COMPLIANCE SUMMARY
April 2022 to March 2023

Hahei WWTP		
Total Influent Flow	39,075	m3
Maximum Effluent Flow	476	m3
Average Effluent Flow	195	m3
Total Effluent Flow	71,261	m3

	90th Percentile	Running Average	*Limits*	
Suspended solids (g/m3)	6.5	3.3	20	10
cBOD5 (g/m3)	6.6	4.0	20	10
Escherichia coli (cfu/100 mL)	**21.0**	**12.0**	20	10
Total Ammoniacal nitrogen (g/m3)	**18.0**	6.0	15	10
Total Kjeldahl Nitrogen (g/m3)	**20.5**	7.7	20	15
Total Phosphorus (g/m3)	10.8	9.0	20	14

Hahei WWTP Annual Performance Report
April 2022 to March 2023

Date	Rainfall	Plant Flows		Influent Pond		Aeration Pond		Retention		
	Rainfall mm	Influent m3	Effluent m3	pH units	DO mg/l	pH units	DO mg/l	pH units	DO mg/l	Level mm
1/04/2022	0	41	0	6.97	6.80	6.78	7.53	6.87	6.24	750
2/04/2022	0	61	0	7.19	5.14	6.09	7.04	6.03	2.46	780
3/04/2022	0	91	0	7.34	4.97	6.10	7.65	6.23	3.00	800
4/04/2022	0	63	0	7.52	3.68	7.02	7.41	7.52	5.52	840
5/04/2022	0	57	0	6.85	5.80	6.92	7.57	6.75	4.78	840
6/04/2022	0	60	0	7.57	6.05	6.95	7.26	7.31	5.61	860
7/04/2022	0	49	0	7.65	6.93	7.02	8.05	7.50	5.69	870
8/04/2022	0	50	0	5.53	4.82	5.53	7.22	5.89	5.80	890
9/04/2022	0	67	0	7.68	6.12	7.73	7.85	7.97	5.95	900
10/04/2022	0	64	0	7.90	4.70	7.51	7.61	7.98	5.40	910
11/04/2022	0	47	305	7.54	5.80	7.75	8.34	7.84	2.43	920
12/04/2022	0	65	228	7.73	7.90	7.92	8.44	8.10	8.42	770
13/04/2022	0	57	228	7.83	7.48	7.99	7.56	8.04	5.02	860
14/04/2022	0	68	0	7.63	4.90	7.87	7.56	7.89	8.00	890
15/04/2022	0	91	0	7.64	4.93	7.56	7.70	7.90	4.89	900
16/04/2022	0	139	0	7.78	5.42	7.98	5.90	7.96	5.80	930
17/04/2022	0	189	283	8.01	8.81	7.63	7.98	7.96	4.10	980
18/04/2022	2	176	445	7.89	4.31	7.03	7.67	7.71	4.05	950
19/04/2022	30	191	445	7.75	1.03	7.91	7.36	7.86	5.22	880
20/04/2022	9	77	439	7.92	0.77	7.70	6.60	7.79	4.67	810
21/04/2022	5	117	215	7.57	4.87	7.81	6.20	7.75	4.43	730
22/04/2022	30	174	216	7.44	2.40	7.35	6.16	7.72	3.53	930
23/04/2022	86	302	430	7.45	4.15	7.48	6.16	7.65	4.08	880
24/04/2022	2	203	421	7.25	5.25	7.25	6.20	7.57	4.36	850
25/04/2022	4	159	413	7.29	5.17	7.38	6.50	7.51	4.75	810
26/04/2022	0	144	209	7.56	6.88	7.78	7.19	7.70	4.08	720
27/04/2022	0	107	0	7.35	6.57	7.45	7.25	7.69	6.56	800
28/04/2022	0	122	0	7.37	5.63	7.55	7.23	7.68	5.34	830
29/04/2022	10	91	0	7.36	3.97	7.59	7.18	7.60	4.62	880
30/04/2022	3	83	0	7.17	5.52	6.91	7.12	7.67	5.54	890
1/05/2022	10	94	0	7.26	4.25	7.25	7.55	7.63	5.51	940
2/05/2022	0	81	97	7.51	5.40	7.45	8.03	7.73	4.67	960
3/05/2022	0	57	194	7.39	8.33	7.68	8.96	7.84	7.33	940
4/05/2022	8	67	398	7.47	4.22	7.68	7.68	7.65	5.81	830
5/05/2022	3	58	188	7.56	3.76	7.73	7.46	7.68	5.90	760
6/05/2022	0	57	188	7.29	7.82	8.44	7.36	7.50	5.41	800
7/05/2022	0	86	0	7.34	5.16	7.27	7.78	7.55	5.58	840
8/05/2022	0	71	0	7.35	5.85	7.54	6.90	7.58	6.80	860
9/05/2022	0	64	0	7.29	5.48	7.53	6.54	7.63	4.56	880
10/05/2022	0	42	0	7.35	6.92	7.42	6.16	7.69	7.96	900
11/05/2022	1	61	0	7.33	5.65	7.38	6.35	7.66	8.22	910
12/05/2022	0	64	164	7.32	5.05	7.59	7.13	7.63	7.18	940
13/05/2022	0	43	362	7.25	5.22	7.49	6.43	7.50	4.89	810
14/05/2022	0	56	133	7.29	5.05	7.45	7.45	7.47	5.02	720
15/05/2022	0	71	0	7.60	5.69	7.21	6.16	7.50	5.61	790
16/05/2022	0	83	0	7.50	4.43	7.69	5.30	7.83	8.07	840
17/05/2022	0	42	0	7.61	5.99	7.49	7.50	7.74	7.12	850
18/05/2022	0	40	0	7.65	7.81	7.72	8.45	8.03	10.32	860
19/05/2022	3	45	0	7.54	4.96	7.56	7.21	7.71	4.94	870
20/05/2022	15	84	0	7.40	5.72	7.61	7.52	7.66	4.98	910
21/05/2022	1	46	0	7.51	5.48	7.64	8.95	7.70	4.52	930
22/05/2022	1	61	0	7.52	5.48	7.48	9.08	7.68	4.98	940
23/05/2022	1	73	159	7.64	3.61	7.49	8.58	7.76	5.79	960
24/05/2022	0	46	463	7.26	4.81	7.51	8.24	7.55	4.29	840
25/05/2022	0	58	214	7.47	6.12	7.40	8.61	7.60	5.01	710
26/05/2022	0	41	0	7.32	4.42	7.69	7.99	7.74	5.46	800
27/05/2022	55	136	182	7.42	6.18	7.43	8.35	7.68	5.55	900
28/05/2022	0	96	462	7.59	5.22	7.37	7.75	7.32	7.58	780
29/05/2022	1	187	255	7.32	5.13	7.29	7.29	7.60	6.91	700
30/05/2022	40	29	0	7.38	4.54	7.35	6.79	7.56	5.80	810
31/05/2022	11	184	0	7.44	8.18	7.76	8.82	7.84	8.18	900

Date	Rainfall	Plant Flows		Influent Pond		Aeration Pond		Retention		
	Rainfall mm	Influent m3	Effluent m3	pH units	DO mg/l	pH units	DO mg/l	pH units	DO mg/l	Level mm
1/06/2022	32	186	228	7.19	3.89	7.55	7.85	7.46	8.20	1000
2/06/2022	14	209	454	7.55	7.85	7.70	8.80	7.71	7.95	940
3/06/2022	0	114	462	7.15	5.00	7.28	7.16	7.48	6.12	860
4/06/2022	2	218	463	7.26	7.42	7.57	8.12	7.40	8.10	790
5/06/2022	1	147	263	7.49	6.65	7.36	9.02	7.52	6.81	720
6/06/2022	10	159	0	7.35	3.85	7.57	8.55	7.41	8.41	840
7/06/2022	28	134	0	7.30	8.69	7.52	9.09	7.60	9.35	870
8/06/2022	24	194	235	7.47	8.81	7.60	9.24	7.62	9.30	980
9/06/2022	4	135	419	7.31	7.22	7.55	8.66	7.72	6.20	880
10/06/2022	1	123	238	7.23	6.27	7.88	7.51	7.66	6.27	800
11/06/2022	8	83	0	7.16	6.99	7.17	8.55	7.40	5.36	850
12/06/2022	6	106	0	7.20	7.44	7.15	8.95	7.42	5.22	890
13/06/2022	4	113	240	7.34	6.47	7.57	9.16	7.45	8.07	960
14/06/2022	5	80	463	7.29	9.79	7.62	10.62	7.71	10.57	830
15/06/2022	1	71	248	7.31	7.19	7.63	9.74	7.59	9.63	760
16/06/2022	0	88	248	7.36	7.78	7.63	10.47	7.78	10.05	810
17/06/2022	3	81	0	7.21	7.43	7.56	9.04	7.49	12.29	840
18/06/2022	0	55	0	7.04	6.27	7.10	8.09	7.16	7.20	845
19/06/2022	14	87	0	7.15	6.52	7.54	9.28	8.47	17.34	890
20/06/2022	0	53	213	7.29	7.96	7.61	9.45	8.33	11.02	910
21/06/2022	0	66	246	7.12	8.33	7.35	9.16	7.84	12.76	770
22/06/2022	0	67	176	7.30	7.75	8.08	10.81	8.64	16.29	840
23/06/2022	0	62	233	7.34	9.17	7.76	10.93	8.66	13.10	750
24/06/2022	1	62	201	7.27	7.74	7.20	9.08	8.12	10.70	720
25/06/2022	29	111	257	7.61	6.83	8.08	10.91	8.69	13.79	780
26/06/2022	2	126	0	7.68	7.90	7.50	9.42	8.58	13.80	790
27/06/2022	0	71	0	7.30	7.34	7.70	10.26	7.75	7.40	800
28/06/2022	0	57	0	7.32	5.76	7.27	9.38	8.03	9.27	820
29/06/2022	7	59	0	7.29	7.79	7.22	9.12	7.97	7.07	850
30/06/2022	8	72	0	7.24	7.59	7.82	10.58	8.28	10.95	890
1/07/2022	0	72	0	7.24	8.98	7.55	9.55	8.23	11.13	900
2/07/2022	0	51	76	7.04	6.52	8.21	7.70	7.96	8.90	910
3/07/2022	0	61	455	7.10	7.16	7.25	8.33	8.03	7.98	830
4/07/2022	0	68	268	7.35	8.22	7.89	12.00	8.53	15.56	730
5/07/2022	0	45	0	7.33	11.60	7.40	9.23	8.92	17.70	760
6/07/2022	35	83	0	7.28	7.70	7.86	10.33	8.67	15.30	820
7/07/2022	1	67	0	7.14	9.35	7.34	9.70	8.71	13.67	860
8/07/2022	61	131	336	7.88	8.87	7.95	9.40	8.33	9.28	920
9/07/2022	25	301	415	7.11	6.94	7.73	9.38	7.78	8.57	920
10/07/2022	23	191	455	7.42	4.38	7.25	10.28	7.98	12.56	890
11/07/2022	15	176	449	7.13	5.20	7.39	7.71	7.45	9.20	820
12/07/2022	65	289	454	7.13	6.72	7.33	7.38	7.56	9.55	880
13/07/2022	1	287	455	7.18	4.48	7.60	8.35	7.60	8.35	890
14/07/2022	1	164	407	7.11	9.30	7.29	9.37	7.56	10.38	840
15/07/2022	26	219	453	7.52	6.56	7.72	11.25	7.82	12.23	830
16/07/2022	2	172	408	7.28	5.96	7.22	10.55	7.71	10.99	790
17/07/2022	1	154	295	7.15	4.16	7.87	11.28	7.85	12.47	740
18/07/2022	0	132	0	7.15	5.80	7.51	9.40	8.38	13.36	790
19/07/2022	6	100	0	7.19	7.59	7.42	8.83	7.46	9.72	820
20/07/2022	19	105	3	7.14	8.25	7.32	8.27	7.55	10.04	890
21/07/2022	4	161	382	7.50	8.80	7.32	9.00	7.55	10.38	870
22/07/2022	0	120	454	7.18	6.07	7.31	7.95	7.34	6.37	790
23/07/2022	0	83	103	7.17	7.81	7.30	8.01	7.34	5.32	750
24/07/2022	3	94	0	7.21	7.70	7.35	7.65	7.39	5.64	800
25/07/2022	32	114	33	7.50	7.18	7.23	8.25	7.34	7.07	800
26/07/2022	36	258	452	7.28	8.44	7.48	8.55	7.56	9.36	890
27/07/2022	5	202	408	7.44	7.28	7.44	8.23	7.66	7.35	840
28/07/2022	11	188	406	7.10	6.45	7.47	8.14	7.25	8.49	800
29/07/2022	3	114	450	7.35	7.70	7.70	8.51	8.14	6.78	750
30/07/2022	0	117	234	7.22	7.84	7.37	8.65	7.32	6.28	700
31/07/2022	2	95	0	7.27	7.27	7.20	8.57	7.41	4.48	760

