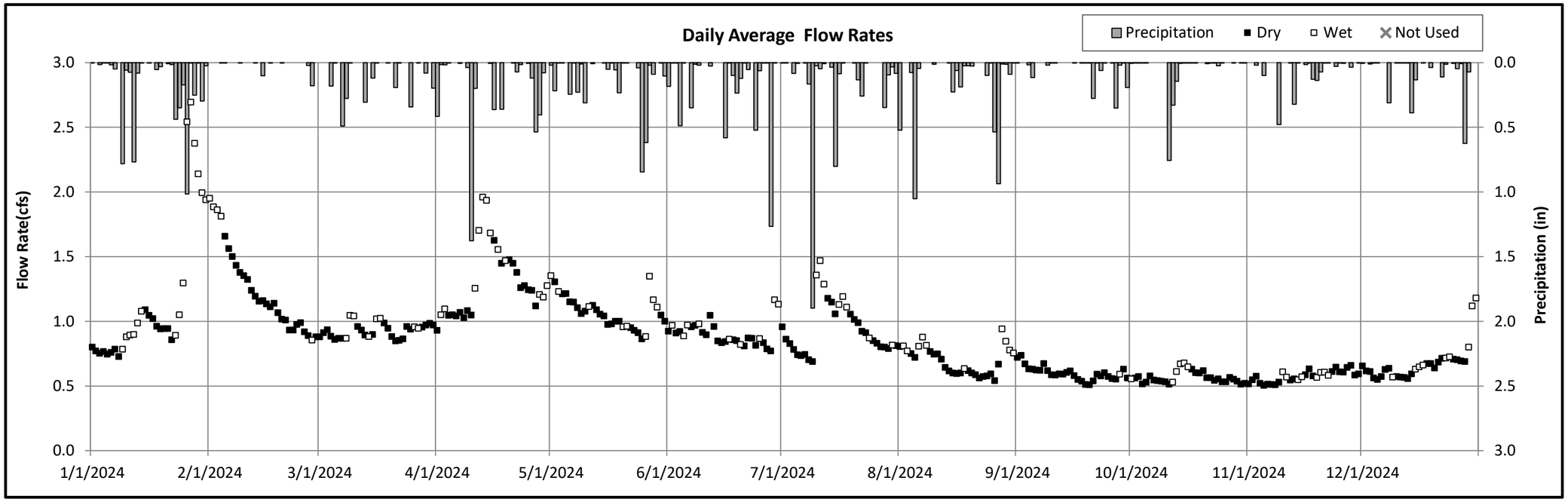
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	0.00	-	-	-
2	1.66	1/22/2024	1/31/2024	0.00	-	-	-
3	1.71	4/10/2024	4/12/2024	0.00	-	-	-
4	1.08	4/28/2024	4/30/2024	0.00	-	-	-
5	1.48	5/26/2024	5/27/2024	0.00	-	-	-
6	1.35	6/28/2024	6/29/2024	0.00	-	-	-
7	2.21	7/9/2024	7/11/2024	0.00	-	-	-
8	1.16	8/6/2024	8/6/2024	0.00	-	-	-
9	2.04	10/24/2021	10/25/2021	0.00	-	-	-
10	1.10	10/28/2021	10/30/2021	0.00	-	-	-

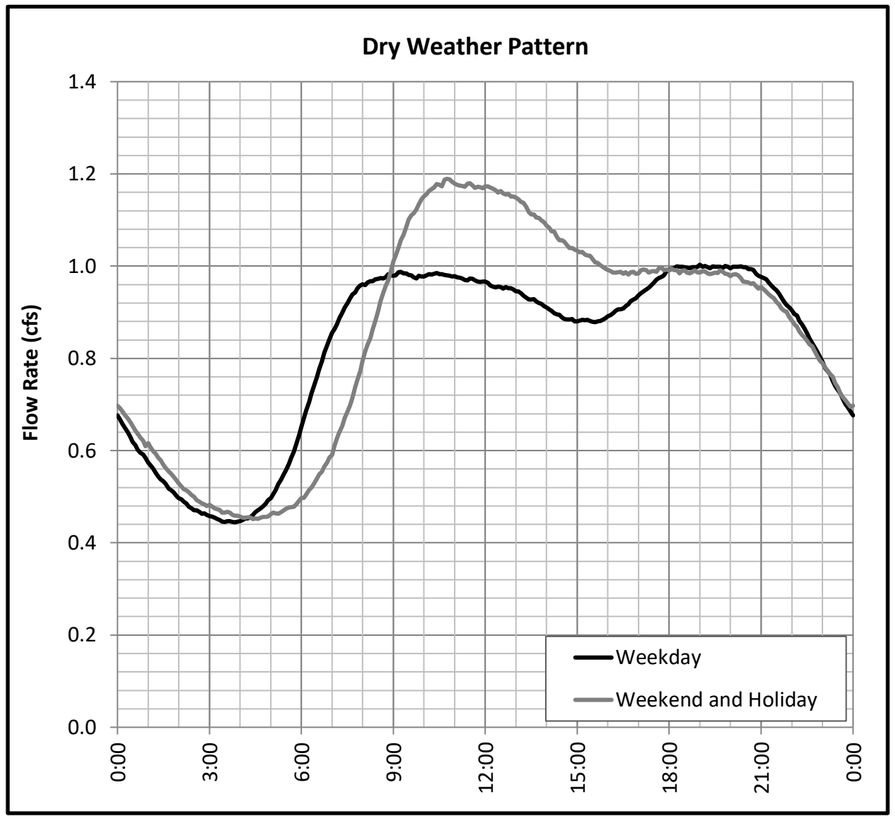
Figure 8-41
Rouge Valley Sewage Disposal System
Meter Report

Meter: FE-22
Interceptor Manhole ID: RVI 10-11

Location: Eckles Road and Joy Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	1.2	23.5	0.9	17.4	16	15
Feb-24	1.3	23.5	1.2	21.8	24	5
Mar-24	0.9	18.6	0.9	18.3	23	8
Apr-24	1.3	25.3	1.2	23.5	18	12
May-24	1.1	21.6	1.1	21.2	22	9
Jun-24	0.9	17.5	0.9	17.1	21	9
Jul-24	0.9	19.0	0.9	17.6	23	8
Aug-24	0.7	14.0	0.6	13.0	21	10
Sep-24	0.6	11.6	0.6	11.6	29	1
Oct-24	0.6	11.3	0.6	11.1	25	6
Nov-24	0.6	11.1	0.6	11.1	22	8
Dec-24	0.7	13.5	0.6	12.6	22	9

