

## **APPENDIX B**

### Summary of Water Quality Monitoring in Gei Wai

Date	Salinity (ppt)																									
	Maximum	Minimum	Average	GW#3	GW#6	GW#7	GW#8b	GW#10	GW#11	GW#12	GW#13	GW#14	GW#16/17	GW#18	GW#19	GW#21	GW#22a	GW#23a	Pond#8a	Pond#15b	Pond#15c	Pond#16b	Pond#17b	Pond#20a	Pond#24a	Pond#24f
27/11/2017	12.60	0.30	6.70	12.60	1.40	8.60	11.40	11.80	0.40	11.50	11.20	1.00	12.50	10.90	12.10	12.30	11.90	11.70	2.40	1.70	2.40	1.10	1.40	2.40	1.20	0.30
30/1/2018	16.20	0.35	11.87	16.20	16.18	16.10	15.29	14.92	14.88	14.01	14.06	13.38	13.58	14.25	13.19	15.51	14.75	15.39	3.20	3.93	1.99			2.85	15.25	0.35
5/7/2018	6.75	0.52	4.28	5.42	4.80	4.33			5.80	3.70	3.83	3.40	3.53	3.89	3.30	5.92	6.75	6.01	4.38	6.40	2.51	3.24	2.69	5.40	4.13	0.52
27/9/2018	6.92	0.67	2.86	2.50	3.50	3.60	3.10		3.20	2.14	2.40	2.70	2.67	2.70	2.49	4.88	6.92	3.40	1.46	2.79	1.82	0.67		1.82	3.60	1.70
29/11/2018	17.47	1.19	11.21	14.95	14.54	15.20	14.20	13.60	15.00	15.08	13.54	12.20	11.79	12.75	12.50	15.94	17.47	17.44	5.80	4.30	1.82	1.19		3.70	10.42	3.10
30/1/2019	24.03	3.20	16.87	22.50	21.18	21.28		20.85	21.03		20.04	18.56	20.14	19.34	19.32	23.30	24.03	21.81	13.17		3.20	3.20		4.50	19.23	3.90
28/3/2019	19.10	3.30	12.67	14.50	14.89	14.50	14.10	14.14	15.23	13.92	14.01	13.90	13.86	14.80	14.76	17.53	19.10	17.10	9.83	10.51	11.84	5.70	5.20	4.38	14.40	3.30
18/4/2019	13.07	2.80	9.66	11.80	12.23	12.13	10.95	12.13	11.60	10.83	10.70		9.28	10.92	10.25	13.07	10.70	12.65	8.28	8.40	9.30	4.70	4.33	3.77	11.67	2.80
12/7/2019	3.70	0.90	2.24	2.50	2.40	2.70	3.30	2.40	2.90	0.90	1.90	2.00	1.90	1.80	1.90	3.10	3.70	2.80	2.30	2.50	2.20	1.40	1.60	2.70	1.60	1.10
24/9/2019	12.47	0.80	4.85	6.50	5.80	4.80			7.57	3.40	3.80	7.20	7.10	4.77	12.47	6.37	7.60	10.50	1.40	2.47	0.80	1.30	1.10	2.10	3.90	0.80
17/12/2019	21.90	1.20	14.18	19.23	18.70	13.50	19.00	19.00	18.50	17.53	17.77		11.67	15.23	16.35	20.40	21.90	19.50	10.10	12.20	12.73	5.27	4.10	1.73	16.27	1.20
24/1/2020	19.73	3.00	17.29	19.50	19.50	19.40	19.73	18.87	19.00	18.20	16.20	16.20	17.97		16.30	19.60	18.57							3.00		
30/3/2020	19.10	2.50	14.85	19.10	18.71	10.13	18.51	18.45	14.50	16.44	17.31	16.80	13.38	16.18	15.71	18.23	16.89	14.87	17.64	13.16	13.21			3.21	16.85	2.50
17/4/2020	12.12	0.01	6.08	11.28	3.84	3.53	7.78	4.22	12.12	7.24	7.09	0.02	10.77	0.04	0.30	8.68	12.11	10.13		8.36	7.87	7.14		0.01	3.96	1.23
28/5/2020	12.24	0.89	6.47	8.11	6.24		5.87	8.92	9.85	6.11	10.97	5.56	4.63	5.11	5.19	7.04	8.19	4.78		0.89	7.38	6.82		3.20	12.24	2.22
28/6/2020	6.41	1.61	3.31	3.07	3.08	3.59	3.33	2.78	6.41	3.10	2.48	2.81	3.72	2.53	2.81		3.60	2.68		1.61	4.12	3.88		2.66	4.68	