Date	Rainfall	Plant Flows		Influent Pond		Aeration Pond		Retention		
	Rainfall mm	Influent m3	Effluent m3	pH units	DO mg/l	pH units	DO mg/l	pH units	DO mg/l	Level mm
1/08/2022	1	106	0	7.41	7.31	7.55	9.08	7.37	7.60	800
2/08/2022	0		10	7.54	9.45	7.64	10.11	7.72	10.42	780
3/08/2022	0	60	0	7.43	9.32	7.61	9.88	7.68	10.45	810
4/08/2022	0	68	0	7.66	9.43	7.63	9.89	7.75	9.60	830
5/08/2022	0	45	0	7.59	9.76	7.55	9.99	7.66	4.16	860
6/08/2022	0	53	0	7.15	9.31	7.16	9.07	7.15	1.97	870
7/08/2022	4	93	4	7.40	8.35	7.37	8.43	7.65	7.23	890
8/08/2022	30	78	444	7.49	9.82	7.66	9.82	7.76	10.39	850
9/08/2022	15	80	456	7.36	9.95	7.52	9.76	7.67	9.84	770
10/08/2022	8	118	233	7.42	8.31	752.00	9.45	7.76	6.61	720
11/08/2022	10		0	7.34	8.12	7.56	9.64	7.39	6.65	820
12/08/2022	0	86	0	7.41	9.38	7.47	9.56	7.44	10.04	840
13/08/2022	0	64	0	7.28	8.95	7.15	9.34	7.39	6.56	845
14/08/2022	0	80	0	7.21	8.83	7.55	10.52	7.34	9.89	860
15/08/2022	2		0	7.63	8.82	7.46	10.23	7.69	8.20	
16/08/2022	0	55	0	7.29	6.28	7.46	5.80	7.72	11.62	920
17/08/2022	12	54	0	7.53	9.42	7.72	8.60	7.87	8.68	950
18/08/2022	3	54	240	7.42	8.78	7.54	9.20	7.84	8.96	980
19/08/2022	10	58	472	7.38	8.79	762.00	7.86	7.63	7.86	840
20/08/2022	0	49	472	7.36	4.05	7.54	7.66	7.46	6.21	780
21/08/2022	0	71	167	7.62	3.70	7.58	8.69	7.67	7.31	700
22/08/2022	8	68	13	7.54	3.67	7.53	8.58	7.69	7.42	720
23/08/2022	0	46	0	7.68	3.51	7.62	7.76	7.48	8.32	740
24/08/2022	0	64	0	7.66	3.87	7.59	8.56	7.45	8.21	760
25/08/2022	1	52	0	7.65	3.87	7.51	8.52	7.84	8.23	790
26/08/2022	0	50	0	7.54	3.82	7.63	8.38	7.68	8.88	830
27/08/2022	0		0	7.09	7.77	7.45	7.68	7.80	9.58	840
28/08/2022	6	98	0	7.24	8.69	7.63	9.16	8.67	7.93	860
29/08/2022	0	57	0	7.29	8.46	7.70	8.82	8.31	8.29	880
30/08/2022	0	55	0	7.40	8.69	7.52	8.70	8.14	8.34	900
31/08/2022	0	37	0	7.32	8.35	7.54	8.98	8.12	8.45	920
1/09/2022	2	50	367	7.34	8.29	7.76	8.83	8.24	8.39	890
2/09/2022	9	23	472	7.31	8.38	7.71	8.79	8.09	8.23	740
3/09/2022	9		171	7.11	8.33	7.68	8.71	7.51	8.01	670
4/09/2022	43		0	7.20	8.39	7.61	8.76	7.55	9.03	710
5/09/2022	0		0	7.19	8.27	7.69	8.71	7.79	8.91	740
6/09/2022	0		0	7.32	8.34	7.73	8.73	7.54	8.94	780
7/09/2022	0		258	7.31	8.21	7.83	8.45	7.46	8.19	820
8/09/2022	0		468	7.32	8.38	7.61	8.79	8.13	8.23	840
9/09/2022	16		468	7.47	8.57	7.84	8.79	7.77	8.59	720
10/09/2022	1	96	0	7.38	8.57	7.66	8.81	7.90	10.61	760
11/09/2022	18	81	0	7.64	8.44	7.63	10.28	7.70	13.32	780
12/09/2022	8	87	0	7.39	8.51	7.52	8.93	7.84	8.67	820
13/09/2022	1	85	0	7.37	8.34	7.59	8.34	7.61	8.73	860
14/09/2022	0	84	0	7.26	8.45	7.62	8.47	7.59	8.91	880
15/09/2022	0	67	0	7.34	8.49	7.71	8.79	7.66	8.48	900
16/09/2022	0	72	0	7.39	8.47	7.62	8.83	7.68	8.73	920
17/09/2022	0	61	349	7.37	8.65	7.39	9.18	8.94	10.09	880
18/09/2022	6	81	471	7.33	8.29	7.77	9.30	8.67	10.10	800
19/09/2022	1	78	471	7.36	8.37	7.68	8.87	8,64	8.54	720
20/09/2022	8	54	0	7.28	7.92	7.63	8.98	7.81	8.64	760
21/09/2022	17	62	0	7.24	7.28	7.98	8.18	7.71	8.62	800
22/09/2022	13	78	0	7.22	7.19	7.62	8.04	7.52	8.61	860
23/09/2022	32	113	0	7.32	7.94	7.78	8.09	7.49	8.91	870
24/09/2022	0	71	0	7.29	7.82	7.60	7.40	7.58	8.60	890
25/09/2022	0	99	220	7.31	6.62	7.21	7.20	7.53	8.82	910
26/09/2022	4	98	441	7.45	6.17	7.61	6.88	7.63	7.39	800
27/09/2022	1	90	454	7.59	6.49	7.69	6.82	7.68	7.89	700
28/09/2022	2	64	0	7.55	6.68	7.68	6.97	7.81	8.04	720
29/09/2022	8	76	0	7.39	6.77	7.64	6.70	7.92	7.86	760
30/09/2022	12	72	0	7.18	4.82	7.61	6.82	7.64	4.85	780

Date	Rainfall	Plant Flows		Influent Pond		Aeration Pond		Retention		
	Rainfall mm	Influent m3	Effluent m3	pH units	DO mg/l	pH units	DO mg/l	pH units	DO mg/l	Level mm
1/10/2022	44	102	4	7.53	6.97	7.78	7.61	7.80	8.58	860
2/10/2022	32	264	189	7.48	7.17	7.61	7.55	8.33	10.51	980
3/10/2022	4	193	397	7.51	7.02	7.53	7.46	8.02	9.93	880
4/10/2022	6	35	437	7.52	7.11	7.48	7.52	7.93	9.53	820
5/10/2022	4	222	370	7.52	7.77	7.53	7.51	7.12	9.45	820
6/10/2022	0	116	370	7.48	7.60	7.61	7.58	7.32	9.23	720
7/10/2022	0	67	0	7.51	7.61	7.17	7.84	7.55	9.93	720
8/10/2022	1	95	0	7.36	7.72	7.54	7.67	7.80	8.82	750
9/10/2022	0	108	0	7.42	6.68	7.58	6.35	7.79	8.24	780
10/10/2022	0	122	0	7.38	7.04	7.62	6.39	7.83	8.34	820
11/10/2022	0	58	0	7.48	5.73	7.34	6.88	7.63	7.88	840
12/10/2022	0	121	0	7.52	6.87	7.42	6.35	7.68	7.18	860
13/10/2022	0	146	144	7.48	6.04	7.45	6.49	7.42	7.04	900
14/10/2022	8	82	195	7.41	6.99	7.59	6.89	7.62	7.09	940
15/10/2022	1	55	405	7.45	6.27	7.48	7.66	7.58	7.55	810
16/10/2022	0	79	402	7.32	5.94	7.44	6.70	7.49	7.52	740
17/10/2022	0	95	42	7.44	6.09	7.49	6.97	7.38	7.61	740
18/10/2022	9	45	0	7.55	6.18	7.62	6.82	7.39	7.82	750
19/10/2022	0	49	0	7.87	5.84	7.83	6.91	7.48	7.78	760
20/10/2022	0	87	0	7.81	6.24	7.93	8.45	7.54	7.58	780
21/10/2022	0	7	0	7.52	6.72	7.84	8.14	7.41	7.83	800
22/10/2022	1	145	0	7.38	7.22	7.33	7.84	8.64	10.34	820
23/10/2022	0	124	0	7.15	7.21	7.29	7.35	8.53	9.44	860
24/10/2022	0	160	0	7.05	5.83	7.20	5.94	8.61	9.20	880
25/10/2022	0	93	241	7.05	6.70	7.12	6.97	8.76	9.87	880
26/10/2022	6	133	397	7.99	6.42	7.72	6.77	8.72	9.61	800
27/10/2022	0	6	397	7.35	6.62	7.69	7.18	7.82	9.42	710
28/10/2022	0	6	0	7.59	6.42	7.38	6.77	7.71	8.89	770
29/10/2022	1	5	0	7.28	6.99	7.44	7.02	7.69	6.89	790
30/10/2022	13	57	0	7.21	6.19	7.40	7.24	7.54	6.22	810
31/10/2022	18	81	0	7.22	6.63	7.64	8.11	7.64	8.11	850
1/11/2022	0	81	0	7.29	6.65	7.69	7.37	7.66	7.69	860
2/11/2022	0	71	0	7.12	6.52	7.69	7.29	7.42	7.61	880
3/11/2022	0	27	0	7.02	6.32	7.52	7.03	7.42	7.61	890
4/11/2022	0	61	16	7.40	5.67	7.43	6.64	8.83	12.01	920
5/11/2022	0	62	443	7.47	6.31	7.49	6.13	8.29	8.68	840
6/11/2022	0	106	423	7.74	6.06	7.64	5.74	8.64	5.87	760
7/11/2022	0	90	0	7.84	5.92	7.78	5.69	8.78	8.87	780
8/11/2022	8	82	0	7.74	5.98	7.68	6.36	8.42	8.42	720
9/11/2022	59	83	0	7.64	5.54	7.62	5.43	8.61	7.96	900
10/11/2022	3	98	98	7.35	6.70	7.45	7.02	7.45	10.69	920
11/11/2022	88	213	418	7.29	6.89	7.39	6.93	7.39	9.94	920
12/11/2022	14	287	451	7.32	6.73	7.41	6.94	7.26	10.03	980
13/11/2022	1	297	452	7.46	7.00	7.56	7.32	8.12	8.12	940
14/11/2022	0	285	405	7.38	6.93	7.64	7.26	8.04	9.16	880
15/11/2022	3	103	453	8.37	6.90	8.10	6.78	8.24	7.78	820
16/11/2022	6	129	181	8.46	6.90	8.03	7.80	8.46	7.80	790
17/11/2022	9	101	0	8.46	6.50	7.84	7.30	8.14	7.30	840
18/11/2022	2	86	0	7.42	7.09	7.51	7.11	8.49	10.36	840
19/11/2022	14	70	3	7.23	7.04	7.09	7.13	7.60	7.96	900
20/11/2022	2	111	416	7.36	6.60	7.23	7.09	8.44	8.86	870
21/11/2022	2	102	400	7.37	6.75	7.41	7.09	8.44	8.86	760
22/11/2022	2	87	77	7.48	6.62	7.43	7.17	8.34	8.63	780
23/11/2022	52	153	77	7.53	6.41	7.49	7.35	8.45	8.86	880
24/11/2022	11	129	178	7.59	8.22	7.74	8.29	10.02	8.88	920
25/11/2022	6	169	441	8.18	7.78	8.31	9.94	9.61	12.08	820
26/11/2022	0	123	437	7.56	7.29	7.89	7.60	9.23	6.50	780
27/11/2022	0	144	27	7.61	6.39	7.65	7.18	9.32	10.06	800
28/11/2022	9	106	0	7.73	6.43	7.78	7.26	9.46	10.30	840
29/11/2022	3	109	0	7.79	6.28	7.83	7.29	9.51	9.82	860
30/11/2022	3	78	0	7.86	6.49	7.84	7.46	9.63	9.74	880

Date	Rainfall	Plant Flows		Influent Pond		Aeration Pond		Retention		
	Rainfall mm	Influent m3	Effluent m3	pH units	DO mg/l	pH units	DO mg/l	pH units	DO mg/l	Level mm
1/12/2022	1	102	0	7.56	6.10	7.63	7.07	9.32	9.93	900
2/12/2022	3	60	424	8.02	6.89	7.41	7.12	9.41	10.50	800
3/12/2022	0	104	435	7.74	6.21	7.43	6.98	9.23	10.10	760
4/12/2022			0							
5/12/2022	0	212	0	7.71	5.93	7.52	6.92	9.46	10.30	840
6/12/2022	0	90	0	7.57	6.98	7.11		9.44	9.45	900
7/12/2022	23	104	349	7.62	6.57	7.31	7.18	9.41	9.33	910
8/12/2022	8	69	95	7.40	6.20	7.18		9.34	9.14	940
9/12/2022	6		95	7.32	6.44	7.55	7.80	8.44	9.20	920
10/12/2022	8	86	342	7.39	6.98	7.65	7.60	8.46	9.30	940
11/12/2022	2	109	342	7.24	6.91	7.69	7.42	8.41	9.40	760
12/12/2022	8	118	326	7.52	6.80	7.66	7.54	9.39	13.02	780
13/12/2022	2	80	73	7.40	6.62	7.52		9.11	12.04	800
14/12/2022	25	113	0	7.46	6.10	7.56	6.87	8.37	6.21	870
15/12/2022	62	242	97	7.55	5.82	7.83	6.94	8.42	6.93	900
16/12/2022	6	750	340	7.49	6.02	7.56	6.93	8.37	8.34	920
17/12/2022	0	0	367	7.64	5.98	7.69	6.99	7.91	7.63	890
18/12/2022	2	182	449	7.61	5.70	7.53	6.39	7.61	6.33	850
19/12/2022	1	203	466	7.68	5.66	7.62	6.24	7.69	6.36	780
20/12/2022	2	157	466	7.62	5.83	7.52	6.47	7.52	6.39	740
21/12/2022	1	150	187	7.73	5.31	7.68	5.98	7.67	6.17	820
22/12/2022	2	127	0	7.76	5.47	7.82	6.26	7.92	6.38	880
23/12/2022		127	85	7.83	5.32	7.43	6.14	7.98	7.27	920
24/12/2022	0	132	25	7.27	5.47	6.88	6.53	7.37	5.82	960
25/12/2022			304							
26/12/2022		139	474	7.03	5.62	7.03	6.76	7.46	5.99	880
27/12/2022	0	363	476	7.07	551.00	7.05	6.89	7.83	6.08	860
28/12/2022	8	257	470	6.82	3.92	6.94	4.22	7.45	8.26	790
29/12/2022	0	212	295	6.83	3.58	6.99	4.16	7.48	8.41	740
30/12/2022	0		295	6.92	3.49	7.09	3.95	7.59	8.27	780
31/12/2022	0	419	405	7.29	3.30	7.33	3.82	7.48	6.32	840
1/01/2023	0	278	466	7.34	2.83	7.45	3.90	7.60	5.47	820
2/01/2023	0	194	444	7.33	3.90	7.57	4.22	7.58	5.66	790
3/01/2023		216	424	7.48	4.10	7.64	5.14	7.69	6.36	770
4/01/2023	6	135	403	7.41	4.60	7.73	5.24	7.94	6.39	740
5/01/2023			363							
6/01/2023	48		363	7.17	2.83	7.21	4.43	7.32	4.22	770
7/01/2023	19	172	222	7.04	2.81	7.22	4.48	7.46	3.58	890
8/01/2023			222	7.09	5.37	6.81		7.11	4.19	900
9/01/2023	0	415	2	7.23	5.89	6.89	5.13	7.19	4.96	1010
10/01/2023	94		100	7.22	4.19	7.29	4.56	7.89	5.90	1400
11/01/2023	44	426	420	7.21	4.23	7.27	4.43	7.73	5.60	1400
12/01/2023	12	425	440							
13/01/2023	3		440	7.24	4.48	7.41	4.89	7.62	5.11	1400
14/01/2023		220	448	6.77	1.37	7.06	2.23	7.55	5.05	1400
15/01/2023	17	297	457	6.70	1.67	6.90	2.20	7.02	6.37	1400
16/01/2023	1	265	456	6.80	2.61	6.80	2.40	7.12	6.42	1350
17/01/2023			443	6.70	2.93	6.90	2.70	7.31	6.49	1300
18/01/2023	2	434	444	6.90	4.83	6.32	6.72	7.43	7.18	1200
19/01/2023	0	419	265	6.74	4.62	6.45	6.83	7.45	7.36	1250
20/01/2023	0	158	459	6.81	4.88	6.40	6.72	7.32	7.30	
21/01/2023	0	145	459	6.93	4.93	6.61	7.39	7.49	7.48	1000
22/01/2023	0	193	394	6.24	5.09	6.74	7.41	7.81	7.59	960
23/01/2023	2	225	442	6.61	5.87	6.82	7.53	7.83	7.23	920
24/01/2023	3	181	442	6.67	2.37	6.65	2.59	7.08	6.24	840
25/01/2023	2	137	409	6.81	2.98	6.78	3.42	7.11	6.38	780
26/01/2023	0	162	394	6.87	3.62	6.83	3.49	7.15	6.42	720
27/01/2023	35	172	379	6.93	3.99	6.97	3.84	7.22	6.48	700
28/01/2023	65		379	6.49	5.24	6.41	6.45	6.41	6.45	850
29/01/2023	50		30	6.43	6.26	6.54	6.75	6.63	4.87	950
30/01/2023	15		114	6.45	5.65	6.46	7.43	6.46	7.43	970
31/01/2023	4		374	6.48	5.83	6.49	7.47	6.49	7.48	950