Statistics for Significant Wet Weather Events

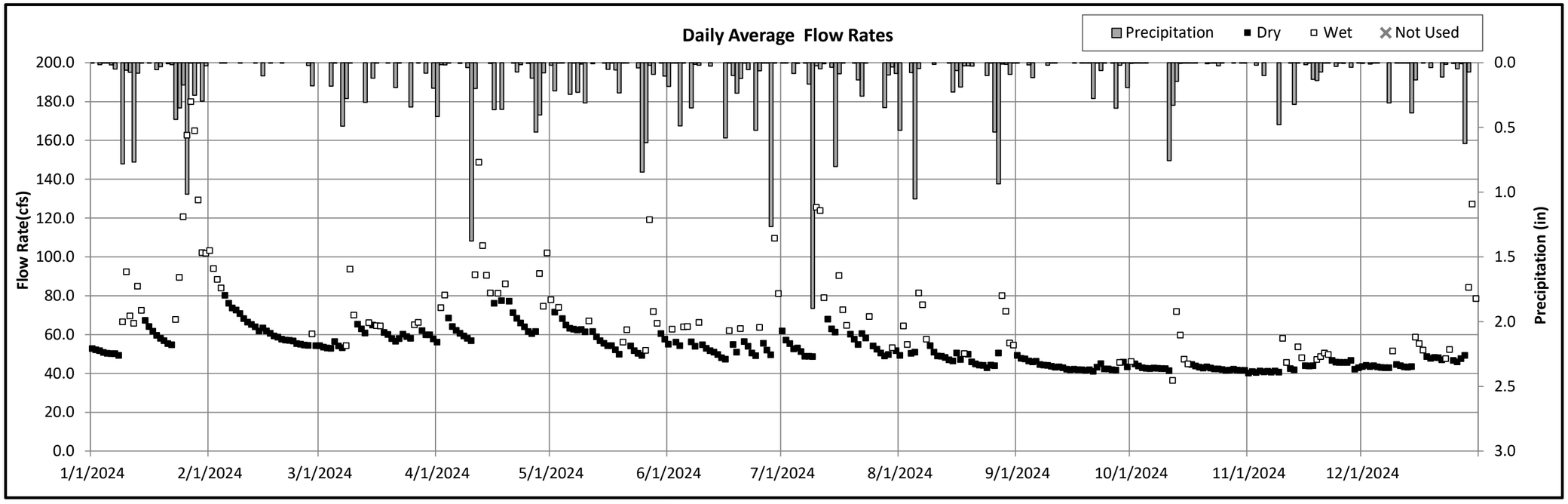
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	1.28	1/13/24 10:30	0.62	1/13/24 15:00
2	1.66	1/22/2024	1/31/2024	3.12	1/27/24 9:00	0.78	1/26/24 19:00
3	1.71	4/10/2024	4/12/2024	1.90	4/12/24 18:05	0.65	4/12/24 11:00
4	1.08	4/28/2024	4/30/2024	1.55	4/28/24 10:40	0.62	4/28/24 12:00
5	1.48	5/26/2024	5/27/2024	1.77	5/27/24 8:50	-	-
6	1.35	6/28/2024	6/29/2024	1.64	6/29/24 9:15	-	-
7	2.21	7/9/2024	7/11/2024	2.74	7/10/24 15:15	0.68	7/10/24 20:00
8	1.16	8/6/2024	8/6/2024	1.80	8/6/24 5:40	0.54	8/6/24 14:00
9	2.04	10/24/2021	10/25/2021	0.92	10/13/24 10:15	0.54	10/13/24 10:00
10	1.10	10/28/2021	10/30/2021	1.16	12/30/24 8:05	0.58	12/30/24 8:00

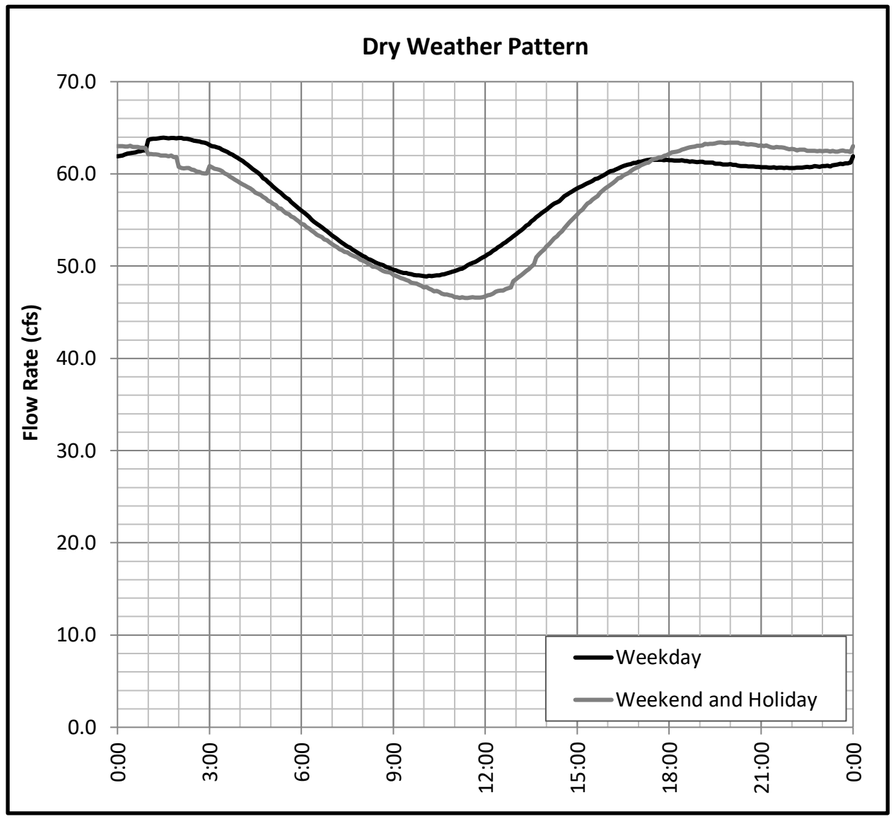
Figure 8-42
Rouge Valley Sewage Disposal System
Meter Report

Meter: WC-S-1
Interceptor Manhole ID: RVI 2-5

Location: Oakwood Blvd and Dix Road
Interceptor Branch: Lower Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	79.2	1586.3	55.3	1107.6	16	15
Feb-24	66.7	1249.7	62.7	1174.4	24	5
Mar-24	60.8	1218.1	58.3	1167.8	23	8
Apr-24	75.8	1470.6	64.9	1259.2	18	12
May-24	62.2	1246.7	58.3	1168.5	22	9
Jun-24	58.0	1124.2	52.5	1018.3	21	9
Jul-24	62.8	1257.9	55.1	1104.3	23	8
Aug-24	53.2	1065.6	47.8	956.8	21	10
Sep-24	43.8	849.0	43.7	847.8	29	1
Oct-24	44.2	886.0	42.6	853.4	25	6
Nov-24	44.8	869.1	42.9	831.6	22	8
Dec-24	51.7	1035.3	45.2	905.7	22	9

Statistics for Significant Wet Weather Events

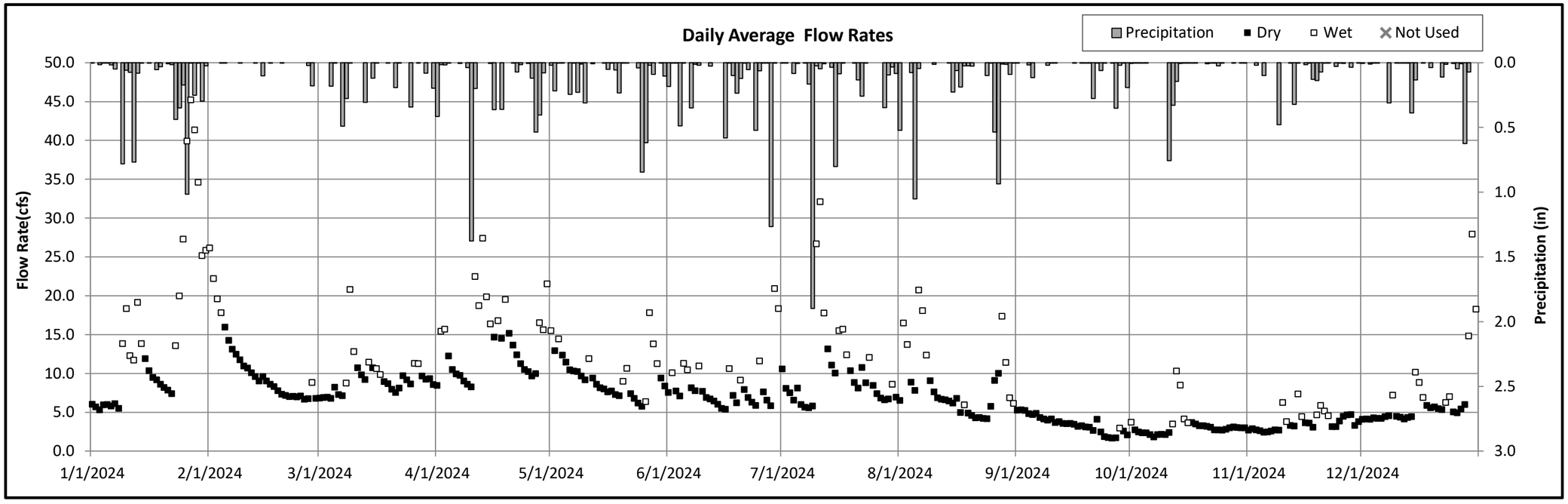
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	140.95	1/9/24 22:40	9.99	1/9/24 21:25
2	1.66	1/22/2024	1/31/2024	185.76	1/27/24 11:10	10.00	1/24/24 20:15
3	1.71	4/10/2024	4/12/2024	167.39	4/12/24 3:55	10.00	4/12/24 0:05
4	1.08	4/28/2024	4/30/2024	145.41	4/28/24 13:00	10.00	4/28/24 10:15
5	1.48	5/26/2024	5/27/2024	134.52	5/27/24 8:50	10.00	5/26/24 22:05
6	1.35	6/28/2024	6/29/2024	154.27	6/29/24 11:55	10.00	6/29/24 12:30
7	2.21	7/9/2024	7/11/2024	152.15	7/10/24 15:05	10.00	7/10/24 12:55
8	1.16	8/6/2024	8/6/2024	112.56	8/6/24 14:55	10.00	8/6/24 14:20
9	2.04	10/24/2021	10/25/2021	110.01	10/13/24 4:20	9.99	10/13/24 1:55
10	1.10	10/28/2021	10/30/2021	148.39	12/29/24 23:35	10.00	12/29/24 15:15