31/7/2020	7.81	1.92	4.45	5.54	4.51		4.04	4.07	4.09	4.36	4.20	3.71	3.95	4.08	3.54	4.49	6.29	5.85	4.53	6.62	4.21	5.05	2.17	2.87	7.81	1.92
30/9/2020	8.77	0.90	3.86	4.48	3.84	7.88	3.73	3.42	3.69	2.97	2.97	3.46	3.90	4.04	3.78	6.23	8.77	5.54	2.97	4.12	3.08	1.93	2.51	1.44	3.18	0.90
24/11/2020	18.10	1.17	12.78	17.17	16.32	16.94		15.70	15.19	14.95	15.14	13.92	16.46	16.31	14.20	18.10	17.90	16.14	6.12	11.18	12.13	2.62	4.02	4.02	15.40	1.17
26/1/2021	19.07	1.58	14.39	18.75	16.67	16.99	15.67	16.83	16.58	15.98	15.17	14.47	15.52	15.87	14.75	17.32	19.07	17.84	15.58	15.05	14.79	11.78	1.86	5.01	17.79	1.58
9/3/2021	17.49	1.69	12.79	14.44	13.86	14.38	14.71	14.03	13.84	12.71	12.98	12.04	12.52	12.63	11.85	13.96	17.49	13.33	13.56	14.40	14.96	14.54	7.41	5.49	17.41	1.69

Date	pH																										
	Maximum	Minimum	Average	GW#3	GW#6	GW#7	GW#8b	GW#10	GW#11	GW#12	GW#13	GW#14	GW#16/17	GW#18	GW#19	GW#21	GW#22a	GW#23a	Pond#8a	Pond#15b	Pond#15c	Pond#16b	Pond#17b	Pond#20a	Pond#24a	Pond#24f	
27/11/2017	7.96	7.00	7.40	7.28	7.19	7.91	7.82	7.21	7.39	7.52	7.42	7.17	7.57	7.30	7.34	7.39					7.00	7.00			7.96		
5/7/2018	8.47	6.13	7.45	8.47	7.43	7.60			7.16	7.28	7.34	7.18	7.18	7.12	7.25	8.16	7.33	7.73	7.15	8.21	8.08	7.36	6.13	8.32	6.73	7.19	
27/9/2018	8.66	7.22	7.77	8.07	8.17	7.63	7.68		7.56	7.63	7.62	7.50	7.53	7.55	7.52	7.74	8.44	7.56	7.22	7.99	8.27	7.36		7.94	7.54	8.66	
29/11/2018	9.15	7.05	7.47	7.47	7.50	7.51	7.30	8.67	7.19	7.18	7.20	7.07	7.23	7.05	7.08	7.25	7.08	7.38	7.32	7.25	8.55	7.42		7.48	7.12	9.15	
30/1/2019	8.86	6.25	7.62	8.32	8.19	7.43		7.27	7.86		7.96	8.15	8.12	8.25	8.50	8.45	7.37	6.38	6.36		6.85	7.04		8.86	6.25	7.22	
28/3/2019	9.58	6.13	7.56	7.39	7.40	7.65	8.56	7.21	7.41	7.19	7.10	7.10	7.13	7.05	7.06	7.24	7.07	6.94	6.13	8.70	9.58	7.80	7.00	8.07	8.12	8.94	
18/4/2019	8.33	5.36	6.56	6.22	6.43	6.50	6.60	6.07	6.38	5.99	6.01		6.07	6.06	7.40	7.49	7.13	7.27	6.09	7.70	6.43	5.36	5.75	8.33	6.74	6.38	
12/7/2019	8.20	6.36	7.22	7.89	7.68	7.22	7.08	7.17	7.11	7.31	7.11	7.12	7.34	7.13	7.19	7.26	7.35	6.36	6.98	7.18	7.91	6.85	6.84	7.29	6.47	8.20	
24/9/2019	7.50	5.73	6.99	7.32	7.24	7.15			7.09	7.13	7.00	6.97	7.10	7.03	7.06	7.02	7.17	7.09	6.04	5.73	7.06	7.23	6.73	7.50	7.20	7.01	
17/12/2019	8.09	4.92	7.26	7.05	7.75	7.52	4.92	6.41	7.64	7.30	7.05		8.09	7.09	7.42	7.11	7.38	7.87	7.44	7.37	7.37	7.57	7.56	7.53	6.87	7.44	
24/1/2020	8.11	6.41	7.35	7.30	7.36	7.27	6.41	6.80	8.11	7.55	7.28	7.18	7.47		7.39	7.35	7.36							8.08			