Date	Rainfall	Plant Flows		Influent Pond		Aeration Pond		Retention		
	Rainfall mm	Influent m3	Effluent m3	pH units	DO mg/l	pH units	DO mg/l	pH units	DO mg/l	Level mm
1/02/2023	25		374	6.64	6.26	6.55	7.71	6.68	4.83	1200
2/02/2023	12	279	119	6.73	6.34	6.89	7.53	7.15	5.67	1050
3/02/2023	3	246	119	6.78	6.58	6.92	7.39	7.21	5.83	1000
4/02/2023	7		276							
5/02/2023	0		341							
6/02/2023	0	144	341	6.82	6.78	6.90	7.61	7.24	5.98	900
7/02/2023	0		392	7.13	6.04	7.36	6.90	7.56	8.07	840
8/02/2023	0	106	392	7.06	6.02	7.30	6.70	7.42	8.01	760
9/02/2023	0	122	0	7.09	6.05	7.10	6.90	7.49	8.03	740
10/02/2023		136	98	7.03	6.01	7.23	6.80	7.51	7.91	860
11/02/2023	0	109	459	7.07	6.22	7.25	6.89	7.55	7.99	780
12/02/2023		84	459	7.02	6.31	7.19	6.79	7.65	7.78	720
13/02/2023			0							
14/02/2023			95							
15/02/2023			44							
16/02/2023			276							
17/02/2023	3		467	7.05	6.48	7.12	7.46	7.48	9.52	1160
18/02/2023	0	121	465	7.02	6.28	7.04	7.29	7.36	9.23	1150
19/02/2023		139	475	7.01	6.01	7.02	6.91	7.22	9.09	1100
20/02/2023	0	108	466	7.05	6.09	7.08	7.03	7.29	9.18	940
21/02/2023	0	103	466	7.09	6.16	7.19	7.14	7.35	9.24	780
22/02/2023	0	83	287	7.02	6.04	7.29	7.26	7.46	9.56	820
23/02/2023	0	104	0	6.99	5.97	7.23	7.21	7.52	9.66	840
24/02/2023	8	99	0	6.87	6.03	7.24	7.25	6.83	9.04	1000
25/02/2023	49	213	244	6.56	5.89	6.77	7.13	6.65	8.89	1100
26/02/2023		214	461	7.16	6.34	7.05	7.51	7.17	6.52	1050
27/02/2023	12		460	7.27	6.41	7.09	7.62	7.26	6.78	1000
28/02/2023	35		456	7.34	6.28	7.11	7.72	7.34	6.11	980
1/03/2023	0	235	0	7.41	6.35	7.31	7.78	7.38	6.26	840
2/03/2023	1	120	289	7.25	7.49	7.34	8.24	7.68	8.46	1100
3/03/2023	0	110	308	7.21	7.42	7.24	8.03	7.25	8.23	1000
4/03/2023	0	128	424	7.29	7.28	7.46	8.18	7.31	8.35	900
5/03/2023	0		424	7.38	7.03	7.61	7.63	7.42	8.12	860
6/03/2023	110	383	190	7.28	8.80	7.34	8.86	8.38	11.23	1300
7/03/2023		285	445							
8/03/2023	0	258	458	7.30	8.70	7.29	8.90	7.70	10.90	1100
9/03/2023	0	169	454	7.41	8.20	7.32	8.50	7.78	10.90	1000
10/03/2023	2	121	447	7.39	7.86	7.35	7.71	8.26	10.42	1000
11/03/2023	0		440	7.17	6.98	7.10	7.12	7.60	8.81	950
12/03/2023	0	128	431	7.15	6.94	7.13	7.15	7.42	8.79	990
13/03/2023	5	103	431	7.26	6.87	7.29	6.93	8.11	10.31	760
14/03/2023	3	83	419	7.28	7.34	7.42	7.46	7.36	10.84	760
15/03/2023	0	94	202	7.11	7.04	7.36	7.32	7.23	10.73	740
16/03/2023	0	92	0	7.23	7.09	7.26	7.28	7.14	9.92	760
17/03/2023	4	64	0	6.56	7.47	6.77	7.57	6.86	5.73	780
18/03/2023	23	89	69	7.04	6.77	7.04	6.69	7.00	5.20	840
19/03/2023	0	117	169	7.22		7.31		7.40		780
20/03/2023	0	111	0	7.25	6.92	7.33	6.87	7.83	5.76	840
21/03/2023	0	63	138	6.49	7.26	6.53	7.32	6.74	6.02	860
22/03/2023	7	93	348	6.37	7.10	6.49	7.28	6.82	6.19	810
23/03/2023	0	69	348	6.39	7.40	6.57	7.36	6.91	6.24	750
24/03/2023	0	71	0	6.97	5.72	7.04	6.41	7.32	7.11	750
25/03/2023	0	72	0	6.99	4.89	6.96	5.33	7.30	7.64	775
26/03/2023	0		0	6.89	4.90	6.91	5.21	7.21	7.05	800
27/03/2023	0	184	0	6.72	4.13	6.73	5.38	7.27	7.09	820
28/03/2023	0	91	0	6.73	3.92	6.41	5.83	7.16	7.01	880
29/03/2023	0	50	19	7.21	6.83	7.33	7.10	7.71	8.57	880
30/03/2023	0	60	308	7.32	6.29	7.37	7.42	7.78	8.73	900
31/03/2023	0	73	308	7.24	6.34	7.29	7.38	7.63	8.11	
Total	2573	39075	71261	2590	2816	4122	2649	2737	2806	302225
Max	110.0	750.0	476.0	8.5	551.0	762.0	12.0	10.0	17.7	1400.0
90th Perceentile	24.4	217.0	454.6	7.7	8.5	7.8	9.4	8.5	10.5	970.0
Min	0.0	0.0	0.0	5.5	0.8	5.5	2.2	5.9	2.0	670.0
Average	7.4	119.9	195	7.3	8.0	11.6	7.6	7.8	7.9	861.0

Hahei WWTP Annual Performance Report
April 2022 to March 2023

Date	Inlet to MFU												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	DR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/04/2022													
2/04/2022													
3/04/2022													
4/04/2022													
5/04/2022													
6/04/2022													
7/04/2022													
8/04/2022													
9/04/2022													
10/04/2022													
11/04/2022	08:30	15.00	43.60	0.19	3.00	6.40	19.60	19.40	720.00	9600.00	38.00		
12/04/2022													
13/04/2022													
14/04/2022													
15/04/2022													
16/04/2022													
17/04/2022													
18/04/2022													
19/04/2022													
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26/04/2022													
27/04/2022													
28/04/2022													
29/04/2022													
30/04/2022													
1/05/2022													
2/05/2022													
3/05/2022													
4/05/2022	15:32	8.30	34.00	5.10	5.30	9.79	8.25	7.14	820.00	2400.00	18.00	615.00	7.49
5/05/2022													
6/05/2022													
7/05/2022													
8/05/2022													
9/05/2022													
10/05/2022													
11/05/2022													
12/05/2022													
13/05/2022													
14/05/2022													
15/05/2022													
16/05/2022													
17/05/2022													
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22/05/2022													
23/05/2022													
24/05/2022													
25/05/2022													
26/05/2022													
27/05/2022													
28/05/2022													
29/05/2022													
30/05/2022													
31/05/2022													

Date	Inlet to MFU												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	DR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/06/2022													
2/06/2022													
3/06/2022													
4/06/2022													
5/06/2022													
6/06/2022													
7/06/2022													
8/06/2022													
9/06/2022													
10/06/2022													
11/06/2022													
12/06/2022													
13/06/2022													
14/06/2022													
15/06/2022													
16/06/2022													
17/06/2022													
18/06/2022													
19/06/2022													
20/06/2022													
21/06/2022													
22/06/2022													
23/06/2022	06:28	13.00	42.40	4.50	0.02	4.67	4.72	4.48	3200.00	2500.00	17.00		
24/06/2022													
25/06/2022													
26/06/2022													
27/06/2022													
28/06/2022													
29/06/2022													
30/06/2022													
1/07/2022													
2/07/2022													
3/07/2022													
4/07/2022													
5/07/2022													
6/07/2022													
7/07/2022	18:33	12.00	39.80	2.80	0.04	4.64	5.26	5.12	860.00	840.00	18.00		
8/07/2022													
9/07/2022													
10/07/2022													
11/07/2022													
12/07/2022													
13/07/2022													
14/07/2022													
15/07/2022													
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21/07/2022													
22/07/2022													
23/07/2022													
24/07/2022													
25/07/2022													
26/07/2022													
27/07/2022												380.00	7.26
28/07/2022													
29/07/2022													
30/07/2022													
31/07/2022													
1/08/2022													
2/08/2022	15:53	9.50	28.40	3.10	2.80	6.16	4.27	2.83	100.00	2300.00	28.00		
3/08/2022													
4/08/2022													
5/08/2022													
6/08/2022													
7/08/2022													
8/08/2022													
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25/08/2022													
26/08/2022													
27/08/2022													
28/08/2022													
29/08/2022													
30/08/2022													
31/08/2022													

Date	Inlet to MFU												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	DR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/09/2022													
2/09/2022													
3/09/2022													
4/09/2022													
5/09/2022													
6/09/2022													
7/09/2022													
8/09/2022													
9/09/2022													
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11/09/2022													
12/09/2022													
13/09/2022													
14/09/2022													
15/09/2022													
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20/09/2022													
21/09/2022													
22/09/2022													
23/09/2022													
24/09/2022													
25/09/2022													
26/09/2022													
27/09/2022	14:36	15.00	68.80	3.90	0.75	6.97	5.28	3.65	1200.00	10000.00	29.00	348.00	11.13
28/09/2022													
29/09/2022													
30/09/2022													
1/10/2022													
2/10/2022													
3/10/2022													
4/10/2022													
5/10/2022													
6/10/2022													
7/10/2022													
8/10/2022													
9/10/2022													
10/10/2022													
11/10/2022													
12/10/2022													
13/10/2022	16:08	16.00	42.00	4.10	0.69	8.04	4.90	4.12	210.00	3300.00	26.00		
14/10/2022													
15/10/2022													
16/10/2022													
17/10/2022													
18/10/2022													
19/10/2022													
20/10/2022													
21/10/2022													
22/10/2022													
23/10/2022													
24/10/2022													
25/10/2022												426.00	10.78
26/10/2022													
27/10/2022													
28/10/2022													
29/10/2022													
30/10/2022													
31/10/2022													
1/11/2022													
2/11/2022													
3/11/2022													
4/11/2022													
5/11/2022													
6/11/2022													
7/11/2022													
8/11/2022													
9/11/2022													
10/11/2022													
11/11/2022													
12/11/2022													
13/11/2022													
14/11/2022	17:54	19.00	76.00	7.80	0.12	0.00	5.81	4.40	530.00	4100.00	45.00	418.00	10.31
15/11/2022													
16/11/2022													
17/11/2022													
18/11/2022													
19/11/2022													
20/11/2022													
21/11/2022													
22/11/2022													
23/11/2022													
24/11/2022													
25/11/2022													
26/11/2022													
27/11/2022													
28/11/2022													
29/11/2022													
30/11/2022													

