Results of the Water Quality Monitoring Program for Coldwater Fisheries

Sudbury to Hudson Reliability Project

November 2022 – January 2023

MARCH 2023

PREPARED FOR

Eversource Energy

PREPARED BY

SWCA Environmental Consultants

RESULTS OF THE WATER QUALITY MONITORING PROGRAM FOR COLDWATER FISHERIES SUDBURY TO HUDSON RELIABILITY PROJECT NOVEMBER 2022 – JANUARY 2023

Prepared for

Eversource Energy
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SWCA Project No. 67849

March 2023

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1 INTRODUCTION

The Sudbury to Hudson Reliability Project (Project) consists of a new, approximately 9-mile-long transmission line between Eversource's existing Sudbury substation in Sudbury, Massachusetts, and the Hudson Light & Power Company's (HL&P) substation in Hudson, Massachusetts. The new underground transmission line will be installed in the municipalities of Sudbury, Hudson, Stow, and Marlborough, Massachusetts. Approximately 7.5 miles of the new transmission line will be installed within an inactive Massachusetts Bay Transportation Authority (MBTA) railroad right-of-way (ROW) which is to be converted into the Massachusetts Central Rail Trail (MCRT).

Special Condition Part I(q) of the Sudbury Order of Conditions (OOC) for the Project required baseline monitoring of flow and water quality for all Coldwater Fisheries Resources (CFR) crossed by the Project. SWCA has prepared this quarterly summary of the water quality monitoring for the two (2) crossings of CFR in Hop Brook and six (6) other streams or tributaries that contribute to CFR and are crossed by the Project (see Figures in Appendix A).

The following eight streams were included in this monitoring plan as requested by the Sudbury Conservation Commission:

- Hop Brook – Bridge 128 (400+30): ST 400 Perennial Stream and State-listed CFR;
- Unnamed Stream (527+30): ST 527 Intermittent Stream and local CFR;
- Dudley Brook (539+40): ST 540 Perennial and local CFR;
- Unnamed intermittent stream (560+82): ST 561 Intermittent and local CFR;
- Unnamed Intermittent stream (593+18): ST 593 Intermittent and local CFR;
- Intermittent Tributary to Hop Brook (700+50, 710+50): ST 700/710 Intermittent and local CFR;
- Hop Brook (Bridge 127) (725+00): ST 725 Perennial Stream and State-listed CFR; and
- Intermittent Tributary to Wash Brook (747+39): ST 747 Intermittent and local CFR.

2 WATER QUALITY MONITORING METHODS AND RESULTS

2.1 Surface Water Monitoring Methods

In accordance with the *Baseflow and Baseline Water Quality Monitoring Program for Cold Water Fisheries* proposed by SWCA dated August 25, 2021 and approved by the Sudbury Conservation Commission, the following parameters were monitored on a monthly basis:

- temperature, dissolved oxygen, as well as pH, specific conductivity, and oxygen reduction potential (ORP) measured with a YSI multi-meter;
- flow velocity with a Hach FH950 flow velocity meter;
- turbidity levels measured with a turbidity meter; and

- chlorine, hardness and alkalinity measured with field test strips.

Based on the Massachusetts Surface Water Quality Standards (SWQS) (314 CMR 4.00), CFRs have special designated criteria for dissolved oxygen and temperature. All other criteria are the same as those for warm water fisheries.

The following Table 1 includes ranges for temperature, dissolved oxygen and pH that are favorable to cold water fisheries. Table 2 indicates ranges for other surface water criteria that are favorable for freshwater fish.

Table 1. Surface Water Conditions for Cold Water Fisheries

Parameter[1]	Favorable Ranges for Cold Water Fisheries
Temperature	below 20ºC (up to 26ºC for 24 hours)
Dissolved Oxygen	min of 6 mg/L, up to 7 mg/L preferred
pH	6.5 - 8.3

Note: C = Celsius; mg/L = milligrams per liter

Source:

1: 314 CMR 4.00: Massachusetts Surface Water Quality Standards

Table 2. Surface Water Conditions for Freshwater Fish

Parameter	Favorable Ranges for Freshwater Stream or Fish
Specific Conductivity[1]	150 - 500 µs/cm
Turbidity[2]	"free from turbidity that would impair fish habitat"
Chlorine[3]	<4 mg/L
Alkalinity[4,5]	< 300 mg/L

Note: ORP = oxygen reduction potential; mg/L = milligrams per liter; µs/cm = microsiemens per centimeter; mV = millivolts

Sources:

1: EPA Volunteer Stream Monitoring: A Methods Manual

2: 314 CMR 4.00: Massachusetts Surface Water Quality Standards

3: EPA National Primary Drinking Water Regulations

4: UMass Dartmouth Northeast Regional Aquaculture Center NRAC Fact Sheet No. 170-1993.

5: EPA National Recommended Water Quality Criteria for Aquatic Life.

During this quarterly monitoring period (November 2022 to January 2023) SWCA monitored these eight locations on November 21, December 21, 2022, and January 30, 2023. Preliminary construction activities (installation of construction entrance pads) had begun at the Project in November 2022; however, no earth disturbance activities had been initiated near the monitoring points until the January 2023 monitoring event. All crossings were observed to be flowing to some extent during at least one of those monitoring events with the exception of the unnamed stream at station 593+18, which has never been observed to be flowing since the initial survey was conducted. Temperature and dissolved oxygen can fluctuate naturally when the sun rises and enables aquatic plants to release more oxygen. Sampling was conducted in the same order of monitoring points and as a result, the sampling was conducted during roughly the same time of day at each location each month to help ensure comparability over time. The Table 3 attached to this report in Appendix B summarizes the data collected during each of these monitoring events. The individual summary field logs are also included in Appendix C.

2.2 Temperature

Temperature of the surface water in the fall and winter months of November, December and January were generally lower than the previous months and all were below 20 degrees Celsius. During these sampling months, many of the monitoring points were found to be dry, as would be anticipated for intermittent streams in the winter.

Results of the monitoring indicate that the water temperatures for the monitoring points in November ranged from 1.17 – 2.29 degrees Celsius. The December water temperatures ranged from 0.03 – 2.37 degrees Celsius. In January, water temperatures ranged from 2.49 -5.31 degrees Celsius as the weather warmed for an unseasonably warm January with an average outside temperature of 34.79 degrees Fahrenheit in 2023 compared to the last five years that ranged from 23.84 to 30.88 degree Fahrenheit. The upgradient and downgradient readings across the Project are similar and comparable to each other, and therefore the construction activities have not impacted the surface waters.

2.3 Dissolved Oxygen

Dissolved oxygen levels were higher than the favorable value of 6 mg/L in all locations that were not dry for all three months. The upgradient and downgradient readings across the Project are similar and comparable to each other, and therefore the construction activities have not impacted the surface waters.

2.4 pH

The monitoring locations reported all the pH levels to be within normal ranges for cold water fisheries at 6.5-8.3 for November through December 2022. The readings at stations 527 U, 540 U/D, and 561 U/D were slightly lower than favorable (<6.5 pH) in the January 2023 sampling event. These readings are consistent with previous readings in 2022. The upgradient and downgradient readings across the Project are similar and comparable to each other, and therefore the construction activities have not impacted the surface waters.

