

Table S1. Analytical results of the measured physicochemical parameters in the collected surface water samples during summer 2018.

Sample No.	pH	TDS	EC	Unit	K ⁺	Na ⁺	Mg ²⁺	Ca ²⁺	Sum	Cl ⁻	SO ₄ ²⁻	Alkalinity	Sum	R.E
1	7.4	316.9	495.2	ppm	4.7	35.5	7.42	38.7	4.21	21.2	38.1	171.3	4.20	0.0012
				epm	0.12	1.54	0.61	1.94		0.60	0.79	2.81		
				e %	2.86	36.67	14.50	45.97		14.22	18.90	66.88		
2	7.1	411	642.2	ppm	5.6	40.5	19.4	41.8	5.59	18.7	87.9	197.1	5.59	0.00006
				epm	0.14	1.76	1.60	2.09		0.53	1.83	3.23		
				e %	2.57	31.50	28.54	37.39		9.42	32.76	57.81		
3	8.2	234.1	365.8	ppm	4.8	28.8	8.4	22.3	3.18	17.4	41.7	110.7	3.17	0.00116
				epm	0.12	1.25	0.69	1.12		0.49	0.87	1.81		
				e %	3.87	39.36	21.72	35.05		15.44	27.37	57.18		
4	7.8	268.5	419.5	ppm	6.8	29.6	9.4	27.9	3.63	22.4	38.2	134.2	3.63	0.00035
				epm	0.17	1.29	0.77	1.40		0.63	0.80	2.20		
				e %	4.80	35.46	21.30	38.44		17.40	21.94	60.66		
5	7.9	279	435.9	ppm	4.8	29.4	11.7	28.4	3.78	18.6	41.3	144.8	3.76	0.00337
				epm	0.12	1.28	0.96	1.42		0.52	0.86	2.37		
				e %	3.25	33.79	25.43	37.53		13.85	22.74	62.74		
6	8.4	433.1	676.7	ppm	8.4	47.6	23.8	33.5	5.92	37.6	51.8	230.4	5.92	0.00015
				epm	0.22	2.07	1.96	1.68		1.06	1.08	3.78		
				e %	3.64	34.98	33.08	28.31		17.91	18.24	63.85		
7	7.8	453.9	709.2	ppm	8.6	47.3	18.5	46.4	6.12	32.3	62.4	238.4	6.12	0.00003
				epm	0.22	2.06	1.52	2.32		0.91	1.30	3.91		
				e %	5.24	48.86	36.14	55.12		21.67	30.96	93.07		
8	7.7	430.8	673.1	ppm	4.3	42.4	18.7	48.7	5.93	36.2	69.1	211.4	5.92	0.00014
				epm	0.11	1.84	1.54	2.44		1.02	1.44	3.47		
				e %	1.97	32.98	27.51	43.56		18.24	25.76	62.01		
9	8.1	438.4	685	ppm	6.7	47.8	20.3	39.7	5.90	38.3	31.4	254.2	5.9	0.00036
				epm	0.17	2.08	1.67	1.99		1.08	0.65	4.17		
				e %	5.40	65.33	52.48	62.40		33.99	20.61	131.31		
10	7.9	253	395.3	ppm	5.7	20.7	12.7	27.6	3.47	17.1	47.3	121.9	3.47	0.00073
				epm	0.15	0.90	1.04	1.38		0.48	0.99	2.00		
				e %	4.03	24.80	28.78	38.02		13.28	27.17	55.10		
11	7.8	269.3	420.8	ppm	3.8	21.8	14.7	28.7	3.69	17.7	41.3	141.3	3.68	0.00187
				epm	0.10	0.95	1.21	1.44		0.50	0.86	2.32		
				e %	2.58	25.05	31.95	37.93		13.18	22.74	61.22		
12	8.3	264.3	413	ppm	4.3	27.6	8.4	29.8	3.49	14.2	31.3	148.7	3.49	0.00018
				epm	0.11	1.20	0.69	1.49		0.40	0.65	2.44		
				e %	1.86	20.28	11.67	25.18		6.76	11.02	41.21		
13	8.1	253.2	395.6	ppm	4.2	18.7	12.3	30.4	3.45	14.1	41.7	131.8	3.43	0.00373
				epm	0.11	0.81	1.01	1.52		0.40	0.87	2.16		
				e %	2.56	19.32	24.03	36.11		9.46	20.69	51.45		
14	8.1	243.5	380.5	ppm	4.8	18.5	11.7	28.4	3.31	17.3	34.4	128.4	3.31	0.00010
				epm	0.12	0.80	0.96	1.42		0.49	0.72	2.10		
				e %	2.20	14.39	17.21	25.40		8.72	12.82	37.66		
15	8.2	260.5	407	ppm	5.7	28.4	6.3	31.7	3.48	19.6	36.6	132.2	3.48	0.00032
				epm	0.15	1.23	0.52	1.59		0.55	0.76	2.17		
				e %	4.59	38.82	16.29	49.83		17.40	24.03	68.29		
16	7.8	361.2	564.4	ppm	4.5	29.6	16.7	39.2	4.74	16.1	22.3	232.8	4.74	0.00013
				epm	0.12	1.29	1.37	1.96		0.45	0.46	3.82		
				e %	3.18	35.46	37.84	54.00		12.50	12.81	105.23		
17	7.9	246.4	385	ppm	5.8	18.6	12.4	26.4	3.30	14.2	28.3	140.7	3.30	0.00015
				epm	0.15	0.81	1.02	1.32		0.40	0.59	2.31		
				e %	3.93	21.37	26.95	34.89		10.57	15.58	60.96		

All parameters are expressed in mg/L except pH and EC ($\mu\text{S}/\text{cm}$) – Alkalinity was expressed as HCO_3^- , since CO_3^{2-} was below detection limit.