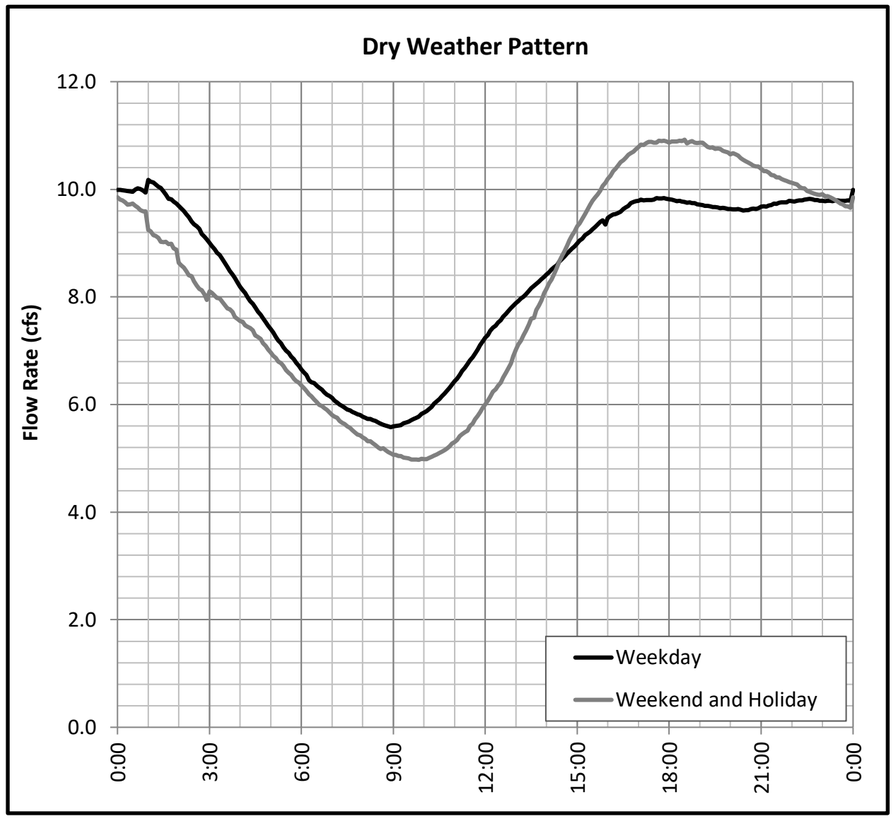
Figure 8-43
Rouge Valley Sewage Disposal System
Meter Report

Meter: WC-S-2
Interceptor Manhole ID: MR 1A

Location: North of Ford Road and West of Evergreen Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	15.5	310.9	7.4	149.1	16	15
Feb-24	11.0	205.7	9.3	174.7	24	5
Mar-24	9.4	189.2	8.5	170.7	23	8
Apr-24	14.1	274.3	11.0	213.9	18	12
May-24	9.8	197.0	8.8	176.8	22	9
Jun-24	8.5	165.7	6.8	132.1	21	9
Jul-24	10.6	212.2	8.2	163.4	23	8
Aug-24	8.5	170.9	6.4	129.2	21	10
Sep-24	3.5	67.5	3.5	67.8	29	1
Oct-24	3.3	66.0	2.7	54.8	25	6
Nov-24	3.8	73.3	3.2	62.9	22	8
Dec-24	6.8	137.0	4.8	95.4	22	9

Statistics for Significant Wet Weather Events

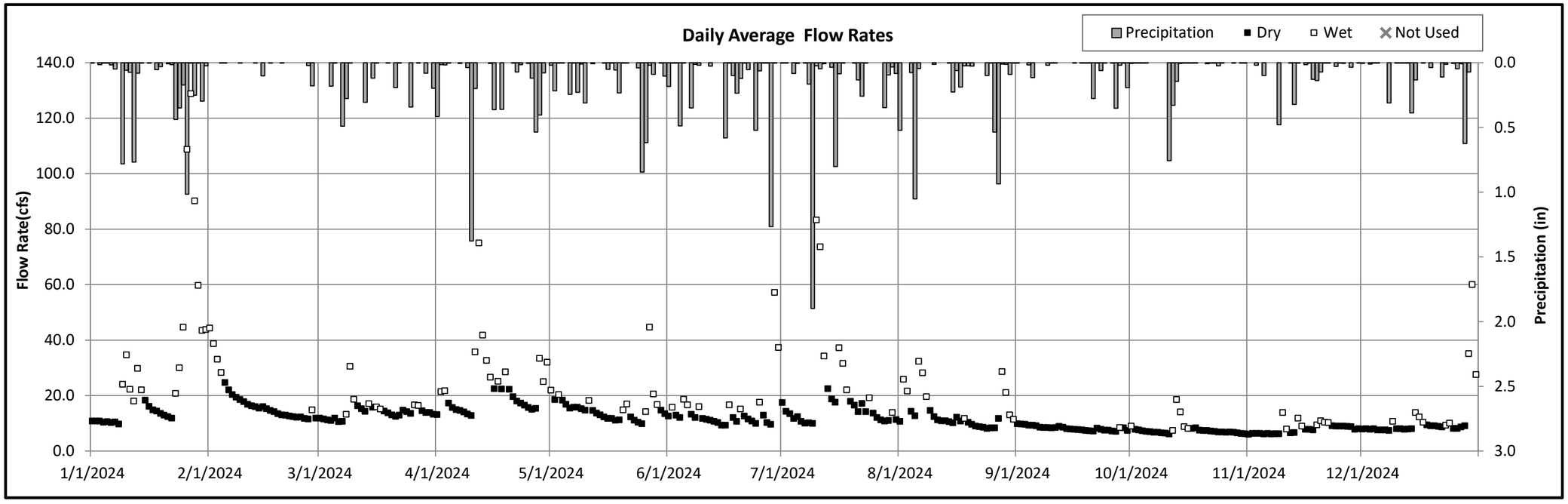
Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	28.08	1/9/24 18:40	9.74	1/9/24 22:30
2	1.66	1/22/2024	1/31/2024	46.40	1/27/24 1:00	10.00	1/24/24 21:50
3	1.71	4/10/2024	4/12/2024	33.74	4/11/24 13:30	10.00	4/11/24 23:25
4	1.08	4/28/2024	4/30/2024	25.25	4/29/24 20:35	9.99	4/28/24 12:45
5	1.48	5/26/2024	5/27/2024	22.91	5/27/24 2:20	9.99	5/27/24 8:25
6	1.35	6/28/2024	6/29/2024	27.60	6/29/24 14:10	10.00	6/29/24 9:15
7	2.21	7/9/2024	7/11/2024	35.82	7/10/24 20:20	10.00	7/10/24 7:10
8	1.16	8/6/2024	8/6/2024	32.90	8/6/24 14:55	-	-
9	2.04	10/24/2021	10/25/2021	17.61	10/13/24 2:35	9.10	10/13/24 2:10
10	1.10	10/28/2021	10/30/2021	31.53	12/30/24 3:30	9.99	12/29/24 16:50