30/3/2020	8.37	4.63	7.39	7.41	7.27	7.22	4.63	7.85	8.03	7.93	7.38	7.18	7.49	7.24	8.37	7.43	7.40	7.57	7.15	7.27	7.40			8.19	7.26	7.50	
17/4/2020	8.88	7.33	8.06	8.25	7.71	7.56	8.14	8.81	8.66	8.88	8.09	7.44	7.87	8.02	7.78	8.13	7.84	7.95		8.29	8.28	7.33		8.31	7.81	8.03	
28/5/2020	8.22	6.70	7.42	7.19	7.24		7.92	7.24	7.20	7.91	7.44	7.23	7.41	7.21	7.29	7.60	7.50	7.57		7.56	7.57	7.04		8.22	6.70	7.44	
28/6/2020	8.40	6.58	7.63	7.72	7.73	8.23	7.23	7.98	7.71	8.00	7.74	7.11	8.40	7.27	7.63		7.76	7.65		6.58	7.48	7.21		7.93	7.71		
31/7/2020	8.01	4.72	7.22	7.08	7.12		7.06	7.22	7.32	7.30	7.36	7.25	7.40	7.18	7.48	7.75	7.42	8.01	7.49	7.24	7.68	7.40	4.72	7.91	7.32	6.19	
30/9/2020	7.96	4.60	7.00	7.96	7.39	6.96	7.03	6.97	7.01	7.16	7.20	7.22	7.22	7.25	7.29	7.06	7.08	6.50	7.77	7.21	7.54	7.55	4.60	7.62	6.02	5.39	
24/11/2020	7.67	3.83	7.06	6.70	7.19	7.07		7.13	7.37	7.25	7.30	7.35	7.28	7.40	7.25	7.36	7.43	7.49	7.07	6.12	7.07	7.57	3.83	7.67	7.16	7.30	
26/1/2021	8.79	6.16	7.50	7.28	7.80	7.42	7.18	7.90	7.72	7.43	7.42	7.43	7.50	7.71	7.78	8.00	7.49	7.59	7.30	7.93	8.19	7.71	6.51	8.79	6.22	6.16	
9/3/2021	8.29	7.03	7.58	7.62	7.41	7.29	7.68	8.13	8.29	7.53	7.51	7.63	7.57	7.74	7.73	7.41	7.32	7.45	7.55	7.41	7.61	7.20	7.09	8.27	7.03	7.82	

Date	Dissolved Oxygen Concentration (mg/L)																									
	Maximum	Minimum	Average	GW#3	GW#6	GW#7	GW#8b	GW#10	GW#11	GW#12	GW#13	GW#14	GW#16/17	GW#18	GW#19	GW#21	GW#22a	GW#23a	Pond#8a	Pond#15b	Pond#15c	Pond#16b	Pond#17b	Pond#20a	Pond#24a	Pond#24f
27/11/2017	9.04	0.42	4.75	7.56	0.42	7.10	5.30	5.14	5.01	0.94	3.83	3.14	6.68	1.59	2.09	4.87	2.38	6.47	5.48	9.04	8.47	0.63	1.94	8.97	5.25	6.88
30/1/2018	9.33	2.38	6.90	7.01	6.84	6.99	8.11	7.17	7.78	7.78	7.70	6.81	6.45	6.03	6.76	8.10	6.54	8.97	9.33	7.29	2.38			8.07	6.04	2.69
5/7/2018	7.90	1.16	3.51	4.02	1.41	3.00			1.67	2.33	2.47	2.79	2.50	2.47	1.63	3.32	3.62	3.51	3.43	6.39	7.90	4.03	4.20	6.34	1.16	5.44
27/9/2018	15.98	1.23	4.86	4.12	3.09	1.84	4.36		2.19	1.79	2.17	1.30	2.89	3.84	2.67	3.48	9.66	4.22	1.23	15.98	12.10	2.71		7.69	7.07	7.62
29/11/2018	16.52	1.11	4.84	5.76	4.36	4.08	4.00	16.52	3.99	2.15	1.82	1.11	4.55	2.86	2.62	5.50	2.82	5.42	5.16	5.86	6.97	4.02		6.75	1.81	8.49
30/1/2019	7.88	2.14	5.56	5.34	4.75	5.45		5.73	5.96		4.67	6.83	4.94	7.29	7.87	6.87	5.55	2.33	5.62		4.16	4.98		7.88	7.20	2.14
28/3/2019	8.73	2.55	4.89	5.34	3.88	5.61	5.99	5.21	6.36	3.62	2.95	4.36	4.14	4.35	4.40	4.74	5.61	3.08	3.63	7.51	6.30	3.92	6.90	8.73	3.19	2.55
18/4/2019	10.80	1.52	5.38	4.09	5.41	5.45	4.26	7.33	7.17	4.75	1.84		4.61	3.35	2.66	5.47	3.25	5.16	4.76	10.80	8.48	5.07	7.37	9.77	5.90	1.52
