

Water quality sampling results to date are summarized on the attached **Table 2**. We note that the August 26th samples analysis results are not yet available, those results will be provided in the next monthly report.

Observations

Groundwater-surface water interaction is summarized as follows:

- Water levels collected to date at DP1 show that the water table along the southeast (downgradient) edge of the pond is significantly lower than the pond (approx. 1.5 m difference), indicating recharge conditions and groundwater flow away from the pond in this location.
- Water levels at DP2 are observed to be higher than the pond level under spring conditions. This indicates groundwater flow toward and into the pond in this area (likely extending along the northwest edge) at that time. Recent water levels indicate that summer evapotranspiration in this area may naturally lower the groundwater table to (or slightly below) the pond level.
- Water levels collected at DP3 indicate that the water table is naturally below the pond level, indicating recharge conditions and groundwater flow away from the pond in this area (likely extending from the creek inflow location to the dam).
- The pond was lowered from mid-May to early June to allow initial construction. A coffer dam was installed in early June, which allowed pond levels to be reestablished. Current pond levels are slightly below pre-construction levels and have remained relatively stable since mid-June.
- Groundwater levels surrounding the pond responded to the pond level increase in early June (after coffer dam construction). Pond and groundwater levels also rise in response to precipitation events. Current groundwater levels are relatively stable and appear to correspond to “natural” conditions in the area of the pond.
- To date water table changes associated with pond lowering are relatively minor. No significant changes in water quality are noted.

Summary

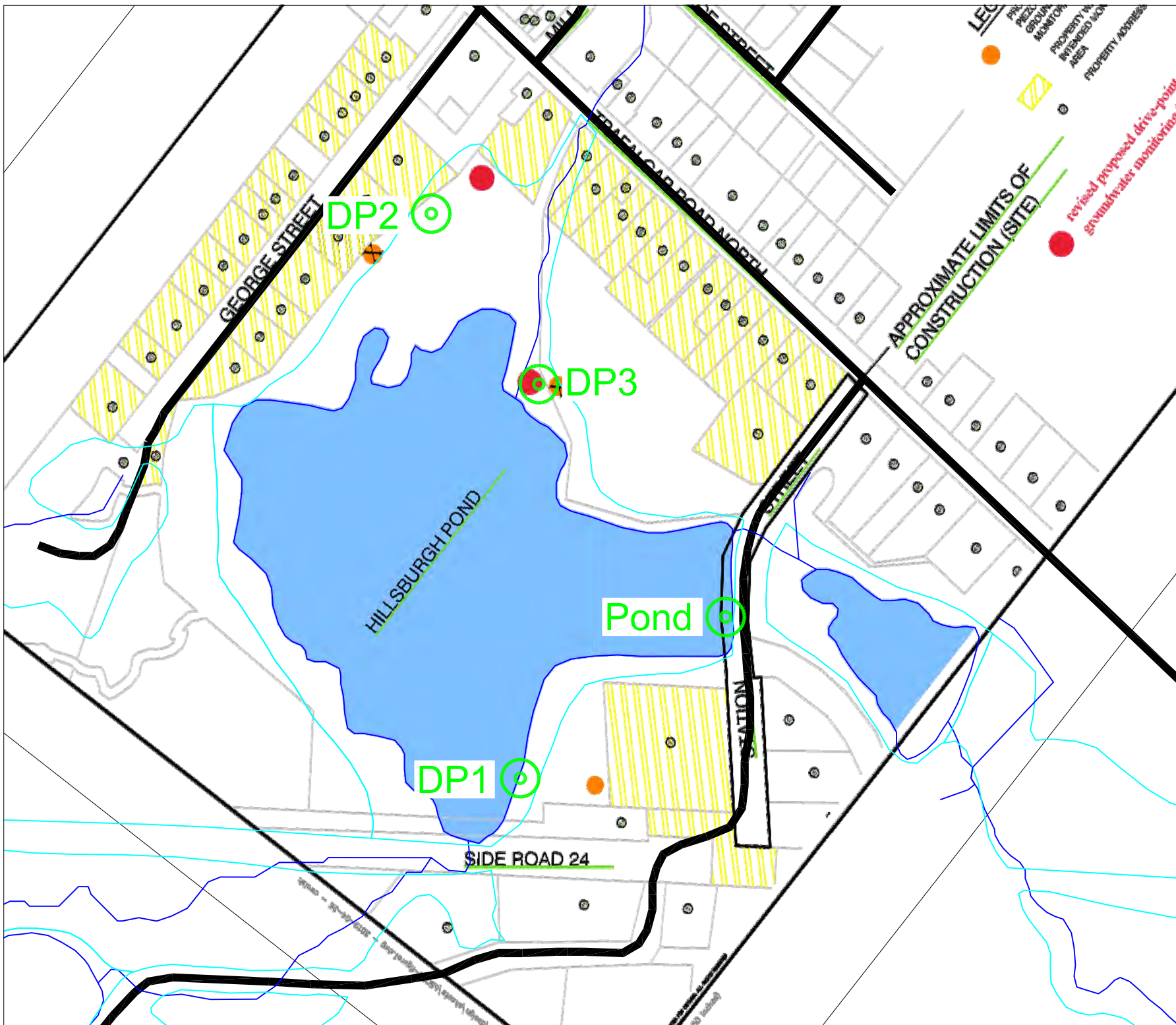
Construction activities have not resulted in any significant changes to groundwater conditions to date. The monitoring schedule includes weekly checks of the pond level and biweekly water level and water quality sampling at the monitoring locations. Monthly reports will also continue to be prepared during construction to update the monitoring results and assess groundwater conditions at, and near, the pond.

