

NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report

Sept. 20																				
Disinfection Process, Alkalinity, Hardness																				
Date	Raw Temp F°	Alkalinity			Hardness		Phosphate (as P04) Finished mg/L	Disinfection Process Monitoring												
		Raw (mg/L)	Applied (Post- Flash Mix) (mg/L)	Finished (mg/L)	Raw (mg/L)	Finished mg/L		Chlorine Residual (Free) Applied (mg/L)			Chlorine Residual (Total) Finished / Entry Point (mg/L)					Log Inactivation GIARDIA (Disinfection Only)				
								Average	Max.	Min.	Average	Max.	Min.	Mark if <0.2	VDH Notified	Pre-Clearw	Clearwell & CCT	Total		
1	68	45	40	42	46	45	7.400	0.32	0.68	0.48	3.63	4.07	3.33	N		1.51	9.34	10.85		
2	68	44	43	49	47	49	7.800	0.40	0.70	0.15	3.26	4.07	2.55	N		0.79	18.08	18.87		
3	68	47	43	47	51	50	8.100	0.38	0.56	0.21	3.48	3.86	3.16	N		0.75	12.87	13.62		
4	67	47	40	47	47	46	8.000	0.38	0.60	0.06	2.99	3.60	0.88	N		1.21	18.45	19.66		
5	66	49	41	47	48	47	7.600	0.38	0.54	0.20	3.44	3.72	3.13	N		1.15	15.77	16.92		
6	66	44	41	44	49	47	7.700	0.50	0.80	0.29	3.56	4.09	2.99	N		0.95	15.27	16.22		
7	66	45	43	45	50	50	7.800	0.47	0.68	0.20	3.38	3.95	2.78	N		1.02	18.37	19.39		
8	66	44	41	42	48	49	7.600	0.57	0.78	0.22	3.78	4.00	3.56	N		0.82	11.23	12.05		
9	65	42	42	42	45	46	7.800	0.59	1.01	0.26	3.57	4.10	2.91	N		1.22	17.77	18.99		
10	65	46	43	45	49	48	7.800	0.59	0.88	0.25	3.59	4.14	3.09	N		1.18	18.49	19.67		
11	65	50	46	48	51	51	7.800	0.53	0.80	0.04	3.62	4.12	3.02	N		0.86	12.39	13.24		
12	66	48	45	49	51	53	7.700	0.52	0.70	0.21	3.65	4.16	3.21	N		1.26	20.03	21.29		
13	65	44	41	44	51	50	7.600	0.54	0.71	0.33	3.60	4.09	3.23	N		1.82	16.82	18.64		
14	65	46	43	44	51	50	7.600	0.53	1.03	0.15	3.44	4.13	3.07	N		1.08	18.45	19.53		
15	65	44	41	45	48	49	7.900	0.61	1.04	0.14	3.63	4.01	3.15	N		1.57	23.34	24.91		
16	65	45	44	45	48	50	7.800	0.66	0.84	0.37	3.64	3.89	3.43	N		0.86	19.05	19.92		
17	65	43	41	43	48	50	7.800	0.52	1.00	0.24	3.58	4.19	3.09	N		1.20	22.17	23.37		
18	65	44	42	43	49	48	8.100	0.34	0.55	0.03	3.19	3.90	2.13	N		0.93	20.19	21.13		
19	66	43	40	42	48	49	7.600	0.38	0.62	0.18	3.41	3.87	2.82	N		1.05	22.50	23.55		
20	66	43	41	44	45	47	7.600	0.48	0.77	0.14	3.43	3.94	3.13	N		0.93	16.41	17.33		
21	66	47	43	46	49	47	2.100	0.60	0.75	0.38	3.70	3.93	3.27	N		1.24	24.05	25.29		
22	65	49	45	51	49	50	7.600	0.58	0.84	0.21	3.58	3.95	3.12	N		0.88	24.77	25.64		
23	66	44	41	43	50	49	7.600	0.52	0.74	0.26	3.39	3.67	2.94	N		0.48	19.90	20.38		
24	66	44	44	46	53	53	7.500	0.59	0.75	0.25	3.41	3.58	3.05	N		1.33	21.51	22.84		
25	65	40	39	42	45	47	7.700	0.45	0.70	0.18	3.48	3.76	2.99	N		0.99	15.69	16.68		
26	65	43	40	42	47	47	7.600	0.47	0.73	0.09	3.44	3.67	3.22	N		1.25	19.98	21.23		
27	65	44	37	43	41	45	7.400	0.37	0.61	0.05	3.58	3.87	3.20	N		1.12	22.02	23.14		
28	65	36	32	31	34	50	7.100	0.12	0.15	0.05	2.95	3.88	2.44	N		0.83	17.12	17.95		
29	63	23	15	15	22	24	6.400	0.14	0.15	0.13	3.54	4.24	2.70	N		1.14	21.29	22.44		
30	62	21	16	20	19	18		0.10	0.13	0.07	3.43	4.81	1.87	N		1.38	23.06	24.43		
31														N		1.30	22.38	23.68		
Total	1965	1286	1188	1267	1375	1395	216.100	13.63	20.84	5.82	104.37	119.26	87.46			34.12	578.74	612.86		
Max.	68	50	46	51	53	53	8.100	0.66	1.04	0.48	3.78	4.81	3.56			1.82	24.77	25.64		
Min.	62	21	15	15	19	18		0.10	0.13	0.03	2.95	3.58	0.88			0.48	9.34	10.85		
Average	66	43	40	42	46	47	7.452	0.45	0.69	0.19	3.48	3.98	2.92			1.10	18.67	19.77		

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Date	pH								
	Raw			Applied			Finished		
	Average	Max.	Min.	Average	Max.	Min.	Average	Max.	Min.
1	7.1	7.4	6.8	6.7	6.9	6.5	6.9	7.2	6.8
2	7.3	7.7	6.9	6.8	6.9	6.7	7.5	7.7	7.2
3	7.5	7.9	7.1	6.8	7.0	6.6	7.6	8.0	7.2
4	7.5	7.9	7.1	6.3	7.2	6.5	8.3	8.8	7.9
5	7.4	8.0	7.0	7.0	7.1	6.9	8.1	8.7	7.8
6	7.4	7.9	6.9	6.8	6.9	6.7	8.0	8.5	7.7
7	7.4	8.0	7.0	6.5	6.7	6.2	8.0	8.3	7.7
8	7.5	8.0	7.1	6.0	6.2	5.8	8.1	8.4	7.9
9	7.5	8.2	7.0	6.8	7.7	5.6	8.2	8.4	8.0
10	7.6	8.3	7.1	7.5	7.7	7.3	8.2	8.4	7.9
11	7.7	8.5	7.1	7.4	7.7	7.3	8.2	8.3	8.0
12	7.7	8.4	7.2	7.4	7.6	7.2	8.2	8.5	8.0
13	7.5	7.9	7.2	6.8	7.0	6.8	8.2	8.5	8.0
14	7.6	8.3	7.1	7.3	7.6	7.2	8.2	8.4	8.0
15	7.6	8.3	7.1	7.3	7.6	7.2	8.2	8.5	8.0
16	7.3	7.5	7.1	7.2	7.5	7.1	8.1	8.6	7.9
17	7.3	7.8	7.0	7.2	7.4	7.1	8.0	8.2	7.8
18	7.1	7.4	6.9	7.3	7.4	7.2	8.1	8.4	7.9
19	7.1	7.3	6.9	7.1	7.3	7.0	7.8	8.0	7.7
20	7.2	7.5	6.9	7.2	7.4	7.0	7.9	8.0	7.8
21	7.2	7.5	7.0	7.2	7.4	7.0	7.9	8.1	7.8
22	7.4	7.8	7.1	7.3	7.4	7.1	8.1	8.2	7.9
23	7.3	7.7	7.0	7.2	7.4	7.1	8.0	8.3	7.9
24	7.2	7.5	7.0	7.2	7.3	7.1	8.0	8.2	7.9
25	7.1	7.3	6.9	7.1	7.2	7.0	8.1	8.3	8.0
26	6.9	7.1	6.9	7.0	7.1	7.0	8.0	8.2	7.9
27	7.0	7.1	7.0	6.9	7.0	6.6	7.9	8.0	7.7
28	6.9	7.0	6.5	6.3	6.6	6.2	7.3	7.7	7.0
29	6.5	6.6	6.4	6.2	6.3	6.1	6.8	7.0	6.7
30	6.2	6.4	6.2	6.5	7.4	6.2	7.9	9.4	6.8
31									
Total	218.0	230.2	208.5	208.3	215.9	203.3	237.8	247.2	230.8
Max.	7.7	8.5	7.2	7.5	7.7	7.3	8.3	9.4	8.0
Min.	6.2	6.4	6.2	6.0	6.2	5.6	6.8	7.0	6.7
Average	7.3	7.7	7.0	6.9	7.2	6.8	7.9	8.2	7.7

9-30-24 pH exceeded smcl but did not exceed daily average of 7.9

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Sept. 2024 **Daily Turbidity Sheet (Nonfilter)**