2.5 Specific Conductivity

The monitoring events for specific conductivity at 25 degrees Celsius at a majority of the Stations were above the acceptable range for freshwater fisheries of 150-500 µS/cm for all three monitoring events, except for ST 527 U/D,540 U/D, and 561 U/D, which was within the acceptable range. Readings were not significantly elevated above 500 µS/cm in all surface water locations except for the Hop Brook Tributary, which has minimal flow and is observed to be in poor condition. Levels between 500 – 1500 µS/cm are typical for freshwater streams and none of the readings were reported to be above 1500 µS/cm. The upgradient and downgradient readings across the Project are similar and comparable to each other, and therefore the construction activities have not impacted the surface waters.

2.6 Turbidity

Turbidity levels are not specifically defined by a standard value in Massachusetts. Based on available information, for the purpose of this assessment, it can be assumed that a value of less than 5 NTU is favorable for freshwater, however the lower the better as typical groundwater is less than 1 NTU. Turbidity values reported for each station were less than 5 NTUs for all monitoring events except for the December and January monitoring events at the Hop Brook

Tributary (ST 700 and 710). This tributary has continually had turbid water and the least favorable water quality conditions, even pre-construction. The upgradient and downgradient readings across the Project are similar and comparable to each other, and therefore the construction activities have not impacted the surface waters.

2.7 Other Parameters

The stream flow velocities from the downgradient side to the upgradient side were comparable and consistent from month to month. The ORP, alkalinity, chlorine, and hardness levels from the downgradient side to the upgradient side were similar and comparable. Alkalinity and chlorine levels were within the favorable levels for freshwater.

3 SUMMARY

Based on the monitoring data collected for this Project, the construction activities are not impacting the surface waters based on the data collected from the upgradient and downgradient sides of the crossings for this Project.

4 REFERENCES

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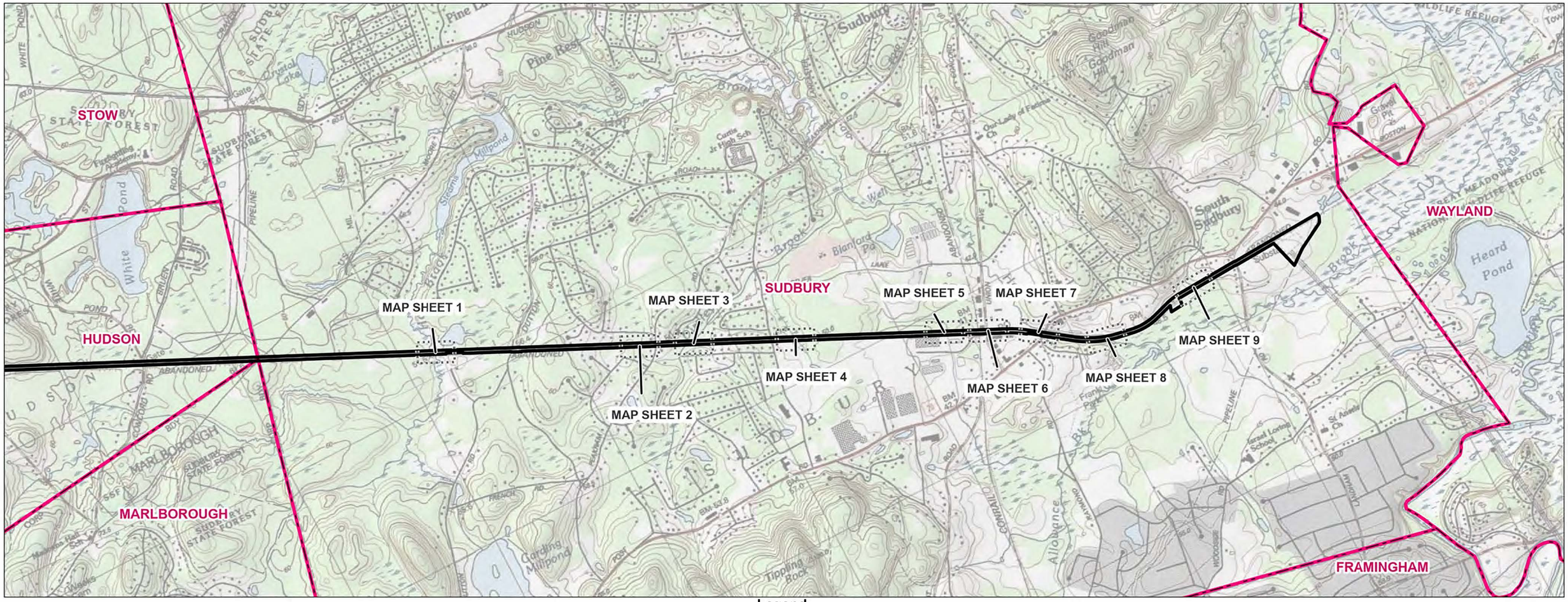
APPENDIX A

Figures Map Book

2021 - Sudbury Hudson Reliability Project

HUDSON, STOW, & SUDBURY, MA
Water Sampling Map

Date: August 11, 2021



Legend

Map Sheet Matchline

PREPARED FOR:

EVERSOURCE ENERGY
107 Selden Street
Berlin, CT 06037

N

0 0.25 0.5 Miles

INDEX OF FIGURES

Title Sheet / Index Map
Map Sheets 1-9

NO.	DATE	REVISIONS

PREPARED BY:

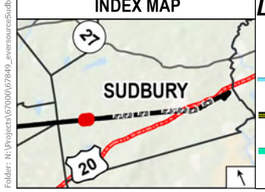
SWCA ENVIRONMENTAL CONSULTANTS
15 Research Drive
Amherst, MA 01002

SUDBURY

ST-400-D

ST-400-U

INDEX MAP



Legend

- Water Sampling Point
- Watercourse
- Limit Of Work (LOW)
- Coldwater Fisheries Line
- Open Water
- Approximate Wetland (Not Delineated)
- Existing Right-of-Way (ROW)
- Municipal Boundary

N

1:600

0 25 50 Feet

Base Map: MassGIS Ortho 2019, accessed August 2021

NO.	DATE	REVISIONS

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Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA

MAP SHEET 1 OF 9

Date: August, 2021

SWCA ENVIRONMENTAL CONSULTANTS

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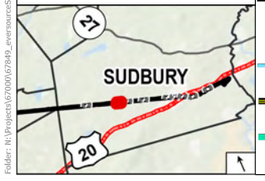
ST-527-U

ST-527-D

SUDBURY

INDEX MAP



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Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA | MAP SHEET 2 OF 9

Date: August, 2021

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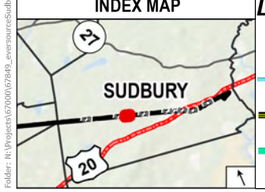
DUDLEY BROOK

ST-540-D

ST-540-U

SUDBURY

INDEX MAP



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Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA

MAP SHEET 3 OF 9

Date: August, 2021

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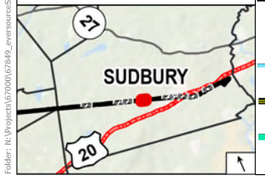
ST-561-D

ST-561-U

SUDBURY

INDEX MAP



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Base Map: MassGIS Ortho 2019, accessed August 2021