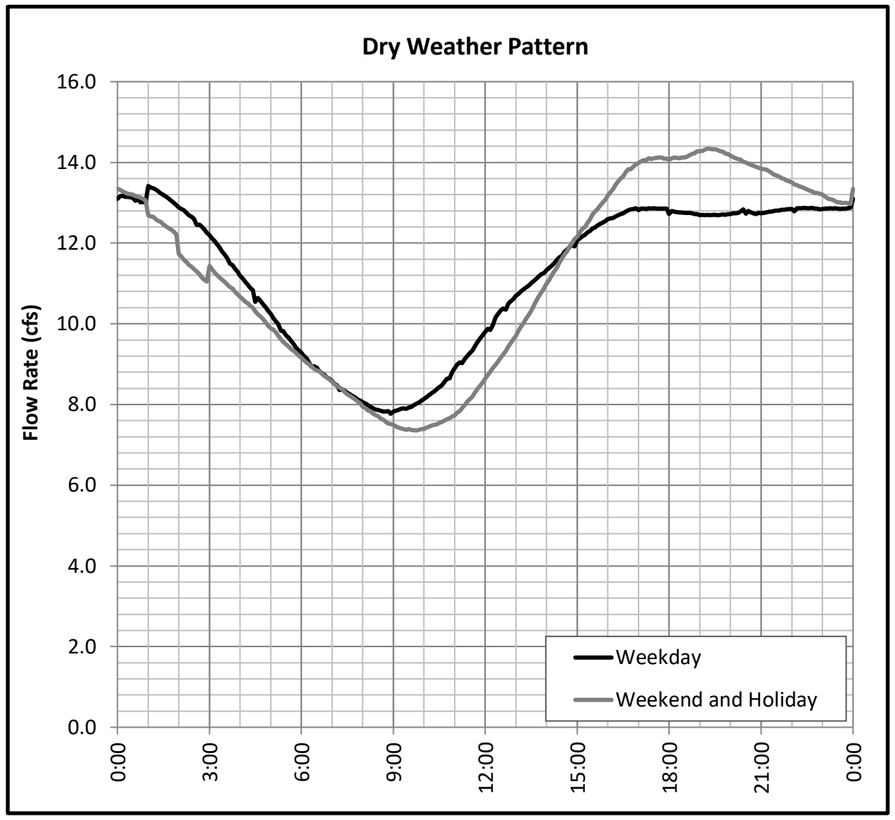
Figure 8-44
Rouge Valley Sewage Disposal System
Meter Report

Meter: WC-S-3
Interceptor Manhole ID: MRIR 1-23

Location: North of Ford Road and West of Evergreen Road
Interceptor Branch: Middle Rouge

Period: 1/1/2024 through 12/31/2024





Monthly Statistics

Month	All Days		Dry Days			
	Avg. (cfs)	Vol. (MG)	Avg. (cfs)	Vol. (MG)	# Dry Days	# Wet Days
Jan-24	29.6	594.0	12.4	247.9	16	15
Feb-24	18.3	342.9	15.5	289.9	24	5
Mar-24	14.5	289.8	13.3	265.5	23	8
Apr-24	23.3	452.0	16.7	323.5	18	12
May-24	15.8	316.7	13.7	274.9	22	9
Jun-24	14.9	289.5	11.3	219.0	21	9
Jul-24	20.5	409.9	13.9	278.1	23	8
Aug-24	14.1	283.0	10.7	214.2	21	10
Sep-24	8.2	159.6	8.2	159.5	29	1
Oct-24	7.8	156.1	7.0	140.8	25	6
Nov-24	8.2	158.7	7.4	142.8	22	8
Dec-24	12.0	239.5	8.2	165.1	22	9

Statistics for Significant Wet Weather Events

Event No.	Rainfall (in)	Start Date/Time	End Date/Time	Flow Rate		Depth	
				Max. Hour (cfs)	Date/Time	Max. (ft)	Date/Time
1	1.47	1/8/2024	1/11/2024	75.21	1/9/24 22:10	9.75	1/9/24 22:40
2	1.66	1/22/2024	1/31/2024	135.34	1/27/24 3:10	10.00	1/26/24 1:40
3	1.71	4/10/2024	4/12/2024	88.09	4/12/24 15:15	10.00	4/12/24 0:50
4	1.08	4/28/2024	4/30/2024	76.34	4/28/24 13:10	9.99	4/28/24 11:05
5	1.48	5/26/2024	5/27/2024	60.77	5/27/24 8:50	10.00	5/27/24 8:10
6	1.35	6/28/2024	6/29/2024	91.28	6/29/24 11:55	10.00	6/29/24 8:30
7	2.21	7/9/2024	7/11/2024	118.34	7/10/24 14:50	10.00	7/10/24 7:55
8	1.16	8/6/2024	8/6/2024	50.74	8/6/24 14:55	9.07	8/6/24 14:55
9	2.04	10/24/2021	10/25/2021	30.42	10/13/24 2:05	8.39	10/13/24 1:15
10	1.10	10/28/2021	10/30/2021	81.20	12/30/24 4:25	10.00	12/29/24 17:15

Appendix A
System Reach Maps

WESTLAND
WAYNE
ROMULUS
PALMER
GLENWOOD
MICHIGAN AVE
VAN BORN
ECORSE
ANNAPOLIS
HANNAN
NEWBURGH
HAGGERTY
4TH STREET
VENOY
HENRY RUFF
COGWELL
WTUA LOWER ROUGE EQUALIZATION BASIN
FE-19
TO RVSDS
TO YCUA
WTUA CONNECTION
WTUA-LR
WE-25
P-17
P-15
P-19
WAYNE EQUALIZATION BASIN
Reg 53 (L-35)
Reg 52 (L-34)
Reg 50 (L-36)
Reg 51 (L-37)
WAYNE COUNTY AIRPORT AUTHORITY (WCAA) CONNECTION
WCAA FORCEMAIN
MATCH LINE - FIGURE A2
24 INDIVIDUAL LEADS ON BOTH SIDES OF COGSWELL
GRAPHIC SCALE
1,000 0 1,000
1" = 1,000'

LEGEND

- REGULATOR
- FLOW METER
- JUNCTION
- (1) JUNCTION ID
- [X-XX] LINE CONNECTION ID
- COMMUNITY SEWER
- WAYNE-ROMULUS-VAN BUREN INTERCEPTOR (W-R-V I)
- WAYNE INTERCEPTOR (WI-1)
- WAYNE INTERCEPTOR EXTENSION (WIE)
- LOWER ROUGE INTERCEPTOR RELIEF (LRIR)
- ROUGE VALLEY INTERCEPTOR (RVI)
- WAYNE COUNTY SEWER
- WTUA INTERCEPTOR SYSTEM
- COMMUNITY BOUNDARY
- RETENTION TREATMENT BASIN (RTB)