Date	Raw Water		Applied Water					Finished Water		
	Average	Max.	Average	Max.	Total No.	No. Anal.	No. Anal.	Average	Max.	Min.
	NTU	NTU	NTU	NTU	Analyses	≤1.0 NTU	≤2.0 NTU	NTU	NTU	NTU
1	1.32	17.06	0.15	0.21	75.00	75.00	75.00	0.06	0.07	0.05
2	1.51	4.56	0.23	0.48	69.00	69.00	69.00	0.07	0.08	0.05
3	2.08	3.56	0.19	0.26	80.00	80.00	80.00	0.07	0.09	0.06
4	3.43	28.93	0.21	0.31	68.00	68.00	68.00	0.08	0.12	0.06
5	2.98	3.94	0.19	0.27	76.00	76.00	76.00	0.08	0.11	0.07
6	3.13	9.75	0.18	0.33	96.00	96.00	96.00	0.08	0.08	0.07
7	5.31	71.23	0.18	0.23	96.00	96.00	96.00	0.08	0.09	0.08
8	3.70	4.25	0.18	0.24	96.00	96.00	96.00	0.08	0.08	0.07
9	3.97	18.81	0.18	0.27	96.00	96.00	96.00	0.08	0.08	0.07
10	3.27	4.31	0.18	0.28	96.00	96.00	96.00	0.08	0.10	0.07
11	3.48	20.49	0.19	0.31	85.00	85.00	85.00	0.09	0.11	0.07
12	3.81	16.43	0.18	0.24	96.00	96.00	96.00	0.09	0.11	0.08
13	3.32	5.56	0.16	0.18	96.00	96.00	96.00	0.08	0.10	0.08
14	3.15	3.94	0.17	0.25	96.00	96.00	96.00	0.08	0.09	0.08
15	3.37	10.43	0.18	0.26	96.00	96.00	96.00	0.09	0.10	0.08
16	4.38	6.00	0.16	0.21	96.00	96.00	96.00	0.09	0.10	0.09
17	3.52	17.12	0.16	0.24	96.00	96.00	96.00	0.09	0.09	0.08
18	6.76	65.79	0.16	0.42	85.00	85.00	85.00	0.08	0.09	0.07
19	8.21	49.61	0.18	0.35	95.00	95.00	95.00	0.08	0.09	0.07
20	5.03	35.55	0.15	0.36	96.00	96.00	96.00	0.08	0.09	0.08
21	3.70	6.69	0.14	0.17	96.00	96.00	96.00	0.09	0.10	0.08
22	3.08	6.69	0.16	0.22	66.00	66.00	66.00	0.10	0.11	0.07
23	3.35	4.19	0.14	0.34	96.00	96.00	96.00	0.07	0.07	0.06
24	3.94	13.56	0.13	0.21	96.00	96.00	96.00	0.07	0.07	0.06
25	5.99	18.12	0.16	0.31	78.00	78.00	78.00	0.07	0.17	0.06
26	6.05	16.06	0.17	0.28	87.00	87.00	87.00	0.06	0.07	0.05
27	13.62	56.48	0.21	0.48	75.00	75.00	75.00	0.05	0.06	0.04
28	141.35	259.79	1.48	2.88	96.00	38.00	66.00	0.19	0.48	0.04
29	258.28	313.71	4.10	10.60	86.00			0.09	0.13	0.07
30	221.66	268.85	24.85	30.28	81.00			1.48	5.39	0.08
31										
Total					2642.00	2417.00	2445			
Raw Days ≤10.0	26									
Raw Days ≥10.0	4									
Maximum	258.28	313.71		30.28					5.39	
Average	24.56		1.17					0.13		

Sedimentation Basin #1									
% Samples w/ Clarified Turbidity ≤1.0 When Monthly Average Raw Turbidity ≤10.0								N/A	
% Samples w/ Clarified Turbidity ≤2.0 When Monthly Average Raw Turbidity >10.0								92.54%	

Appl. Turb. for 9-29 and 9-30 were all >1.0

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Filter 1-3 Daily Turbidity Data Sheet															
Date	Filter #1 Summary					Filter #2 Summary					Filter #3 Summary				
	Max Turbidity NTU	No. Of Turbidity Results	No. Of Results ≤ 0.3 NTU	No. Of Results ≤ 0.10 NTU	Service/Startup Max Turbidity NTU	Max Turbidity NTU	No. Of Turbidity Results	No. Of Results ≤ 0.3 NTU	No. Of Results ≤ 0.10 NTU	Service/Startup Max Turbidity NTU	Max Turbidity NTU	No. Of Turbidity Results	No. Of Results ≤ 0.3 NTU	No. Of Results ≤ 0.10 NTU	Service/Startup Max Turbidity NTU
1	0.022	75	75	75		0.02	75	75	75		0.06	75	75	75	
2	0.103	69	69	68		0.28	69	69	68		0.03	69	69	69	
3	0.066	80	80	80		0.027	80	80	80		0.073	80	80	80	
4	0.125	68	68	67		0.056	68	68	68		0.041	68	68	68	
5	0.046	76	76	76		0.034	76	76	76		0.034	76	76	76	
6	0.038	96	96	96		0.218	96	96	95		0.111	96	96	95	
7	0.097	96	96	96		0.034	96	96	96		0.035	96	96	96	
8	0.034	96	96	96		0.049	96	96	96		0.03	96	96	96	
9	0.051	96	96	96		0.028	96	96	96		0.031	96	96	96	
10	0.03	96	96	96		0.08	96	96	96		0.084	96	96	96	
11	0.057	85	85	85		0.036	85	85	85		0.039	85	85	85	
12	0.035	96	96	96		0.086	96	96	96		0.092	96	96	96	
13	0.056	96	96	96		0.032	96	96	96		0.037	96	96	96	
14	0.029	96	96	96		0.022	96	96	96		0.027	96	96	96	
15	0.082	96	96	96		0.077	96	96	96		0.061	96	96	96	
16	0.034	96	96	96		0.098	96	96	96		0.029	96	96	96	
17	0.017	96	96	96		0.021	96	96	96		0.051	96	96	96	
18	0.129	85	85	84		0.016	85	85	85		0.022	85	85	85	
19	0.015	95	95	95		0.036	95	95	95		0.05	95	95	95	
20	0.042	96	96	96		0.015	96	96	96		0.02	96	96	96	
21	0.017	96	96	96		0.048	96	96	96		0.019	96	96	96	
22	0.135	66	66	65		0.018	66	66	66		0.058	66	66	66	
23	0.019	96	96	96		0.047	96	96	96		0.022	96	96	96	
24	0.054	96	96	96		0.021	96	96	96		0.07	96	96	96	
25	0.018	78	78	78		0.055	78	78	78		0.02	78	78	78	
26	0.016	87	87	87		0.015	87	87	87		0.052	87	87	87	
27	0.067	75	75	75		0.02	75	74	74		0.019	75	75	75	
28	0.024	96	96	96		0.027	96	96	96		0.026	96	96	96	
29	0.078	86	86	86		0.546	86	84	82		8.08	86	84	83	
30	26.555	81	6	3		29.551	81				25.661	81			
31															
Total		2642	2567	2560			2642	2558	2554			2642	2559	2557	
Max.	26.555					29.551					25.661				
0.3 NTU Criteria	97.16124148 Performance does not meet optimized criteria					96.82059046 Performance does not meet optimized criteria					96.85844058 Performance does not meet optimized criteria				
0.1 NTU Criteria	96.89629069 Performance meets optimized criteria					96.66919001 Performance meets optimized criteria					96.78274035 Performance meets optimized criteria				
(1)Compliance can be based on combined filter effluent tap monitoring or ave. of individual filter effluent results. If based on ave. of individual results, determine the ave. of individual filter turbidities (Of units in service for that particular monitoring period) and count the ave. as one sample result for the period.															
(2)Date & Turbidity value for any measurement > 1 NTU:						Date reported to VDH					Value NTU				

NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report

Sept. 20 **Filter 4-6 & Combined Filter Effluent Daily Turbidity Data Sheet**

Date	Filter #4 Summary					Filter #5 Summary					Filter #6 Summary					Combined Filter Effluent Summary				
	Max Turbidity NTU	No. Of Turbidity Results	No. Of Results ≤ 0.3 NTU	No. Of Results ≤ 0.10 NTU	Service/Startup Max Turbidity NTU	Max Turbidity NTU	No. Of Turbidity Results	No. Of Results ≤ 0.3 NTU	No. Of Results ≤ 0.10 NTU	Service/Startup Max Turbidity NTU	Max Turbidity NTU	No. Of Turbidity Results	No. Of Results ≤ 0.3 NTU	No. Of Results ≤ 0.10 NTU	Service/Startup Max Turbidity NTU	Max Turbidity NTU	No. Of Turbidity Results	No. Of Results ≤ 0.3 NTU	No. Of Results ≤ 0.10 NTU	Service/Startup Max Turbidity NTU
1	0.03	75	75	75		0.022	75	75	75		0.026	75	75	75		0.021	75	75	75	
2	0.032	69	69	69		0.024	69	69	69		0.074	69	69	69		0.031	69	69	69	
3	0.03	80	80	80		0.089	80	80	80		0.034	80	80	80		0.034	80	80	80	
4	0.124	68	68	67		0.049	68	68	68		0.038	68	68	68		0.045	68	68	68	
5	0.049	76	76	76		0.043	76	76	76		0.088	76	76	76		0.039	76	76	76	
6	0.037	96	96	96		0.036	96	96	96		0.039	96	96	96		0.031	96	96	96	
7	0.036	96	96	96		0.073	96	96	96		0.037	96	96	96		0.04	96	96	96	
8	0.064	96	96	96		0.052	96	96	96		0.035	96	96	96		0.033	96	96	96	
9	0.04	96	96	96		0.04	96	96	96		0.163	96	96	94		0.033	96	96	96	
10	0.037	96	96	96		0.039	96	96	96		0.036	96	96	96		0.034	96	96	96	
11	0.035	85	85	85		0.085	85	85	85		0.228	85	85	83		0.051	85	85	85	
12	0.11	96	96	95		0.048	96	96	96		0.043	96	96	96		0.039	96	96	96	
13	0.035	96	96	96		0.038	96	96	96		0.032	96	96	96		0.03	96	96	96	
14	0.031	96	96	96		0.036	96	96	96		0.028	96	96	96		0.027	96	96	96	
15	0.062	96	96	96		0.061	96	96	96		0.067	96	96	96		0.041	96	96	96	
16	0.039	96	96	96		0.042	96	96	96		0.033	96	96	96		0.034	96	96	96	
17	0.025	96	96	96		0.031	96	96	96		0.024	96	96	96		0.021	96	96	96	
18	0.024	85	85	85		0.03	85	85	85		0.048	85	85	85		0.025	85	85	85	
19	0.037	95	95	95		0.043	95	95	95		0.024	95	95	95		0.048	95	95	95	
20	0.024	96	96	96		0.029	96	96	96		0.022	96	96	96		0.022	96	96	96	
21	0.024	96	96	96		0.029	96	96	96		0.024	96	96	96		0.021	96	96	96	
22	0.024	66	66	66		0.03	66	66	66		0.198	66	66	65		0.027	66	66	66	
23	0.053	96	96	96		0.03	96	96	96		0.024	96	96	96		0.023	96	96	96	
24	0.028	96	96	96		0.064	96	96	96		0.024	96	96	96		0.027	96	96	96	
25	0.024	78	78	78		0.029	78	78	78		0.02	78	77	77		0.023	78	78	78	
26	0.023	87	87	87		0.028	87	87	87		0.024	87	87	87		0.02	87	87	87	
27	0.036	75	75	75		0.028	75	75	75		0.023	75	75	75		0.022	75	75	75	
28	0.032	96	96	96		0.056	96	96	96		0.288	96	96	95		0.122	96	96	92	
29	0.422	86	85	85		0.905	86	84	81		0.452	86	84	82		0.236	86	86	84	
30	19.229	81				16.607	81	38			12.039	81	28			18.787	81	1		
31																				
Total		2642	2560	2558			2642	2597	2556			2642	2586	2550			2642	2562	2555	
Max.	19.229					16.607					12.039					18.787				
0.3 NTU Criteria	96.89629069 Performance does not meet optimized criteria					98.29674489 Performance does not meet optimized criteria					97.88039364 Performance does not meet optimized criteria					96.97199092 In compliance with 95% limit				
0.1 NTU Criteria	96.82059046 Performance meets optimized criteria					96.74489023 Performance meets optimized criteria					96.51778955 Performance meets optimized criteria									
≤1 NTU Criteria	Not in compliance with maximum limit																			
(1) Compliance can be based on combined filter effluent tap monitoring or ave. of individual filter effluent results. If based on ave. of individual results, determine the ave. of individual filter turbidities (Of units in service for that particular monitoring period) and count the ave. as one sample result for the period.																				
(2) Date & Turbidity value for any measurement > 1 NTU:																				
						Date reported to VDH					Value NTU									