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EVERSOURCE ENERGY

Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA | MAP SHEET 4 OF 9

Date: August, 2021

SWCA ENVIRONMENTAL CONSULTANTS

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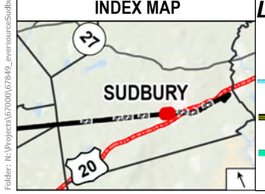
SUDBURY

ST-593-U

ST-593-D

INDEX MAP



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Base Map: MassGIS Ortho 2019, accessed August 2021

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Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA | MAP SHEET 5 OF 9

Date: August, 2021

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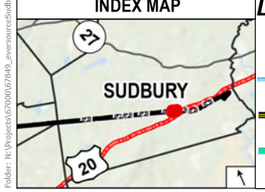
INDEX MAP



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Base Map: MassGIS Ortho 2019, accessed August 2021

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Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA | MAP SHEET 6 OF 9

Date: August, 2021

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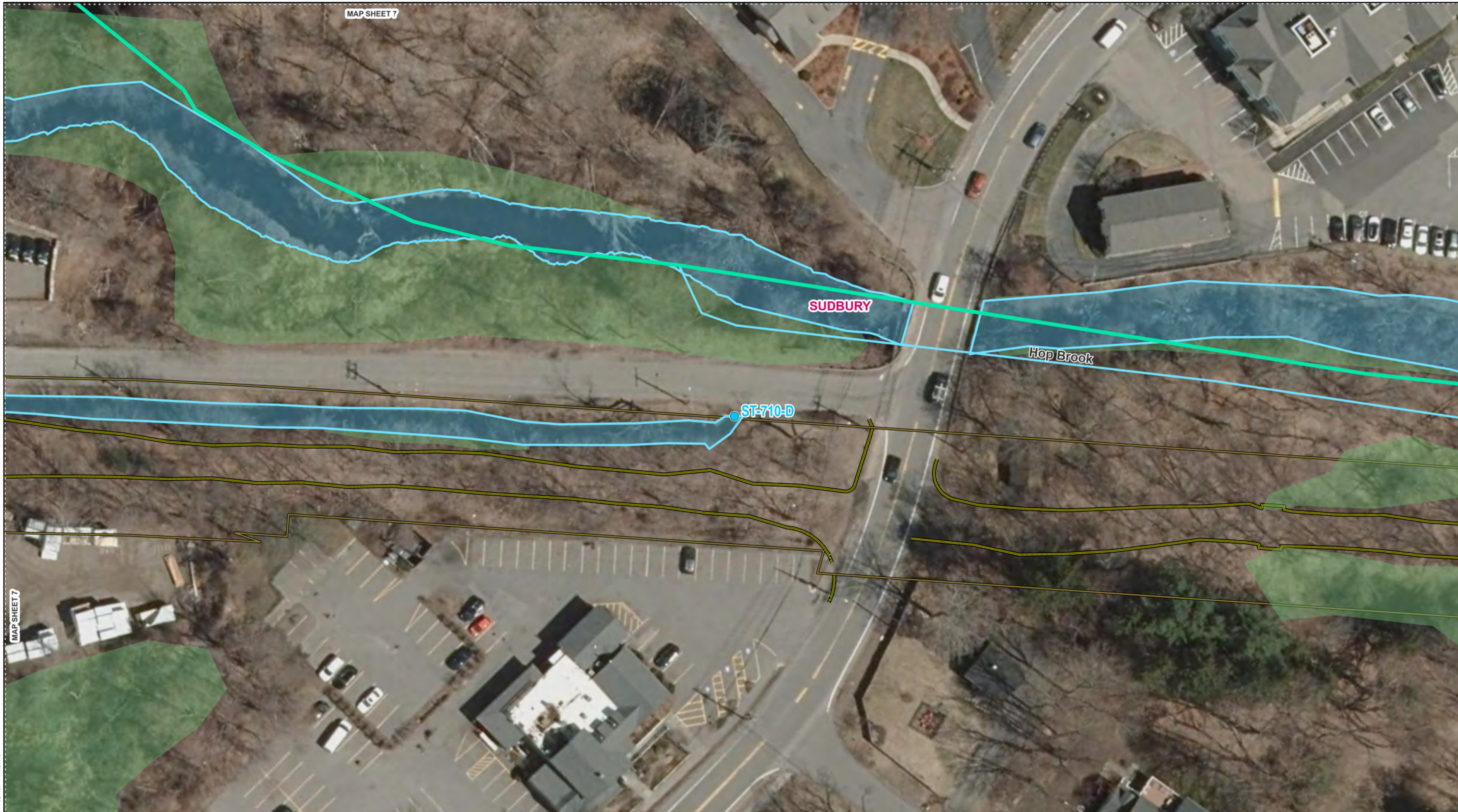

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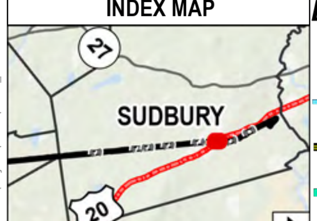

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Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA

MAP SHEET 7 OF 9

Date: August, 2021

SWCA ENVIRONMENTAL CONSULTANTS

Hop Brook

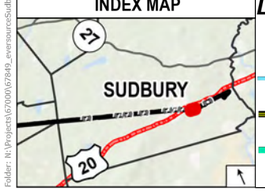
ST-725-U

ST-725-D

SUDBURY

MAP SHEET 8

INDEX MAP



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EVERSOURCE ENERGY

Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA

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Date: August, 2021

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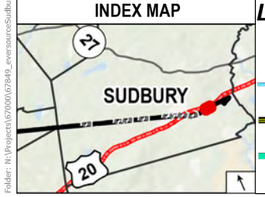
SUDBURY

ST-747-U

ST-747-D

INDEX MAP



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Base Map: MassGIS Ortho 2019, accessed August 2021

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

Sudbury Hudson Reliability Project
Water Sampling Map

SUDBURY, MA

MAP SHEET 9 OF 9

Date: August, 2021

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APPENDIX B

Tables

Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 400 UP**																
Brook/Stream/Tributary	Conditions	Hop Brook																
Plan #	for	PLAN 47																
Direction of Flow	Cold	south																
Type	Water	perennial																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	22.25	16.20	9.23	2.77	2.16	2.48	6.48	11.88	15.15	24.82	21.27	26.25	22.64	16.06	11.38	2.3	2.37	4.35
Specific Conductance (µS/cm @ 25°C)	150-500	414	422	421	408	410	573	768	730	727	889	771	787	852	666	598	764	572	523
Specific Conductance (µS/cm)	150-500	393	351	294	235	231	327	496	547	599	880	716	806	813	552	442	432	325	316
Dissolved Oxygen (%)	nsl	62	80	87	97	101	99	80.1	88.8	97.1	74.6	90.5	84.1	62.8	73.6	78.8	84.5	88	89.9
Dissolved Oxygen (mg/L)	> 6	5.34	7.85	9.99	13.12	13.95	13.40	9.82	9.56	9.72	6.21	8	6.78	5.4	7.23	8.6	11.55	12.03	11.66
pH	6.5-8.3	6.6	6.8	6.7	6.5	6.8	7.0	7.2	7.52	8.01	7.75	7.42	7	7.79	7.78	6.8	6.8	7.2	6.68
ORP	nsl	91	94	93	78	104	69	156	144	137	107	73	60	73	85	109	135	34	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	2.86	1.73	2.39	1.95	2.37	2.58	1.83	0.81	1.45	2.03	3.64	1.69	2.6	1.6	2.7	2.4	1.25	0.87
Alkalinity	< 300	40	40	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardness	nsl	100	0	0	0	20	0	40	20	40	40	40	40	80	40	40	40	40	40
Velocity (ft/s)	nsl	0.35	0.38	0.4	0.28	Na	0.36	1.3	0.42	0.52	0.34	0.32	0.14	0.29	0.59	0.36	0.35	1.25	0.48