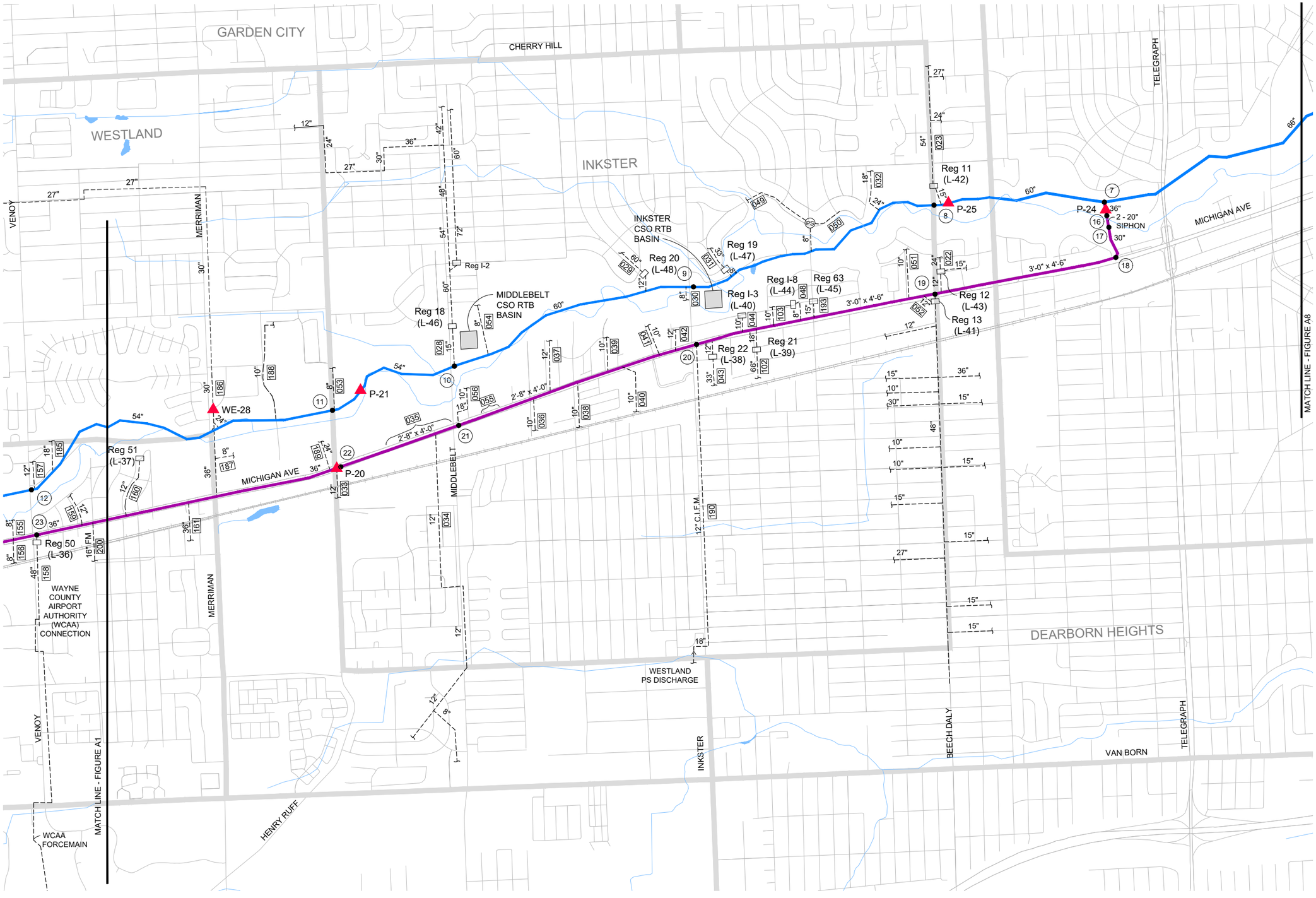
ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

LOWER ROUGE INTERCEPTOR SCHEMATIC HANNAN TO VENOY

SYSTEM MONITORING PLAN
FIGURE A1 OF 8

REVISION DATE: NOVEMBER 24, 2015

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GRAPHIC SCALE
1,000 0 1,000
1" = 1,000'

LEGEND

- REGULATOR
- FLOW METER
- JUNCTION
- (1) JUNCTION ID
- X-XX LINE CONNECTION ID
- COMMUNITY SEWER
- WAYNE-ROMULUS-VAN BUREN INTERCEPTOR (W-R-V I)
- WAYNE INTERCEPTOR (WI-1)
- WAYNE INTERCEPTOR EXTENSION (WIE)
- LOWER ROUGE INTERCEPTOR RELIEF (LRIR)
- ROUGE VALLEY INTERCEPTOR (RVI)
- WAYNE COUNTY SEWER
- WTUA INTERCEPTOR SYSTEM
- COMMUNITY BOUNDARY
- RETENTION TREATMENT BASIN (RTB)

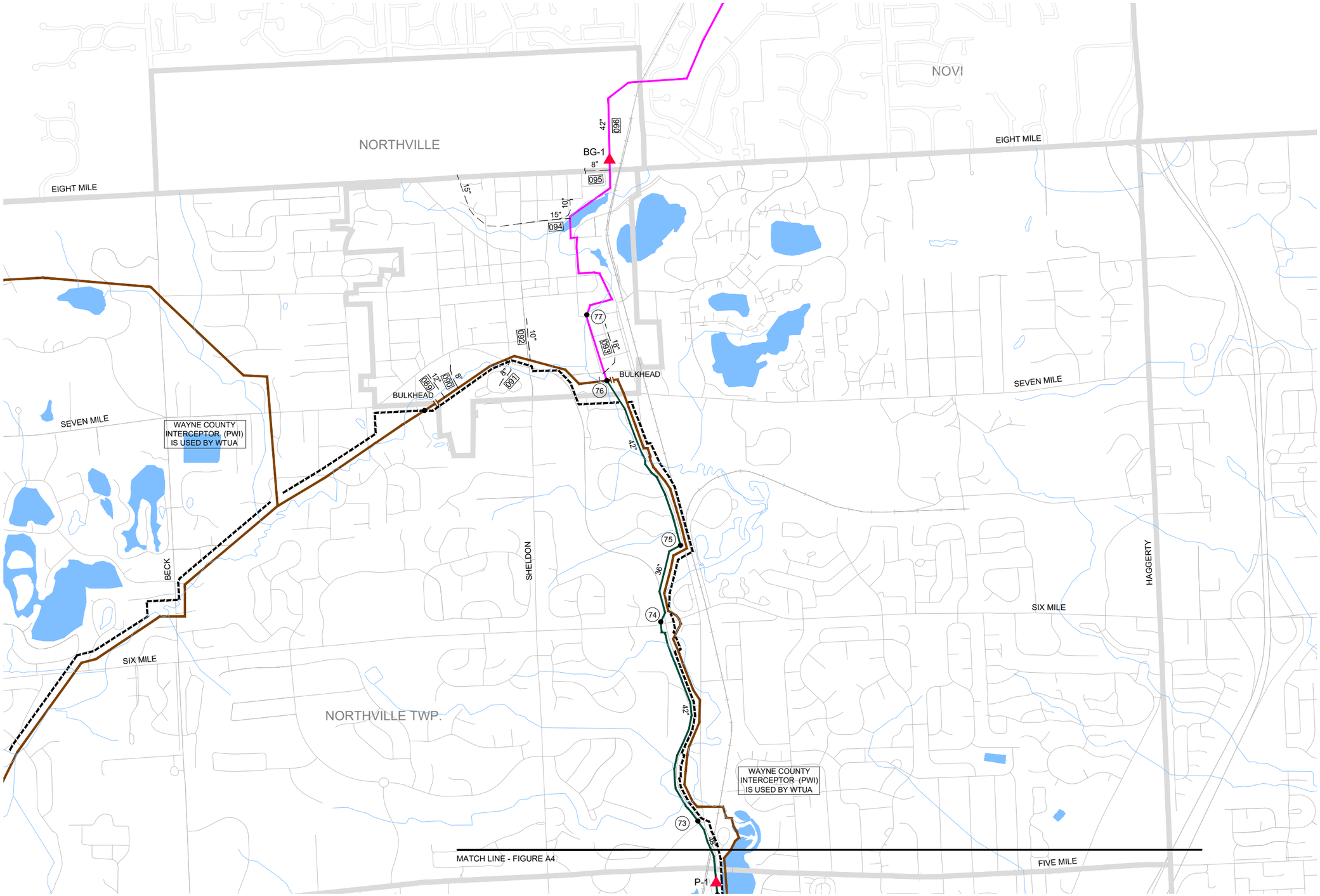
ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

LOWER ROUGE INTERCEPTOR SCHEMATIC VENOY TO TELEGRAPH

SYSTEM MONITORING PLAN
FIGURE A2 OF 8

REVISION DATE: NOVEMBER 24, 2015

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ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

MIDDLE ROUGE INTERCEPTOR SCHEMATIC NORTHVILLE TO 5 MILE ROAD

SYSTEM MONITORING PLAN

FIGURE A3 OF 8

REVISION DATE: NOVEMBER 24, 2015

K:\DWG Files\2014\404\RV\SDS\RV\SDS SYSTEM MONITORING PLAN (to WWTP).dwg Nov 24, 2015 - 11:31am

MATCH LINE - FIGURE A3

FIVE MILE

P-1

72

42"

WILCOX

71

70

48"

10"
097

SCHOOLCRAFT

LIVONIA

24"

18"

18"

12"

12"

PLYMOUTH

PLYMOUTH TWP.