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Sept. 2024 **Filter #1 Wash Log**

Date	Filter Hours	Number Of Washes	Headloss Before Washing	Headloss After Washing	Backwash (Total gals)	Turbidity Prior To Wash (NTU)	Max Turb. During Recovery (NTU)	No. ≤ 0.3 NTU During Recovery	Turbidity When Placed In Service	No. Washes ≤ 0.1 NTU When Placed In Service	Actual Filter To Waste Time (Rewash) (Min)	Recovery Time (Min)	No. ≤15 Min Recovery Time
1													
2	38.82	1	6	0.67	59787	0.022	0.028	1	0.028	1	2.89	2.89	1
3													
4	35.08	1	5.86	0.68	59743	0.028	0.038	1	0.038	1	2.89	2.89	1
5													
6													
7													
8													
9	53.93	1	5.88	0.7	59537	0.017	0.021	1	0.021	1	2.89	2.89	1
10													
11	56.82	1	6.34	0.68	59555	0.017	0.02	1	0.02	1	2.89	2.89	1
12													
13	44.6	1	5.93	0.69	59692	0.017	0.019	1	0.019	1	2.89	2.89	1
14													
15	51.72	1	5.81	0.68	59589	0.021	0.03	1	0.029	1	2.89	2.89	1
16													
17													
18	50.77	1	5.81	0.68	59544	0.016	0.019	1	0.019	1	2.89	2.89	1
19													
20	53.29	1	5.72	0.69	59617	0.015	0.017	1	0.017	1	2.89	2.89	1
21													
22	47.62	1	5.69	0.68	59840	0.016	0.018	1	0.018	1	2.89	2.89	1
23													
24	46.83	1	5.81	0.68	59475	0.016	0.02	1	0.02	1	2.88	2.88	1
25													
26													
27	48.83	1	6.13	0.68	59724	0.015	0.017	1	0.016	1	2.89	2.89	1
28													
29													
30	71.1	1	5.57	0.81	59658	0.894	3.039		2.375		60	60	
31													
Total	599.41	12			715761			11		11	91.78	91.78	11
Average	49.950833	1	5.8791667	0.6933333	59646.75	0.0911667	0.2738333	0.9166667	0.2183333	0.9166667	7.6483333	7.6483333	0.9166667

Backwash recovery period/time, typically during filter to waste, for filter effluent turbidity to drop to ≤ 0.1 NTU.

Goal for backwash recovery period should be ≤ 15 minutes duration with peak turbidity ≤ 0.3 NTU.

Summary - Filter #1		(1) Data input here will reflect the no. of filter backwashes for the day that ≤ 0.3 NTU.
% Of total backwashes ≤ 0.3 NTU during recovery:	91.67	(2) Recommend filter effluent turbidity always be ≤ 0.10 NTU prior to placing filter in service. Precision for reporting purposes to nearest 0.01 NTU.
% Of total backwashes ≤ 15 minutes during recovery:	91.67	
% Of washes w/ turbidity ≤ 0.1 NTU upon placing in service:	91.67	

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Filter #2 Wash Log													
Date	Filter Hours	Number Of Washes	Headloss Before Washing	Headloss After Washing	Backwash (Total gals)	Turbidity Prior To Wash (NTU)	Max Turb. During Recovery (NTU)	No. ≤ 0.3 NTU During Recovery	Turbidity When Placed In Service	No. Washes ≤ 0.1 NTU When Placed In Service	Actual Filter To Waste Time (Rewash) (Min)	Recovery Time (Min)	No. ≤15 Min Recovery Time
1													
2	39.33	1	5.94	0.1	60622	0.016	0.31		0.019	1	2.54	2.54	1
3													
4	32.89	1	5.84	0.12	60238	0.017	0.02	1	0.02	1	2.54	2.54	1
5													
6	38.3	1	6.18	0.13	59874	0.015	0.23	1	0.018	1	2.54	2.54	1
7													
8	48.42	1	6.43	0.15	60211	0.016	0.02	1	0.02	1	2.54	2.54	1
9													
10	55.59	1	5.99	0.14	60212	0.018	0.03	1	0.028	1	2.54	2.54	1
11													
12													
13													
14													
15	51.77	1	5.87	0.11	60175	0.02	0.02	1	0.023	1	2.54	2.54	1
16	45.65	1	5.94	0.13	60206	0.015	0.34		0.019	1	2.54	2.54	1
17													
18													
19	50.05	1	5.86	0.12	60323	0.013	0.27	1	0.096	1	2.73	2.73	1
20													
21	54.02	1	5.98	0.12	60117	0.013	0.02	1	0.015	1	2.54	2.54	1
22													
23	45.5	1	6	0.13	60091	0.013	0.01	1	0.015	1	2.54	2.54	1
24													
25	46.24	1	6.04	0.13	60506	0.014	0.02	1	0.016	1	2.54	2.54	1
26													
27	41.84	1	6.39	0.13	60143	0.013	0.02	1	0.015	1	2.54	2.54	1
28													
29	46.15	1		0.22	59009	0.143	0.51		0.506		2.58	2.58	1
30	6.41	1	0.58	0.21	59359	4.125	2.2		1.699		2.54	2.54	1
31													
Total	602.16	14			841086			10		12	35.79	35.79	14
Average	43.011429	1	5.2171429	0.1385714	60077.571	0.3179286	0.2871429	0.7142857	0.1792143	0.8571429	2.5564286	2.5564286	1

Backwash recovery period/time, typically during filter to waste, for filter effluent turbidity to drop to ≤ 0.1 NTU.

Goal for backwash recovery period should be ≤ 15 minutes duration with peak turbidity ≤ 0.3 NTU.

Summary - Filter #2		(1) Data input here will reflect the no. of filter backwashes for the day that ≤ 0.3 NTU.
% Of total backwashes ≤ 0.3 NTU during recovery:	71.43	(2) Recommend filter effluent turbidity always be ≤ 0.10 NTU prior to placing filter in service. Precision for reporting purposes to nearest 0.01 NTU.
% Of total backwashes ≤ 15 minutes during recovery:	100.00	
% Of washes w/ turbidity ≤ 0.1 NTU upon placing in service:	85.71	

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Sept. 2024	Filter #3 Wash Log												
Date	Filter Hours	Number Of Washes	Headloss Before Washing	Headloss After Washing	Backwash (Total gals)	Turbidity Prior To Wash (NTU)	Max Turb. During Recovery (NTU)	No. ≤ 0.3 NTU During Recovery	Turbidity When Placed In Service	No. Washes ≤ 0.1 NTU When Placed In Service	Actual Filter To Waste Time (Rewash) (Min)	Recovery Time (Min)	No. ≤15 Min Recovery Time
1	37.96	1	5.98	0.72	58782	0.02	0.057	1	0.05	1	2.57	2.57	1
2													
3	39.98	1	6.02	0.72	56400	0.024	0.027	1	0.027	1	2.57	2.57	1
4													
5													
6	39.55	1	5.89	0.73	58680	0.022	0.064	1	0.064	1	2.57	2.57	1
7													
8	51.6	1	6.09	0.75	58771	0.022	0.061	1	0.057	1	2.57	2.57	1
9													
10	59.79	1	5.86	0.74	58538	0.021	0.04	1	0.023	1	2.57	2.57	1
11													
12	46.37	1	6.7	0.74	58765	0.027	0.083	1	0.078	1	2.57	2.57	1
13													
14													
15	55.49	1	6.01	0.74	58672	0.02	0.059	1	0.051	1	2.57	2.57	1
16													
17	58.98	1	6.56	0.74	58412	0.018	0.063	1	0.046	1	2.57	2.57	1
18													
19	48.91	1	5.86	0.74	58591	0.018	0.055	1	0.052	1	2.57	2.57	1
20													
21													
22	56.22	1	5.85	0.73	58851	0.018	0.067	1	0.044	1	2.57	2.57	1
23													
24	45.48	1	5.78	0.74	58570	0.018	0.079	1	0.052	1	2.57	2.57	1
25													
26	48.13	1	5.58	0.73	58717	0.017	0.067	1	0.055	1	2.57	2.57	1
27													
28													
29	67.27	1	0.07	0.8	56426	0.121	10.616		0.989		6.96	6.96	1
30	5.6	1	1.05	0.81	57787	3.262	1.611		1.602		2.57	2.57	1
31													
Total	661.33	14			815962			12		12	40.37	40.37	13
Average	47.237857	1	5.2357143	0.745	58283	0.2591429	0.9249286	0.8571429	0.2278571	0.8571429	2.8835714	2.8835714	1

Backwash recovery period/time, typically during filter to waste, for filter effluent turbidity to drop to ≤ 0.1 NTU.

Goal for backwash recovery period should be ≤ 15 minutes duration with peak turbidity ≤ 0.3 NTU.