Table S1. Continued

Sample No.	pH	TDS	EC	Unit	K ⁺	Na ⁺	Mg ²⁺	Ca ²⁺	Sum	Cl ⁻	SO ₄ ²⁻	Alkalinity	Sum	R.E
18	7.6	245.8	384.1	ppm	6.7	16.5	12.2	28.9	3.34	16.4	36.7	128.4	3.33	0.00090
				epm	0.17	0.72	1.00	1.45		0.46	0.76	2.10		
				e %	2.90	12.12	16.96	24.42		7.81	12.93	35.58		
19	8.1	291.2	455	ppm	4.2	28.5	14.3	27.8	3.91	19.3	28.4	168.7	3.90	0.00152
				epm	0.11	1.24	1.18	1.39		0.54	0.59	2.77		
				e %	2.56	29.44	27.94	33.02		12.95	14.09	65.86		
20	7.7	326.7	510.5	ppm	8.6	29.7	13.4	36.8	4.45	27.7	47.3	163.2	4.44	0.00143
				epm	0.22	1.29	1.10	1.84		0.78	0.99	2.68		
				e %	3.94	23.10	19.71	32.92		13.96	17.63	47.87		
21	7.8	252	393.8	ppm	3.7	16.2	12.1	31.3	3.36	13.7	21.6	153.4	3.35	0.00128
				epm	0.09	0.70	1.00	1.57		0.39	0.45	2.51		
				e %	2.98	22.14	31.28	49.20		12.16	14.18	79.24		
22	7.7	290.4	453.8	ppm	4.4	27.3	11.4	31.8	3.83	14.3	27.4	173.8	3.82	0.00058
				epm	0.11	1.19	0.94	1.59		0.40	0.57	2.85		
				e %	3.11	32.70	25.83	43.81		11.11	15.74	78.56		
23	7.6	229.2	358.1	ppm	4.6	16.2	11.1	27.4	3.11	13.3	33.4	123.2	3.09	0.00242
				epm	0.12	0.70	0.91	1.37		0.37	0.70	2.02		
				e %	3.12	18.62	24.13	36.21		9.90	18.39	53.38		
24	7.7	287.5	449.2	ppm	3.1	21.1	10.3	39.4	3.81	15.7	27.4	170.5	3.81	0.00075
				epm	0.08	0.92	0.85	1.97		0.44	0.57	2.80		
				e %	1.34	15.50	14.31	33.29		7.48	9.65	47.25		
25	7.6	248.1	387.7	ppm	6.9	17.4	11.2	29.6	3.33	16.5	30.9	135.6	3.33	0.00045
				epm	0.18	0.76	0.92	1.48		0.46	0.64	2.22		
				e %	4.20	17.97	21.88	35.16		11.07	15.33	52.94		
26	7.8	250.9	392	ppm	7.8	19.7	11.4	27.6	3.37	17.8	30.4	136.2	3.37	0.00096
				epm	0.20	0.86	0.94	1.38		0.50	0.63	2.23		
				e %	3.58	15.32	16.77	24.69		8.97	11.33	39.95		
27	8.5	413.3	645.8	ppm	8.4	37.6	18.3	44.7	5.59	31.2	51.7	221.4	5.59	0.00041
				epm	0.22	1.63	1.50	2.24		0.88	1.08	3.63		
				e %	6.77	51.39	47.31	70.26		27.69	33.94	114.36		
28	7.7	214.2	334.7	ppm	6.1	12.7	13.4	22.7	2.95	19.4	23.2	116.7	2.94	0.00045
				epm	0.16	0.55	1.10	1.14		0.55	0.48	1.91		
				e %	4.31	15.21	30.36	31.27		15.07	13.33	52.75		
29	7.8	241.3	377	ppm	4.7	18.3	10.4	28.9	3.22	13.4	26.7	138.9	3.21	0.00088
				epm	0.12	0.80	0.86	1.45		0.38	0.56	2.28		
				e %	3.19	21.03	22.61	38.19		9.98	14.70	60.18		
30	7.8	282.6	441.6	ppm	4.6	19.5	11.3	37.4	3.77	15.8	31.3	162.7	3.76	0.00009
				epm	0.12	0.85	0.93	1.87		0.45	0.65	2.67		
				e %	1.99	14.33	15.70	31.60		7.52	11.02	45.09		
31	7.7	219.5	343	ppm	5.3	13.4	13.7	23.9	3.04	19.2	28.9	115.1	3.03	0.00170
				epm	0.14	0.58	1.13	1.20		0.54	0.60	1.89		
				e %	3.23	13.84	26.77	28.39		12.88	14.34	44.94		
32	7.6	429.6	671.3	ppm	4.8	48.9	18.7	42.1	5.89	42.2	51.6	221.3	5.89	0.00003
				epm	0.12	2.13	1.54	2.11		1.19	1.08	3.63		
				e %	2.20	38.03	27.51	37.66		21.27	19.23	64.91		
33	7.7	229.8	359.1	ppm	7.3	11.8	13.7	26.5	3.15	18.3	31.1	121.1	3.15	0.00051
				epm	0.19	0.51	1.13	1.33		0.52	0.65	1.99		
				e %	5.88	16.13	35.42	41.65		16.24	20.42	62.55		
34	7.6	223.6	349.4	ppm	6.1	13.3	14.4	22.5	3.04	14.8	28.2	124.3	3.04	0.00029
				epm	0.16	0.58	1.18	1.13		0.42	0.59	2.04		
				e %	4.31	15.93	32.63	31.00		11.49	16.20	56.18		
35	7.9	258	403.1	ppm	4.8	22.1	11.4	28.6	3.45	16.7	24.1	150.3	3.44	0.00218
				epm	0.12	0.96	0.94	1.43		0.47	0.50	2.46		
				e %	3.25	25.40	24.78	37.80		12.43	13.27	65.12		
36	8.2	220.2	344.1	ppm	4.6	12.8	17.3	18.4	3.02	14.2	24.7	128.2	3.02	0.00016
				epm	0.12	0.56	1.42	0.92		0.40	0.51	2.10		
				e %	1.99	9.41	24.04	15.55		6.76	8.70	35.53		