Sincerely,



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Attached: Figure 1, Figure 2
 Table 1, Table 2



Legend
 ● DP1 Dam monitor

Figure 1
 Station Street Dam
 Monitoring Network

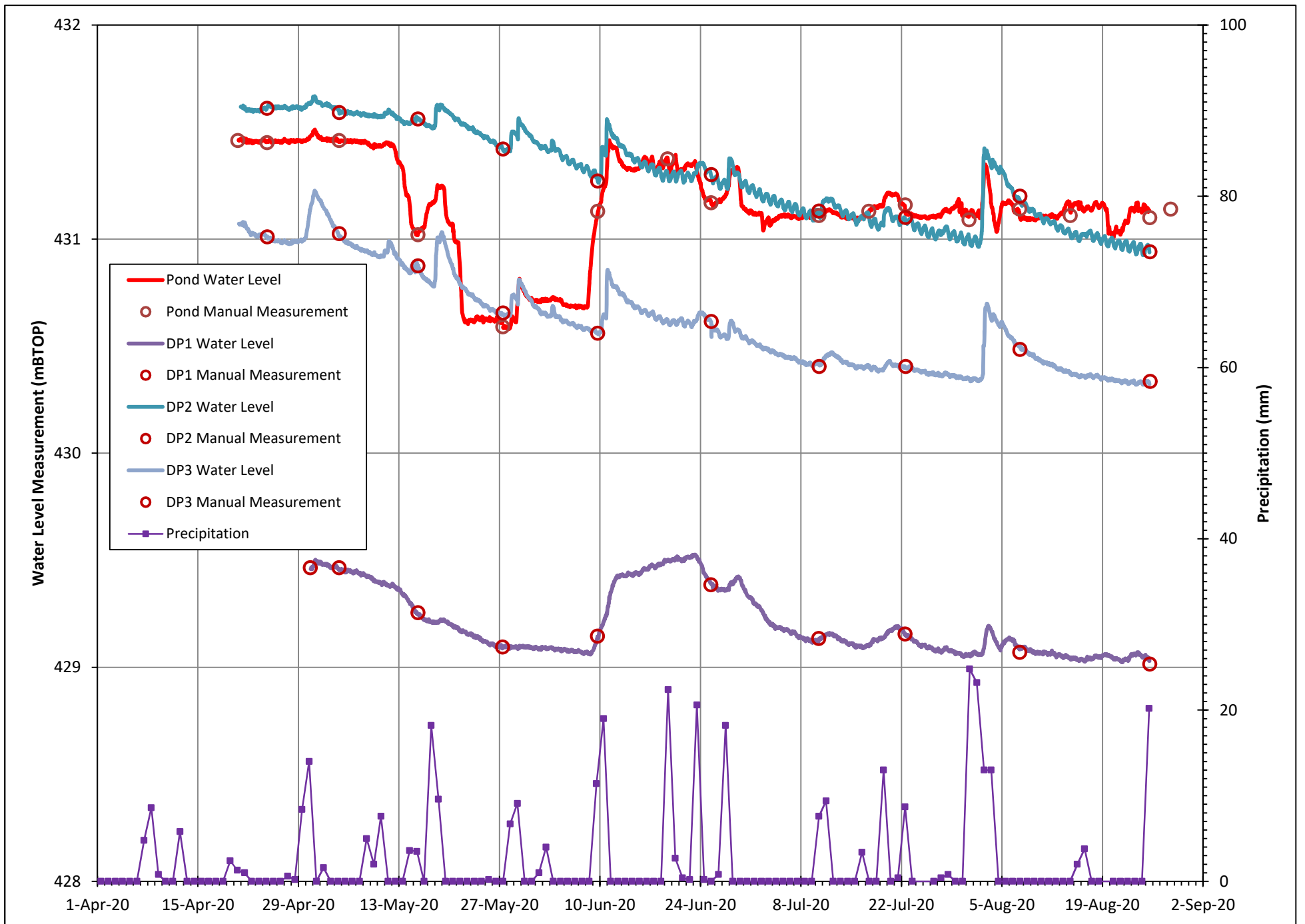


Figure 2: Water Level Hydrograph

Location	Type	As Installed			Elevations	
		Total Depth (mBTOP)	Stick-Up (mAGS)	Screen Lenth (m)	Ground Surface (mASL)	Top of Pipe (mASL)
Pond	stilling well	1.90	1.90	1.00	430.46	432.36
DP1	piezometer	4.09	1.22	0.30	431.57	432.79
DP2	piezometer	2.21	0.42	0.30	431.62	432.13
DP3	piezometer	2.84	1.26	0.30	431.36	432.70
Notes: mBTOP = metres below top of pipe mAGS = metres above ground surface mASL = metres above sea level						