Summary - Filter #3		(1) Data input here will reflect the no. of filter backwashes for the day that ≤ 0.3 NTU.
% Of total backwashes ≤ 0.3 NTU during recovery:	85.71	(2) Recommend filter effluent turbidity always be ≤ 0.10 NTU prior to placing filter in service. Precision for reporting purposes to nearest 0.01 NTU.
% Of total backwashes ≤ 15 minutes during recovery:	100.00	
% Of washes w/ turbidity ≤ 0.1 NTU upon placing in service:	85.71	

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Sept. 2024 **Filter #4 Wash Log**

Date	Filter Hours	Number Of Washes	Headloss Before Washing	Headloss After Washing	Backwash (Total gals)	Turbidity Prior To Wash (NTU)	Max Turb. During Recovery (NTU)	No. ≤ 0.3 NTU During Recovery	Turbidity When Placed In Service	No. Washes ≤ 0.1 NTU When Placed In Service	Actual Filter To Waste Time (Rewash) (Min)	Recovery Time (Min)	No. ≤15 Min Recovery Time
1													
2													
3													
4	72.08	1	6.06	0.76	61198	0.03	0.042	1	0.04	1	2.64	2.64	1
5													
6													
7													
8	84.98	1	5.99	0.79	60952	0.02	0.028	1	0.03	1	2.64	2.64	1
9													
10													
11													
12	78.86	1	5.76	0.77	61400	0.03	0.069	1	0.04	1	2.64	2.64	1
13													
14													
15	86.84	1	5.55	0.77	61031	0.02	0.027	1	0.03	1	2.64	2.64	1
16													
17													
18													
19	86.75	1	6.24	0.78	60919	0.02	0.023	1	0.02	1	2.64	2.64	1
20													
21													
22													
23	81.83	1	5.87	0.76	61265	0.02	0.025	1	0.02	1	2.64	2.64	1
24													
25													
26													
27	85.31	1	5.96	0.77	61357	0.02	0.024	1	0.02	1	2.64	2.64	1
28													
29	61.44	1	0.05	0.8	57821	0.1	2.364		0.1	1	4.43	4.43	1
30													
31													
Total	638.09	8			485943			7		8	22.91	22.91	8
Average	79.76125	1	5.185	0.775	60742.875	0.0325	0.32525	0.875	0.0375	1	2.86375	2.86375	1

Backwash recovery period/time, typically during filter to waste, for filter effluent turbidity to drop to ≤ 0.1 NTU.

Goal for backwash recovery period should be ≤ 15 minutes duration with peak turbidity ≤ 0.3 NTU.

Summary - Filter #4		(1) Data input here will reflect the no. of filter backwashes for the day that ≤ 0.3 NTU.
% Of total backwashes ≤ 0.3 NTU during recovery:	87.50	(2) Recommend filter effluent turbidity always be ≤ 0.10 NTU prior to placing filter in service. Precision for reporting purposes to nearest 0.01 NTU.
% Of total backwashes ≤ 15 minutes during recovery:	100.00	
% Of washes w/ turbidity ≤ 0.1 NTU upon placing in service:	100.00	

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Sept. 2024 **Filter #5 Wash Log**

Date	Filter Hours	Number Of Washes	Headloss Before Washing	Headloss After Washing	Backwash (Total gals)	Turbidity Prior To Wash (NTU)	Max Turb. During Recovery (NTU)	No. ≤ 0.3 NTU During Recovery	Turbidity When Placed In Service	No. Washes ≤ 0.1 NTU When Placed In Service	Actual Filter To Waste Time (Rewash) (Min)	Recovery Time (Min)	No. ≤15 Min Recovery Time
1													
2													
3	72.9	1	5.73	0.68	60328	0.023	0.041	1	0.041	1	2.76	2.76	1
4													
5													
6													
7	90.48	1	6.21	0.7	60048	0.021	0.03	1	0.03	1	2.76	2.76	1
8													
9													
10													
11	100.44	1	6.59	0.7	60331	0.028	0.04	1	0.039	1	2.76	2.76	1
12													
13													
14													
15	90.52	1	5.74	0.71	60274	0.025	0.033	1	0.032	1	2.76	2.76	1
16													
17													
18													
19	92.2	1	6.05	0.71	60359	0.025	0.028	1	0.026	1	2.76	2.76	1
20													
21													
22													
23													
24	97.59	1	5.9	0.7	60254	0.027	0.03	1	0.03	1	2.76	2.76	1
25													
26													
27													
28	83.4	1	5.75	0.73	60267	0.025	0.046	1	0.045	1	2.76	2.76	1
29	41.84	1	0.09	0.77	58464	0.125	0.919		0.896		2.8	2.8	1
30													
31													
Total	669.37	8			480325			7		7	22.12	22.12	8
Average	83.67125	1	5.2575	0.7125	60040.625	0.037375	0.145875	0.875	0.142375	0.875	2.765	2.765	1

Backwash recovery period/time, typically during filter to waste, for filter effluent turbidity to drop to ≤ 0.1 NTU.

Goal for backwash recovery period should be ≤ 15 minutes duration with peak turbidity ≤ 0.3 NTU.

Summary - Filter #5		(1) Data input here will reflect the no. of filter backwashes for the day that ≤ 0.3 NTU.
% Of total backwashes ≤ 0.3 NTU during recovery:	87.50	(2) Recommend filter effluent turbidity always be ≤ 0.10 NTU prior to placing filter in service. Precision for reporting purposes to nearest 0.01 NTU.
% Of total backwashes ≤ 15 minutes during recovery:	100.00	
% Of washes w/ turbidity ≤ 0.1 NTU upon placing in service:	87.50	

**NRV Regional Water Authority (PWSID # 1121057)
Water Treatment Plant Monthly Report**

Sept. 2024 **Filter #6 Wash Log**

Date	Filter Hours	Number Of Washes	Headloss Before Washing	Headloss After Washing	Backwash (Total gals)	Turbidity Prior To Wash (NTU)	Max Turb. During Recovery (NTU)	No. ≤ 0.3 NTU During Recovery	Turbidity When Placed In Service	No. Washes ≤ 0.1 NTU When Placed In Service	Actual Filter To Waste Time (Rewash) (Min)	Recovery Time (Min)	No. ≤15 Min Recovery Time
1													
2	54.98	1	5.79	0.71	58369	0.027	0.049	1	0.03	1	2.72	2.72	1
3													
4													
5	54.18	1	5.95	0.73	58063	0.026	0.032	1	0.03	1	2.72	2.72	1
6													
7													
8													
9	76.52	1	5.89	0.74	57834	0.028	0.033	1	0.03	1	2.72	2.72	1
10													
11	65.35	1	5.92	0.73	58272	0.031	0.045	1	0.04	1	2.72	2.72	1
12													
13													
14													
15	76.62	1	5.88	0.74	58076	0.025	0.036	1	0.03	1	2.72	2.72	1
16													
17													
18	80.03	1	6.07	0.74	57954	0.021	0.024	1	0.02	1	2.72	2.72	1
19	20.34	1	0.06	1.3		0.021	0.022	1	0.02	1	3.94	3.94	1
20													
21													
22	59.43	1	5.87	0.74	56434	0.024	0.027	1	0.02	1	2.72	2.72	1
23													
24													
25	72.51	1	5.75	0.74	58419	0.022	0.026	1	0.02	1	2.72	2.72	1
26													
27													
28	71.16	1	6.11		56016	0.027							
29	22.37	1	1.18	0.81	57665	0.139	0.458		0.44		2.76	2.76	1
30													
31													
Total	653.49	11			577102			9		9	28.46	28.46	10
Average	59.408182	1	4.9518182	0.798	52463.818	0.0355455	0.0752	0.9	0.068	0.9	2.846	2.846	1

Backwash recovery period/time, typically during filter to waste, for filter effluent turbidity to drop to ≤ 0.1 NTU.

Goal for backwash recovery period should be ≤ 15 minutes duration with peak turbidity ≤ 0.3 NTU.

Summary - Filter #6		(1) Data input here will reflect the no. of filter backwashes for the day that ≤ 0.3 NTU.
% Of total backwashes ≤ 0.3 NTU during recovery:	90.00	(2) Recommend filter effluent turbidity always be ≤ 0.10 NTU prior to placing filter in service. Precision for reporting purposes to nearest 0.01 NTU.
% Of total backwashes ≤ 15 minutes during recovery:	100.00	
% Of washes w/ turbidity ≤ 0.1 NTU upon placing in service:	90.00	

Sept. 20 **Filter performance monthly operation report (≥ 10,000 Population)**

Was individual filter turbidity monitoring conducted during the month? YES (yes or no)

Were all continuous turbidity monitors in operation for the entire month? YES (yes or no)

If no, complete the following table:

Filter No.	Date taken out of service	Date returned to service	Grab samples collected as required? (yes or no)

Did any of the following exceedances occur? NO (yes or no) If yes, complete the chart.

Exceedance #1 : Turbidity level greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart?

Filter No.	Turbidity Measurement	Date(s) of Exceedance

Date Filter Profile was produced:

Reason for the Exceedance:

Exceedance #2 : Turbidity level greater than 0.5 NTU in two consecutive measurements taken 15 minutes apart at the end of the first four hours of continuous filter operation, after the filter has been backwashed or otherwise taken offline?

Filter No.	Turbidity Measurement	Date(s) of Exceedance

Date Filter Profile was produced:

Reason for the Exceedance:

Exceedance #3 : Turbidity level greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of three consecutive months?

Filter No.	Turbidity Measurement	Date(s) of Exceedance

Date Self-assessment was produced:

Exceedance #4 : Turbidity level greater than 2.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of two consecutive months?