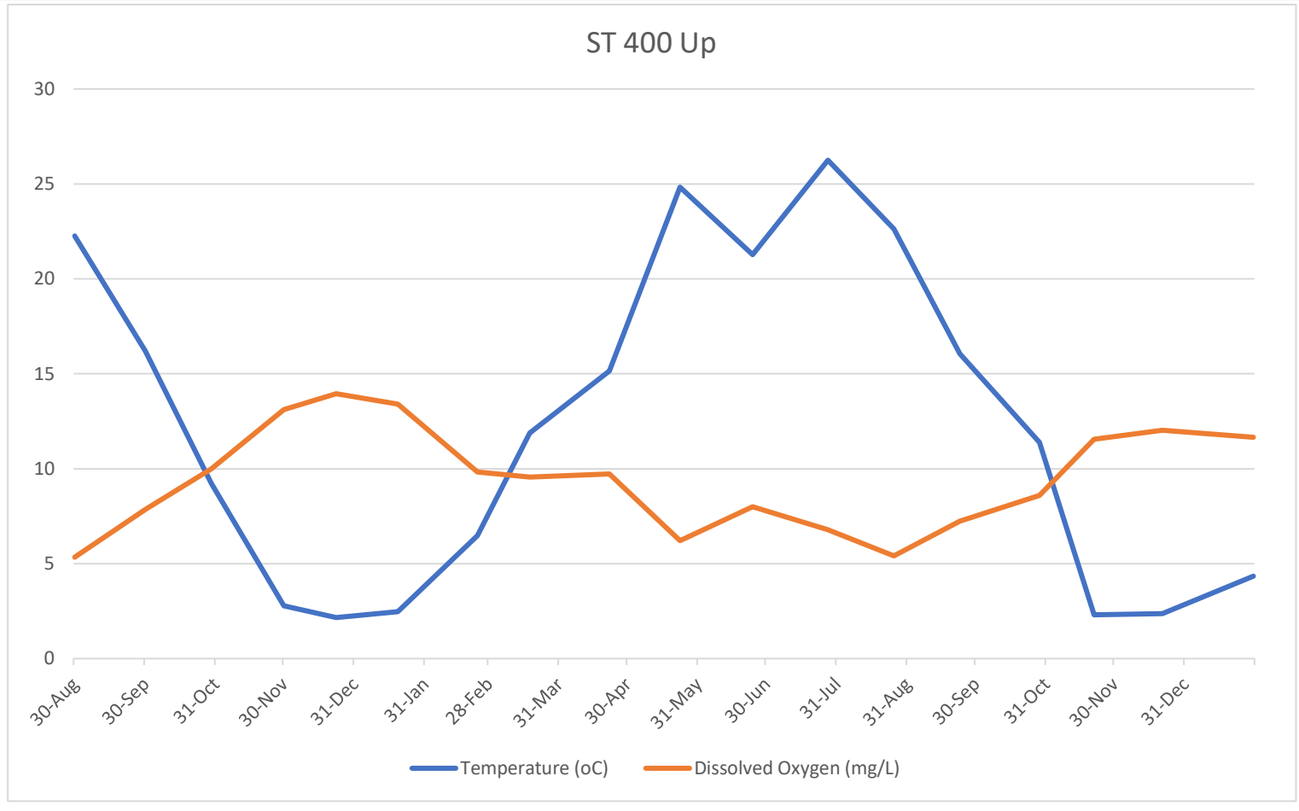


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 400 DOWN**																	
Brook/Stream/Tributary	Conditions	Hop Brook																	
Plan #	for	PLAN 47																	
Direction of Flow	Cold	south																	
Type	Water	perennial																	
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	22.25	16.17	9.22	2.74	2.12	2.47	6.45	11.85	15.16	24.78	21.14	26.18	22.59	16.04	11.39	2.29	2.37	4.34
Specific Conductance (µS/cm @ 25°C)	150-500	415	422	420	408	408	573	775	717	715	868	777	788	877	681	604	761	572	525
Specific Conductance (µS/cm)	150-500	394	351	293	235	230	327	500	537	580	865	718	805	834	564	447	431	325	318
Dissolved Oxygen (%)	nsl	60	78	86	104	105	99	83.5	87.9	93.5	75.9	90	77.5	63.6	74.1	79.9	83.7	88	91
Dissolved Oxygen (mg/L)	> 6	5.20	7.64	9.02	14.05	14.33	13.46	10.24	9.48	9.37	6.26	7.98	6.24	5.49	7.3	8.68	11.46	12.03	11.79
pH	6.5-8.3	6.6	6.7	6.7	6.5	6.8	7.0	7.1	7.47	7.85	7.7	7.73	7	7.85	7.68	6.8	6.8	7.2	6.79
ORP	nsl	91	94	93	79	117	119	159	146	142.4	103	60	50	75	86.2	140	140	34	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	2.86	1.73	2.30	2.02	2.43	2.56	1.88	1.04	1.91	1.97	3.25	1.5	2.63	1.3	2.74	2.45	1.25	0.86
Alkalinity	< 300	40	40	0	0	0	0	100	100	100	100	100	100	100	100	100	100	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardness	nsl	100	0	0	0	20	0	40	20	40	40	40	40	80	40	40	40	40	40
Velocity (ft/s)	nsl	0.34	0.31	0.39	0.4	Na	0.35	1.25	0.32	0.49	0.28	0.3	0.17	0.34	0.56	0.4	0.37	1.25	0.475