Table S1. Continued

Sample No.	pH	TDS	EC	Unit	K ⁺	Na ⁺	Mg ²⁺	Ca ²⁺	Sum	Cl ⁻	SO ₄ ²⁻	Alkalinity	Sum	R.E
37	7.6	427.1	667.3	ppm	9.3	32.7	23.1	45.2	5.82	35.3	42.7	238.8	5.80	0.00182
				epm	0.24	1.42	1.90	2.26		0.99	0.89	3.91		
				e %	5.67	33.78	45.13	53.69		23.68	21.18	93.23		
38	7.7	450.7	704.2	ppm	8.5	46.7	11.1	58.6	6.09	42.3	54.7	228.8	6.08	0.00076
				epm	0.22	2.03	0.91	2.93		1.19	1.14	3.75		
				e %	3.90	36.32	16.33	52.42		21.32	20.39	67.11		
39	7.8	460.6	719.7	ppm	8.6	44.7	20.8	47.7	6.26	34.9	64.7	239.2	6.25	0.00057
				epm	0.22	1.94	1.71	2.39		0.98	1.35	3.92		
				e %	6.93	61.10	53.77	74.98		30.98	42.47	123.56		
40	7.2	427.3	667.7	ppm	7.7	38.9	21.2	47.6	6.01	42.3	87.9	181.7	6.00	0.00089
				epm	0.20	1.69	1.74	2.38		1.19	1.83	2.98		
				e %	5.44	46.60	48.04	65.58		32.85	50.49	82.13		
41	8.1	272.6	425.9	ppm	4.8	29.7	12.4	24.1	3.64	17.2	28.1	156.3	3.63	0.00095
				epm	0.12	1.29	1.02	1.21		0.48	0.59	2.56		
				e %	3.25	34.13	26.95	31.85		12.81	15.47	67.72		
42	7.7	437.1	683	ppm	7.8	41.3	11.7	58.3	5.87	36.2	51.5	230.3	5.87	0.00041
				epm	0.20	1.80	0.96	2.92		1.02	1.07	3.78		
				e %	3.38	30.35	16.26	49.26		17.24	18.14	63.82		
43	7.6	424.1	662.7	ppm	7.8	31.9	21.7	48.7	5.81	40.3	41.3	232.4	5.81	0.00009
				epm	0.20	1.39	1.78	2.44		1.14	0.86	3.81		
				e %	4.75	32.95	42.40	57.85		27.03	20.49	90.73		
44	7.9	265.9	415.5	ppm	4.2	21.6	13.7	29.8	3.66	16.8	51.2	128.6	3.65	0.00210
				epm	0.11	0.94	1.13	1.49		0.47	1.07	2.11		
				e %	1.93	16.80	20.16	26.66		8.47	19.08	37.72		
45	7.8	380.6	594.7	ppm	4.4	32.8	16.3	41.7	4.96	15.6	21.4	248.4	4.96	0.00070
				epm	0.11	1.43	1.34	2.09		0.44	0.45	4.07		
				e %	3.55	44.83	42.14	65.54		13.85	14.05	128.31		
46	8.2	251.7	393.3	ppm	4.1	19.8	16.2	22.1	3.40	14.3	27.4	147.8	3.40	0.00098
				epm	0.11	0.86	1.33	1.11		0.40	0.57	2.42		
				e %	2.90	23.72	36.71	30.45		11.11	15.74	66.81		
47	7.6	397.9	621.7	ppm	7.7	38.4	13.3	47.5	5.34	31.2	41.7	218.1	5.32	0.00119
				epm	0.20	1.67	1.09	2.38		0.88	0.87	3.58		
				e %	5.22	44.13	28.91	62.77		23.23	22.96	94.50		
48	7.8	228.4	356.9	ppm	4.1	17.5	14.3	21.2	3.10	14.7	25.1	131.5	3.09	0.00149
				epm	0.11	0.76	1.18	1.06		0.41	0.52	2.16		
				e %	1.78	12.86	19.87	17.91		7.00	8.84	36.44		
49	7.7	357.2	558.1	ppm	7.8	31.3	14.9	41.7	4.87	31.6	46.4	183.5	4.87	0.00064
				epm	0.20	1.36	1.23	2.09		0.89	0.97	3.01		
				e %	4.75	32.33	29.11	49.53		21.20	23.02	71.64		
50	7.8	377.7	590.2	ppm	9.4	33.7	16.3	41.1	5.10	31.4	40.2	205.6	5.09	0.00090
				epm	0.24	1.47	1.34	2.06		0.88	0.84	3.37		
				e %	4.31	26.21	23.98	36.76		15.83	14.98	60.30		
51	7.3	454.6	710.3	ppm	7.8	47.4	20.8	48.4	6.39	47.6	93.9	188.7	6.39	0.00007
				epm	0.20	2.06	1.71	2.42		1.34	1.96	3.09		
				e %	6.29	64.79	53.77	76.08		42.25	61.64	97.47		
52	8.1	256.2	400.3	ppm	6.6	22.1	11.3	27.4	3.43	13.6	38.4	136.8	3.43	0.00053
				epm	0.17	0.96	0.93	1.37		0.38	0.80	2.24		
				e %	4.66	26.48	25.60	37.75		10.56	22.06	61.83		
53	7.7	235.8	368.4	ppm	6.8	17.7	13.4	23.8	3.24	20.1	31.2	122.8	3.23	0.00102
				epm	0.17	0.77	1.10	1.19		0.57	0.65	2.01		
				e %	4.61	20.34	29.13	31.45		14.96	17.18	53.21		
54	7.4	361.9	565.5	ppm	9.5	28.7	15.6	37.9	4.67	3.8	41.6	224.8	4.66	0.00111
				epm	0.24	1.25	1.28	1.90		0.11	0.87	3.69		
				e %	4.12	21.09	21.68	32.03		1.81	14.65	62.30		
55	8.2	255.5	399.2	ppm	3.8	22.7	11.3	28.6	3.44	13.7	37.9	137.5	3.43	0.00205
				epm	0.10	0.99	0.93	1.43		0.39	0.79	2.25		
				e %	2.31	23.45	22.08	33.97		9.19	18.80	53.68		

Table S1. Continued.