Filter No.	Turbidity Measurement	Date(s) of Exceedance

Date comprehensive performance evaluation will be performed:

Prepared by: _____

Date: _____

Water Treatment Plant Monthly Report

Sept. 20 **Fluoridation Report**

Date	lbs. Of Chemical Used	Fluoride Dosage (mg/L)	Water Treated (MGD)	Fluoride (mg/L)			Total No. Samples	Raw Temp. (F°)	Remarks			
				Average	Max.	Min.						
1	190.00	0.60	8.20	0.64	0.67	0.60	75.00	68.40				
2	162.00	0.60	7.38	0.65	0.68	0.62	69.00	67.60				
3	203.00	0.59	8.80	0.72	0.72	0.71	80.00	68.20				
4	194.00	0.60	7.82	0.66	0.68	0.64	68.00	67.00				
5	196.00	0.60	8.05	0.71	0.73	0.68	76.00	65.90				
6	191.00	0.60	8.99	0.63	0.63	0.62	96.00	66.10				
7	197.00	0.60	7.79	0.64	0.66	0.61	96.00	66.20				
8	200.00	0.60	8.45	0.69	0.71	0.67	96.00	65.90				
9	184.00	0.60	7.96	0.70	0.73	0.66	96.00	64.80				
10	208.00	0.60	8.53	0.65	0.65	0.64	96.00	65.10				
11	178.00	0.60	7.45	0.70	0.74	0.66	85.00	65.40				
12	200.00	0.60	9.13	0.66	0.66	0.66	96.00	65.80				
13	210.00	0.60	9.28	0.68	0.68	0.67	96.00	65.30				
14	164.00	0.60	7.29	0.68	0.73	0.63	96.00	65.00				
15	181.00	0.60	8.43	0.66	0.68	0.64	96.00	65.30				
16	214.00	0.60	8.98	0.63	0.67	0.59	96.00	65.40				
17	173.00	0.60	7.78	0.73	0.74	0.72	96.00	64.50				
18	166.00	0.60	7.58	0.70	0.71	0.69	85.00	64.90				
19	197.00	0.60	8.49	0.64	0.65	0.62	95.00	65.60				
20	198.00	0.60	8.76	0.70	0.73	0.67	96.00	65.60				
21	191.00	0.60	8.84	0.65	0.65	0.64	96.00	65.60				
22	155.00	0.60	7.27	0.70	0.70	0.68	66.00	65.40				
23	211.00	0.60	8.75	0.72	0.73	0.67	96.00	66.00				
24	195.00	0.60	8.44	0.69	0.74	0.63	96.00	65.50				
25	168.00	0.60	7.65	0.67	0.69	0.64	83.00	65.30				
26	200.00	0.60	7.92	0.69	0.69	0.68	89.00	65.30				
27	155.00	0.60	7.20	0.69	0.70	0.67	78.00	65.00				
28	197.00	0.60	8.66	0.74	0.78	0.69	96.00	64.50				
29	152.00	0.60	6.08	0.67	0.68	0.66	83.00	62.50				
30	141.00	0.59	5.85	0.71	0.80	0.61	78.00	62.30				
31												
Total	5571.00	17.98	241.8	20.40	21.01	19.57	2646	1965	Method for determining fluoride residuals:			
Max.	214.00	0.60	9.3	0.74	0.80	0.72	96	68	Specific Ion			
Min.	141.00	0.59	5.9	0.63	0.63	0.59	66	62	Chemical Used:			
Average	185.70	0.60	8.1	0.68	0.70	0.65	88	66	Responsible Operator:			
Population Served:									Class:	_____	Date:	_____
No. Of Connections:									Signed:	_____		

Water Treatment Plant Monthly Report

Sept. 2024	WTP Chemical Inventory				
Type	Chemicals Added	Chemical Characteristics	Manufacturer/Product Name	NSF 60	Point(s) Of Application
Coagulant Aid	PACL	Colorless to hazy amber.	Delta Chemical / Delpac 2500	Yes	Flash mixer.
	Polymer				
	Other				
pH Adjustment	Caustic Soda	Colorless liquid.	Univar / Caustic Soda 50%	Yes	Raw Water @ Plant/CCT
Adsorbent	Powdered Activated Carbon	Black		Yes	Raw Water @ Pretreatment
Oxidant	Chlorine	Yellowish/Green Gas.	Jones / Chlorine	Yes	#2 & #4 Flocculators
	Sodium Permanganate	Deep Purple	Carrus	Yes	Raw Water @ Pretreatment
	Other				
Filter Aids	Polymer				
	Other				
Corrosion Inhibitor	Zinc Orthophosphate	Clear, water white.	Carus	Yes	CCT
	Other				
	Fluorosilicic Acid	Clear and colorless.	Mosaic / HSFA 20-30%	Yes	CCT
Disinfectant	Chlorine	Yellowish/Green Gas.	Jones / Chlorine	Yes	Flocculator/Filters/Clearwell/CCT
	Ammonia (NH ₃)	Clear and colorless.	Univar	Yes	Finished Water Header.
Alk. adjustment	Soda Ash	Powder	100 Light	Yes	Flash mixer.

Sept. 20

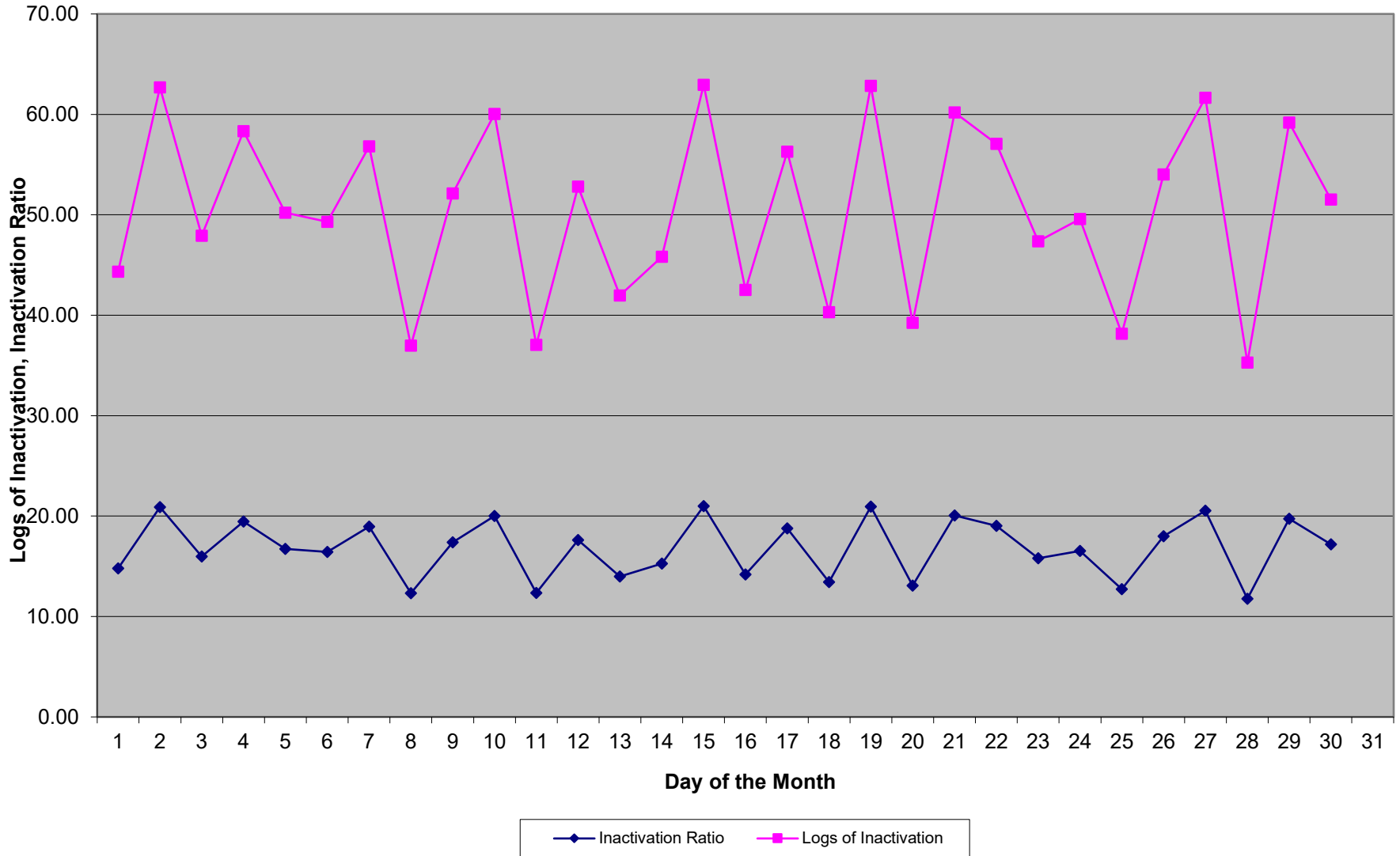
Filter Rise / Drop Test

Filter Drop Test Rate			Filter Rise Test Rate		
	Date	gpm/ft2		Date	gpm/ft2
Filter 1	10/3/2024	3.47	Filter 1	10/3/2024	24.82
Filter 2	10/3/2024	3.43	Filter 2	10/3/2024	26.71
Filter 3	10/3/2024	3.01	Filter 3	10/3/2024	24.44
Filter 4	10/2/2024	3.38	Filter 4	10/2/2024	26.77
Filter 5	10/2/2024	3.49	Filter 5	10/2/2024	24.35
Filter 6	10/1/2024	2.65	Filter 6	10/1/2024	28.10
Date Sedimentation Basin Last Cleaned			Date Flocculators Last Cleaned		
Basin	Date		Flocculator	Date	
No.1	5/22/24		No.1	6/2/21	
No.2	6/15/24		No.2	6/2/21	
No.3	5/23/24		No.3	8/31/21	
No.4	6/16/24		No.4	8/31/21	
No.5	7/1/24		No.5	7/20/21	
No.6	7/24/24		Flash Mix	7/20/21	

System Name	New River Valley Regional Water Authority			System Number	1121057	Treatment Plant Name	NRVRWA Water Treatment Plant				
Compliance Period Beginning Date	9/1/2024		9/1/24	Prepared By							