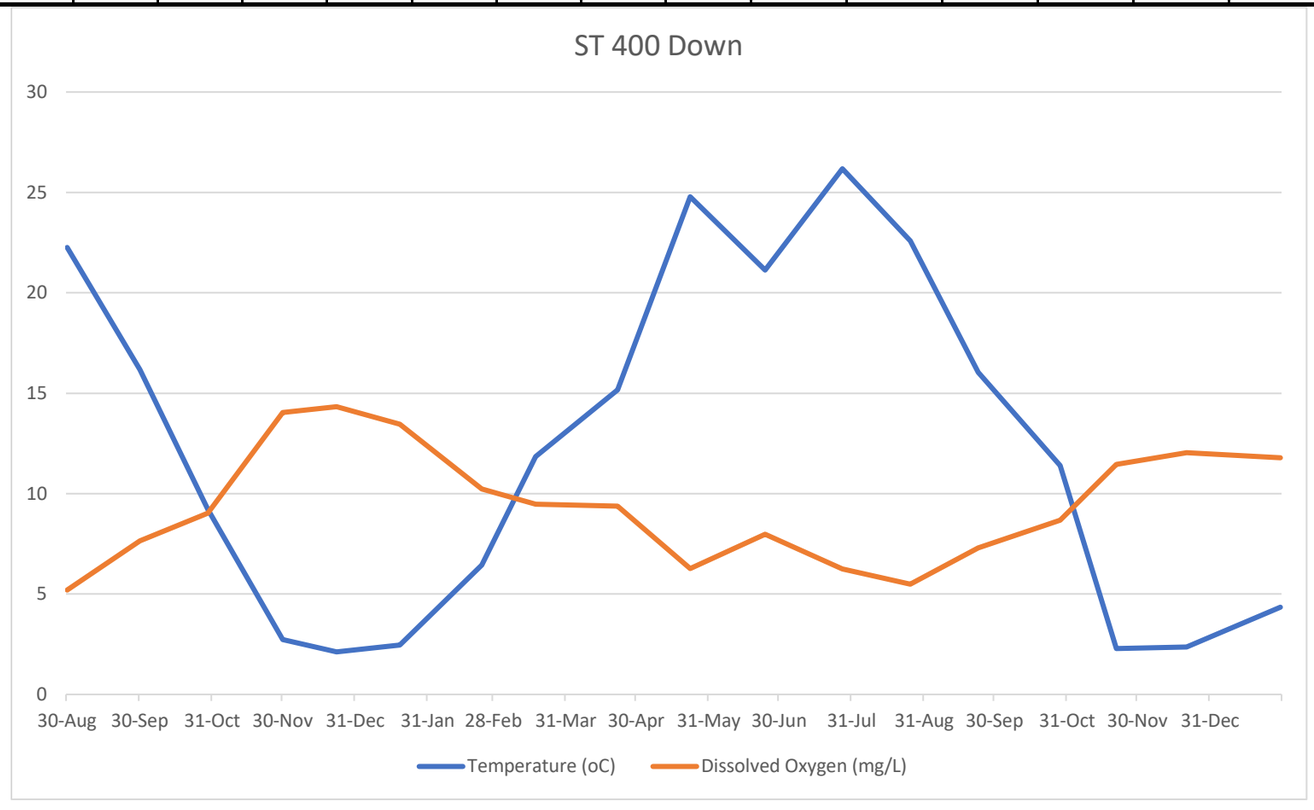


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 527 UP**																
Brook/Stream/Tributary	Conditions	Unnamed Stream																
Plan #	for	PLAN 52																
Direction of Flow	Cold	south																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	17.19	12.17	7.42	2.39	1.56	1.08	5.58	10.66	13.53	17.21	15.18	dry	dry	13.4	8.75	1.82	0.92	5.31
Specific Conductance (µS/cm @ 25°C)	150-500	305	290	201	301	260	309	527	426	508	487	563	dry	dry	587	474	623	462	366
Specific Conductance (µS/cm)	150-500	259	219	148	170	144	163	332	309	397	420	458	dry	dry	493	327	389	241	229
Dissolved Oxygen (%)	nsl	51	61	54	67	70	72	62.4	78.8	91.3	50.5	63.6	dry	dry	71.2	44.3	65.3	76.5	85.5
Dissolved Oxygen (mg/L)	> 6	4.94	6.56	6.02	9.17	9.71	10.2	7.82	8.74	9.47	4.87	6.38	dry	dry	7.03	5.13	8.91	9.49	10.82
pH	6.5-8.3	5.4	6.1	6.3	6.3	6.0	6.0	6.2	6.37	6.42	6.62	6.8	dry	dry	7.2	6.8	6.8	7	6.14
ORP	nsl	130	117	105	97	127	97	200	186	179	119	Ns	dry	dry	90	98	87	100	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	2.30	0.63	1.52	1.53	2.98	2.20	2.03	2.01	1.46	3.01	0.76	dry	dry	1.97	1.77	3.76	1.77	1.64
Alkalinity	< 300	0	0	0	100	0	0	0	0	0	100	100	dry	dry	100	100	100	100	0
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	0	0	0	0	0
Hardness	nsl	100	0	0	0	20	0	0	20	0	0	0	dry	dry	40	0	40	40	0
Velocity (ft/s)	nsl	0.2	0.18	0.1	0.21	Na	0.15	0.53	0.09	0.08	0.14	0.09	dry	dry	0.14	0.13	0.013	0.15	0.186