A

24"

12"
098

18"
099

18"

18"
100

48"

BULKHEAD

66

30"

36"

65

P-3

69

36"

WEIR

18"
058

PLYMOUTH

HINES

P-26

64

30"

10"
059

42"

21"
060

68

63

ANN ARBOR TRAIL

CITY OF PLYMOUTH
METERED CONNECTIONS
CONVEYED BY WTUA
INTERCEPTOR SYSTEM
TO THE WTUA-MR LINE
CONNECTION

THIS SECTION OF WAYNE
COUNTY INTERCEPTOR
(RVI) IS USED BY WTUA

18"
061

NEWBURGH

B

30"

30"

C

8"

55

WTUA
CONNECTION 48"

12" FM

WTUA-MR

FE-22

JOY

10"
070

10"
071

10"
072

JOY

WTUA
MIDDLE ROUGE
EQUALIZATION
BASIN

MATCH LINE - FIGURE A5

N
W
E
S

GRAPHIC SCALE
1,000 0 1,000
1" = 1,000'

LEGEND

- REGULATOR
- FLOW METER
- JUNCTION
- (1) JUNCTION ID
- [X-XX] LINE CONNECTION ID
- COMMUNITY SEWER
- PARKWAY INTERCEPTOR (PWI)
- MIDDLE ROUGE PARKWAY INTERCEPTOR EXTENSION (MRPIE)
- ROUGE VALLEY INTERCEPTOR (RVI)
- MIDDLE ROUGE INTERCEPTOR RELIEF (MRIR)
- NORTH ARM INTERCEPTOR (NAI)
- NOVI TRUNK SEWER
- LS1A
- WAYNE COUNTY SEWER
- WTUA INTERCEPTOR SYSTEM
- COMMUNITY BOUNDARY
- RETENTION TREATMENT BASIN (RTB)

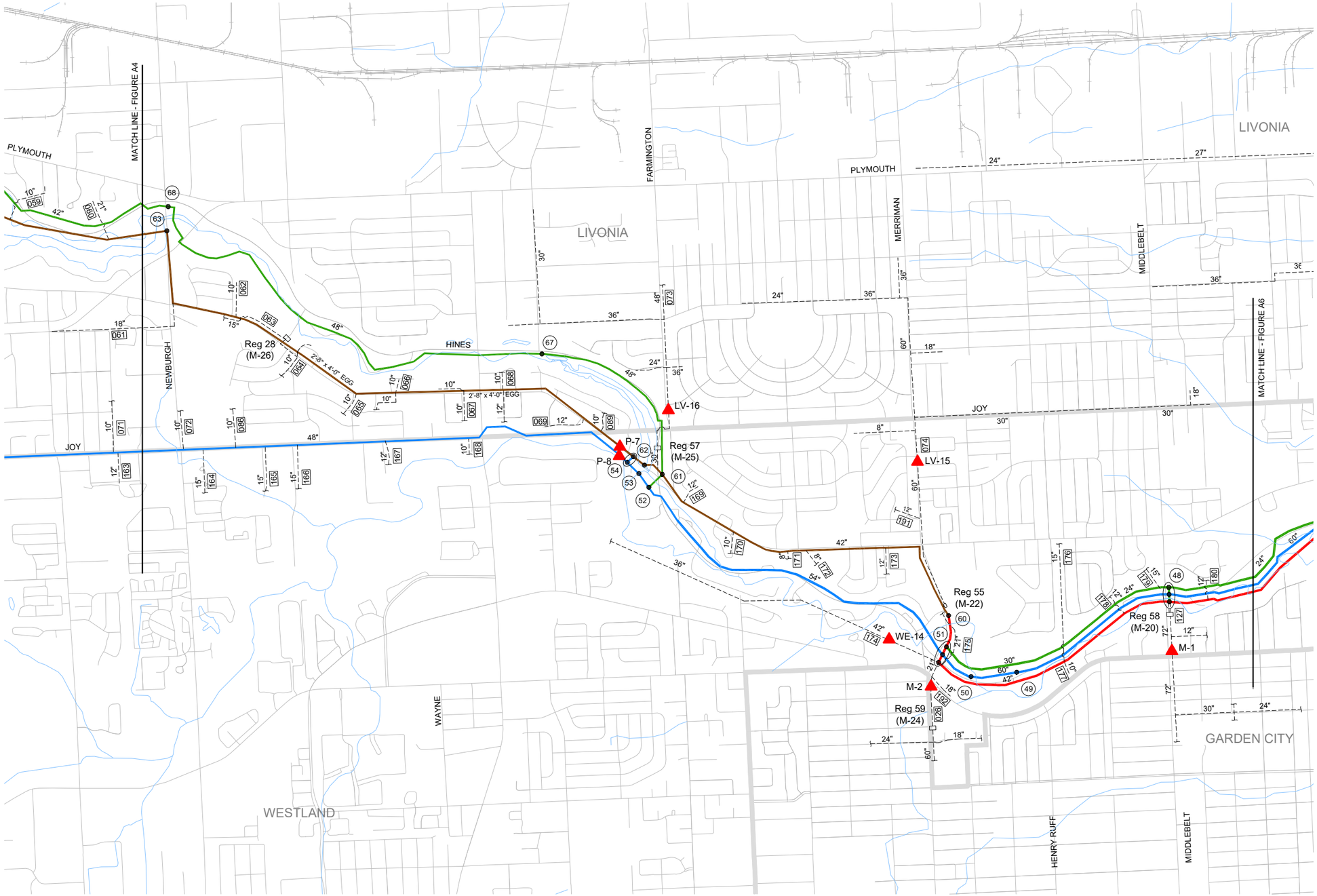
ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

MIDDLE ROUGE INTERCEPTOR SCHEMATIC
5 MILE ROAD TO NEWBURGH

SYSTEM
MONITORING PLAN
FIGURE A4 OF 8

REVISION DATE: NOVEMBER 24, 2015

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GRAPHIC SCALE
1,000 0 1,000
1" = 1,000'

LEGEND

- REGULATOR
- FLOW METER
- JUNCTION
- (1) JUNCTION ID
- [X-XX] LINE CONNECTION ID
- COMMUNITY SEWER
- PARKWAY INTERCEPTOR (PWI)
- MIDDLE ROUGE PARKWAY INTERCEPTOR EXTENSION (MRPIE)
- ROUGE VALLEY INTERCEPTOR (RVI)
- MIDDLE ROUGE INTERCEPTOR RELIEF (MRIR)
- NORTH ARM INTERCEPTOR (NAI)
- NOVI TRUNK SEWER
- LS1A
- WAYNE COUNTY SEWER
- WTUA INTERCEPTOR SYSTEM
- COMMUNITY BOUNDARY
- RETENTION TREATMENT BASIN (RTB)

ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

MIDDLE ROUGE INTERCEPTOR SCHEMATIC NEWBURGH TO MIDDLEBELT

SYSTEM MONITORING PLAN
FIGURE A5 OF 8

REVISION DATE: FEBRUARY 24, 2015

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REDFORD TWP
LIVONIA
PLYMOUTH
CHICAGO
BEECH DALY
MIDDLEBELT
INKSTER
JOY
DETROIT
EVERGREEN
DEARBORN HEIGHTS
GARDEN CITY
MATCH LINE - FIGURE 7
MATCH LINE - FIGURE 5
MATCH LINE - FIGURE A8
DEARBORN HEIGHTS CSO RTB BASIN
54" RELIEF SEWER
DWSD (NWI)
DT-
LV-14
P-9
P-10
P-11
P-12
P-13
P-30
P-31
P-32
P-33
P-34
P-35
M-1
Reg 45 (U-2)
Reg 46 (U-1)
Reg 56 (M-21)
Reg 58 (M-20)
Reg 6 (M-17)
Reg 5 (M-15)
Reg 4 (M-16)
Reg 3 (M-18)
Reg 3A
Reg 10 (M-19)
Reg 2 (M-33)
Reg 9 (Bulkheaded)
Reg 8 (M-13)

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GRAPHIC SCALE
1,000 0 1,000
1" = 1,000'