Sample Location:		POND							
Date:		24-Apr-2020	4-May-2020	27-May-2020	9-Jun-2020	25-Jun-2020	10-Jul-2020	22-Jul-2020	7-Aug-2020
Parameter	Units	Water	Water	Water	Water	Water	Water	Water	Water
Anions and Nutrients									
Bromide (Br)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloride (Cl)	mg/L	24.7	25.9	24.4	22.3	23.9	21.8	21.4	22.9
Fluoride (F)	mg/L	0.045	0.047	0.050	0.046	0.048	0.052	0.051	0.054
Nitrate (as N)	mg/L	3.20	3.03	3.22	3.09	2.76	2.14	1.93	2.22
Nitrite (as N)	mg/L	0.014	0.020	0.024	0.026	0.042	0.038	0.029	0.023
Sulfate (SO4)	mg/L	18.1	18.7	18.7	20.5	18.3	17.8	17.0	18.7
Total Metals									
Aluminum (Al)-Total	mg/L	0.0680	0.2350	0.1120	0.0317	0.0447	0.0233	0.0307	0.0483
Antimony (Sb)-Total	mg/L	<0.00010	0.00021	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L	0.00025	0.00039	0.00038	0.00028	0.00036	0.00043	0.00043	0.00042
Barium (Ba)-Total	mg/L	0.0342	0.0416	0.0319	0.0404	0.0643	0.0634	0.0507	0.0508
Beryllium (Be)-Total	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L	0.0000076	0.0000275	0.0000090	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L	69.2	73.5	60.1	62.0	65.4	61.4	63.1	65.9
Cesium (Cs)-Total	mg/L	<0.000010	0.000022	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L	<0.00050	0.0008	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L	<0.00010	0.00013	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L	0.00060	0.00110	0.00066	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Iron (Fe)-Total	mg/L	0.108	0.377	0.179	0.083	0.145	0.119	0.083	0.109
Lead (Pb)-Total	mg/L	0.000297	0.001100	0.000572	0.000131	0.000200	0.000139	0.000100	0.000164
Lithium (Li)-Total	mg/L	0.0021	0.0015	0.0018	0.0015	0.0018	0.0014	0.0015	0.0017
Magnesium (Mg)-Total	mg/L	21.2	20.3	21.0	21.9	21.4	20.6	22.0	19.9
Manganese (Mn)-Total	mg/L	0.0122	0.0394	0.0211	0.0157	0.0288	0.0301	0.0230	0.0256
Molybdenum (Mo)-Total	mg/L	0.000263	0.000294	0.000271	0.000270	0.000324	0.000369	0.000363	0.000273
Nickel (Ni)-Total	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L	1.09	1.04	1.05	1.00	1.05	0.85	0.97	1.03
Rubidium (Rb)-Total	mg/L	0.00071	0.00099	0.00083	0.00077	0.00084	0.00073	0.00087	0.00093
Selenium (Se)-Total	mg/L	0.000141	0.000149	0.000166	0.000113	0.000133	0.000114	0.000132	0.000128
Silicon (Si)-Total	mg/L	3.82	3.65	4.32	4.34	4.13	4.36	4.51	4.95
Silver (Ag)-Total	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	mg/L	11.7	11.3	11.0	10.5	10.9	9.1	9.8	10.0
Strontium (Sr)-Total	mg/L	0.117	0.124	0.111	0.109	0.118	0.110	0.111	0.112
Sulfur (S)-Total	mg/L	7.01	6.42	6.63	7.43	6.53	6.05	6.15	6.69
Tellurium (Te)-Total	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.00028	0.00025	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L	0.00318	0.00842	0.00419	0.00112	0.00171	0.00087	<0.00080	0.00146
Tungsten (W)-Total	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L	0.000524	0.000488	0.000517	0.000494	0.000501	0.000540	0.000557	0.000532
Vanadium (V)-Total	mg/L	<0.00050	0.00086	0.00078	<0.00050	0.00053	0.00064	0.00058	0.00051
Zinc (Zn)-Total	mg/L	0.0139	0.0865	0.0031	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020