Date	Totals		Inactivation Ratio Summary for Individual Sequences																				
	Inactivation Ratio	Logs of Inactivation	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20	
1	14.78	44.35	0.00	0.07	0.33	0.10	0.16	14.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	20.90	62.69	0.00	0.16	0.70	0.14	0.22	19.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	15.97	47.92	0.00	0.11	0.51	0.11	0.16	15.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	19.44	58.33	0.00	0.11	0.51	0.14	0.47	18.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	16.74	50.21	0.00	0.09	0.39	0.12	0.19	15.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	16.43	49.30	0.00	0.11	0.50	0.14	0.21	15.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	18.94	56.82	0.00	0.13	0.59	0.16	0.23	17.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	12.33	36.98	0.00	0.11	0.50	0.09	0.14	11.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	17.38	52.13	0.00	0.15	0.65	0.15	0.22	16.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	20.01	60.04	0.00	0.13	0.57	0.15	0.22	18.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	12.35	37.05	0.00	0.07	0.32	0.08	0.12	11.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	17.60	52.81	0.00	0.10	0.44	0.12	0.17	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	13.99	41.96	0.00	0.08	0.35	0.10	0.13	13.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14	15.27	45.81	0.00	0.09	0.41	0.10	0.13	14.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	20.98	62.95	0.00	0.14	0.60	0.18	0.23	19.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	14.18	42.53	0.00	0.09	0.42	0.11	0.15	13.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17	18.76	56.29	0.00	0.10	0.44	0.12	0.16	17.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	13.44	40.31	0.00	0.06	0.26	0.07	0.08	12.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	20.95	62.84	0.00	0.09	0.39	0.13	0.15	20.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	13.08	39.24	0.00	0.07	0.32	0.09	0.10	12.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	20.06	60.19	0.00	0.13	0.59	0.18	0.21	18.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	19.02	57.07	0.00	0.12	0.53	0.17	0.20	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	15.79	47.36	0.00	0.10	0.43	0.13	0.14	14.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	16.53	49.59	0.00	0.12	0.51	0.15	0.15	15.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	12.72	38.16	0.00	0.07	0.30	0.09	0.09	12.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	18.00	54.00	0.00	0.10	0.44	0.12	0.13	17.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	20.55	61.64	0.00	0.09	0.39	0.13	0.13	19.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	11.76	35.29	0.00	0.02	0.10	0.03	0.09	11.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	19.73	59.19	0.00	0.04	0.16	0.05	0.15	19.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	17.17	51.52	0.00	0.02	0.10	0.07	0.11	16.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	16.83	50.49																					

Disinfection Profile



System Name **New River Valley Regional Water Authority**

System Number **1121057**

Treatment Plant Name **NRVRWA Water Treatment Plant**

Sequence Description: **Rapid Mix Basin**

Select Contactor Type: **Rapid Mix, Basin**

Select Disinfectant: **Free Chlorine**

Profile for: **September-24**

Check box if basin is circular.

Vessel Width (ft): **11**

Vessel Depth (ft): **10**

Vessel Length (ft): **11**

Applied Baffling Factor: **0.1**

Date	Flow Rate (gpm)	Water Depth (ft)	Volumes			Contact Time		Disinfectant Residual (mg/L)	pH	Temperature (°C)	CT		Inactivation Provided	
			Total (gal)	Effective (gal)	Allowed (gal)	Calculated (min)	Tracer (min)				Provided (mg*min/L)	3 log (mg*min/L)	CT Ratio	Logs
1	7490.00	10.0	9051	9051	905	0.1	0.32	6.7	26.2	0.04	31.49	0.00	0.00	
2	4231.00	10.0	9051	9051	905	0.2	0.40	6.8	26.3	0.09	32.66	0.00	0.01	
3	5545.00	10.0	9051	9051	905	0.2	0.38	6.8	25.6	0.06	32.66	0.00	0.01	
4	4192.00	10.0	9051	9051	905	0.2	0.38	6.3	18.7	0.08	42.83	0.00	0.01	
5	4931.00	10.0	9051	9051	905	0.2	0.38	7.0	22.9	0.07	47.06	0.00	0.00	
6	5352.00	10.0	9051	9051	905	0.2	0.50	6.8	22.5	0.08	45.30	0.00	0.01	
7	4787.00	10.0	9051	9051	905	0.2	0.47	6.5	22.8	0.09	39.81	0.00	0.01	
8	7629.00	10.0	9051	9051	905	0.1	0.57	6.0	21.3	0.07	36.09	0.00	0.01	
9	4582.00	10.0	9051	9051	905	0.2	0.59	6.8	21.7	0.12	47.33	0.00	0.01	
10	4338.00	10.0	9051	9051	905	0.2	0.59	7.5	23.1	0.12	57.09	0.00	0.01	
11	7731.00	10.0	9051	9051	905	0.1	0.53	7.4	23.6	0.06	52.32	0.00	0.00	
12	5407.00	10.0	9051	9051	905	0.2	0.52	7.4	23.5	0.09	52.77	0.00	0.00	
13	6270.00	10.0	9051	9051	905	0.1	0.54	7.3	20	0.08	59.22	0.00	0.00	
14	5839.00	10.0	9051	9051	905	0.2	0.53	7.3	23	0.08	53.04	0.00	0.00	
15	4671.00	10.0	9051	9051	905	0.2	0.61	7.3	23.3	0.12	52.35	0.00	0.01	
16	7267.00	10.0	9051	9051	905	0.1	0.66	7.2	23	0.08	51.93	0.00	0.00	
17	5558.00	10.0	9051	9051	905	0.2	0.52	7.2	22.8	0.08	51.72	0.00	0.00	
18	6385.00	10.0	9051	9051	905	0.1	0.34	7.3	23.5	0.05	50.14	0.00	0.00	
19	5046.00	10.0	9051	9051	905	0.2	0.38	7.1	23.5	0.07	46.58	0.00	0.00	
20	7442.00	10.0	9051	9051	905	0.1	0.48	7.2	23.5	0.06	48.80	0.00	0.00	
21	5014.00	10.0	9051	9051	905	0.2	0.60	7.2	23.6	0.11	49.02	0.00	0.01	
22	5409.00	10.0	9051	9051	905	0.2	0.58	7.3	23.9	0.10	49.05	0.00	0.01	
23	6258.00	10.0	9051	9051	905	0.1	0.52	7.2	24	0.08	46.34	0.00	0.00	
24	5717.00	10.0	9051	9051	905	0.2	0.59	7.2	23.7	0.09	48.45	0.00	0.01	
25	7575.00	10.0	9051	9051	905	0.1	0.45	7.1	23.4	0.05	47.30	0.00	0.00	
26	5624.00	10.0	9051	9051	905	0.2	0.47	7.0	23.3	0.08	46.09	0.00	0.00	
27	5069.00	10.0	9051	9051	905	0.2	0.37	6.9	23	0.07	45.06	0.00	0.00	
28	7077.00	10.0	9051	9051	905	0.1	0.12	6.3	20.9	0.02	39.69	0.00	0.00	
29	5301.00	10.0	9051	9051	905	0.2	0.14	6.2	19.9	0.02	39.45	0.00	0.00	
30	5267.00	10.0	9051	9051	905	0.2	0.10	6.5	19.7	0.02	44.26	0.00	0.00	
31			9051	0	0	0.0				0.00	0.00	0.00	0.00	
											Averages	0.00	0.00	

System Name **New River Valley Regional Water Authority**

Click box if basin is compartmented.

System Number **1121057**

Check box if basin is circular.

Treatment Plant Name **NRVWA Water Treatment Plant**

Sequence Description: **Flocculation**

Select Contactor Type: **Flocculation Basin**

Select Disinfectant: **Free Chlorine**

Profile for: **September-24**

Vessel Width (ft): **39.25**

Vessel Depth (ft): **13**

Vessel Length (ft): **47.405985**

Applied Baffling Factor: **0.3**

Date	Flow Rate (gpm)	Water Depth (ft)	Volumes			Contact Time		Disinfectant Residual (mg/L)	pH	Temperature (°C)	CT		Inactivation Provided	
			Total (gal)	Effective (gal)	Allowed (gal)	Calculated (min)	Tracer (min)				Provided (mg*min/L)	3 log (mg*min/L)	CT Ratio	Logs
1	7490.00	13.0	180933	180933	54280	7.2	0.32	6.7	26.2	2.32	31.49	0.07	0.22	
2	4231.00	13.0	180933	180933	54280	12.8	0.40	6.8	26.3	5.13	32.66	0.16	0.47	
3	5545.00	13.0	180933	180933	54280	9.8	0.38	6.8	25.6	3.72	32.66	0.11	0.34	
4	4192.00	13.0	180933	180933	54280	12.9	0.38	6.3	18.7	4.92	42.83	0.11	0.34	
5	4931.00	13.0	180933	180933	54280	11.0	0.38	7.0	22.9	4.18	47.06	0.09	0.27	
6	5352.00	13.0	180933	180933	54280	10.1	0.50	6.8	22.5	5.07	45.30	0.11	0.34	
7	4787.00	13.0	180933	180933	54280	11.3	0.47	6.5	22.8	5.33	39.81	0.13	0.40	
8	7629.00	13.0	180933	180933	54280	7.1	0.57	6.0	21.3	4.06	36.09	0.11	0.34	
9	4582.00	13.0	180933	180933	54280	11.8	0.59	6.8	21.7	6.99	47.33	0.15	0.44	
10	4338.00	13.0	180933	180933	54280	12.5	0.59	7.5	23.1	7.38	57.09	0.13	0.39	
11	7731.00	13.0	180933	180933	54280	7.0	0.53	7.4	23.6	3.72	52.32	0.07	0.21	
12	5407.00	13.0	180933	180933	54280	10.0	0.52	7.4	23.5	5.22	52.77	0.10	0.30	
13	6270.00	13.0	180933	180933	54280	8.7	0.54	7.3	20	4.67	59.22	0.08	0.24	
14	5839.00	13.0	180933	180933	54280	9.3	0.53	7.3	23	4.93	53.04	0.09	0.28	
15	4671.00	13.0	180933	180933	54280	11.6	0.61	7.3	23.3	7.09	52.35	0.14	0.41	
16	7267.00	13.0	180933	180933	54280	7.5	0.66	7.2	23	4.93	51.93	0.09	0.28	
17	5558.00	13.0	180933	180933	54280	9.8	0.52	7.2	22.8	5.08	51.72	0.10	0.29	
18	6385.00	13.0	180933	180933	54280	8.5	0.34	7.3	23.5	2.89	50.14	0.06	0.17	
19	5046.00	13.0	180933	180933	54280	10.8	0.38	7.1	23.5	4.09	46.58	0.09	0.26	
20	7442.00	13.0	180933	180933	54280	7.3	0.48	7.2	23.5	3.50	48.80	0.07	0.22	
21	5014.00	13.0	180933	180933	54280	10.8	0.60	7.2	23.6	6.50	49.02	0.13	0.40	
22	5409.00	13.0	180933	180933	54280	10.0	0.58	7.3	23.9	5.82	49.05	0.12	0.36	
23	6258.00	13.0	180933	180933	54280	8.7	0.52	7.2	24	4.51	46.34	0.10	0.29	
24	5717.00	13.0	180933	180933	54280	9.5	0.59	7.2	23.7	5.60	48.45	0.12	0.35	
25	7575.00	13.0	180933	180933	54280	7.2	0.45	7.1	23.4	3.22	47.30	0.07	0.20	
26	5624.00	13.0	180933	180933	54280	9.7	0.47	7.0	23.3	4.54	46.09	0.10	0.30	
27	5069.00	13.0	180933	180933	54280	10.7	0.37	6.9	23	3.96	45.06	0.09	0.26	
28	7077.00	13.0	180933	180933	54280	7.7	0.12	6.3	20.9	0.92	39.69	0.02	0.07	
29	5301.00	13.0	180933	180933	54280	10.2	0.14	6.2	19.9	1.43	39.45	0.04	0.11	
30	5267.00	13.0	180933	180933	54280	10.3	0.10	6.5	19.7	1.03	44.26	0.02	0.07	
31			180933	0	0	0.0				0.00	0.00	0.00	0.00	
											Averages	0.10	0.29	