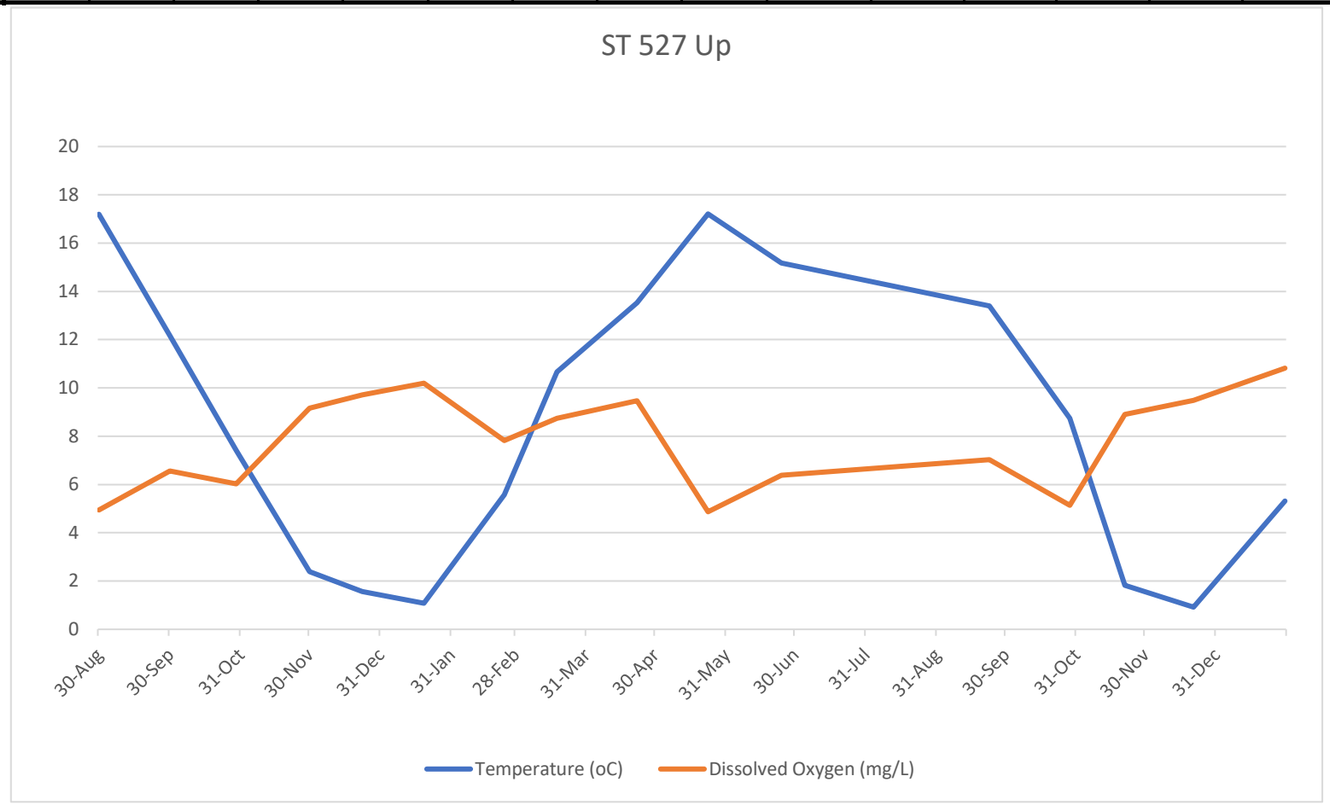


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 527 DOWN**																
Brook/Stream/Tributary	Conditions	Unnamed Stream																
Plan #	for	PLAN 52																
Direction of Flow	Cold	south																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	17.07	12.13	7.36	2.48	1.63	1.07	5.49	10.11	13.11	17.17	14.88	dry	dry	13.56	8.84	1.68	0.89	4.74
Specific Conductance (µS/cm @ 25°C)	150-500	301	287	204	304	262	294	538	435	513	604	579	dry	dry	560	482	624	481	374
Specific Conductance (µS/cm)	150-500	255	217	154	174	145	159	337	311	396	513	467	dry	dry	479	323	402	274	229
Dissolved Oxygen (%)	nsl	52	64	56	67	74	74	64.6	70.9	85.3	54.5	61.8	dry	dry	67.9	39.4	67.4	73.5	75.3
Dissolved Oxygen (mg/L)	> 6	4.98	6.87	6.16	9.12	10.31	10.45	8.13	7.88	8.95	5.23	6.23	dry	dry	6.89	4.57	8.46	10.21	9.65
pH	6.5-8.3	5.8	6.5	6.4	6.4	6.2	6.0	6.2	6.38	6.48	6.58	6.78	dry	dry	7.2	6.8	6.8	7	6.87
ORP	nsl	127	106	105	96	122	81	175	178	173	123	116	dry	dry	80	90	76	60	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	1.18	0.84	1.56	1.40	2.00	1.50	1.81	1.26	1.4	2.18	0.64	dry	dry	1.89	1.24	3.78	1.48	1.94
Alkalinity	< 300	0	0	0	100	0	0	0	0	0	100	100	dry	dry	100	100	100	100	0
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	0	0	0	0	0
Hardness	nsl	100	100	0	0	0	0	0	20	0	0	0	dry	dry	40	0	40	40	0
Velocity (ft/s)	nsl	0.21	0.06	0.13	0.14	Na	0.1	0.48	0.23	0.17	0.09	0.06	dry	dry	0.12	0.09	0.01	0.1	0.155

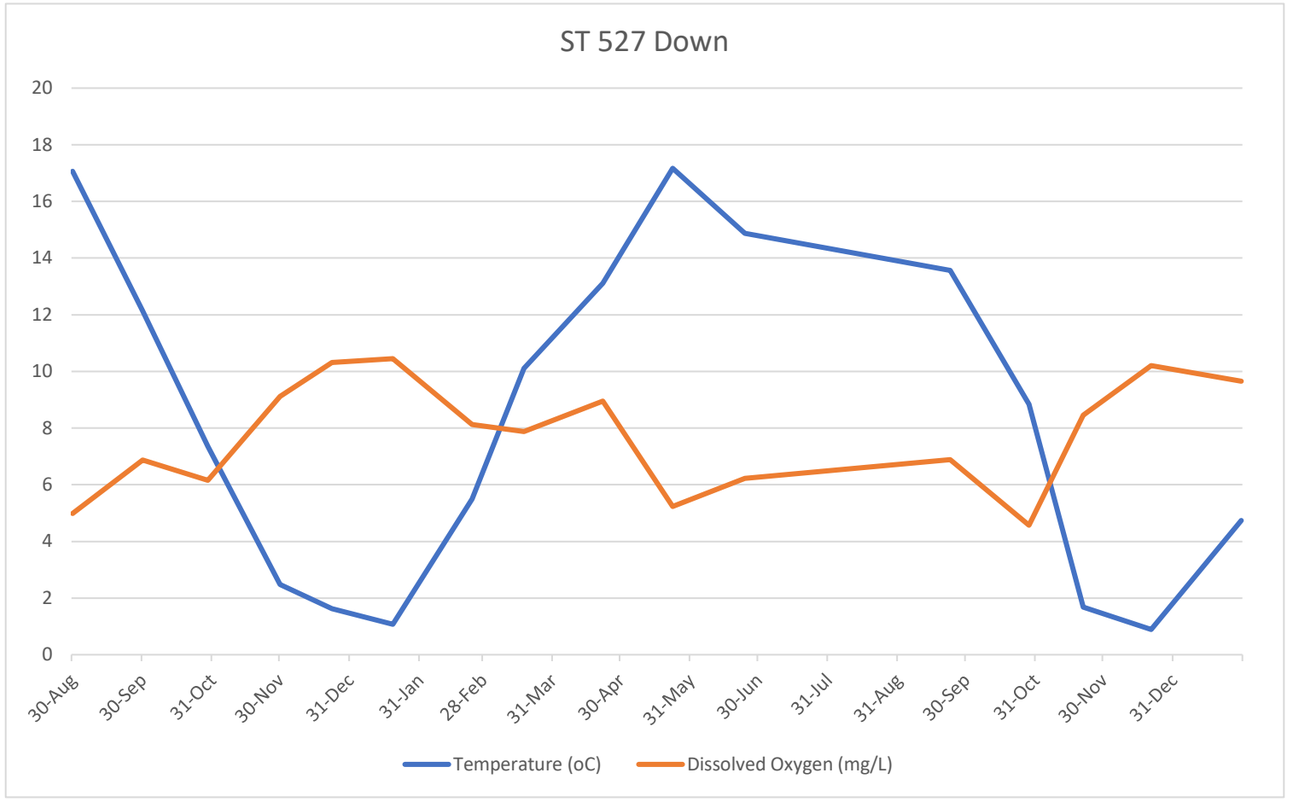


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 540 UP**																
Brook/Stream/Tributary	Conditions	Dudley Brook																
Plan #	for	PLAN 54																
Direction of Flow	Cold	south																
Type	Water	perennial																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	18.84	13.17	7.78	1.62	1.02	0.42	5.2	10.35	12.72	19.67	17.54	21.73	20.7	13.9	9.67	1.47	0.86	3.55
Specific Conductance (µS/cm @ 25°C)	150-500	340	305	271	312	288	377	573	487	553	663	630	609	890	701	654	599	461	405
Specific Conductance (µS/cm)	150-500	300	236	182	172	157	198	360	350	423	599	540	561	805	625	378	330	248	238
Dissolved Oxygen (%)	nsl	16	56	52	73	79	80	83	84.4	70.6	42.1	53	58.3	57.8	67	34.8	59.7	70	73.9
Dissolved Oxygen (mg/L)	> 6	1.41	5.91	6.11	10.16	11.15	11.60	10.26	9.43	7.6	4.01	5.07	5.12	4.77	6.92	3.93	8.35	9.97	9.78
pH	6.5-8.3	6.1	6.7	6.5	6.6	6.6	7.0	6.7	6.95	6.99	7.45	7.2	6.8	7	7.2	6.6	6.9	7.2	6.22
ORP	nsl	123	101	101	87	106	55	162	176	168	107	94	100	80	135	68	100	173	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	3.14	1.37	1.90	1.86	1.54	1.66	2.2	1.67	2	2.67	2.48	3.29	4.2	2.66	4.5	3.56	0.92	0.42
Alkalinity	< 300	40	20	0	100	0	0	100	0	100	100	100	100	100	100	100	100	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardness	nsl	100	0	0	0	0	0	0	20	20	40	40	40	40	40	40	40	40	40
Velocity (ft/s)	nsl	0.55	0.44	0.66	0.31	Na	0.8	0.78	0.52	1.1	0.4	0.25	1.09	0.19	0.26	0.26	0.035	0.52	1.445