Table 2: Water Quality Results Summary

Sample Location:		DP1						
Date:		4-May-2020	27-May-2020	9-Jun-2020	25-Jun-2020	10-Jul-2020	22-Jul-2020	7-Aug-2020
Parameter	Units	Water	Water	Water	Water	Water	Water	Water
Anions and Nutrients								
Bromide (Br)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloride (Cl)	mg/L	26.6	30.1	36	26.9	27.2	28.4	28.1
Fluoride (F)	mg/L	0.050	0.041	0.037	0.048	0.058	0.052	0.054
Nitrate (as N)	mg/L	3.070	2.72	1.17	2.5	1.29	1.58	3.29
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Sulfate (SO4)	mg/L	18.4	16.8	11.3	22.3	20.4	19.3	19.7
Dissolved Metals								
Aluminum (Al)-Dissolved	mg/L	<0.0050	<0.0050	0.0068	<0.0050	<0.0050	<0.0050	<0.0050
Antimony (Sb)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00018	0.00017	0.00018	0.00013	0.00019	0.00017	0.00025
Barium (Ba)-Dissolved	mg/L	0.0352	0.0375	0.0475	0.0513	0.0396	0.0428	0.0427
Beryllium (Be)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	<0.010	<0.010	<0.010	0.012	0.014	0.014	0.015
Cadmium (Cd)-Dissolved	mg/L	0.0000255	0.0000412	0.0000253	0.0000807	0.0000318	0.0000325	0.0000182
Calcium (Ca)-Dissolved	mg/L	68.5	73.2	97.7	70.6	72.1	72.8	71.2
Cesium (Cs)-Dissolved	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L	0.00053	0.0004	0.00048	0.00076	0.00053	0.00063	0.00063
Iron (Fe)-Dissolved	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Lead (Pb)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.0011	<0.0010	0.0015	0.0018	0.0012
Magnesium (Mg)-Dissolved	mg/L	19.1	22.4	28.1	19.8	18.9	19.7	19.7
Manganese (Mn)-Dissolved	mg/L	0.009	0.0096	0.0205	0.00094	0.00603	0.0119	0.00589
Molybdenum (Mo)-Dissolved	mg/L	0.00029	0.000224	0.000144	0.000907	0.000213	0.000223	0.000225
Nickel (Ni)-Dissolved	mg/L	0.00099	0.00534	0.0006	0.00075	0.00228	0.00146	0.00051
Phosphorus (P)-Dissolved	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L	1.090	1.04	1.18	1.34	1.21	1.38	1.54
Rubidium (Rb)-Dissolved	mg/L	0.00053	0.00051	0.00087	0.00092	0.00073	0.00097	0.00097
Selenium (Se)-Dissolved	mg/L	0.00018	0.000242	0.000151	0.000171	0.000093	0.000183	0.000364
Silicon (Si)-Dissolved	mg/L	3.74	3.9	4.88	5.11	5.11	5.32	5.36
Silver (Ag)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L	13.7	14.4	18.4	13.9	12.7	13.6	14.3
Strontium (Sr)-Dissolved	mg/L	0.122	0.13	0.157	0.129	0.124	0.13	0.128
Sulfur (S)-Dissolved	mg/L	6.7	6.1	4.18	7.81	7.01	7.31	7.34
Tellurium (Te)-Dissolved	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	<0.000010	0.000015	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L	0.000588	0.000622	0.000596	0.000424	0.000355	0.000301	0.000401
Vanadium (V)-Dissolved	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L	0.43	0.669	0.166	1.93	0.95	1.53	0.0445
Zirconium (Zr)-Dissolved	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020