LEGEND

- REGULATOR
- FLOW METER
- JUNCTION
- (1) JUNCTION ID
- [X-XX] LINE CONNECTION ID
- COMMUNITY SEWER
- PARKWAY INTERCEPTOR (PWI)
- MIDDLE ROUGE PARKWAY INTERCEPTOR EXTENSION (MRPIE)
- ROUGE VALLEY INTERCEPTOR (RVI)
- MIDDLE ROUGE INTERCEPTOR RELIEF (MRIR)
- NORTH ARM INTERCEPTOR (NAI)
- NOVI TRUNK SEWER
- LS1A
- WAYNE COUNTY SEWER
- WTUA INTERCEPTOR SYSTEM
- COMMUNITY BOUNDARY
- RETENTION TREATMENT BASIN (RTB)

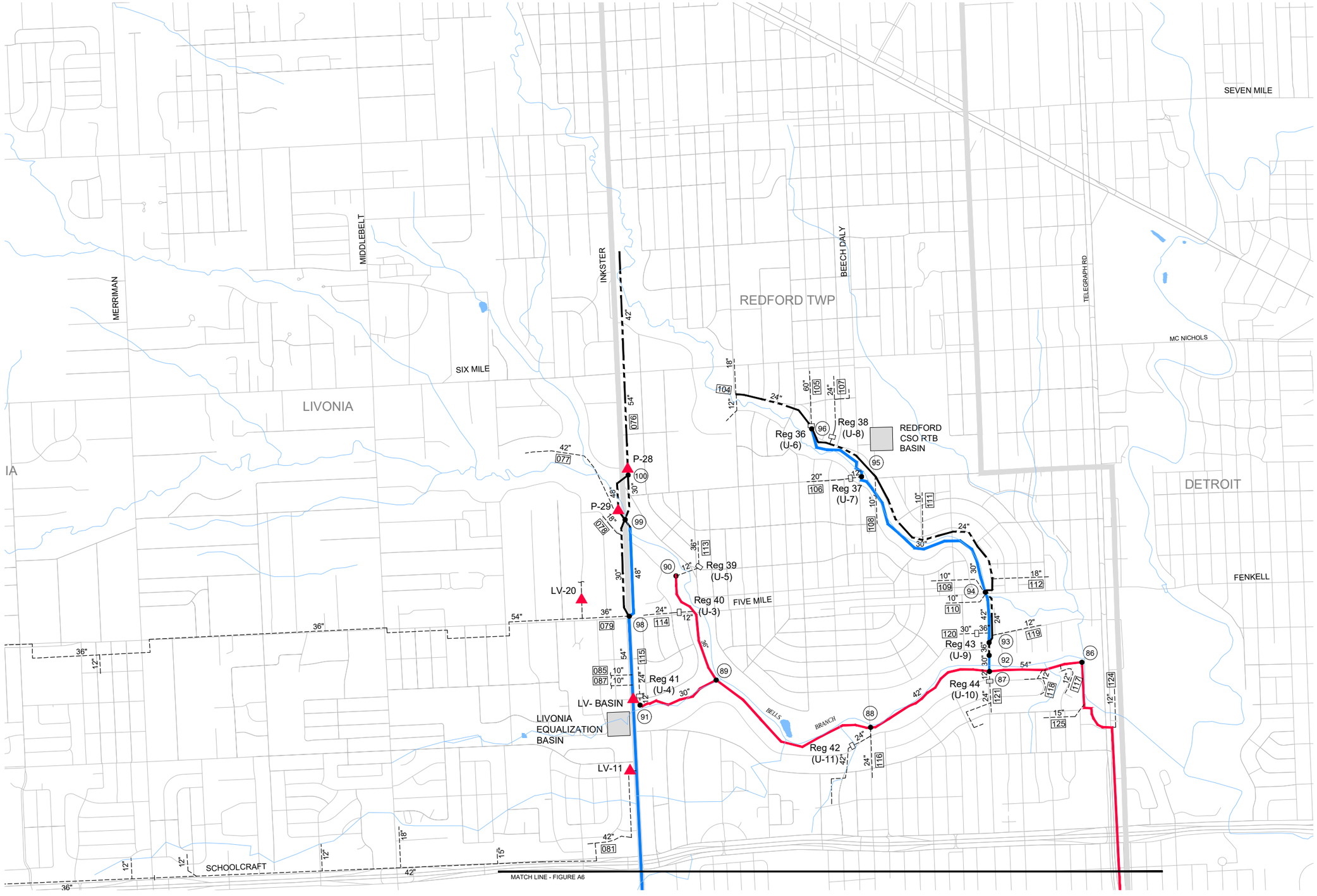
ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

MIDDLE ROUGE INTERCEPTOR SCHEMATIC
MIDDLEBELT TO OUTER DRIVE

SYSTEM MONITORING PLAN
FIGURE A6 OF 8

REVISION DATE: NOVEMBER 24, 2015

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GRAPHIC SCALE
1,000 0 1,000
1" = 1,000'

LEGEND

- REGULATOR
- FLOW METER
- JUNCTION
- (1) JUNCTION ID
- [X-XX] LINE CONNECTION ID
- COMMUNITY SEWER
- PARKWAY INTERCEPTOR (PWI)
- MIDDLE ROUGE PARKWAY INTERCEPTOR EXTENSION (MRPIE)
- ROUGE VALLEY INTERCEPTOR (RVI)
- MIDDLE ROUGE INTERCEPTOR RELIEF (MRIR)
- NORTH ARM INTERCEPTOR (NAI)
- NOVI TRUNK SEWER
- LS1A
- WAYNE COUNTY SEWER
- WTUA INTERCEPTOR SYSTEM
- COMMUNITY BOUNDARY
- RETENTION TREATMENT BASIN (RTB)

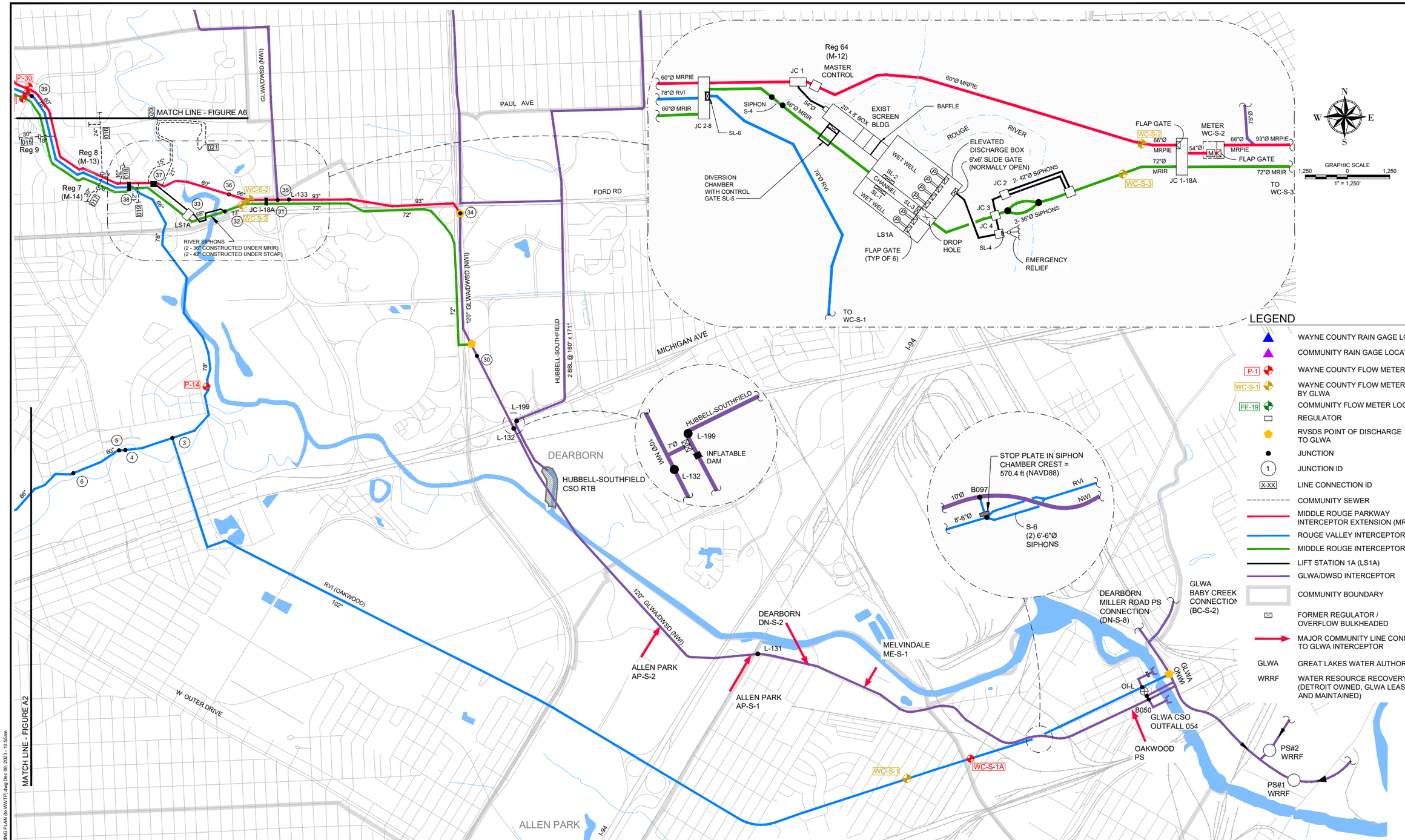
ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