System Name **New River Valley Regional Water Authority** Check box if basin includes intra-basin & outlet baffling.
 System Number **1121057** Check box if basin is circular.
 Treatment Plant Name **NRVWA Water Treatment Plant**
 Sequence Description: **Sedimentation Basin**
 Select Contactor Type: **Sedimentation Basin**

Vessel Width (ft): **75**
 Vessel Depth (ft): **13**
 Vessel Length (ft): **110.0233**
 Applied Baffling Factor: **0.3**

Select Disinfectant: **Free Chlorine**

Profile for: **September-24**

Date	Flow Rate (gpm)	Water Depth (ft)	Volumes			Contact Time		Disinfectant Residual (mg/L)	pH	Temperature (°C)	CT		Inactivation Provided	
			Total (gal)	Effective (gal)	Allowed (gal)	Calculated (min)	Tracer (min)				Provided (mg*min/L)	3 log (mg*min/L)	CT Ratio	Logs
1	7490.00	13.0	802400	802400	240720	32.1		0.32	6.7	26.2	10.28	31.49	0.33	0.98
2	4231.00	13.0	802400	802400	240720	56.9		0.40	6.8	26.3	22.76	32.66	0.70	2.09
3	5545.00	13.0	802400	802400	240720	43.4		0.38	6.8	25.6	16.50	32.66	0.51	1.52
4	4192.00	13.0	802400	802400	240720	57.4		0.38	6.3	18.7	21.82	42.83	0.51	1.53
5	4931.00	13.0	802400	802400	240720	48.8		0.38	7.0	22.9	18.55	47.06	0.39	1.18
6	5352.00	13.0	802400	802400	240720	45.0		0.50	6.8	22.5	22.49	45.30	0.50	1.49
7	4787.00	13.0	802400	802400	240720	50.3		0.47	6.5	22.8	23.63	39.81	0.59	1.78
8	7629.00	13.0	802400	802400	240720	31.6		0.57	6.0	21.3	17.99	36.09	0.50	1.49
9	4582.00	13.0	802400	802400	240720	52.5		0.59	6.8	21.7	31.00	47.33	0.65	1.96
10	4338.00	13.0	802400	802400	240720	55.5		0.59	7.5	23.1	32.74	57.09	0.57	1.72
11	7731.00	13.0	802400	802400	240720	31.1		0.53	7.4	23.6	16.50	52.32	0.32	0.95
12	5407.00	13.0	802400	802400	240720	44.5		0.52	7.4	23.5	23.15	52.77	0.44	1.32
13	6270.00	13.0	802400	802400	240720	38.4		0.54	7.3	20	20.73	59.22	0.35	1.05
14	5839.00	13.0	802400	802400	240720	41.2		0.53	7.3	23	21.85	53.04	0.41	1.24
15	4671.00	13.0	802400	802400	240720	51.5		0.61	7.3	23.3	31.44	52.35	0.60	1.80
16	7267.00	13.0	802400	802400	240720	33.1		0.66	7.2	23	21.86	51.93	0.42	1.26
17	5558.00	13.0	802400	802400	240720	43.3		0.52	7.2	22.8	22.52	51.72	0.44	1.31
18	6385.00	13.0	802400	802400	240720	37.7		0.34	7.3	23.5	12.82	50.14	0.26	0.77
19	5046.00	13.0	802400	802400	240720	47.7		0.38	7.1	23.5	18.13	46.58	0.39	1.17
20	7442.00	13.0	802400	802400	240720	32.3		0.48	7.2	23.5	15.53	48.80	0.32	0.95
21	5014.00	13.0	802400	802400	240720	48.0		0.60	7.2	23.6	28.81	49.02	0.59	1.76
22	5409.00	13.0	802400	802400	240720	44.5		0.58	7.3	23.9	25.81	49.05	0.53	1.58
23	6258.00	13.0	802400	802400	240720	38.5		0.52	7.2	24	20.00	46.34	0.43	1.29
24	5717.00	13.0	802400	802400	240720	42.1		0.59	7.2	23.7	24.84	48.45	0.51	1.54
25	7575.00	13.0	802400	802400	240720	31.8		0.45	7.1	23.4	14.30	47.30	0.30	0.91
26	5624.00	13.0	802400	802400	240720	42.8		0.47	7.0	23.3	20.12	46.09	0.44	1.31
27	5069.00	13.0	802400	802400	240720	47.5		0.37	6.9	23	17.57	45.06	0.39	1.17
28	7077.00	13.0	802400	802400	240720	34.0		0.12	6.3	20.9	4.08	39.69	0.10	0.31
29	5301.00	13.0	802400	802400	240720	45.4		0.14	6.2	19.9	6.36	39.45	0.16	0.48
30	5267.00	13.0	802400	802400	240720	45.7		0.10	6.5	19.7	4.57	44.26	0.10	0.31
31			802400	0	0	0.0					0.00	0.00	0.00	0.00
											Averages		0.42	1.27

System Name **New River Valley Regional Water Authority**

System Number **1121057**

Treatment Plant Name **NRVRA Water Treatment Plant**

Sequence Description: **Filters**

Select Contactor Type: **Filter**

Select Disinfectant: **Free Chlorine**

Profile for: **September-24**

Check box if basin is circular:

Media Volume (Gallons):

Support Gravel Volume (Gallons):

Underdrain Volume (Gallons):

Vessel Width (ft): **97.98**

Vessel Depth (ft): **4.75**

Vessel Length (ft): **22**

Applied Baffling Factor: **0.7**

Date	Flow Rate (gpm)	Water Depth (ft)	Volumes			Contact Time		Disinfectant Residual (mg/L)	pH	Temperature (°C)	CT		Inactivation Provided	
			Total (gal)	Effective (gal)	Allowed (gal)	Calculated (min)	Tracer (min)				Provided (mg*min/L)	3 log (mg*min/L)	CT Ratio	Logs
1	7490.00	4.8	76587	76587	53611	7.2	0.51	7.0	26.9	3.65	35.54	0.10	0.31	
2	4231.00	4.8	76587	76587	53611	12.7	0.39	7.1	26.9	4.94	36.37	0.14	0.41	
3	5545.00	4.8	76587	76587	53611	9.7	0.42	7.1	26.2	4.06	36.46	0.11	0.33	
4	4192.00	4.8	76587	76587	53611	12.8	0.42	7.2	25.5	5.37	37.77	0.14	0.43	
5	4931.00	4.8	76587	76587	53611	10.9	0.43	7.2	25.4	4.68	37.82	0.12	0.37	
6	5352.00	4.8	76587	76587	53611	10.0	0.50	7.1	25.5	5.01	36.79	0.14	0.41	
7	4787.00	4.8	76587	76587	53611	11.2	0.51	7.1	25.8	5.71	36.84	0.16	0.47	
8	7629.00	4.8	76587	76587	53611	7.0	0.58	7.1	24.3	4.08	43.05	0.09	0.28	
9	4582.00	4.8	76587	76587	53611	11.7	0.55	7.1	24.2	6.44	43.58	0.15	0.44	
10	4338.00	4.8	76587	76587	53611	12.4	0.49	7.0	24.4	6.06	40.38	0.15	0.45	
11	7731.00	4.8	76587	76587	53611	6.9	0.43	7.0	24.9	2.98	36.14	0.08	0.25	
12	5407.00	4.8	76587	76587	53611	9.9	0.43	6.9	24.9	4.26	34.86	0.12	0.37	
13	6270.00	4.8	76587	76587	53611	8.6	0.40	6.8	24.6	3.42	35.79	0.10	0.29	
14	5839.00	4.8	76587	76587	53611	9.2	0.43	6.9	24.4	3.95	38.65	0.10	0.31	
15	4671.00	4.8	76587	76587	53611	11.5	0.56	6.8	24.6	6.43	36.47	0.18	0.53	
16	7267.00	4.8	76587	76587	53611	7.4	0.58	6.8	24.4	4.28	37.94	0.11	0.34	
17	5558.00	4.8	76587	76587	53611	9.6	0.47	6.7	24	4.53	38.35	0.12	0.35	
18	6385.00	4.8	76587	76587	53611	8.4	0.29	6.7	24.8	2.43	33.07	0.07	0.22	
19	5046.00	4.8	76587	76587	53611	10.6	0.37	6.5	24.9	3.93	30.01	0.13	0.39	
20	7442.00	4.8	76587	76587	53611	7.2	0.40	6.6	24.9	2.88	31.14	0.09	0.28	
21	5014.00	4.8	76587	76587	53611	10.7	0.52	6.6	25	5.56	30.79	0.18	0.54	
22	5409.00	4.8	76587	76587	53611	9.9	0.53	6.6	25.2	5.25	30.82	0.17	0.51	
23	6258.00	4.8	76587	76587	53611	8.6	0.45	6.6	25.3	3.86	30.54	0.13	0.38	
24	5717.00	4.8	76587	76587	53611	9.4	0.50	6.6	25.1	4.69	30.72	0.15	0.46	
25	7575.00	4.8	76587	76587	53611	7.1	0.42	6.6	24.8	2.97	31.96	0.09	0.28	
26	5624.00	4.8	76587	76587	53611	9.5	0.41	6.5	24.7	3.91	31.45	0.12	0.37	
27	5069.00	4.8	76587	76587	53611	10.6	0.39	6.4	24.4	4.12	32.07	0.13	0.39	
28	7077.00	4.8	76587	76587	53611	7.6	0.12	6.0	22.3	0.91	34.11	0.03	0.08	
29	5301.00	4.8	76587	76587	53611	10.1	0.18	5.6	21.3	1.82	35.32	0.05	0.15	
30	5267.00	4.8	76587	76587	53611	10.2	0.26	5.8	21	2.65	35.61	0.07	0.22	
31			76587	0	0	0.0				0.00	0.00	0.00	0.00	
											Averages		0.12	0.35