Date	Inlet to MFU												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	DR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/12/2022													
2/12/2022													
3/12/2022													
4/12/2022													
5/12/2022													
6/12/2022													
7/12/2022													
8/12/2022													
9/12/2022													
10/12/2022													
11/12/2022													
12/12/2022													
13/12/2022													
14/12/2022													
15/12/2022													
16/12/2022													
17/12/2022													
18/12/2022													
19/12/2022													
20/12/2022													
21/12/2022													
22/12/2022	12:19	27.00	85.60	6.90	0.42	8.59	6.40	4.71	650.00	5800.00	70.00	396.00	7.53
23/12/2022													
24/12/2022													
25/12/2022													
26/12/2022													
27/12/2022													
28/12/2022	17:51	28.00	59.60	9.30	0.34	7.83	6.05	4.76	5000.00	9200.00	45.00		
29/12/2022													
30/12/2022													
31/12/2022													
1/01/2023													
2/01/2023													
3/01/2023													
4/01/2023													
5/01/2023													
6/01/2023													
7/01/2023	14:10	60.00	44.40	3.30	10.00	17.80	9.32	6.79	6400.00	5100.00	26.00		
8/01/2023													
9/01/2023													
10/01/2023													
11/01/2023													
12/01/2023													
13/01/2023	18:22	25.00	58.40	10.00	0.14	6.29	7.16	5.77	3400.00	5500.00	37.00		
14/01/2023													
15/01/2023													
16/01/2023													
17/01/2023													
18/01/2023	09:51	33.00	90.00	5.70	2.80	10.80	7.30	5.95	2300.00	4100.00	60.00		
19/01/2023													
20/01/2023													
21/01/2023													
22/01/2023													
23/01/2023													
24/01/2023													
25/01/2023	16:38	28.00	91.40	7.30	9.40	14.90	10.30	8.59	4100.00	8600.00	70.00		
26/01/2023													
27/01/2023													
28/01/2023													
29/01/2023													
30/01/2023													
31/01/2023													
1/02/2023													
2/02/2023	11:16	13.00	79.20	7.30	0.20	6.20	7.34	5.66	790.00	6000.00	50.00		
3/02/2023													
4/02/2023													
5/02/2023													
6/02/2023													
7/02/2023	15:11	14.00	60.80	1.90	0.35	8.95	7.42	5.53	3800.00	12000.00	55.00	397.00	7.69
8/02/2023													
9/02/2023													
10/02/2023													
11/02/2023													
12/02/2023													
13/02/2023													
14/02/2023													
15/02/2023													
16/02/2023													
17/02/2023													
18/02/2023													
19/02/2023													
20/02/2023	13:35	24.00	132.00	1.30	0.27	10.80	7.28	5.00	1400.00	14000.00	75.00		
21/02/2023													
22/02/2023													
23/02/2023													
24/02/2023													
25/02/2023													
26/02/2023													
27/02/2023													
28/02/2023													
1/03/2023													

Date	Inlet to MFU												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	DR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
2/03/2023													
3/03/2023													
4/03/2023													
5/03/2023													
6/03/2023	13:17	26.00	125.00	1.50	0.10	8.70	5.68	4.83	9400.00	16000.00	70.00	529.00	7.40
7/03/2023													
8/03/2023													
9/03/2023													
10/03/2023													
11/03/2023													
12/03/2023													
13/03/2023													
14/03/2023													
15/03/2023													
16/03/2023													
17/03/2023													
18/03/2023													
19/03/2023													
20/03/2023													
21/03/2023													
22/03/2023													
23/03/2023													
24/03/2023													
25/03/2023													
26/03/2023													
27/03/2023													
28/03/2023													
29/03/2023													
30/03/2023													
31/03/2023													
Total	11	386	1201	86	37	148	132	109	44880	121340	777	3509	70
Max	0.8	60.0	132.0	10.0	10.0	17.8	19.6	19.4	9400.0	16000.0	75.0	615.0	11.1
90th Perceentile	0.8	29.5	101.5	8.3	6.5	12.0	9.6	7.6	5420.0	12600.0	70.0	554.8	10.9
Min	0.3	8.3	28.4	0.2	0.0	0.0	4.3	2.8	100.0	840.0	17.0	348.0	7.3
Average	0.6	21.4	66.7	4.8	2.0	8.2	7.4	6.0	2493.3	6741.1	43.2	438.6	8.7

Hahei WWTP Annual Performance Report
April 2022 to March 2023

Date	Effluent Discharge												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/04/2022													
2/04/2022													
3/04/2022													
4/04/2022													
5/04/2022													
6/04/2022													
7/04/2022													
8/04/2022													
9/04/2022													
10/04/2022													
11/04/2022	08:30	1.60	1.20	5.90	0.47	0.00	9.00	8.68	<1.6	<1.6	2.20		
12/04/2022													
13/04/2022													
14/04/2022													
15/04/2022													
16/04/2022													
17/04/2022													
18/04/2022													
19/04/2022													
20/04/2022													
21/04/2022													
22/04/2022													
23/04/2022													
24/04/2022													
25/04/2022													
26/04/2022													
27/04/2022													
28/04/2022													
29/04/2022													
30/04/2022													
1/05/2022													
2/05/2022													
3/05/2022													
4/05/2022	15:32	6.30	1.00	7.40	3.00	3.98	8.73	6.73	<1.6	<1.6	2.00	514.00	7.56
5/05/2022													
6/05/2022													
7/05/2022													
8/05/2022													
9/05/2022													
10/05/2022													
11/05/2022													
12/05/2022													
13/05/2022													
14/05/2022													
15/05/2022													
16/05/2022													
17/05/2022													
18/05/2022													
19/05/2022													
20/05/2022													
21/05/2022													
22/05/2022													
23/05/2022													
24/05/2022													
25/05/2022													
26/05/2022													
27/05/2022													
28/05/2022													
29/05/2022													
30/05/2022													
31/05/2022													

Date	Effluent Discharge												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/06/2022													
2/06/2022													
3/06/2022													
4/06/2022													
5/06/2022													
6/06/2022													
7/06/2022													
8/06/2022													
9/06/2022													
10/06/2022													
11/06/2022													
12/06/2022													
13/06/2022													
14/06/2022													
15/06/2022													
16/06/2022													
17/06/2022													
18/06/2022													
19/06/2022													
20/06/2022													
21/06/2022													
22/06/2022													
23/06/2022	06:28	0.57	2.00	4.00	0.04	4.36	5.41	3.92	<1.6	1.60	0.10		
24/06/2022													
25/06/2022													
26/06/2022													
27/06/2022													
28/06/2022													
29/06/2022													
30/06/2022													
1/07/2022													
2/07/2022													
3/07/2022													
4/07/2022													
5/07/2022													
6/07/2022													
7/07/2022	18:33	1.30	1.40	2.80	0.03	0.71	4.37	3.88	<1.6	<1.6	0.15		
8/07/2022													
9/07/2022													
10/07/2022													
11/07/2022													
12/07/2022													
13/07/2022													
14/07/2022													
15/07/2022													
16/07/2022													
17/07/2022													
18/07/2022													
19/07/2022													
20/07/2022													
21/07/2022													
22/07/2022													
23/07/2022													
24/07/2022													
25/07/2022													
26/07/2022													
27/07/2022												407.00	7.58
28/07/2022													
29/07/2022													
30/07/2022													
31/07/2022													
1/08/2022													
2/08/2022	15:53	2.20	<1.0	3.00	2.50	3.51	3.30	2.87	1.60	<1.6	1.10		
3/08/2022													
4/08/2022													
5/08/2022													
6/08/2022													
7/08/2022													
8/08/2022													
9/08/2022													
10/08/2022													
11/08/2022													
12/08/2022													
13/08/2022													
14/08/2022													
15/08/2022													
16/08/2022													
17/08/2022													
18/08/2022													
19/08/2022													
20/08/2022													
21/08/2022													
22/08/2022													
23/08/2022													
24/08/2022													
25/08/2022													
26/08/2022													
27/08/2022													
28/08/2022													
29/08/2022													
30/08/2022													
31/08/2022													

Date	Effluent Discharge												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/09/2022													
2/09/2022													
3/09/2022													
4/09/2022													
5/09/2022													
6/09/2022													
7/09/2022													
8/09/2022													
9/09/2022													
10/09/2022													
11/09/2022													
12/09/2022													
13/09/2022													
14/09/2022													
15/09/2022													
16/09/2022													
17/09/2022													
18/09/2022													
19/09/2022													
20/09/2022													
21/09/2022													
22/09/2022													
23/09/2022													
24/09/2022													
25/09/2022													
26/09/2022													
27/09/2022	14:36	2.80	2.00	3.20	0.60	1.36	4.14	3.14	<1.6	4.90	0.15	346.00	11.84
28/09/2022													
29/09/2022													
30/09/2022													
1/10/2022													
2/10/2022													
3/10/2022													
4/10/2022													
5/10/2022													
6/10/2022													
7/10/2022													
8/10/2022													
9/10/2022													
10/10/2022													
11/10/2022													
12/10/2022													
13/10/2022	16:08	1.60	1.00	0.51	0.07	0.48	0.44	0.39	72.00	72.00	1.60		
14/10/2022													
15/10/2022													
16/10/2022													
17/10/2022													
18/10/2022													
19/10/2022													
20/10/2022													
21/10/2022													
22/10/2022													
23/10/2022													
24/10/2022													
25/10/2022													
26/10/2022													
27/10/2022													
28/10/2022													
29/10/2022													
30/10/2022													
31/10/2022													
1/11/2022													
2/11/2022													
3/11/2022													
4/11/2022													
5/11/2022													
6/11/2022													
7/11/2022													
8/11/2022													
9/11/2022													
10/11/2022													
11/11/2022													
12/11/2022													
13/11/2022													
14/11/2022	17:54	0.89	2.00	9.10	0.06	1.19	4.59	4.17	<1.6	<1.6	0.20		11.47
15/11/2022													
16/11/2022													
17/11/2022													
18/11/2022													
19/11/2022													
20/11/2022													
21/11/2022													
22/11/2022													
23/11/2022													
24/11/2022													
25/11/2022													
26/11/2022													
27/11/2022													
28/11/2022													
29/11/2022													
30/11/2022													

Date	Effluent Discharge												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/12/2022													
2/12/2022													
3/12/2022													
4/12/2022													
5/12/2022													
6/12/2022													
7/12/2022													
8/12/2022													
9/12/2022													
10/12/2022													
11/12/2022													
12/12/2022													
13/12/2022													
14/12/2022													
15/12/2022													
16/12/2022													
17/12/2022													
18/12/2022													
19/12/2022													
20/12/2022													
21/12/2022												403.00	7.59
22/12/2022	12:19	1.70	1.80	9.10	0.41	1.85	4.72	4.29	<1.6	<1.6	3.80		
23/12/2022													
24/12/2022													
25/12/2022													
26/12/2022													
27/12/2022													
28/12/2022	17:51	1.80	1.00	7.50	0.29	1.85	5.25	4.56	<1.6	<1.6	0.25		
29/12/2022													
30/12/2022													
31/12/2022													
1/01/2023													
2/01/2023													
3/01/2023													
4/01/2023													
5/01/2023													
6/01/2023													
7/01/2023	14:10	5.40	2.00	5.50	11.00	12.80	6.79	6.02	15.00	9.80	0.60		
8/01/2023													
9/01/2023													
10/01/2023													
11/01/2023													
12/01/2023													
13/01/2023	18:22	4.50	3.00	9.70	0.09	1.78	6.12	5.66	<1.6	1.60	2.00		
14/01/2023													
15/01/2023													
16/01/2023													
17/01/2023													
18/01/2023	09:51	5.00	2.40	6.10	2.50	2.66	6.23	5.84	11.00	21.00	1.20		
19/01/2023													
20/01/2023													
21/01/2023													
22/01/2023													
23/01/2023													
24/01/2023													
25/01/2023	16:38	4.70	2.00	8.80	3.50	4.60	8.83	7.04	<1.6	<1.6	1.30		
26/01/2023													
27/01/2023													
28/01/2023													
29/01/2023													
30/01/2023													
31/01/2023													
1/02/2023													
2/02/2023	11:16	0.63	<1.0	8.10	0.02	1.16	6.39	5.21	<1.6	15.00	0.40		
3/02/2023													
4/02/2023													
5/02/2023													
6/02/2023													
7/02/2023	15:11	0.89	4.00	1.70	0.23	1.16	5.95	5.49	<1.6	1.60	0.15	414.00	7.68
8/02/2023													
9/02/2023													
10/02/2023													
11/02/2023													
12/02/2023													
13/02/2023													
14/02/2023													
15/02/2023													
16/02/2023													
17/02/2023													
18/02/2023													
19/02/2023													
20/02/2023	13:35	1.50	3.40	1.10	0.03	0.80	5.36	3.91	<1.6	<1.6	0.50		
21/02/2023													
22/02/2023													
23/02/2023													
24/02/2023													
25/02/2023													
26/02/2023													
27/02/2023													
28/02/2023													
1/03/2023													

Date	Effluent Discharge												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
2/03/2023													
3/03/2023													
4/03/2023													
5/03/2023													
6/03/2023	13:17	1.50	2.60	0.42	0.42	1.16	5.57	5.34	8.20	15.00	0.35	337.00	7.40
7/03/2023													
8/03/2023													
9/03/2023													
10/03/2023													
11/03/2023													
12/03/2023													
13/03/2023													
14/03/2023													
15/03/2023													
16/03/2023													
17/03/2023													
18/03/2023													
19/03/2023													
20/03/2023													
21/03/2023													
22/03/2023													
23/03/2023													
24/03/2023													
25/03/2023													
26/03/2023													
27/03/2023													
28/03/2023													
29/03/2023													
30/03/2023													
31/03/2023													
Total	11	45	33	94	25	45	101	87	108	143	18	2421	61
Max	0.8	6.3	4.0	9.7	11.0	12.8	9.0	8.7	72.0	72.0	3.8	514.0	11.8
90th Perceentile	0.8	5.1	3.2	9.1	3.2	4.4	8.8	6.8	49.2	31.2	2.1	464.0	11.6
Min	0.3	0.6	1.0	0.4	0.0	0.0	0.4	0.4	1.6	1.6	0.1	337.0	7.4
Average	0.6	2.5	2.1	5.2	1.4	2.5	5.6	4.8	21.6	15.8	1.0	403.5	8.7