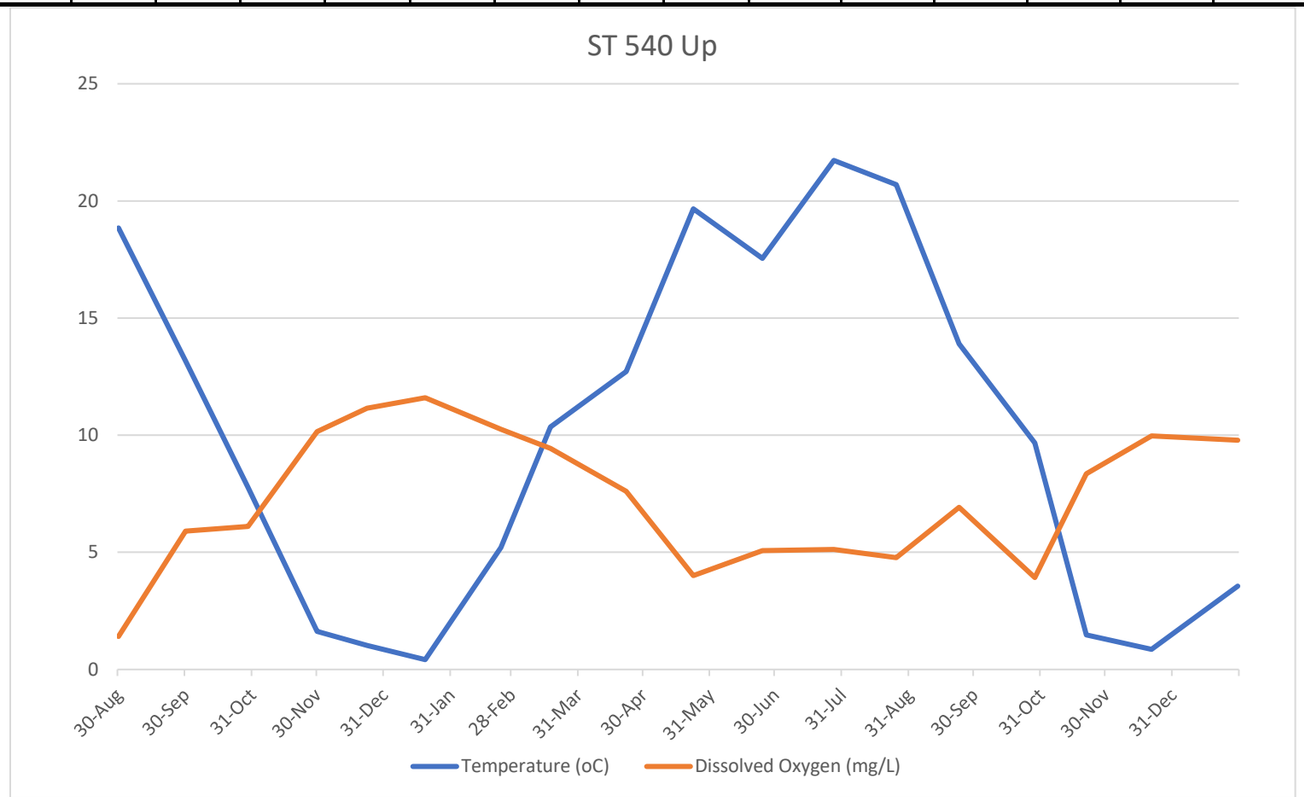


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 540 DOWN**																
Brook/Stream/Tributary	Conditions	Dudley Brook																
Plan #	for	PLAN 54																
Direction of Flow	Cold	south																
Type	Water	perennial																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	18.83	13.18	7.89	1.72	0.80	0.27	5.47	10.32	13.11	19.94	17.43	21.97	20.6	13.56	9.73	1.56	1.00	3.33
Specific Conductance (µS/cm @ 25°C)	150-500	344	311	274	311	296	376	628	480	555	674	654	591	895	560	558	585	484	406
Specific Conductance (µS/cm)	150-500	303	241	184	173	159	199	394	345	429	609	559	556	820	479	395	323	262	238
Dissolved Oxygen (%)	nsl	42	67	59	76	88	78	74.3	77.2	86.4	46.7	57	55.2	57.1	67.9	36.3	59.4	75.1	72.2
Dissolved Oxygen (mg/L)	> 6	3.86	6.98	7.00	10.57	12.49	11.33	9.28	8.63	9.06	4.24	5.51	4.82	4.92	6.89	4.11	8.27	10.61	9.62
pH	6.5-8.3	6.3	6.7	6.9	6.8	6.5	7.0	6.8	7.04	7.11	7.02	7.11	7.2	7	7.2	6.5	6.98	7.2	6.32
ORP	nsl	115	97	101	85	103	52	137	151	128	125	88	100	78	80	87	120	43	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	2.09	1.34	1.84	1.77	1.46	1.94	2.08	1.8	1.4	2.2	2.56	3.4	3.61	1.89	2.25	2.97	0.42	0.96
Alkalinity	< 300	40	40	0	0	0	0	0	100	100	100	100	100	100	100	100	100	100	0
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	<Null>	0	0	0	0	0	0	0	0	0	0
Hardness	nsl	100	0	0	0	20	0	0	20	20	40	40	40	40	40	40	40	40	40
Velocity (ft/s)	nsl	0.4	0.34	0.8	0.31	Na	0.25	0.6	1.2	0.82	0.36	0.57	0.26	0.26	0.12	0.43	0.045	0.48	1.128