Sample No.	B	Cd	Cr	Cu	Fe	Mn	Ni	Pb	Zn	F ⁻	NO ₃ ⁻
1	0.07	0.0006	0.04	0.01	0.48	0.05	0.001	0.001	0.002	0.28	1.47
2	0.08	0.0002	0.06	0.01	0.22	0.12	0.01	0.001	0.001	0.17	4.32
3	0.16	0.002	0.05	0.01	0.53	0.11	0.01	0.002	0.001	0.16	2.21
4	0.17	0.0003	0.07	0.01	0.38	0.13	0.01	0.001	0.001	0.28	1.43
5	0.05	0.001	0.04	0.01	0.37	0.06	0.01	0.0032	0.001	0.26	1.41
6	0.05	0.0006	0.032	0.01	0.21	0.04	0.02	0.01	0.002	0.14	1.82
7	0.04	0.0006	0.31	0.01	0.04	0.05	0.04	0.001	0.0043	0.12	1.61
8	0.07	0.0011	0.02	0.01	0.12	0.06	0.001	0.001	0.004	0.11	1.44
9	0.06	0.001	0.11	0.01	0.11	0.05	0.002	0.002	0.003	0.13	1.25
10	0.05	0.0007	0.02	0.01	0.25	0.02	0.002	0.001	0.003	0.28	1.31
11	0.05	0.015	0.02	0.01	0.11	0.03	0.001	0.001	0.005	0.27	1.48
12	0.07	0.0004	0.02	0.01	0.13	0.05	0.002	0.001	0.002	0.28	1.52
13	0.05	0.031	0.01	0.01	0.11	0.04	0.002	0.001	0.0054	0.21	1.28
14	0.07	0.017	0.03	0.001	0.22	0.04	0.001	0.01	0.001	0.14	1.42
15	0.22	0.0087	0.11	0.02	1.17	0.07	0.01	0.12	0.002	0.28	1.87
16	0.08	0.005	0.06	0.01	0.12	0.05	0.01	0.24	0.001	0.14	1.26
17	0.07	0.003	0.03	0.01	0.13	0.04	0.01	0.001	0.003	0.13	1.14
18	0.06	0.003	0.04	0.01	0.21	0.11	0.01	0.001	0.003	0.32	1.42
19	0.05	0.004	0.03	0.01	0.24	0.03	0.02	0.001	0.002	0.11	1.21
20	0.08	0.004	0.05	0.01	0.22	0.24	0.01	0.26	0.02	0.16	1.27
21	0.07	0.0043	0.06	0.01	0.37	0.13	0.01	0.27	0.001	0.32	1.12
22	0.05	0.0005	0.02	0.001	0.23	0.13	0.001	0.001	0.004	0.17	1.22
23	0.04	0.031	0.02	0.01	0.11	0.04	0.001	0.001	0.003	0.12	1.13
24	0.06	0.005	0.01	0.001	0.23	0.12	0.002	0.001	0.0042	0.11	1.11
25	0.11	0.021	0.02	0.001	0.11	0.04	0.001	0.001	0.003	0.28	1.16
26	0.06	0.0004	0.032	0.001	0.11	0.06	0.001	0.001	0.003	0.11	1.33
27	0.05	0.0007	0.01	0.01	0.23	0.04	0.02	0.01	0.002	0.14	1.82
28	0.41	0.0005	0.051	0.01	0.04	0.03	0.04	0.04	0.16	0.32	2.43
29	0.08	0.004	0.05	0.01	0.37	0.17	0.01	0.28	0.001	0.33	1.04
30	0.05	0.0006	0.03	0.001	0.21	0.12	0.001	0.001	0.003	0.15	1.41
31	0.46	0.0004	0.041	0.01	0.04	0.03	0.03	0.04	0.18	0.36	2.4
32	0.18	0.0008	0.053	0.01	0.28	0.43	0.02	0.001	0.002	0.57	1.14
33	0.44	0.0004	0.064	0.01	0.04	0.27	0.03	0.05	0.15	0.28	2.4
34	0.16	0.0005	0.045	0.001	0.06	0.05	0.02	0.001	0.003	0.26	2.4
35	0.06	0.004	0.06	0.02	0.39	0.13	0.01	0.31	0.001	0.27	1.02
36	0.17	0.003	0.05	0.01	0.48	0.12	0.01	0.002	0.001	0.22	2.21
37	0.07	0.003	0.03	0.01	0.21	0.23	0.04	0.001	0.002	0.48	1.03
38	0.07	0.0004	0.042	0.01	0.22	0.21	0.03	0.002	0.003	0.47	1.14
39	0.05	0.0006	0.31	0.01	0.04	0.04	0.04	0.001	0.004	0.12	1.61
40	0.12	0.0005	0.04	0.001	0.67	0.05	0.001	0.001	0.21	0.67	1.32
41	0.07	0.0007	0.031	0.01	0.23	0.03	0.03	0.001	0.002	0.24	1.11
42	0.06	0.0003	0.03	0.01	0.21	0.22	0.04	0.001	0.003	0.47	1.14
43	0.15	0.004	0.041	0.01	0.21	0.21	0.03	0.002	0.003	0.58	1.01
44	0.03	0.031	0.03	0.01	0.13	0.04	0.002	0.001	0.004	0.22	1.28
45	0.08	0.004	0.07	0.01	0.11	0.06	0.01	0.26	0.002	0.13	1.27
46	0.06	0.0007	0.061	0.001	0.04	0.03	0.03	0.001	0.003	0.11	0.5
47	0.08	0.003	0.053	0.01	0.12	0.13	0.03	0.002	0.002	0.52	1.01
48	0.15	0.0007	0.032	0.001	0.04	0.04	0.03	0.001	0.002	0.27	1.03
49	0.12	0.005	0.13	0.01	0.18	0.27	0.01	0.003	0.01	0.57	1.12
50	0.06	0.004	0.05	0.01	0.17	0.12	0.02	0.29	0.001	0.14	1.29
51	0.12	0.0004	0.027	0.001	0.67	0.05	0.001	0.001	0.21	0.68	1.28
52	0.01	0.022	0.004	0.01	0.12	0.01	0.002	0.01	0.003	0.27	1.31
53	0.12	0.001	0.041	0.01	0.04	0.23	0.04	0.002	0.002	0.31	2.34
54	0.47	0.0005	0.041	0.01	0.21	0.03	0.03	0.05	0.14	0.44	1.02
55	0.01	0.022	0.003	0.01	0.29	0.01	0.002	0.01	0.003	0.31	1.37

Table S2. Analytical results of the measured physicochemical parameters in the collected surface water samples during summer 2019.