Hahei WWTP Annual Performance Report
April 2022 to March 2023

Date	Wigmore Stream 50m Upstream												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/04/2022													
2/04/2022													
3/04/2022													
4/04/2022													
5/04/2022													
6/04/2022													
7/04/2022													
8/04/2022													
9/04/2022													
10/04/2022													
11/04/2022	08:30	0.76	24.20	0.00	<0.005	0.44	0.04	0.02	200.00	110.00	2.80		
12/04/2022													
13/04/2022													
14/04/2022													
15/04/2022													
16/04/2022													
17/04/2022													
18/04/2022													
19/04/2022													
20/04/2022													
21/04/2022													
22/04/2022													
23/04/2022													
24/04/2022													
25/04/2022													
26/04/2022													
27/04/2022													
28/04/2022													
29/04/2022													
30/04/2022													
1/05/2022													
2/05/2022													
3/05/2022													
4/05/2022	15:32	0.83	5.40	0.02	0.03	0.33	0.03	0.01	4900.00	2100.00	4.10	985.00	7.02
5/05/2022													
6/05/2022													
7/05/2022													
8/05/2022													
9/05/2022													
10/05/2022													
11/05/2022													
12/05/2022													
13/05/2022													
14/05/2022													
15/05/2022													
16/05/2022													
17/05/2022													
18/05/2022													
19/05/2022													
20/05/2022													
21/05/2022													
22/05/2022													
23/05/2022													
24/05/2022													
25/05/2022													
26/05/2022													
27/05/2022													
28/05/2022													
29/05/2022													
30/05/2022													
31/05/2022													

Date	Wigmore Stream 50m Upstream												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/06/2022													
2/06/2022													
3/06/2022													
4/06/2022													
5/06/2022													
6/06/2022													
7/06/2022													
8/06/2022													
9/06/2022													
10/06/2022													
11/06/2022													
12/06/2022													
13/06/2022													
14/06/2022													
15/06/2022													
16/06/2022													
17/06/2022													
18/06/2022													
19/06/2022													
20/06/2022													
21/06/2022													
22/06/2022													
23/06/2022	06:28	0.69	4.60	0.12	0.02	0.15	0.02	0.01	34.00	510.00	1.80		
24/06/2022													
25/06/2022													
26/06/2022													
27/06/2022													
28/06/2022													
29/06/2022													
30/06/2022													
1/07/2022													
2/07/2022													
3/07/2022													
4/07/2022													
5/07/2022													
6/07/2022													
7/07/2022	18:33	1.10	19.70	0.63	0.04	0.79	0.11	0.05	2800.00	3100.00	28.00		
8/07/2022													
9/07/2022													
10/07/2022													
11/07/2022													
12/07/2022													
13/07/2022													
14/07/2022													
15/07/2022													
16/07/2022													
17/07/2022													
18/07/2022													
19/07/2022													
20/07/2022													
21/07/2022													
22/07/2022													
23/07/2022													
24/07/2022													
25/07/2022													
26/07/2022													
27/07/2022												166.00	7.28
28/07/2022													
29/07/2022													
30/07/2022													
31/07/2022													
1/08/2022													
2/08/2022	15:53	1.20	1.00	0.13	0.02	0.54	0.03	0.01	11.00	110.00	2.00		
3/08/2022													
4/08/2022													
5/08/2022													
6/08/2022													
7/08/2022													
8/08/2022													
9/08/2022													
10/08/2022													
11/08/2022													
12/08/2022													
13/08/2022													
14/08/2022													
15/08/2022													
16/08/2022													
17/08/2022													
18/08/2022													
19/08/2022													
20/08/2022													
21/08/2022													
22/08/2022													
23/08/2022													
24/08/2022													
25/08/2022													
26/08/2022													
27/08/2022													
28/08/2022													
29/08/2022													
30/08/2022													
31/08/2022													

Date	Wigmore Stream 50m Upstream												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/09/2022													
2/09/2022													
3/09/2022													
4/09/2022													
5/09/2022													
6/09/2022													
7/09/2022													
8/09/2022													
9/09/2022													
10/09/2022													
11/09/2022													
12/09/2022													
13/09/2022													
14/09/2022													
15/09/2022													
16/09/2022													
17/09/2022													
18/09/2022													
19/09/2022													
20/09/2022													
21/09/2022													
22/09/2022													
23/09/2022													
24/09/2022													
25/09/2022													
26/09/2022													
27/09/2022	14:36	0.72	2.60	0.02	0.02	0.24	0.02	0.01	23.00	110.00	1.70	125.00	
28/09/2022													
29/09/2022													
30/09/2022													
1/10/2022													
2/10/2022													
3/10/2022													
4/10/2022													
5/10/2022													
6/10/2022													
7/10/2022													
8/10/2022													
9/10/2022													
10/10/2022													
11/10/2022													
12/10/2022													
13/10/2022	16:08	3.40	2.80	0.01	<0.005	0.19	0.01	0.01	46.00	54.00	1.30		
14/10/2022													
15/10/2022													
16/10/2022													
17/10/2022													
18/10/2022													
19/10/2022													
20/10/2022													
21/10/2022													
22/10/2022													
23/10/2022													
24/10/2022													
25/10/2022												116.00	7.39
26/10/2022													
27/10/2022													
28/10/2022													
29/10/2022													
30/10/2022													
31/10/2022													
1/11/2022													
2/11/2022													
3/11/2022													
4/11/2022													
5/11/2022													
6/11/2022													
7/11/2022													
8/11/2022													
9/11/2022													
10/11/2022													
11/11/2022													
12/11/2022													
13/11/2022													
14/11/2022	17:54	0.65	7.40	0.02	0.01	0.23	0.02	0.01	44.00	170.00	2.10	127.00	7.42
15/11/2022													
16/11/2022													
17/11/2022													
18/11/2022													
19/11/2022													
20/11/2022													
21/11/2022													
22/11/2022													
23/11/2022													
24/11/2022													
25/11/2022													
26/11/2022													
27/11/2022													
28/11/2022													
29/11/2022													
30/11/2022													

Date	Wigmore Stream 50m Upstream												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
1/12/2022													
2/12/2022													
3/12/2022													
4/12/2022													
5/12/2022													
6/12/2022													
7/12/2022													
8/12/2022													
9/12/2022													
10/12/2022													
11/12/2022													
12/12/2022													
13/12/2022													
14/12/2022													
15/12/2022													
16/12/2022													
17/12/2022													
18/12/2022													
19/12/2022													
20/12/2022													
21/12/2022												136.00	7.52
22/12/2022	12:19	0.90	4.00	0.01	<0.005	<0.1	0.02	0.01	63.00	460.00	5.10		
23/12/2022													
24/12/2022													
25/12/2022													
26/12/2022													
27/12/2022													
28/12/2022	17:51	0.88	9.80	0.02	<0.005	0.38	0.04	0.01	310.00	690.00	7.10		
29/12/2022													
30/12/2022													
31/12/2022													
1/01/2023													
2/01/2023													
3/01/2023													
4/01/2023													
5/01/2023													
6/01/2023													
7/01/2023	14:10	0.95	1.40	0.02	0.04	0.40	0.02	0.01	160.00	470.00	3.30		
8/01/2023													
9/01/2023													
10/01/2023													
11/01/2023													
12/01/2023													
13/01/2023	18:22	1.20	8.80	0.02	0.01	0.24	0.02	0.01	56.00	110.00	4.40		
14/01/2023													
15/01/2023													
16/01/2023													
17/01/2023													
18/01/2023	09:51	1.10	6.80	0.00	0.01	0.38	0.03	0.01	450.00	520.00	5.20		
19/01/2023													
20/01/2023													
21/01/2023													
22/01/2023													
23/01/2023													
24/01/2023													
25/01/2023	16:38	1.00	52.00	0.01	0.03	0.44	0.03	0.02	70.00	300.00	17.00		
26/01/2023													
27/01/2023													
28/01/2023													
29/01/2023													
30/01/2023													
31/01/2023													
1/02/2023													
2/02/2023	11:16	<0.5	1.60	0.04	0.01	0.34	0.02	0.01	58.00	130.00	2.70		
3/02/2023													
4/02/2023													
5/02/2023													
6/02/2023													
7/02/2023	15:11	1.10	6.40	0.02	<0.005	0.34	0.03	0.01	33.00	160.00	5.40	144.00	6.89
8/02/2023													
9/02/2023													
10/02/2023													
11/02/2023													
12/02/2023													
13/02/2023													
14/02/2023													
15/02/2023													
16/02/2023													
17/02/2023													
18/02/2023													
19/02/2023													
20/02/2023	13:35	1.00	7.20	0.01	0.02	0.28	0.02	0.01	33.00	260.00	5.20		
21/02/2023													
22/02/2023													
23/02/2023													
24/02/2023													
25/02/2023													
26/02/2023													
27/02/2023													
28/02/2023													
1/03/2023													

Date	Wigmore Stream 50m Upstream												
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units
2/03/2023													
3/03/2023													
4/03/2023													
5/03/2023													
6/03/2023	13:17	1.60	13.00	0.21	<0.005	0.51	0.06	0.02	24000.00	2800.00	19.00	84.00	6.45
7/03/2023													
8/03/2023													
9/03/2023													
10/03/2023													
11/03/2023													
12/03/2023													
13/03/2023													
14/03/2023													
15/03/2023													
16/03/2023													
17/03/2023													
18/03/2023													
19/03/2023													
20/03/2023													
21/03/2023													
22/03/2023													
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24/03/2023													
25/03/2023													
26/03/2023													
27/03/2023													
28/03/2023													
29/03/2023													
30/03/2023													
31/03/2023													
Total	11	19	179	1	0	6	1	0	33291	12164	118	1883	50
Max	0.8	3.4	52.0	0.6	0.0	0.8	0.1	0.0	24000.0	3100.0	28.0	985.0	7.5
90th Perceentile	0.8	1.4	21.1	0.2	0.0	0.5	0.0	0.0	3430.0	2310.0	17.6	411.7	7.5
Min	0.3	0.7	1.0	0.0	0.0	0.1	0.0	0.0	11.0	54.0	1.3	84.0	6.5
Average	0.6	1.1	9.9	0.1	0.0	0.4	0.0	0.0	1849.5	675.8	6.6	235.4	7.1

Hahei WWTP Annual Performance Report
April 2022 to March 2023

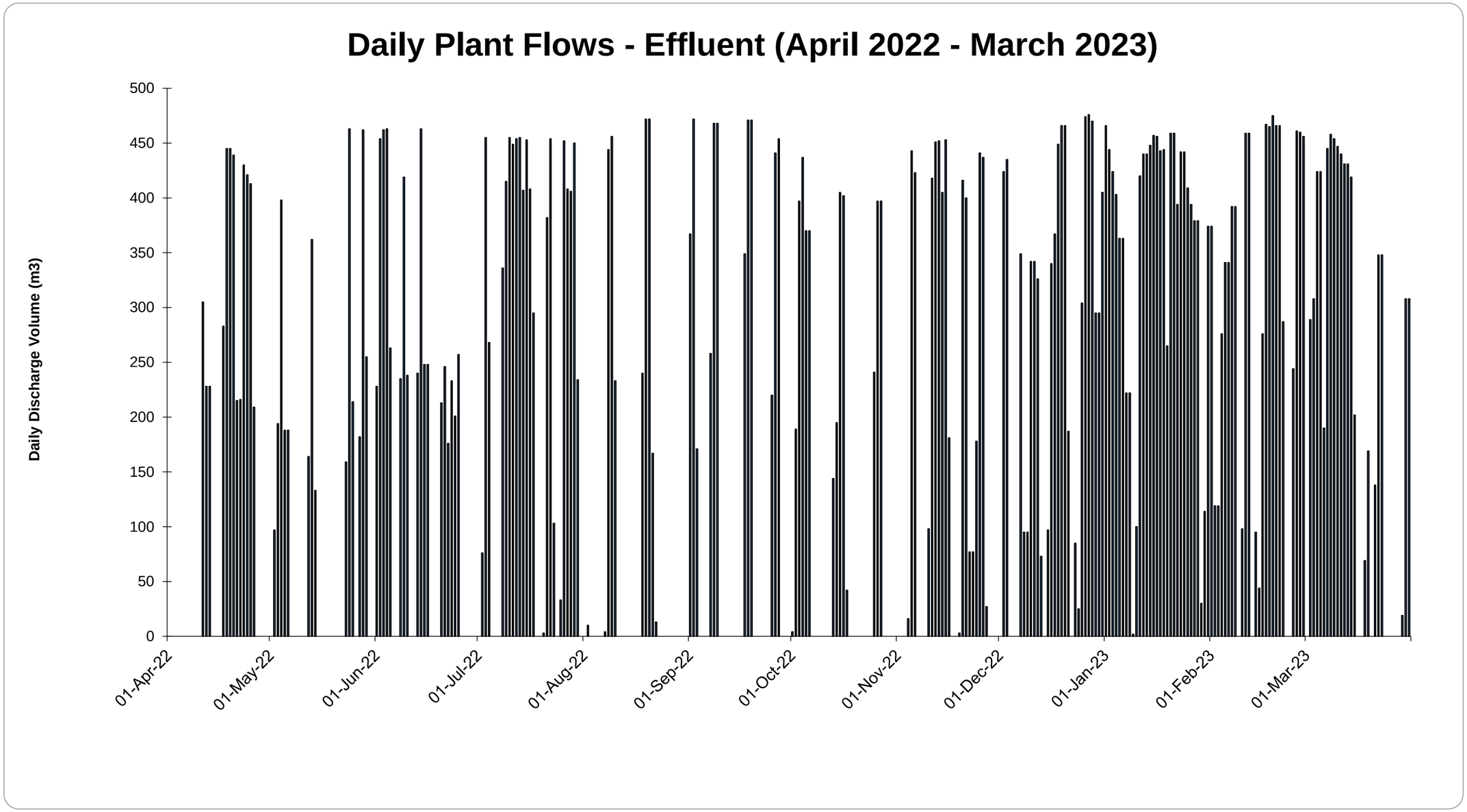
Date	Wigmore Stream 50m Downstream													Low Tide
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units	Time
1/04/2022														
2/04/2022														
3/04/2022														
4/04/2022														
5/04/2022														
6/04/2022														
7/04/2022														
8/04/2022														
9/04/2022														
10/04/2022														
11/04/2022	08:30	0.97	24.40	<0.002	0.01	0.42	0.03	0.02	320.00	260.00	1.90			08:30
12/04/2022														
13/04/2022														
14/04/2022														
15/04/2022														
16/04/2022														
17/04/2022														
18/04/2022														
19/04/2022														
20/04/2022														
21/04/2022														
22/04/2022														
23/04/2022														
24/04/2022														
25/04/2022														
26/04/2022														
27/04/2022														
28/04/2022														
29/04/2022														
30/04/2022														
1/05/2022														
2/05/2022														
3/05/2022														
4/05/2022	15:32	0.84	15.40	0.63	0.33	0.66	0.65	0.53	4300.00	2800.00	4.60	4770.00	6.85	15:32
5/05/2022														
6/05/2022														
7/05/2022														
8/05/2022														
9/05/2022														
10/05/2022														
11/05/2022														
12/05/2022														
13/05/2022														
14/05/2022														
15/05/2022														
16/05/2022														
17/05/2022														
18/05/2022														
19/05/2022														
20/05/2022														
21/05/2022														
22/05/2022														
23/05/2022														
24/05/2022														
25/05/2022														
26/05/2022														
27/05/2022														
28/05/2022														
29/05/2022														
30/05/2022														
31/05/2022														