MIDDLE ROUGE INTERCEPTOR SCHEMATIC INKSTER AND REDFORD ARMS

SYSTEM MONITORING PLAN
FIGURE A7 OF 8

REVISION DATE: NOVEMBER 24, 2015

K:\DWGFiles\20141404\RVSDS\RVSDS SYSTEM MONITORING PLAN (to WWTP).dwg Nov 24, 2015 - 11:25am



LEGEND

- WAYNE COUNTY RAIN GAGE LOCATION
- COMMUNITY RAIN GAGE LOCATION
- P-1 — WAYNE COUNTY FLOW METER LOCATION
- WC-S-1 — WAYNE COUNTY FLOW METER OPERATED BY GLWA
- FE-19 — COMMUNITY FLOW METER LOCATION
- REGULATOR
- RVSDS POINT OF DISCHARGE TO GLWA
- JUNCTION
- 1 — JUNCTION ID
- X-XX — LINE CONNECTION ID
- COMMUNITY SEWER
- MIDDLE ROUGE PARKWAY INTERCEPTOR EXTENSION (MRPIE)
- ROUGE VALLEY INTERCEPTOR (RVI)
- MIDDLE ROUGE INTERCEPTOR RELIEF (MRIR)
- LIFT STATION 1A (LS1A)
- GLWA/DWSD INTERCEPTOR
- COMMUNITY BOUNDARY
- FORMER REGULATOR / OVERFLOW BULKHEADED
- MAJOR COMMUNITY LINE CONNECTION TO GLWA INTERCEPTOR
- GLWA — GREAT LAKES WATER AUTHORITY
- WRRF — WATER RESOURCE RECOVERY FACILITY (DETROIT OWNED, GLWA LEASED, OPERATED AND MAINTAINED)

ROUGE VALLEY SEWAGE DISPOSAL SYSTEM

INTERCEPTOR SYSTEM SCHEMATIC DOWNSTREAM END OF SYSTEM

SYSTEM MONITORING PLAN

FIGURE A8 OF 8

REVISION DATE: DECEMBER 8, 2022

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Appendix B
Dye-Dilution Test Adjustment Factors

Table B-1
Rouge Valley Sewage Disposal System
Summary of Applicable Dye-Dilution Test Adjustment Factors

Meter	Dye Test Date	Adjustment Factor	Period Adjustment Factor
LV-04	7/20/2018	1.11	1.11
	3/14/2023	1.12	
LV-14	7/19/2018	0.90	0.99
	6/9/2023	0.78	
	4/1/2024	1.07	
LV-15	12/18/2020	0.70	0.71
	11/12/2024	0.72	
LV-16	11/28/2022	0.95	0.95
LV-Basin	8/8/2016	0.82	0.93
	11/30/2020	1.00	
	3/23/2023	1.07	
	12/2/2024	0.82	
M-1	7/18/2018	0.87	0.92
	12/13/2018	0.93	
	3/21/2023	0.96	
M-2	7/17/2018	0.84	0.83
	12/20/2023	0.82	
P-1	7/11/2016	0.89	1.01
	11/2/2020	0.95	
	3/27/2023	1.14	
	8/14/2024	0.99	
P-7	8/9/2016	0.67	0.72
	10/27/2020	0.65	
	3/24/2023	0.88	
	7/31/2024	0.68	
P-8	8/9/2016	1.10	0.94
	10/27/2020	0.80	
	5/17/2023	0.96	
	11/6/2024	0.92	
P-9	9/1/2015	0.96	0.98
	9/26/2017	0.96	
	10/28/2020	0.92	
	11/30/2023	1.02	
	2/8/2024	1.04	
P-10	8/27/2015	0.97	1.10
	9/27/2017	1.05	
	10/15/2020	1.13	
	4/17/2023	1.21	
	9/29/2024	1.15	
P-11	8/26/2015	0.96	0.98
	9/25/2017	0.97	
	10/20/2020	0.99	
	4/24/2023	1.00	

Table B-1 continued
Rouge Valley Sewage Disposal System
Summary of Applicable Dye-Dilution Test Adjustment Factors

Meter	Dye Test Date	Adjustment Factor	Period Adjustment Factor
P-12	4/21/2023	1.09	1.17
	7/25/2024	1.24	
P-13	7/18/2016	0.93	0.99
	10/26/2020	0.83	
	4/3/2023	1.17	
	10/11/2024	1.00	
P-14	9/10/2015	1.00	1.02
	9/29/2017	0.93	
	10/23/2020	0.99	
	3/31/2023	1.04	
	9/6/2024	1.13	
P-15	6/23/2016	0.84	0.66
	11/23/2020	0.79	
	5/2/2023	0.88	
	12/18/2024	0.66	
P-17	8/8/2016	0.80	0.93
	11/6/2020	0.98	
	5/5/2023	1.02	
	11/22/2024	0.92	
P-19	9/16/2015	0.94	1.00
	9/28/2017	0.94	
	11/6/2020	0.98	
	5/4/2023	1.07	
	11/14/2024	1.11	
P-20	6/24/2016	0.99	1.02
	10/16/2020	1.04	
	5/1/2023	1.04	
	12/3/2024	1.02	
P-21	9/16/2015	0.94	1.02
	10/5/2017	1.12	
	10/29/2020	0.94	
	7/14/2023	1.08	
P-24	12/4/2014	0.92	0.99
	9/8/2015	0.82	
	9/26/2017	0.97	
	10/23/2020	0.97	
	2/26/2024	1.11	
	4/11/2024	1.21	

Table B-1 continued
Rouge Valley Sewage Disposal System
Summary of Applicable Dye-Dilution Test Adjustment Factors

Meter	Dye Test Date	Adjustment Factor	Period Adjustment Factor
P-25	9/8/2015	0.95	0.97
	9/27/2017	0.96	
	10/29/2020	0.77	
	5/18/2023	1.12	
P-26	11/20/2023	1.14	1.14
P-28	6/24/2016	0.74	0.80
	10/22/2020	0.76	
	6/6/2024	0.88	
P-29	7/27/2016	0.81	1.03
	10/27/2023	1.39	
P-30	7/14/2016	0.98	1.00
	11/26/2019	0.99	
	11/15/2022	0.95	
	6/28/2024	1.09	
P-31	7/7/2016	1.0	1.05
	12/17/2019	1.07	
	10/18/2024	1.07	
P-32	7/7/2016	0.89	1.04
	12/10/2019	1.11	
	11/16/2022	1.01	
	10/3/2024	1.14	
P-33	7/14/2016	0.86	1.01
	11/17/2022	0.95	
	10/18/2024	1.24	
P-34	7/19/2024	0.92	0.92
P-35	7/12/2016	0.94	1.03
	11/8/2022	0.97	
	7/23/2024	1.13	
WE-14	11/27/2020	0.84	0.86
	8/9/2024	0.88	
WE-25	11/30/2020	1.13	1.14
	7/24/2024	1.15	
WE-28	10/15/2015	0.72	0.77
	9/27/2017	10.85	
	11/24/2020	0.72	
	7/18/2024	0.78	