12/7/2019	5.76	0.14	2.86	2.88	2.60	1.51	1.44	3.12	1.60	2.65	0.14	1.29	4.73	1.15	2.75	4.15	3.62	3.64	2.85	5.19	3.80	1.21	2.24	4.97	2.39	5.76
24/9/2019	5.51	0.09	3.20	3.03	3.15	1.88			4.22	3.05	2.87	3.17	4.12	3.38	5.51	4.23	4.77	4.17	0.28	2.94	1.85	5.48	0.09	4.33	4.12	0.55
30/3/2020	8.78	0.25	3.65	3.68	3.51	2.30	3.52	6.47	4.84	5.17	2.34	2.52	4.28	2.79	8.78	4.19	2.80	4.87	0.25	2.00	1.63			7.12	1.45	2.06
18/4/2020	9.62	6.21	7.45	7.02	7.29	7.46	7.47	7.53	6.96	8.62	6.94	7.28	6.21	8.26	7.86	7.04	6.28	6.36		9.23	9.62	6.26		7.45	7.00	8.35
28/5/2020	10.90	0.24	3.44	2.09	3.22		10.90	1.79	0.84	5.90	3.52	2.00	2.48	1.19	2.41	4.07	4.14	4.14		4.35	3.33	1.67		7.92	0.24	2.67
28/6/2020	11.33	3.53	6.15	5.73	5.33	8.18	7.24	6.61	3.53	5.64	5.70	3.75	11.33	5.97	6.99		4.56	5.71		6.59	6.18	4.61		7.19	6.09	
31/7/2020	6.39	0.87	3.18	1.90	1.69		2.26	2.94	3.41	1.37	2.97	1.33	3.15	1.11	4.19	4.84	3.78	5.33	2.36	3.49	5.78	1.86	6.39	5.78	0.87	3.24
30/9/2020	4.70	1.46	3.15	3.14	2.01	4.51	4.36	2.46	1.57	1.46	2.15	2.11	2.67	2.41	3.66	2.11	3.65	4.45	4.64	2.74	4.48	2.06	4.40	4.70	2.29	4.48
24/11/2020	6.60	0.86	3.59	3.84	4.26	6.60		4.50	4.54	0.86	2.79	2.79	2.87	4.58	1.42	4.61	4.07	4.53	3.13	1.63	1.67	3.77	4.93	4.74	1.83	5.13
26/1/2021	8.10	2.38	5.12	3.65	3.96	6.11	6.88	5.97	4.34	3.32	3.72	5.23	2.38	5.17	5.86	5.29	3.47	5.57	4.57	2.47	7.65	3.08	8.10	8.05	7.93	4.96
9/3/2021	7.90	2.17	5.75	6.45	7.82	6.61	6.91	7.58	7.90	6.22	6.30	7.14	5.27	6.36	5.65	6.73	5.69	4.47	5.22	3.40	4.61	2.97	2.17	6.27	5.69	4.79

Date	Temperature (Degree Celsius)																									
	Maximum	Minimum	Average	GW#3	GW#6	GW#7	GW#8b	GW#10	GW#11	GW#12	GW#13	GW#14	GW#16/17	GW#18	GW#19	GW#21	GW#22a	GW#23a	Pond#8a	Pond#15b	Pond#15c	Pond#16b	Pond#17b	Pond#20a	Pond#24a	Pond#24f
27/11/2017	25.54	21.71	23.42	24.02	24.22	23.38	23.82	24.79	24.00	24.61	25.54	23.67	23.52	23.55	23.98	23.53	22.61	23.39	22.26	22.33	21.98	22.67	21.71	23.52	22.86	22.60
30/1/2018	12.66	9.31	11.12	12.03	11.35	11.41	11.17	11.43	11.19	10.77	10.86	11.13	10.06	10.69	11.44	10.58	10.80	10.76	9.31	11.41	12.66			11.04	11.91	11.58
5/7/2018	31.08	29.31	30.31	30.35	30.26	30.44			30.57	30.41	30.29	30.30	29.31	30.28	30.33	30.43	30.47	30.39	30.19	30.40	31.08	30.92	30.29	30.46	29.71	29.70
27/9/2018	29.83	27.24	28.36	27.88	27.90	28.46	27.96		28.10	28.05	28.13	28.17	27.24	27.95	28.41	28.13	28.46	28.11	28.76	29.16	29.83	28.68		28.54	28.31	29.28
29/11/2018	21.93	19.98	20.92	20.89	19.98	20.48	20.75	20.42	20.60	20.91	20.85	20.94	20.18	20.93	21.07	20.52	21.11	21.35	21.82	21.23	20.95	20.79		21.10	21.93	21.44