Date	Wigmore Stream 50m Downstream													Low Tide
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units	Time
1/06/2022														
2/06/2022														
3/06/2022														
4/06/2022														
5/06/2022														
6/06/2022														
7/06/2022														
8/06/2022														
9/06/2022														
10/06/2022														
11/06/2022														
12/06/2022														
13/06/2022														
14/06/2022														
15/06/2022														
16/06/2022														
17/06/2022														
18/06/2022														
19/06/2022														
20/06/2022														
21/06/2022														
22/06/2022														
23/06/2022	06:28	<0.5	15.00	0.40	0.04	0.28	0.27	0.24	240.00	240.00	2.30			06:28
24/06/2022														
25/06/2022														
26/06/2022														
27/06/2022														
28/06/2022														
29/06/2022														
30/06/2022														
1/07/2022														
2/07/2022														
3/07/2022														
4/07/2022														
5/07/2022														
6/07/2022														
7/07/2022	18:33	1.00	34.00	0.95	0.03	0.73	0.12	0.04	5700.00	4000.00	34.00			18:33
8/07/2022														
9/07/2022														
10/07/2022														
11/07/2022														
12/07/2022														
13/07/2022														
14/07/2022														
15/07/2022														
16/07/2022														
17/07/2022														
18/07/2022														
19/07/2022														
20/07/2022														
21/07/2022														
22/07/2022														
23/07/2022														
24/07/2022														
25/07/2022														
26/07/2022														
27/07/2022												582.00	6.89	
28/07/2022														
29/07/2022														
30/07/2022														
31/07/2022														
1/08/2022														
2/08/2022	15:53	1.10	3.40	0.15	0.02	0.77	0.01	0.01	16.00	52.00	2.10			15:53
3/08/2022														
4/08/2022														
5/08/2022														
6/08/2022														
7/08/2022														
8/08/2022														
9/08/2022														
10/08/2022														
11/08/2022														
12/08/2022														
13/08/2022														
14/08/2022														
15/08/2022														
16/08/2022														
17/08/2022														
18/08/2022														
19/08/2022														
20/08/2022														
21/08/2022														
22/08/2022														
23/08/2022														
24/08/2022														
25/08/2022														
26/08/2022														
27/08/2022														
28/08/2022														
29/08/2022														
30/08/2022														
31/08/2022														

Date	Wigmore Stream 50m Downstream													Low Tide
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units	Time
1/09/2022														
2/09/2022														
3/09/2022														
4/09/2022														
5/09/2022														
6/09/2022														
7/09/2022														
8/09/2022														
9/09/2022														
10/09/2022														
11/09/2022														
12/09/2022														
13/09/2022														
14/09/2022														
15/09/2022														
16/09/2022														
17/09/2022														
18/09/2022														
19/09/2022														
20/09/2022														
21/09/2022														
22/09/2022														
23/09/2022														
24/09/2022														
25/09/2022														
26/09/2022														
27/09/2022	14:36	1.00	5.20	0.23	0.05	0.28	0.26	0.18	94.00	160.00	1.90	1877.00	10.62	14:36
28/09/2022														
29/09/2022														
30/09/2022														
1/10/2022														
2/10/2022														
3/10/2022														
4/10/2022														
5/10/2022														
6/10/2022														
7/10/2022														
8/10/2022														
9/10/2022														
10/10/2022														
11/10/2022														
12/10/2022														
13/10/2022	16:08	1.30	24.20	0.27	0.03	0.37	0.23	0.17	210.00	210.00	2.40			16:08
14/10/2022														
15/10/2022														
16/10/2022														
17/10/2022														
18/10/2022														
19/10/2022														
20/10/2022														
21/10/2022														
22/10/2022														
23/10/2022														
24/10/2022														
25/10/2022												1294.00	10.51	
26/10/2022														
27/10/2022														
28/10/2022														
29/10/2022														
30/10/2022														
31/10/2022														
1/11/2022														
2/11/2022														
3/11/2022														
4/11/2022														
5/11/2022														
6/11/2022														
7/11/2022														
8/11/2022														
9/11/2022														
10/11/2022														
11/11/2022														
12/11/2022														
13/11/2022														
14/11/2022	17:54	0.82	9.00	0.24	0.03	0.27	0.10	0.09	38.00	1300.00	2.90	1082.00	10.54	17:54
15/11/2022														
16/11/2022														
17/11/2022														
18/11/2022														
19/11/2022														
20/11/2022														
21/11/2022														
22/11/2022														
23/11/2022														
24/11/2022														
25/11/2022														
26/11/2022														
27/11/2022														
28/11/2022														
29/11/2022														
30/11/2022														

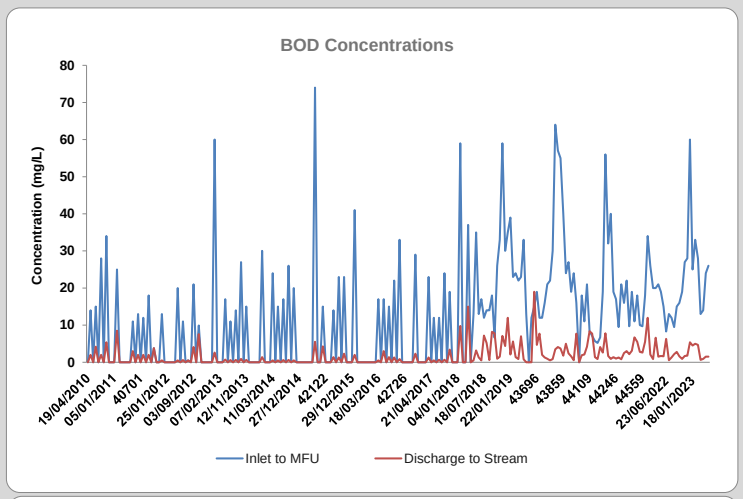
Date	Wigmore Stream 50m Downstream													Low Tide
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units	Time
1/12/2022														
2/12/2022														
3/12/2022														
4/12/2022														
5/12/2022														
6/12/2022														
7/12/2022														
8/12/2022														
9/12/2022														
10/12/2022														
11/12/2022														
12/12/2022														
13/12/2022														
14/12/2022														
15/12/2022														
16/12/2022														
17/12/2022														
18/12/2022														
19/12/2022														
20/12/2022														
21/12/2022												885.00	7.92	
22/12/2022	12:19	1.40	14.80	0.02	0.02	0.24	0.02	0.01	140.00	420.00	4.60			12:19
23/12/2022														
24/12/2022														
25/12/2022														
26/12/2022														
27/12/2022														
28/12/2022	17:51	1.20	33.60	0.38	0.04	0.42	0.17	0.14	840.00	870.00	4.40			17:51
29/12/2022														
30/12/2022														
31/12/2022														
1/01/2023														
2/01/2023														
3/01/2023														
4/01/2023														
5/01/2023														
6/01/2023														
7/01/2023	14:10	1.40	4.80	0.42	0.06	0.32	0.02	0.01	1100.00	730.00	6.40			14:10
8/01/2023														
9/01/2023														
10/01/2023														
11/01/2023														
12/01/2023														
13/01/2023	18:22	1.20	7.20	0.53	0.04	0.31	0.07	0.06	470.00	330.00	4.90			18:22
14/01/2023														
15/01/2023														
16/01/2023														
17/01/2023														
18/01/2023	09:51	2.00	22.40	0.28	0.11	0.53	0.13	0.09	49000.00	51000.00	9.50			09:51
19/01/2023														
20/01/2023														
21/01/2023														
22/01/2023														
23/01/2023														
24/01/2023														
25/01/2023	16:38	1.00	46.80	0.47	0.27	0.71	0.39	0.24	2100.00	1000.00	4.60			16:38
26/01/2023														
27/01/2023														
28/01/2023														
29/01/2023														
30/01/2023														
31/01/2023														
1/02/2023														
2/02/2023	11:16	<0.5	1.00	0.20	0.02	0.36	0.09	0.08	110.00	220.00	3.60			11:16
3/02/2023														
4/02/2023														
5/02/2023														
6/02/2023														
7/02/2023	15:11	0.82	15.60	0.21	0.03	0.30	0.10	0.06	460.00	560.00	6.00	4050.00	6.54	15:11
8/02/2023														
9/02/2023														
10/02/2023														
11/02/2023														
12/02/2023														
13/02/2023														
14/02/2023														
15/02/2023														
16/02/2023														
17/02/2023														
18/02/2023														
19/02/2023														
20/02/2023	13:35	1.20	24.20	0.20	0.02	0.35	0.11	0.06	420.00	280.00	7.60			13:35
21/02/2023														
22/02/2023														
23/02/2023														
24/02/2023														
25/02/2023														
26/02/2023														
27/02/2023														
28/02/2023														
1/03/2023														

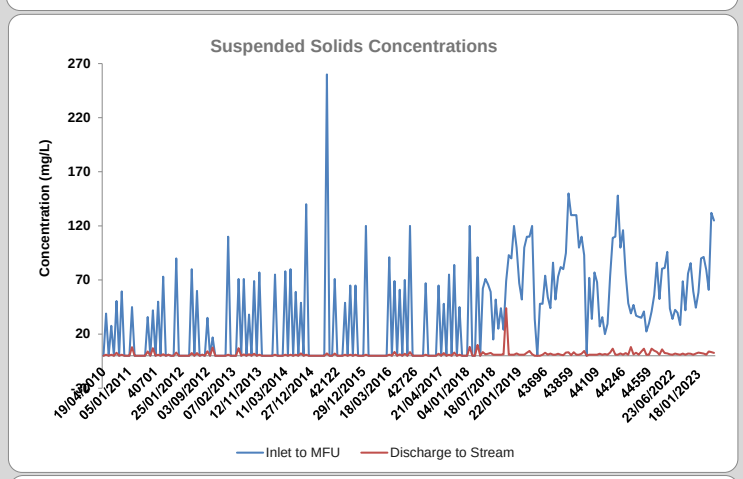
Date	Wigmore Stream 50m Downstream													Low Tide
	Time	CBOD mg/L	SS mg/l	Nitrate mg/l	Ammoniacal N mg/L	TKN mg/L	T P mg/L	SR P mg/L	Enterococci /100mL	E. Coli /100mL	Turbidity NTU	Conductivity µS/cm	pH units	Time
2/03/2023														
3/03/2023														
4/03/2023														
5/03/2023														
6/03/2023	13:17	1.00	27.00	1.10	0.03	0.60	0.06	0.02	3700.00	2100.00	25.00	153.00	6.76	13:17
7/03/2023														
8/03/2023														
9/03/2023														
10/03/2023														
11/03/2023														
12/03/2023														
13/03/2023														
14/03/2023														
15/03/2023														
16/03/2023														
17/03/2023														
18/03/2023														
19/03/2023														
20/03/2023														
21/03/2023														
22/03/2023														
23/03/2023														
24/03/2023														
25/03/2023														
26/03/2023														
27/03/2023														
28/03/2023														
29/03/2023														
30/03/2023														
31/03/2023														
Total	11	18	328	7	1	8	3	2	69258	66532	129	14693	67	11
Max	0.8	2.0	46.8	1.1	0.3	0.8	0.6	0.5	49000.0	51000.0	34.0	4770.0	10.6	0.8
90th Perceentile	0.8	1.4	33.7	0.8	0.2	0.7	0.3	0.2	4720.0	3160.0	14.2	4266.0	10.6	0.8
Min	0.3	0.8	1.0	0.0	0.0	0.2	0.0	0.0	16.0	52.0	1.9	153.0	6.5	0.3
Average	0.6	1.1	18.2	0.4	0.1	0.4	0.2	0.1	3847.7	3696.2	7.2	1836.6	8.3	0.6