Sample No.	pH	TDS	EC	Unit	K ⁺	Na ⁺	Mg ²⁺	Ca ²⁺	Sum	Cl ⁻	SO ₄ ²⁻	Alkalinity	Sum	R.E
1	7.9	332	519	ppm	5.50	37.00	8.68	40.20	4.47	27.00	44.50	169.62	4.47	0.0005
				epm	0.14	1.61	0.71	2.01		0.76	0.93	2.78		
				e %	3.15	35.96	15.96	44.93		17.02	20.75	62.23		
2	7.5	460	719	ppm	6.00	46.50	22.80	46.00	6.35	23.00	98.20	217.50	6.26	0.0072
				epm	0.15	2.02	1.88	2.30		0.65	2.05	3.57		
				e %	2.42	31.84	29.52	36.22		10.35	32.68	56.96		
3	8.5	264	413	ppm	5.60	31.60	9.16	26.60	3.60	20.00	48.60	118.04	3.51	0.0126
				epm	0.14	1.37	0.75	1.33		0.56	1.01	1.94		
				e %	3.99	38.16	20.92	36.94		16.05	28.84	55.12		
4	8	300	469	ppm	7.10	32.00	11.88	31.60	4.13	25.00	48.90	144.70	4.10	0.0042
				epm	0.18	1.39	0.98	1.58		0.70	1.02	2.37		
				e %	4.41	33.69	23.65	38.25		17.20	24.88	57.93		
5	8	315	462	ppm	5.90	34.50	15.36	31.60	4.49	25.00	48.90	153.64	4.24	0.0289
				epm	0.15	1.50	1.26	1.58		0.70	1.02	2.52		
				e %	3.37	33.37	28.10	35.15		15.67	22.67	56.04		
6	8.7	477	745	ppm	10.10	55.00	24.96	38.00	6.60	43.00	64.40	241.64	6.51	0.0067
				epm	0.26	2.39	2.05	1.90		1.21	1.34	3.96		
				e %	3.92	36.22	31.09	28.78		18.59	20.60	60.81		
7	8	504	788	ppm	10.50	51.50	21.60	52.60	6.91	41.00	71.80	254.50	6.82	0.0066
				epm	0.27	2.24	1.78	2.63		1.15	1.50	4.17		
				e %	6.02	50.05	39.71	58.79		25.85	33.48	93.37		
8	8	492	769	ppm	6.00	48.00	22.56	54.80	6.84	46.00	84.30	230.34	6.83	0.0005
				epm	0.15	2.09	1.86	2.74		1.30	1.76	3.78		
				e %	2.42	32.86	29.21	43.15		20.70	28.06	60.33		
9	8.3	506	791	ppm	8.00	55.00	22.56	48.40	6.87	46.00	47.70	278.34	6.85	0.0014
				epm	0.21	2.39	1.86	2.42		1.30	0.99	4.56		
				e %	5.70	66.41	51.52	67.21		36.91	28.30	129.96		
10	8.1	289	452	ppm	6.20	25.60	14.40	31.00	4.01	22.00	58.10	132.10	4.00	0.0013
				epm	0.16	1.11	1.18	1.55		0.62	1.21	2.17		
				e %	3.85	26.95	28.67	37.53		15.13	29.56	52.88		
11	8.1	324	506	ppm	4.90	28.50	18.12	32.00	4.45	20.00	57.70	162.68	4.43	0.00253
				epm	0.13	1.24	1.49	1.60		0.56	1.20	2.67		
				e %	2.80	27.57	33.16	35.60		12.54	26.75	59.34		
12	8.3	320	500	ppm	6.00	32.00	12.96	34.00	4.31	20.00	41.50	174.15	4.28	0.00326
				epm	0.15	1.39	1.07	1.70		0.56	0.86	2.85		
				e %	2.33	21.07	16.14	25.75		8.65	13.27	43.83		
13	8.1	317	495	ppm	5.00	24.00	16.80	36.00	4.35	19.00	62.60	153.10	4.35	0.00046
				epm	0.13	1.04	1.38	1.80		0.54	1.30	2.51		
				e %	2.87	23.33	30.88	40.24		11.98	29.19	56.17		
14	8.2	281	439	ppm	5.50	22.00	13.92	32.00	3.84	22.00	40.00	145.08	3.83	0.00141
				epm	0.14	0.96	1.14	1.60		0.62	0.83	2.38		
				e %	2.22	15.06	18.03	25.19		9.90	13.31	38.00		
15	8.5	311	486	ppm	6.70	31.00	8.16	40.40	4.21	26.00	45.00	153.44	4.19	0.00302
				epm	0.17	1.35	0.67	2.02		0.73	0.94	2.52		
				e %	4.77	37.43	18.64	56.10		20.86	26.70	71.64		
16	8	425	664	ppm	6.50	36.10	17.76	47.80	5.59	22.00	33.70	259.64	5.58	0.00076
				epm	0.17	1.57	1.46	2.39		0.62	0.70	4.26		
				e %	4.04	38.00	35.36	57.86		15.13	17.14	103.94		
17	8.1	305	477	ppm	6.10	22.00	19.20	30.00	4.19	20.00	39.00	169.80	4.16	0.00387
				epm	0.16	0.96	1.58	1.50		0.56	0.81	2.78		
				e %	3.48	21.28	35.13	33.37		12.54	18.08	61.93		

All parameters are expressed in mg/L except pH and EC (µS/cm) – Alkalinity was expressed as HCO₃⁻, since CO₃²⁻ was below detection limit.