System Name **New River Valley Regional Water Authority**

System Number **1121057**

Treatment Plant Name **NRVWA Water Treatment Plant**

Sequence Description: **Clear Well**

Select Contactor Type: **Clear Well**

Check box if basin is circular:

Vessel Width (ft): **57.86**

Vessel Depth (ft): **9**

Vessel Length (ft): **57.8569**

Select Disinfectant: **Free Chlorine**

Applied Baffling Factor: **0.4**

Profile for: **September-24**

State Assigned Baffling Factor: **0.4**

Date	Flow Rate (gpm)	Water Depth (ft)	Volumes			Contact Time		Disinfectant Residual (mg/L)	pH	Temperature (°C)	CT		Inactivation Provided	
			Total (gal)	Effective (gal)	Allowed (gal)	Calculated (min)	Tracer (min)				Provided (mg*min/L)	3 log (mg*min/L)	CT Ratio	Logs
1	7490.00	8.2	225360	205328	82131	11.0	0.54	7.1	26.6	5.92	36.96	0.16	0.48	
2	4231.00	8.2	225360	205328	82131	19.4	0.42	7.2	26.5	8.15	37.77	0.22	0.65	
3	5545.00	8.2	225360	205328	82131	14.8	0.43	7.3	26	6.37	39.18	0.16	0.49	
4	4192.00	8.2	225360	205328	82131	19.6	2.72	9.5	24.1	53.29	114.22	0.47	1.40	
5	4931.00	8.2	225360	205328	82131	16.7	0.45	7.3	25.2	7.50	39.27	0.19	0.57	
6	5352.00	8.2	225360	205328	82131	15.3	0.54	7.3	25.2	8.29	39.69	0.21	0.63	
7	4787.00	8.2	225360	205328	82131	17.2	0.53	7.3	25.5	9.09	39.65	0.23	0.69	
8	7629.00	8.2	225360	205328	82131	10.8	0.63	7.3	24.1	6.78	48.04	0.14	0.42	
9	4582.00	8.2	225360	205328	82131	17.9	0.60	7.3	24	10.75	48.53	0.22	0.66	
10	4338.00	8.2	225360	205328	82131	18.9	0.54	7.3	24.1	10.22	47.52	0.22	0.65	
11	7731.00	8.2	225360	205328	82131	10.6	0.47	7.3	24.6	4.99	43.26	0.12	0.35	
12	5407.00	8.2	225360	205328	82131	15.2	0.48	7.3	24.6	7.29	43.31	0.17	0.50	
13	6270.00	8.2	225360	205328	82131	13.1	0.44	7.3	24.3	5.76	45.54	0.13	0.38	
14	5839.00	8.2	225360	205328	82131	14.1	0.45	7.3	24	6.33	47.67	0.13	0.40	
15	4671.00	8.2	225360	205328	82131	17.6	0.62	7.3	24.3	10.90	46.53	0.23	0.70	
16	7267.00	8.2	225360	205328	82131	11.3	0.63	7.3	24.1	7.12	48.04	0.15	0.44	
17	5558.00	8.2	225360	205328	82131	14.8	0.53	7.2	23.7	7.83	48.11	0.16	0.49	
18	6385.00	8.2	225360	205328	82131	12.9	0.28	7.3	24.5	3.60	43.75	0.08	0.25	
19	5046.00	8.2	225360	205328	82131	16.3	0.38	7.1	24.5	6.19	40.69	0.15	0.46	
20	7442.00	8.2	225360	205328	82131	11.0	0.39	7.2	24.6	4.30	41.38	0.10	0.31	
21	5014.00	8.2	225360	205328	82131	16.4	0.52	7.2	24.7	8.52	41.11	0.21	0.62	
22	5409.00	8.2	225360	205328	82131	15.2	0.53	7.2	24.9	8.05	39.27	0.20	0.61	
23	6258.00	8.2	225360	205328	82131	13.1	0.41	7.2	25	5.38	37.73	0.14	0.43	
24	5717.00	8.2	225360	205328	82131	14.4	0.43	7.3	24.8	6.18	41.22	0.15	0.45	
25	7575.00	8.2	225360	205328	82131	10.8	0.37	7.2	24.4	4.01	42.97	0.09	0.28	
26	5624.00	8.2	225360	205328	82131	14.6	0.37	7.2	24.4	5.40	42.97	0.13	0.38	
27	5069.00	8.2	225360	205328	82131	16.2	0.36	7.1	24.1	5.83	43.43	0.13	0.40	
28	7077.00	8.2	225360	205328	82131	11.6	0.34	6.7	22	3.95	44.13	0.09	0.27	
29	5301.00	8.2	225360	205328	82131	15.5	0.39	6.3	21	6.04	39.57	0.15	0.46	
30	5267.00	8.2	225360	205328	82131	15.6	0.29	6.5	20.8	4.52	42.75	0.11	0.32	
31			225360	0	0	0.0				0.00	0.00	0.00	0.00	
											Averages		0.17	0.50

System Name **New River Valley Regional Water Authority**

System Number **1121057**

Treatment Plant Name **NRVRA Water Treatment Plant**

Sequence Description: **Chlorine Contact Tank**

Select Contactor Type: **Contact Basin**

Select Disinfectant: **Free Chlorine**

Profile for: **September-24**

Check box if basin is circular:

Vessel Width (ft): **9**

Vessel Depth (ft): **11.25**

Vessel Length (ft): **286.83**

Applied Baffling Factor: **0.7**

State Assigned Baffling Factor: **0.7**

Date	Flow Rate (gpm)	Water Depth (ft)	Volumes			Contact Time		Disinfectant Residual (mg/L)	pH	Temperature (°C)	CT		Inactivation Provided	
			Total (gal)	Effective (gal)	Allowed (gal)	Calculated (min)	Tracer (min)				Provided (mg*min/L)	3 log (mg*min/L)	CT Ratio	Logs
1	7490.00	11.7	217231	225920	1581439	211.1		3.70	7.5	27.5	781.22	55.33	14.12	42.35
2	4231.00	11.7	217231	225920	1581439	373.8		3.27	7.8	27.5	1222.24	62.08	19.69	59.07
3	5545.00	11.7	217231	225920	1581439	285.2		3.41	7.9	27.1	972.54	64.50	15.08	45.24
4	4192.00	11.7	217231	225920	1581439	377.3		3.36	8.1	25.1	1267.57	69.61	18.21	54.63
5	4931.00	11.7	217231	225920	1581439	320.7		3.33	8.0	26.2	1067.98	67.01	15.94	47.81
6	5352.00	11.7	217231	225920	1581439	295.5		3.51	8.0	26.4	1037.15	67.01	15.48	46.43
7	4787.00	11.7	217231	225920	1581439	330.4		3.48	7.9	26.8	1149.66	64.50	17.83	53.48
8	7629.00	11.7	217231	225920	1581439	207.3		3.71	8.0	25.4	769.06	67.01	11.48	34.43
9	4582.00	11.7	217231	225920	1581439	345.1		3.53	8.1	24.7	1218.35	75.20	16.20	48.61
10	4338.00	11.7	217231	225920	1581439	364.6		3.62	7.9	24.7	1319.69	69.66	18.94	56.83
11	7731.00	11.7	217231	225920	1581439	204.6		3.57	7.8	25.6	730.27	62.08	11.76	35.29
12	5407.00	11.7	217231	225920	1581439	292.5		3.56	7.8	25.8	1041.23	62.08	16.77	50.32
13	6270.00	11.7	217231	225920	1581439	252.2		3.41	7.9	25.6	860.08	64.50	13.34	40.01
14	5839.00	11.7	217231	225920	1581439	270.8		3.33	7.8	25.4	901.90	62.08	14.53	43.59
15	4671.00	11.7	217231	225920	1581439	338.6		3.50	7.7	25.6	1184.98	59.74	19.83	59.50
16	7267.00	11.7	217231	225920	1581439	217.6		3.54	7.6	25.2	770.37	57.50	13.40	40.20
17	5558.00	11.7	217231	225920	1581439	284.5		3.49	7.5	25.1	993.02	55.33	17.95	53.84
18	6385.00	11.7	217231	225920	1581439	247.7		3.25	7.8	25.7	804.96	62.08	12.97	38.90
19	5046.00	11.7	217231	225920	1581439	313.4		3.43	7.4	25.8	1074.98	53.26	20.18	60.55
20	7442.00	11.7	217231	225920	1581439	212.5		3.38	7.6	25.8	718.26	57.50	12.49	37.48
21	5014.00	11.7	217231	225920	1581439	315.4		3.59	7.7	25.8	1132.30	59.74	18.95	56.86
22	5409.00	11.7	217231	225920	1581439	292.4		3.54	7.6	26.3	1035.00	57.50	18.00	54.00
23	6258.00	11.7	217231	225920	1581439	252.7		3.41	7.6	26.4	861.73	57.50	14.99	44.96
24	5717.00	11.7	217231	225920	1581439	276.6		3.50	7.8	25.9	968.17	62.08	15.60	46.79
25	7575.00	11.7	217231	225920	1581439	208.8		3.48	7.7	25.8	726.52	59.74	12.16	36.48
26	5624.00	11.7	217231	225920	1581439	281.2		3.52	7.6	25.7	989.81	57.50	17.22	51.65
27	5069.00	11.7	217231	225920	1581439	312.0		3.65	7.6	25.4	1138.74	57.50	19.81	59.42
28	7077.00	11.7	217231	225920	1581439	223.5		2.91	6.9	23.5	650.27	56.44	11.52	34.56
29	5301.00	11.7	217231	225920	1581439	298.3		3.25	6.4	22.7	969.57	50.16	19.33	57.99
30	5267.00	11.7	217231	225920	1581439	300.3		4.00	7.3	22.5	1201.02	71.21	16.87	50.60
31			217231	0	0	0.0					0.00	0.00	0.00	0.00
											Averages		16.02	48.06