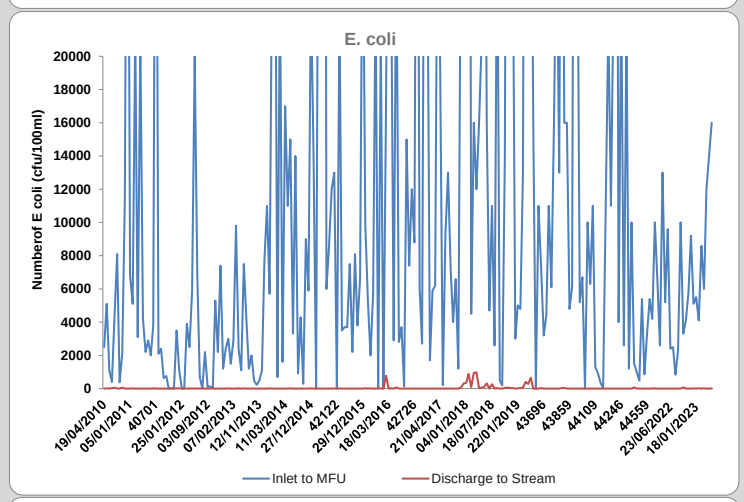

Daily Plant Flows - Effluent (April 2022 - March 2023)
Daily Discharge Volume (m3)
500
450
400
350
300
250
200
150
100
50
0
01-Apr-22
01-May-22
01-Jun-22
01-Jul-22
01-Aug-22
01-Sep-22
01-Oct-22
01-Nov-22
01-Dec-22
01-Jan-23
01-Feb-23
01-Mar-23