30/1/2019	20.47	16.64	18.29	17.73	17.20	16.64		17.39	17.12		18.27	18.48	17.20	17.71	18.28	18.20	18.47	19.05	19.40		19.12	19.01		18.65	20.47	19.08
28/3/2019	24.92	22.78	23.38	23.38	22.88	23.18	23.00	23.29	23.22	23.22	23.32	23.39	23.13	23.16	23.41	23.35	23.47	23.96	24.92	24.01	23.43	23.40	23.01	23.41	23.49	22.78
18/4/2019	25.71	24.48	24.93	24.85	25.06	24.79	24.52	24.67	24.54	24.84	24.69		24.75	24.48	25.11	24.61	24.58	25.33	25.71	25.31	25.27	25.17	25.03	24.94	24.79	25.48
12/7/2019	31.50	28.02	29.99	29.77	29.37	29.42	29.37	29.71	29.72	28.02	29.44	29.58	29.01	29.35	29.57	29.06	29.44	30.33	30.45	31.30	31.23	31.15	31.44	30.09	31.40	31.50
24/9/2019	28.80	26.79	27.82	28.35	27.00	28.27			28.80	27.64	27.80	28.20	27.47	27.57	27.53	27.57	27.79	28.16	28.54	28.57	27.79	27.70	26.79	28.07	27.23	27.40
17/12/2019	21.74	16.40	19.66	21.49	20.73	20.70	20.80	20.25	20.71	20.62	20.34		21.15	20.71	21.74	21.09	21.23	17.30	17.32	17.60	18.67	17.98	17.11	20.99	17.49	16.40
24/1/2020	23.16	21.57	22.19	21.96	21.60	21.70	22.42	22.11	22.05	22.27	22.46	22.36	21.57		21.78	23.16	22.57							22.65		
30/3/2020	26.04	21.01	24.20	24.46	24.14	24.35	24.67	25.28	25.26	25.59	25.26	25.33	24.87	25.20	25.51	25.62	26.01	21.12	21.01	21.56	22.71			26.04	22.45	21.84
18/4/2020	27.96	24.50	26.17	25.64	25.92	25.09	25.05	25.54	24.67	24.50	26.83	25.13	25.85	26.28	26.48	26.72	27.01	26.94		27.42	27.09	26.73		26.42	26.21	27.96
28/5/2020	29.69	26.69	28.68	29.69	28.47		28.82	29.04	29.03	29.42	28.26	29.08	28.42	28.65	28.86	28.60	28.96	28.48		26.69	28.60	28.82		29.16	28.17	28.46
28/6/2020	33.85	30.09	31.99	31.63	32.35	31.96	32.05	31.59	32.44	32.74	33.00	32.52	33.85	32.86	32.55		30.09	31.38		30.88	31.68	31.43		31.81	31.07	
31/7/2020	31.91	28.16	30.24	29.70	30.62		30.43	31.11	30.87	31.21	31.26	31.13	30.70	30.82	30.77	30.75	31.04	28.58	28.16	29.41	29.51	29.96	29.09	31.91	29.58	28.61
30/9/2020	29.64	27.18	28.14	27.18	27.63	27.69	27.64	27.55	27.48	27.38	27.38	27.42	27.38	27.44	27.61	27.73	28.01	29.57	28.53	28.87	29.11	29.18	29.46	27.73	29.63	29.64
24/11/2020	24.30	22.59	23.45	23.27	23.05	22.97		23.34	23.36	23.64	23.62	23.57	23.51	23.50	23.90	23.17	23.42	22.97	22.59	23.74	24.30	24.08	23.30	23.80	23.76	23.12
26/1/2021	20.76	18.37	19.45	18.37	18.39	18.62	19.20	19.35	19.43	19.57	19.64	19.75	19.13	19.86	20.17	20.09	19.89	19.72	18.99	19.42	19.11	19.64	19.23	20.76	19.66	19.43
9/3/2021	21.16	18.98	19.89	19.71	19.69	19.83	19.90	20.06	19.78	19.98	20.13	20.16	19.30	19.30	20.00	18.98	19.09	19.50	20.98	21.16	20.33	20.08	21.01	18.98	19.86	19.77