Table S2. Continued

Sample No.	pH	TDS	EC	Unit	K ⁺	Na ⁺	Mg ²⁺	Ca ²⁺	Sum	Cl ⁻	SO ₄ ²⁻	Alkalinity	Sum	R.E
18	7.9	290	453	ppm	8.50	21.00	14.68	32.40	3.96	20.00	51.70	141.22	3.96	0.00033
				epm	0.22	0.91	1.21	1.62		0.56	1.08	2.32		
				e %	3.30	13.83	18.28	24.53		8.65	16.53	35.54		
19	8.2	295	461	ppm	5.50	37.20	16.32	42.80	5.24	20.00	38.40	236.12	5.23	0.00060
				epm	0.14	1.62	1.34	2.14		0.56	0.80	3.87		
				e %	3.15	36.15	30.00	47.84		12.61	17.90	86.63		
20	8	385	602	ppm	10.80	36.00	17.76	41.60	5.38	36.00	54.80	187.84	5.24	0.01389
				epm	0.28	1.57	1.46	2.08		1.01	1.14	3.08		
				e %	4.36	24.65	23.00	32.75		16.20	18.24	49.20		
21	8.1	290	453	ppm	5.10	20.50	12.00	38.40	3.93	20.00	32.70	162.40	3.91	0.00280
				epm	0.13	0.89	0.99	1.92		0.56	0.68	2.66		
				e %	3.63	24.75	27.41	53.32		16.05	19.40	75.83		
22	8	345	539	ppm	6.90	31.40	14.88	39.40	4.74	24.00	46.00	182.72	4.63	0.01132
				epm	0.18	1.37	1.22	1.97		0.68	0.96	3.00		
				e %	4.28	33.05	29.63	47.70		16.51	23.40	73.15		
23	7.8	275	430	ppm	6.50	22.00	12.00	32.00	3.71	17.00	42.80	142.20	3.70	0.00112
				epm	0.17	0.96	0.99	1.60		0.48	0.89	2.33		
				e %	3.71	21.28	21.96	35.60		10.65	19.84	51.87		
24	7.9	340	531	ppm	4.50	25.20	12.18	47.00	4.56	22.00	39.00	190.82	4.56	0.00024
				epm	0.12	1.10	1.00	2.35		0.62	0.81	3.13		
				e %	1.75	16.59	15.17	35.59		9.51	12.47	48.02		
25	7.9	260	406	ppm	8.50	23.20	13.44	23.60	3.51	20.00	35.40	134.56	3.51	0.00073
				epm	0.22	1.01	1.11	1.18		0.56	0.74	2.21		
				e %	4.87	22.55	24.71	26.38		12.61	16.51	49.37		
26	8	306	478	ppm	9.00	26.20	14.88	31.60	4.17	25.00	42.60	155.72	4.14	0.00349
				epm	0.23	1.14	1.22	1.58		0.70	0.89	2.55		
				e %	3.63	17.94	19.27	24.88		11.25	14.18	40.78		
27	8.7	477	745	ppm	10.10	42.00	24.96	50.00	6.64	43.00	64.40	242.64	6.53	0.00813
				epm	0.26	1.83	2.05	2.50		1.21	1.34	3.98		
				e %	7.19	50.71	57.00	69.43		34.50	38.21	113.29		
28	7.8	270	422	ppm	7.90	16.00	19.20	28.00	3.88	25.00	40.70	133.10	3.73	0.01879
				epm	0.20	0.70	1.58	1.40		0.70	0.85	2.18		
				e %	4.90	16.84	38.23	33.90		17.20	20.71	53.28		
29	8.1	290	453	ppm	5.90	21.50	12.00	36.40	3.89	20.00	32.70	161.40	3.89	0.00030
				epm	0.15	0.93	0.99	1.82		0.56	0.68	2.65		
				e %	3.37	20.80	21.96	40.49		12.54	15.16	58.87		
30	8.0	345	539	ppm	6.20	28.00	14.88	42.40	4.72	24.00	46.00	183.72	4.65	0.00788
				epm	0.16	1.22	1.22	2.12		0.68	0.96	3.01		
				e %	2.41	18.44	18.53	32.11		10.38	14.71	46.23		
31	7.8	270	422	ppm	7.90	15.00	19.20	27.00	3.78	25.00	40.70	135.10	3.77	0.00222
				epm	0.20	0.65	1.58	1.35		0.70	0.85	2.21		
				e %	4.53	14.58	35.30	30.18		15.76	18.98	49.57		
32	7.7	502	784	ppm	6.20	54.50	23.52	52.00	7.06	55.00	76.70	236.28	7.02	0.00298
				epm	0.16	2.37	1.93	2.60		1.55	1.60	3.87		
				e %	2.50	37.31	30.46	40.94		24.75	25.53	61.88		
33	7.8	270	422	ppm	7.90	16.00	19.20	30.00	3.98	25.00	40.70	131.10	3.70	0.03592
				epm	0.20	0.70	1.58	1.50		0.70	0.85	2.15		
				e %	5.63	19.32	43.85	41.66		20.06	24.15	61.21		
34	7.8	270	422	ppm	7.50	17.00	19.20	26.00	3.81	25.00	40.70	136.10	3.78	0.00356
				epm	0.19	0.74	1.58	1.30		0.70	0.85	2.23		
				e %	4.66	17.90	38.23	31.47		17.20	20.71	54.48		
35	8.1	290	453	ppm	6.20	28.00	12.00	32.00	3.96	20.00	32.70	161.30	3.89	0.00946
				epm	0.16	1.22	0.99	1.60		0.56	0.68	2.64		
				e %	3.54	27.09	21.96	35.60		12.54	15.16	58.83		
36	8.5	264	413	ppm	5.60	17.60	20.16	22.60	3.70	20.00	34.60	143.04	3.63	0.00922
				epm	0.14	0.77	1.66	1.13		0.56	0.72	2.34		
				e %	2.17	11.59	25.11	17.11		8.65	11.07	36.00		