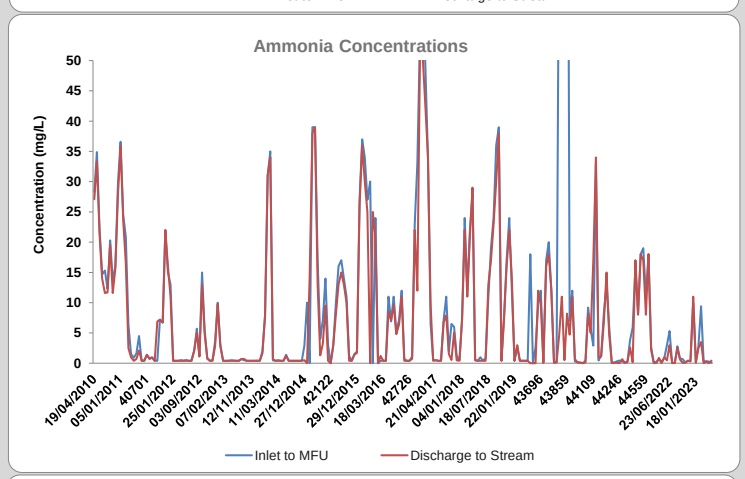
Effluent Trends

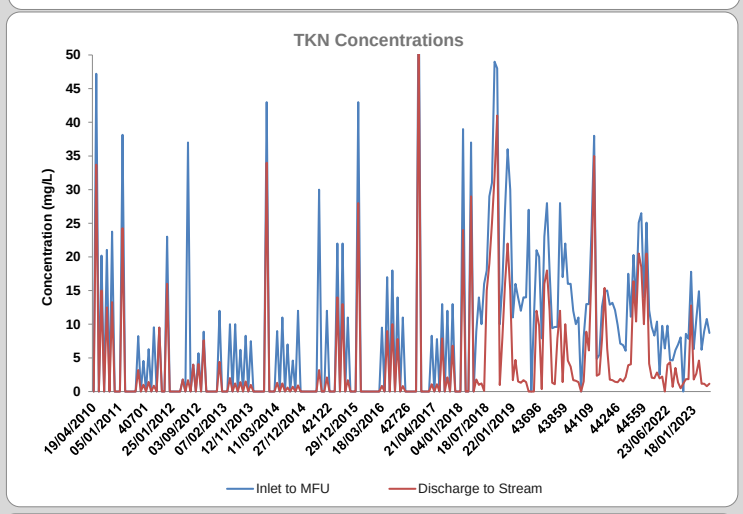
April 2010 to March 2023

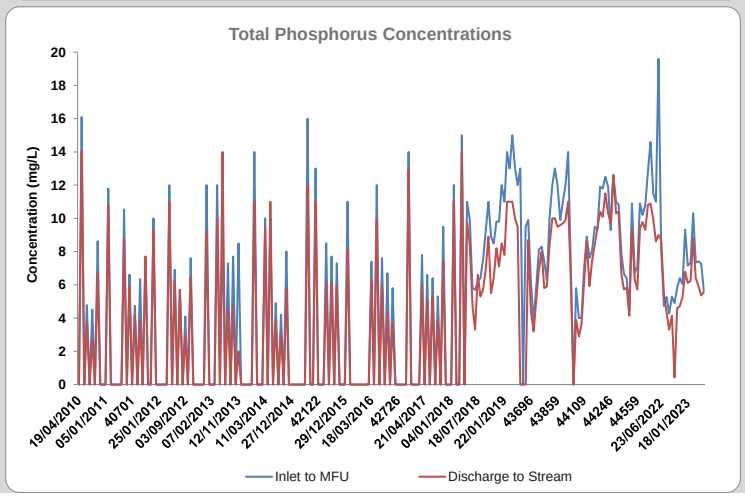






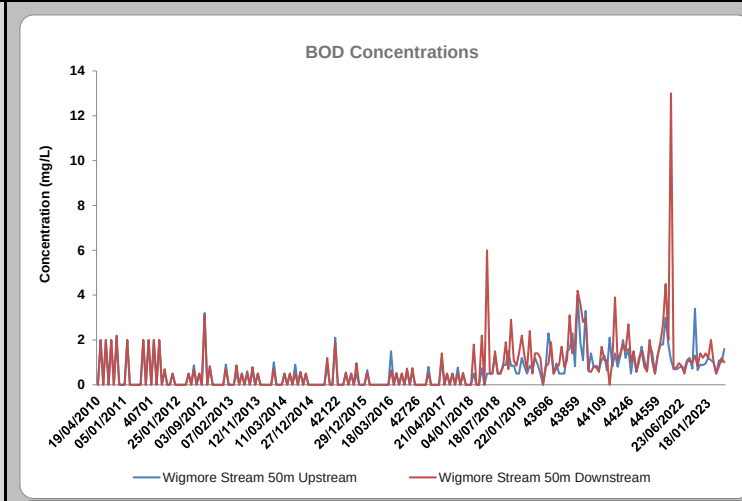


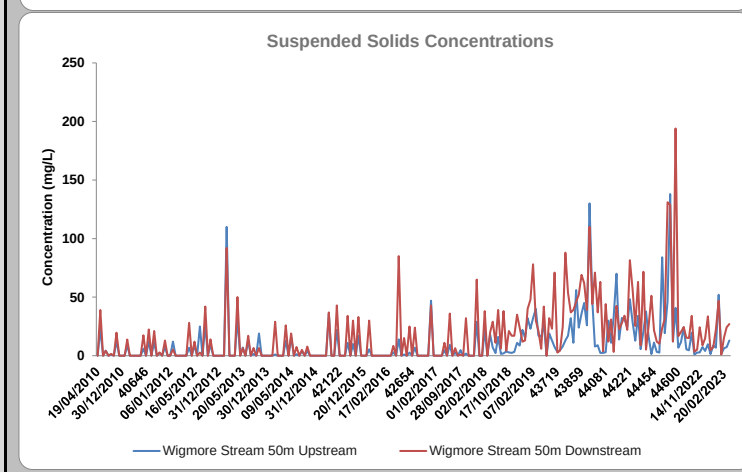


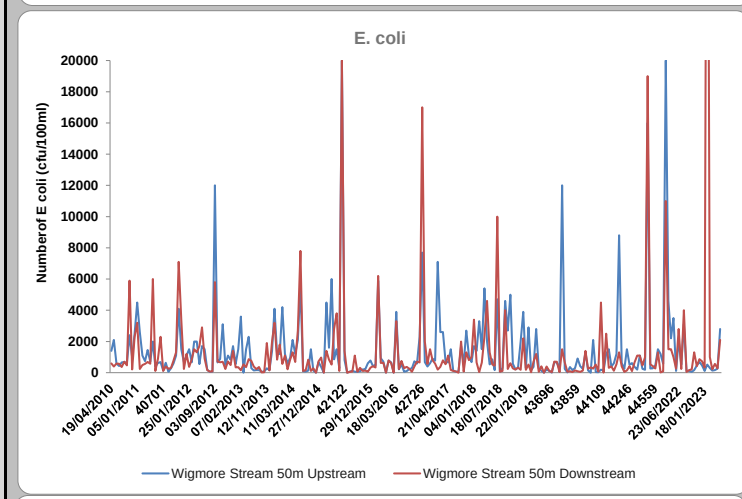


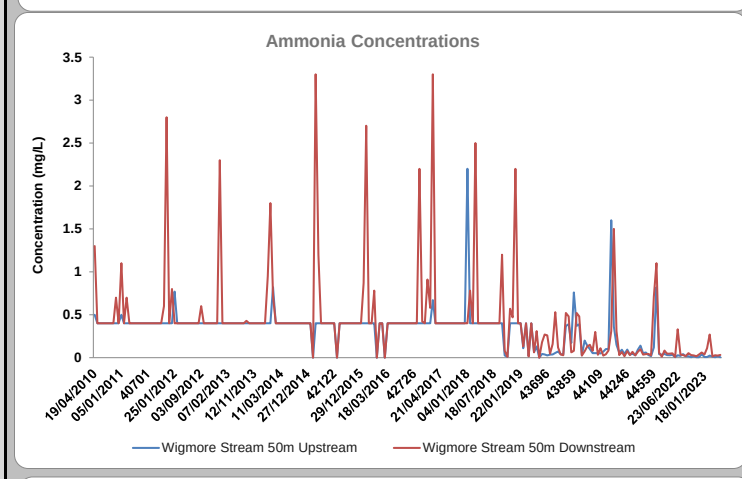
Upstream/Downstream Trends

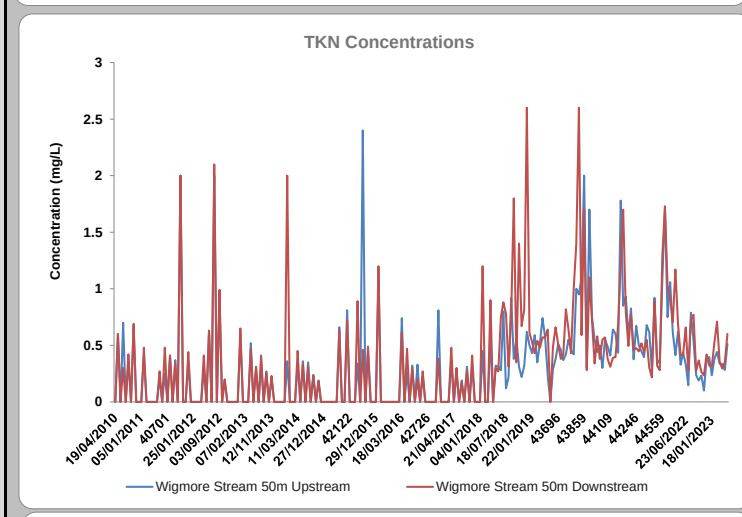
April 2010 to March 2023

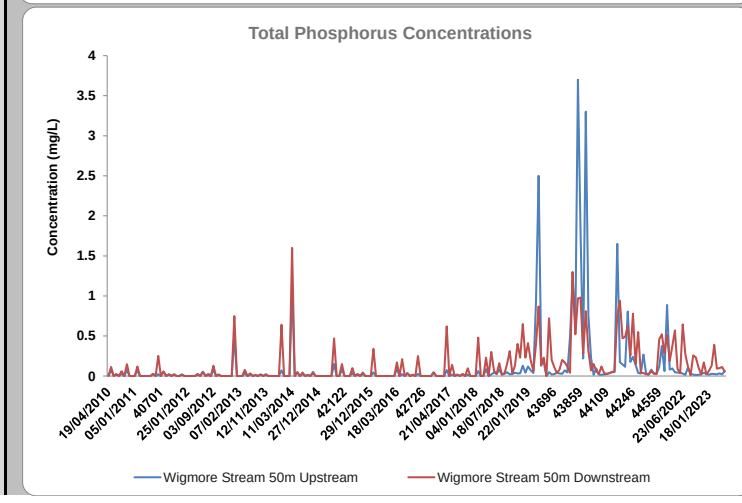


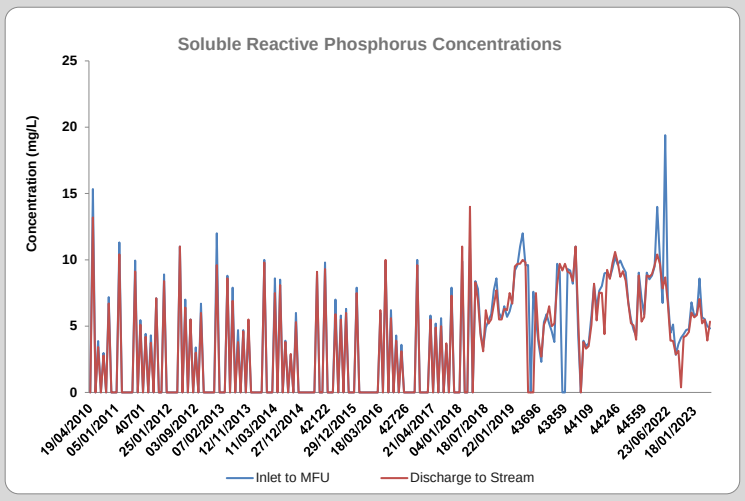


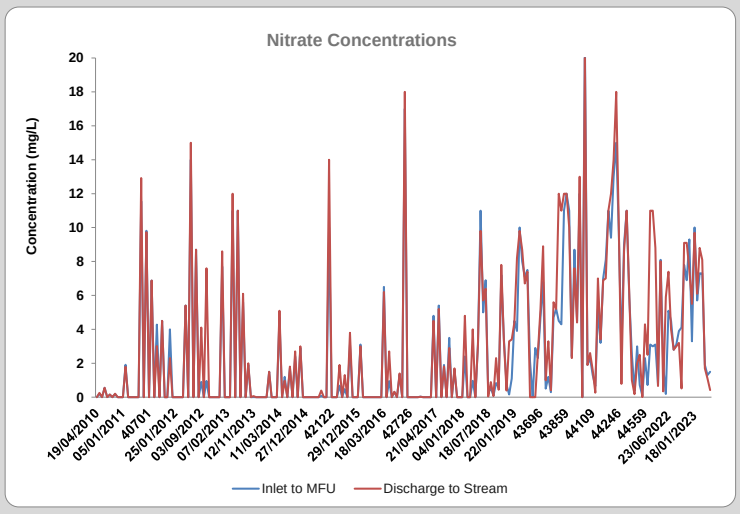


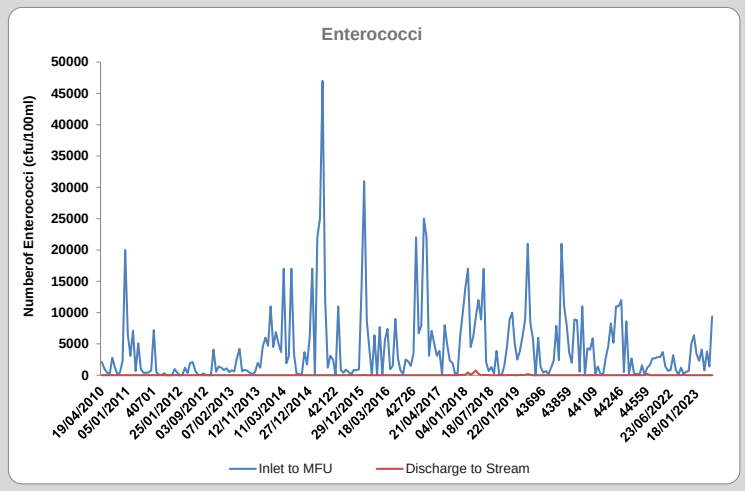


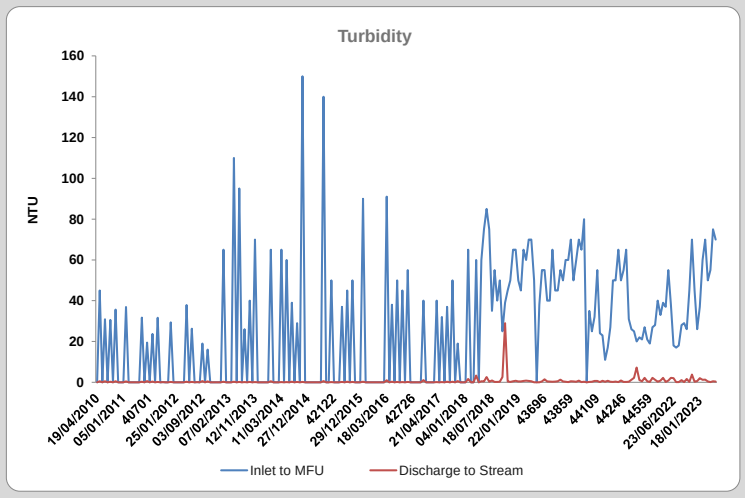


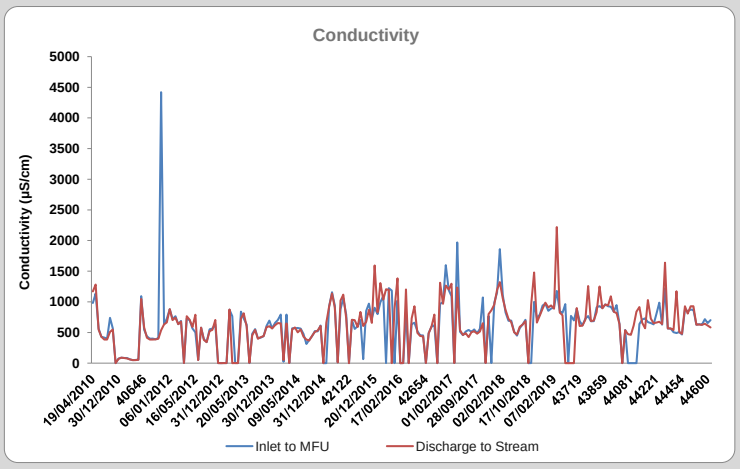


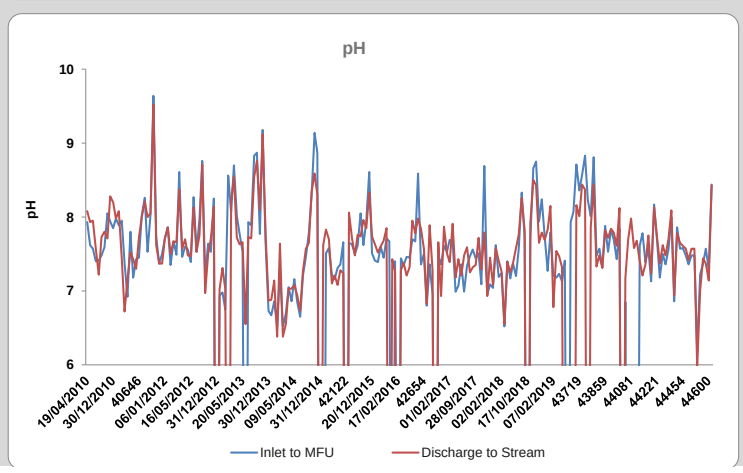

Soluble Reactive Phosphorus Concentrations
Concentration (mg/L)
Inlet to MFU
Discharge to Stream

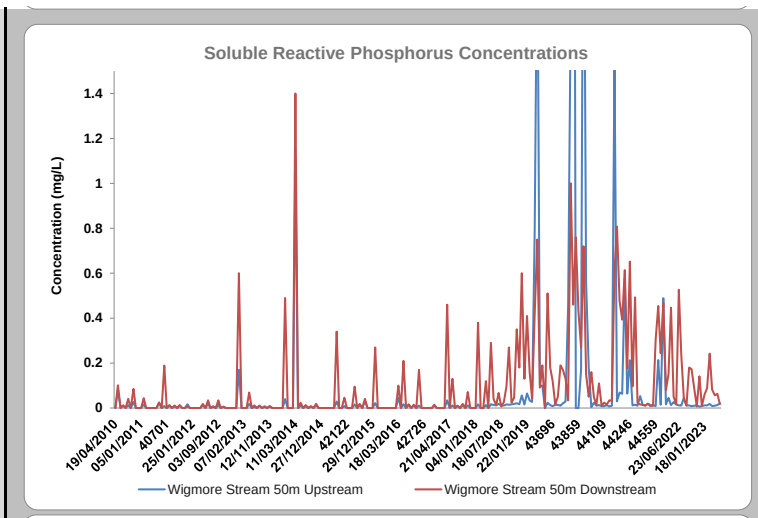

Nitrate Concentrations
Concentration (mg/L)
Inlet to MFU
Discharge to Stream

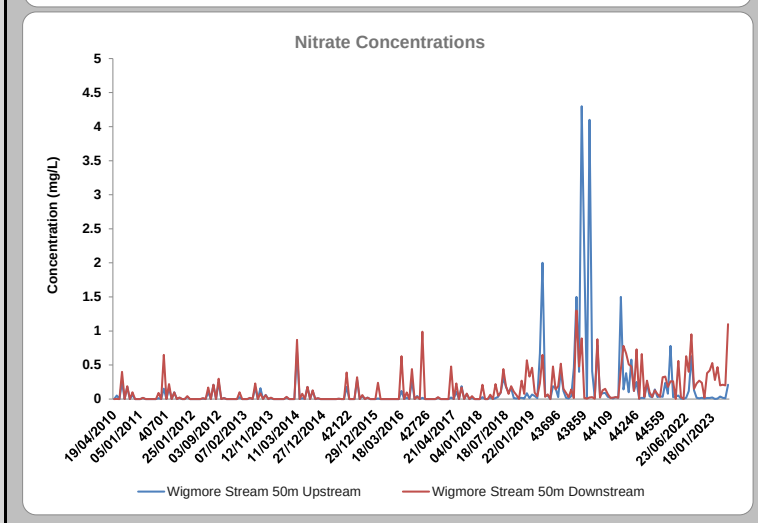

Enterococci
Numberof Enterococci (cfu/100ml)
Inlet to MFU
Discharge to Stream

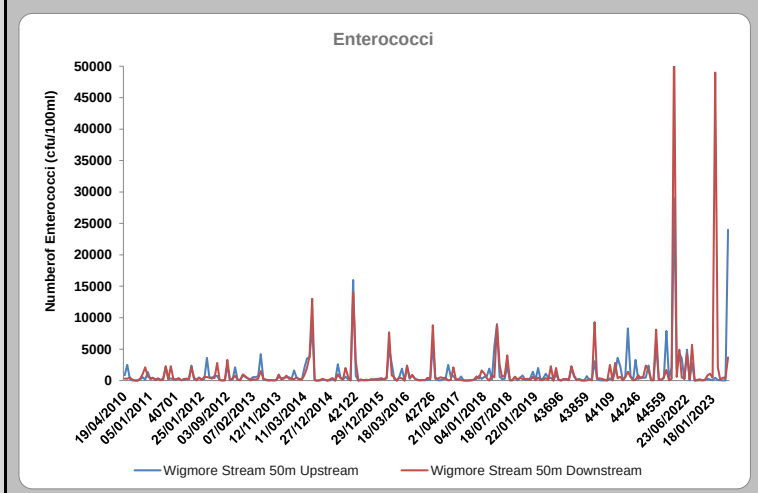

Turbidity
NTU
Inlet to MFU
Discharge to Stream

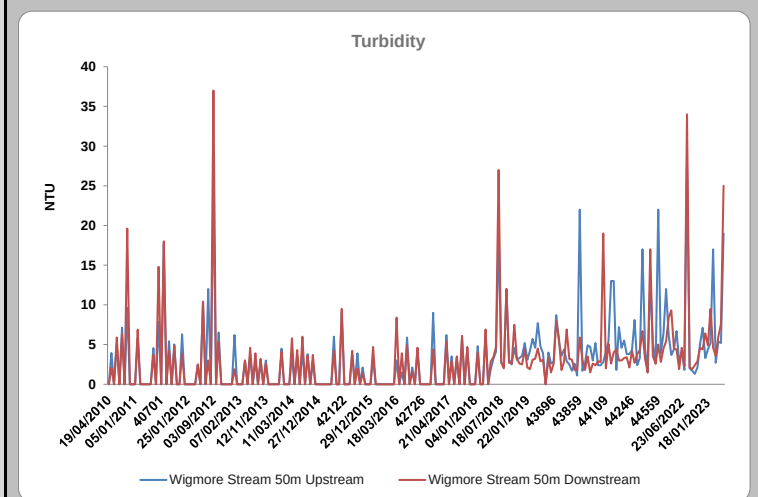

Conductivity
Conductivity (µS/cm)
Inlet to MFU
Discharge to Stream

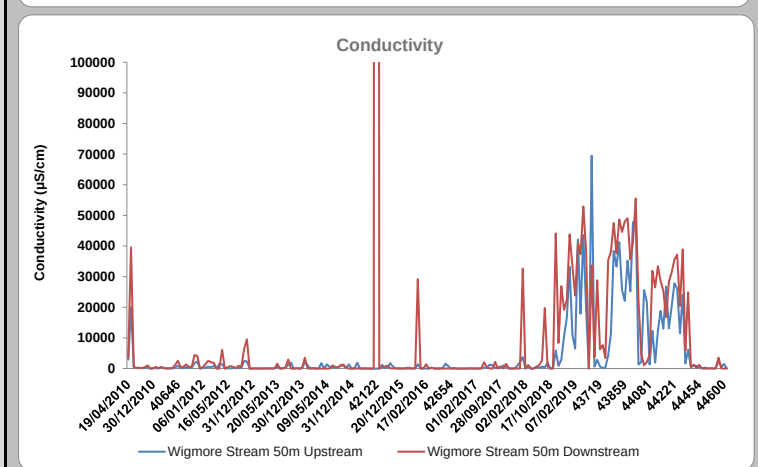

pH
pH
Inlet to MFU
Discharge to Stream

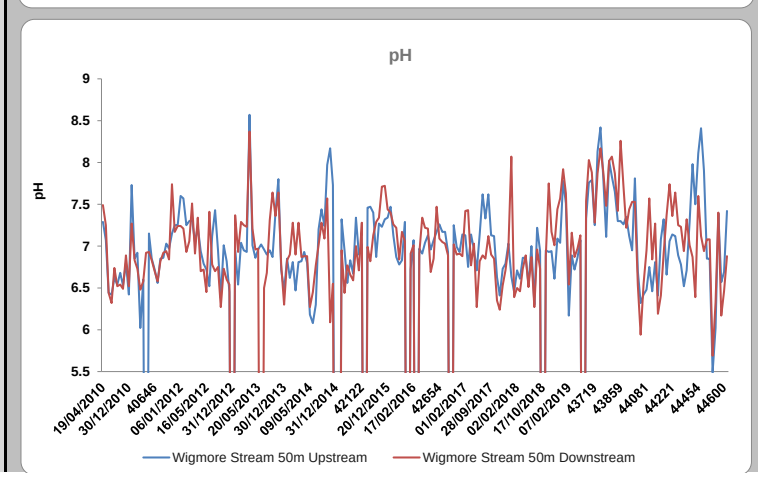

Soluble Reactive Phosphorus Concentrations
Concentration (mg/L)
Wigmore Stream 50m Upstream
Wigmore Stream 50m Downstream


Nitrate Concentrations
Concentration (mg/L)
Wigmore Stream 50m Upstream
Wigmore Stream 50m Downstream


Enterococci
Numberof Enterococci (cfu/100ml)
Wigmore Stream 50m Upstream
Wigmore Stream 50m Downstream


Turbidity
NTU
Wigmore Stream 50m Upstream
Wigmore Stream 50m Downstream


Conductivity
Conductivity (µS/cm)
Wigmore Stream 50m Upstream
Wigmore Stream 50m Downstream


pH
pH
Wigmore Stream 50m Upstream
Wigmore Stream 50m Downstream