Table 2: Water Quality Results Summary

Sample Location:		DP3							
	Date:	24-Apr-2020	4-May-2020	27-May-2020	9-Jun-2020	25-Jun-2020	10-Jul-2020	22-Jul-2020	7-Aug-2020
Parameter	Units	Water	Water	Water	Water	Water	Water	Water	Water
Anions and Nutrients									
Bromide (Br)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloride (Cl)	mg/L	20.9	21.4	21.7	21.1	22.6	22.8	21.1	22.1
Fluoride (F)	mg/L	0.055	0.055	0.055	0.057	0.053	0.062	0.057	0.033
Nitrate (as N)	mg/L	0.060	<0.020	<0.020	0.020	<0.020	<0.020	<0.020	<0.020
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Sulfate (SO4)	mg/L	32.7	32.7	28.3	20.1	16.8	11.9	8.3	159.0*
Dissolved Metals									
Aluminum (Al)-Dissolved	mg/L	0.0058	<0.0050	<0.0050	0.2920	0.0056	<0.0050	<0.0050	<0.0050
Antimony (Sb)-Dissolved	mg/L	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L	0.00088	0.00507	0.00522	0.00564	0.00460	0.00489	0.00425	0.00683
Barium (Ba)-Dissolved	mg/L	0.0750	0.0664	0.0801	0.1030	0.0696	0.0752	0.0714	0.1110
Beryllium (Be)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L	<0.010	<0.010	<0.010	<0.010	0.011	0.011	0.01	0.013
Cadmium (Cd)-Dissolved	mg/L	<0.0000050	<0.0000050	0.0000129	0.0000467	<0.0000050	<0.0000050	<0.0000050	0.0000098
Calcium (Ca)-Dissolved	mg/L	85.5	88.3	96.7	109.0	113.0	109.0	105.0	139.0
Cesium (Cs)-Dissolved	mg/L	<0.000010	<0.000010	<0.000010	0.000014	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L	<0.00050	<0.00050	<0.00050	0.00056	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L	0.00150	0.00043	0.00046	0.00097	0.00035	0.00015	0.00014	0.00079
Copper (Cu)-Dissolved	mg/L	<0.00020	<0.00020	<0.00020	0.00152	0.00039	<0.00020	<0.00020	<0.00020
Iron (Fe)-Dissolved	mg/L	<0.010	7.94	8.51	6.8	9.52	8.19	6.89	11.3
Lead (Pb)-Dissolved	mg/L	0.000135	<0.000050	<0.000050	0.004380	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	0.0011	0.0012	<0.0010
Magnesium (Mg)-Dissolved	mg/L	19.0	18.0	21.1	23.4	22.6	21.9	22.5	28.5
Manganese (Mn)-Dissolved	mg/L	0.849	0.878	1.170	1.280	1.160	1.030	0.977	1.410
Molybdenum (Mo)-Dissolved	mg/L	0.00106	0.00075	0.00080	0.00076	0.00111	0.00079	0.00089	0.00061
Nickel (Ni)-Dissolved	mg/L	0.00450	0.01330	0.00908	0.00318	0.01190	0.00109	0.00058	0.00842
Phosphorus (P)-Dissolved	mg/L	<0.050	0.057	0.056	0.073	0.052	<0.050	<0.050	0.09
Potassium (K)-Dissolved	mg/L	0.768	0.441	0.537	0.703	0.529	0.566	0.576	0.711
Rubidium (Rb)-Dissolved	mg/L	0.00097	0.00051	0.00063	0.00104	0.00063	0.00066	0.00065	0.00085
Selenium (Se)-Dissolved	mg/L	<0.000050	0.000056	0.000065	0.000511	<0.000050	0.000066	0.000066	0.00008
Silicon (Si)-Dissolved	mg/L	5.51	6.43	7.14	8.50	8.42	8.16	8.13	8.89
Silver (Ag)-Dissolved	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L	11.6	10.0	10.5	11.5	10.4	10.7	11.1	12.2
Strontium (Sr)-Dissolved	mg/L	0.124	0.129	0.149	0.159	0.155	0.153	0.159	0.205
Sulfur (S)-Dissolved	mg/L	12.2	11.0	8.9	7.6	5.4	4.3	3.6	56.7
Tellurium (Te)-Dissolved	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L	<0.000010	<0.000010	<0.000010	0.000012	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L	0.00030	0.00034	0.00032	0.00814	0.00035	<0.00030	<0.00030	0.00030
Tungsten (W)-Dissolved	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L	0.000185	0.000081	0.000156	0.000198	0.000115	0.000091	0.000104	0.000283
Vanadium (V)-Dissolved	mg/L	<0.00050	0.0016	0.00163	0.00257	0.00146	0.00119	0.00113	0.00119
Zinc (Zn)-Dissolved	mg/L	3.43	0.59	1.88	2.35	1.82	1.43	1.51	0.72
Zirconium (Zr)-Dissolved	mg/L	<0.00020	0.00032	0.00035	0.00055	0.00045	0.00043	0.00042	0.00049

* - spurious sulphate result (?), to be confirmed by next sample event

Table 2: Water Quality Results Summary