Table S2. Continued

Sample No.	pH	TDS	EC	Unit	K ⁺	Na ⁺	Mg ²⁺	Ca ²⁺	Sum	Cl ⁻	SO ₄ ²⁻	Alkalinity	Sum	R.E
37	7.8	482	753	ppm	10.50	39.00	21.60	58.60	6.67	50.00	69.00	232.80	6.66	0.00066
				epm	0.27	1.70	1.78	2.93		1.41	1.44	3.82		
				e %	6.02	37.90	39.71	65.50		31.52	32.17	85.41		
38	7.9	500	781	ppm	10.10	51.00	15.36	62.60	6.87	50.00	68.70	244.34	6.85	0.00176
				epm	0.26	2.22	1.26	3.13		1.41	1.43	4.01		
				e %	4.08	34.92	19.89	49.29		22.50	22.87	63.99		
39	8	504	788	ppm	10.50	50.50	21.60	53.60	6.92	41.00	71.80	254.50	6.82	0.00715
				epm	0.27	2.20	1.78	2.68		1.15	1.50	4.17		
				e %	7.48	60.98	49.33	74.43		32.89	42.60	118.83		
40	7.2	484	756	ppm	9.50	46.50	24.48	51.60	6.86	53.00	104.10	194.32	6.85	0.00081
				epm	0.24	2.02	2.01	2.58		1.49	2.17	3.19		
				e %	5.90	48.95	48.74	62.46		36.46	52.96	77.79		
41	8.4	291	455	ppm	5.70	23.50	16.32	30.00	4.01	20.00	30.30	165.88	3.91	0.01211
				epm	0.15	1.02	1.34	1.50		0.56	0.63	2.72		
				e %	3.25	22.73	29.86	33.37		12.54	14.05	60.50		
42	7.9	498	778	ppm	9.90	47.50	15.36	64.60	6.81	50.00	68.70	241.84	6.80	0.00058
				epm	0.25	2.07	1.26	3.23		1.41	1.43	3.96		
				e %	3.84	31.28	19.13	48.92		21.62	21.97	60.86		
43	7.9	486	759	ppm	9.10	39.00	22.16	58.40	6.67	50.00	64.30	239.14	6.67	0.00022
				epm	0.23	1.70	1.82	2.92		1.41	1.34	3.92		
				e %	5.22	37.90	40.74	65.27		31.52	29.98	87.74		
44	8.1	317	495	ppm	5.00	26.00	16.80	34.00	4.34	19.00	62.60	151.60	4.32	0.0018
				epm	0.13	1.13	1.38	1.70		0.54	1.30	2.49		
				e %	2.02	17.80	21.76	26.77		8.55	20.84	39.70		
45	8	425	664	ppm	6.50	37.00	17.76	48.50	5.66	22.00	33.70	261.64	5.61	0.00442
				epm	0.17	1.61	1.46	2.43		0.62	0.70	4.29		
				e %	4.63	44.68	40.56	67.35		17.65	20.00	122.17		
46	8.1	284	444	ppm	5.50	22.00	18.24	26.00	3.90	20.00	32.60	160.16	3.87	0.00378
				epm	0.14	0.96	1.50	1.30		0.56	0.68	2.63		
				e %	3.41	23.16	36.32	31.47		13.76	16.58	64.11		
47	7.8	440	688	ppm	9.50	43.50	13.92	53.40	5.95	40.00	55.80	222.38	5.93	0.00124
				epm	0.24	1.89	1.14	2.67		1.13	1.16	3.65		
				e %	5.42	42.08	25.47	59.41		25.07	25.87	81.11		
48	8	260	406	ppm	5.50	20.50	17.28	24.60	3.68	20.00	26.20	146.42	3.51	0.02416
				epm	0.14	0.89	1.42	1.23		0.56	0.55	2.40		
				e %	2.14	13.50	21.52	18.63		8.65	8.38	36.85		
49	7.8	408	638	ppm	9.20	36.00	17.28	48.00	5.62	42.00	64.80	186.92	5.60	0.00221
				epm	0.24	1.57	1.42	2.40		1.18	1.35	3.06		
				e %	5.27	34.99	31.77	53.65		26.48	30.21	68.58		
50	8	425	664	ppm	11.20	39.00	17.76	46.60	5.77	36.00	54.80	218.84	5.74	0.00261
				epm	0.29	1.70	1.46	2.33		1.01	1.14	3.59		
				e %	4.52	26.70	23.00	36.69		16.20	18.24	57.32		
51	7.2	484	756	ppm	9.50	52.50	24.48	53.60	7.22	53.00	104.10	196.32	6.88	0.02406
				epm	0.24	2.28	2.01	2.68		1.49	2.17	3.22		
				e %	6.76	63.39	55.91	74.43		42.52	61.77	91.67		
52	8	288	450	ppm	7.50	26.00	14.40	30.00	4.01	18.00	46.40	145.20	3.85	0.01945
				epm	0.19	1.13	1.18	1.50		0.51	0.97	2.38		
				e %	4.66	27.37	28.67	36.32		12.38	23.61	58.13		
53	7.8	270	422	ppm	7.90	21.00	15.20	29.00	3.82	25.00	40.70	133.10	3.73	0.01079
				epm	0.20	0.91	1.25	1.45		0.70	0.85	2.18		
				e %	4.51	20.31	27.81	32.26		15.67	18.87	48.55		
54	7.5	400	625	ppm	11.20	31.00	18.08	42.40	5.24	4.00	55.60	238.92	5.19	0.00518
				epm	0.29	1.35	1.49	2.12		0.11	1.16	3.92		
				e %	4.35	20.41	22.52	32.11		1.73	17.78	60.13		
55	8.3	282	441	ppm	4.50	26.00	12.00	32.00	3.83	18.00	43.10	145.90	3.80	0.00470
				epm	0.12	1.13	0.99	1.60		0.51	0.90	2.39		
				e %	2.58	25.27	22.06	35.77		11.35	20.10	53.53		

Table S2. Continued

Sample No.	B	Cd	Cr	Cu	Fe	Mn	Ni	Pb	Zn	F ⁻	NO ₃ ⁻
1	0.09	0.0007	0.05	0.01	0.5	0.06	0.001	0.001	0.003	0.3	1.58
2	0.1	0.0002	0.08	0.01	0.2	0.11	0.01	0.001	0.001	0.2	4.42
3	0.19	0.003	0.07	0.01	0.5	0.11	0.01	0.003	0.001	0.2	2.24
4	0.19	0.0002	0.08	0.01	0.4	0.11	0.01	0.001	0.001	0.3	1.48
5	0.07	0.003	0.04	0.01	0.4	0.07	0.01	0.003	0.001	0.3	1.48
6	0.05	0.0007	0.03	0.01	0.2	0.05	0.02	0.01	0.004	0.1	2.00
7	0.06	0.0008	0.34	0.01	0.05	0.05	0.04	0.001	0.004	0.1	1.64
8	0.08	0.0011	0.03	0.01	0.1	0.07	0.001	0.001	0.006	0.1	1.46
9	0.06	0.001	0.12	0.01	0.1	0.08	0.002	0.002	0.004	0.1	1.22
10	0.05	0.0009	0.03	0.01	0.2	0.03	0.002	0.001	0.005	0.3	1.34
11	0.06	0.018	0.03	0.01	0.1	0.04	0.001	0.001	0.006	0.3	1.52
12	0.06	0.0006	0.03	0.01	0.1	0.07	0.002	0.001	0.004	0.3	1.56
13	0.04	0.033	0.03	0.01	0.1	0.04	0.002	0.001	0.005	0.2	1.32
14	0.09	0.019	0.04	0.001	0.2	0.05	0.001	0.01	0.001	0.1	1.46
15	0.24	0.008	0.14	0.03	1.2	0.08	0.01	0.11	0.002	0.3	1.92
16	0.09	0.006	0.09	0.01	0.1	0.07	0.01	0.29	0.002	0.1	1.30
17	0.08	0.004	0.04	0.01	0.1	0.05	0.01	0.001	0.003	0.1	1.16
18	0.08	0.003	0.06	0.01	0.2	0.12	0.01	0.001	0.003	0.3	1.46
19	0.05	0.005	0.04	0.01	0.2	0.04	0.02	0.001	0.002	0.1	1.24
20	0.09	0.005	0.08	0.01	0.2	0.27	0.01	0.29	0.04	0.1	1.32
21	0.09	0.004	0.07	0.01	0.4	0.15	0.01	0.31	0.001	0.3	1.04
22	0.06	0.0007	0.04	0.001	0.2	0.15	0.001	0.001	0.005	0.1	1.40
23	0.04	0.033	0.03	0.01	0.1	0.04	0.002	0.001	0.005	0.1	1.16
24	0.07	0.006	0.03	0.001	0.2	0.16	0.002	0.001	0.004	0.1	1.10
25	0.13	0.022	0.03	0.001	0.1	0.04	0.002	0.001	0.004	0.3	1.18
26	0.07	0.0005	0.03	0.001	0.1	0.07	0.001	0.001	0.004	0.1	1.50
27	0.05	0.0007	0.03	0.01	0.2	0.05	0.02	0.01	0.004	0.1	2.00
28	0.49	0.0006	0.052	0.01	0.05	0.03	0.04	0.06	0.18	0.3	2.40
29	0.09	0.004	0.07	0.01	0.4	0.15	0.01	0.31	0.001	0.3	1.04
30	0.06	0.0007	0.04	0.001	0.2	0.15	0.001	0.001	0.005	0.1	1.40
31	0.49	0.0006	0.042	0.01	0.05	0.03	0.04	0.06	0.18	0.3	2.40
32	0.2	0.0009	0.052	0.01	0.3	0.45	0.04	0.001	0.002	0.6	1.14
33	0.49	0.0006	0.061	0.01	0.05	0.3	0.04	0.06	0.18	0.3	2.40
34	0.18	0.0005	0.048	0.001	0.05	0.06	0.03	0.001	0.004	0.3	2.40
35	0.07	0.005	0.07	0.02	0.4	0.15	0.01	0.32	0.001	0.3	1.04
36	0.19	0.003	0.07	0.01	0.5	0.11	0.01	0.003	0.001	0.2	2.24
37	0.07	0.004	0.05	0.01	0.2	0.21	0.04	0.001	0.003	0.5	1.04
38	0.08	0.0004	0.047	0.01	0.2	0.21	0.05	0.002	0.004	0.5	1.16
39	0.06	0.0008	0.34	0.01	0.05	0.05	0.04	0.001	0.004	0.1	1.64
40	0.11	0.0006	0.05	0.001	0.7	0.07	0.001	0.001	0.22	0.7	1.32
41	0.07	0.0009	0.033	0.01	0.2	0.04	0.04	0.001	0.003	0.2	1.00
42	0.08	0.0004	0.04	0.01	0.2	0.21	0.05	0.002	0.004	0.5	1.16
43	0.17	0.006	0.042	0.01	0.2	0.24	0.03	0.002	0.003	0.6	1.02
44	0.04	0.033	0.03	0.01	0.1	0.04	0.002	0.001	0.005	0.2	1.32
45	0.09	0.006	0.09	0.01	0.1	0.07	0.01	0.29	0.002	0.1	1.30
46	0.07	0.0009	0.062	0.001	0.05	0.04	0.04	0.001	0.003	0.1	0.80
47	0.09	0.004	0.052	0.01	0.1	0.11	0.04	0.003	0.003	0.5	1.04
48	0.17	0.0008	0.033	0.001	0.05	0.04	0.03	0.001	0.003	0.2	1.06
49	0.1	0.006	0.1	0.01	0.2	0.3	0.01	0.004	0.01	0.6	1.16
50	0.07	0.005	0.07	0.01	0.2	0.13	0.02	0.31	0.001	0.1	1.32
51	0.11	0.0006	0.031	0.001	0.7	0.07	0.001	0.001	0.22	0.7	1.32
52	0.02	0.021	0.005	0.01	0.1	0.01	0.002	0.01	0.005	0.3	1.34
53	0.13	0.001	0.044	0.01	0.05	0.21	0.05	0.002	0.003	0.3	2.40
54	0.49	0.0006	0.042	0.01	0.2	0.03	0.04	0.06	0.18	0.4	1.04
55	0.02	0.021	0.005	0.01	0.3	0.01	0.002	0.01	0.005	0.3	1.42

*All parameters are expressed in mg/L.

Table S3. Infiltration and permeability hazard group classification according to rate [36].

	Sodium Absorption Ratio (SAR)					Rate	Suitability
	< 3	3 - 6	6 - 12	12 - 2	> 20		
EC	> 700	> 1200	> 1900	> 2900	> 5000	3	High
	700 - 200	1200 - 300	1900 - 500	2900 - 1300	5000 - 2900	2	Medium
	< 200	< 300	< 500	< 1300	< 2900	1	Low

Table S4. Classification of trace element toxicity [36].

Trace element (mg/L)	Range	Rating	Suitability
B	$B > 0.1$	3	High
	$0.1 \leq B \leq 5.0$	2	Medium
	$B > 5.0$	1	Low
Cd	$Cd > 0.01$	3	High
	$0.01 \leq Cd \leq 0.05$	2	Medium
	$Cd > 0.05$	1	Low
Cr	$Cr > 0.1$	3	High
	$0.1 \leq Cr \leq 1.0$	2	Medium
	$Cr > 1.0$	1	Low
Cu	$Cu > 0.2$	3	High
	$0.2 \leq Cu \leq 5.0$	2	Medium
	$Cu > 5.0$	1	Low
Fe	$Fe > 5.0$	3	High
	$5.0 \leq Fe \leq 20.0$	2	Medium
	$Fe > 20.0$	1	Low
Ni	$Ni > 2.0$	3	High
	$0.2 \leq Ni \leq 2.0$	2	Medium
	$Ni > 2.0$	1	Low
Pb	$Pb > 5.0$	3	High
	$5.0 \leq Pb \leq 10.0$	2	Medium
	$Pb > 10.0$	1	Low
Zn	$Zn > 2.0$	3	High
	$2.0 \leq Zn \leq 10.0$	2	Medium
	$Zn > 10.0$	1	Low