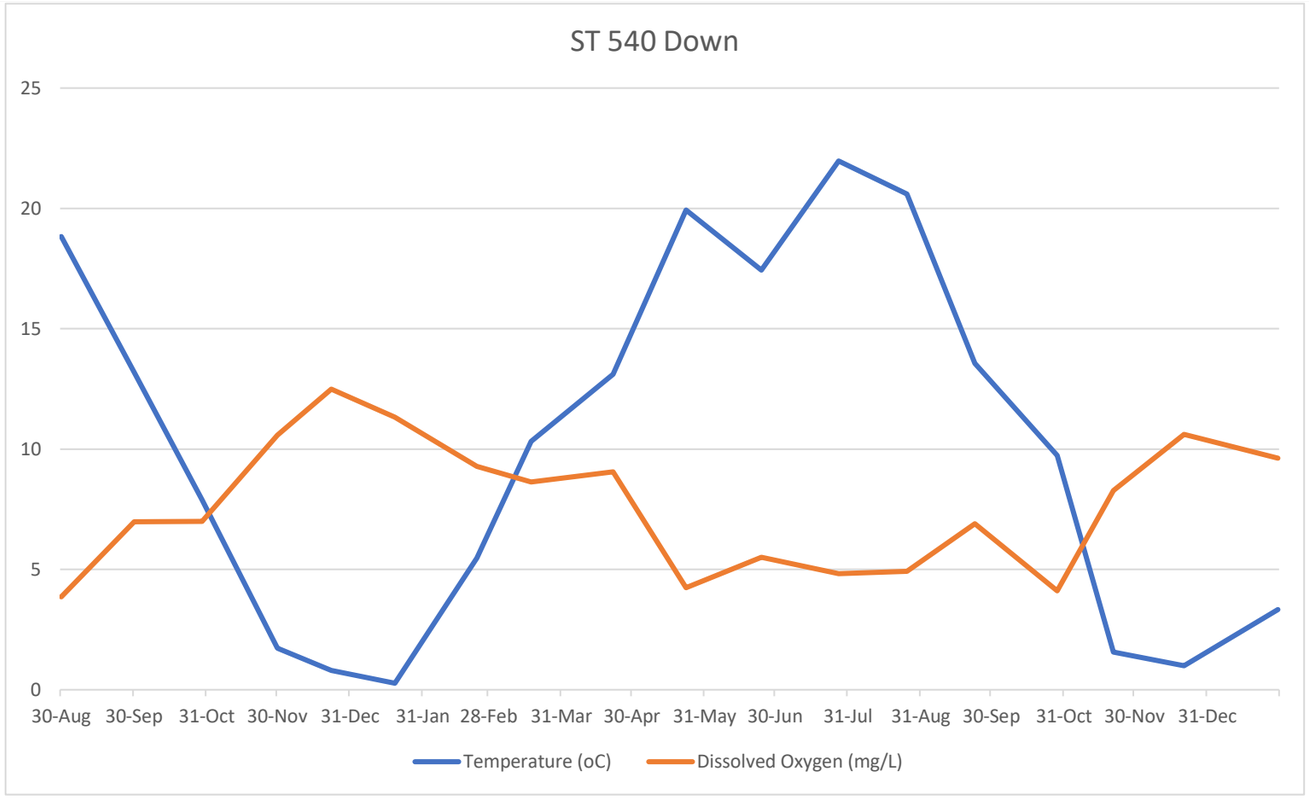


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 561 UP**																
Brook/Stream/Tributary	Conditions	Unnamed Stream																
Plan #	for	PLAN 57																
Direction of Flow	Cold	north																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	20.59	14.12	7.57	0.84	0.02	0.22	6.7	12.92	15.79	21	dry	dry	dry	dry	dry	dry	dry	4.1
Specific Conductance (µS/cm @ 25°C)	150-500	361	344	243	308	244	269	485	439	557	790	dry	dry	dry	dry	dry	dry	dry	408
Specific Conductance (µS/cm)	150-500	331	272	162	166	127	141	315	337	459	678	dry	dry	dry	dry	dry	dry	dry	245
Dissolved Oxygen (%)	nsl	22	42	38	64	71	40	62.4	80.8	91.3	62.5	dry	dry	dry	dry	dry	dry	dry	73.8
Dissolved Oxygen (mg/L)	> 6	2.00	4.32	4.53	9.07	10.4	5.81	7.6	8.53	9.03	6.01	dry	dry	dry	dry	dry	dry	dry	9.63
pH	6.5-8.3	6.1	6.7	6.4	6.9	6.6	6.7	6.8	7.08	7.35	7.45	dry	dry	dry	dry	dry	dry	dry	6.43
ORP	nsl	47	78	73	72	99	68	147	98	94	89	dry	dry	dry	dry	dry	dry	dry	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	5.74	1.40	2.16	1.72	1.44	1.70	1.58	3.28	1.94	3.2	dry	dry	dry	dry	dry	dry	dry	2.24
Alkalinity	< 300	40	40	40	0	0	0	100	100	100	100	dry	dry	dry	dry	dry	dry	dry	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	dry	dry	dry	dry	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	dry	dry	dry	dry	0
Hardness	nsl	100	100	0	0	40	0	40	20	40	40	dry	dry	dry	dry	dry	dry	dry	20
Velocity (ft/s)	nsl	0.08	0.06	0.19	0.16	Na	0.04	0.15	0.31	0.18	0.17	dry	dry	dry	dry	dry	dry	dry	0.478

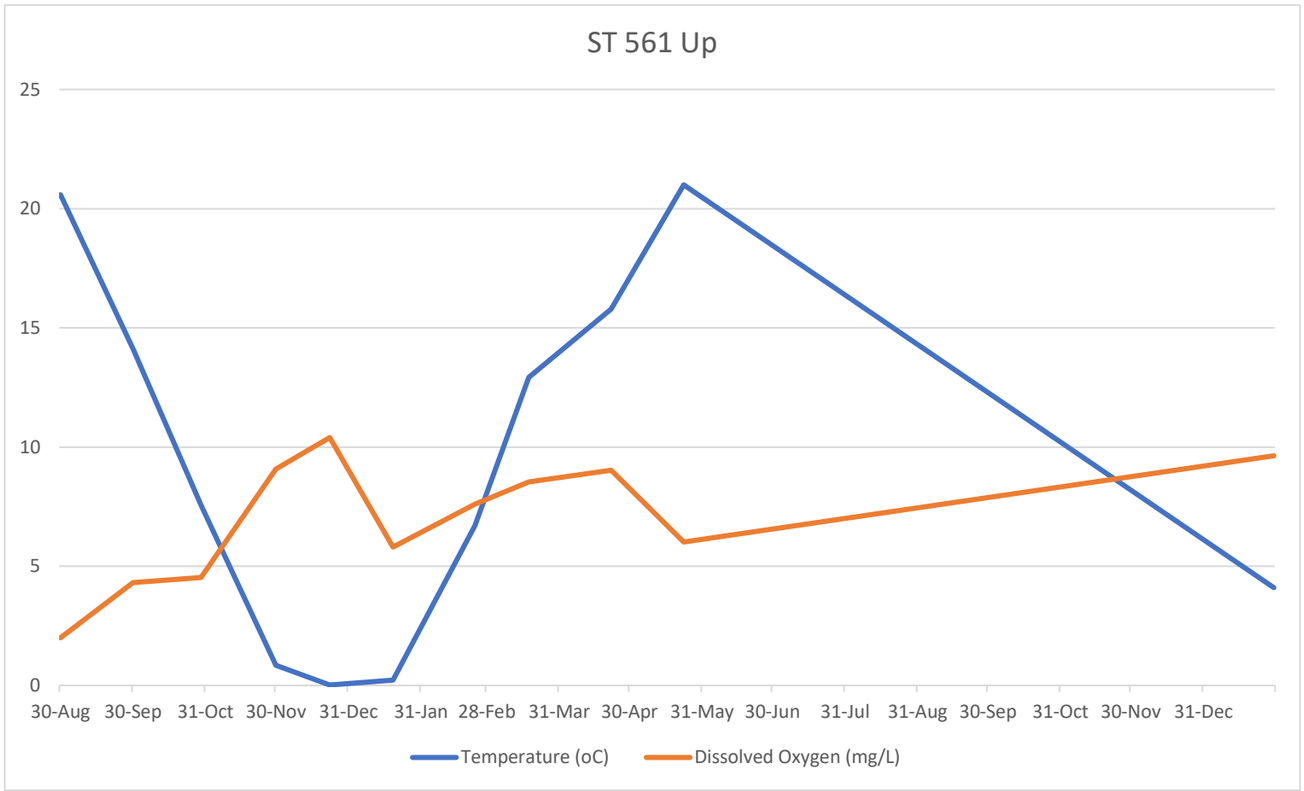


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 561 DOWN**																	
Brook/Stream/Tributary	Conditions	Unnamed Stream																	
Plan #	for	PLAN 57																	
Direction of Flow	Cold	north																	
Type	Water	intermittent																	
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	20.14	14.10	7.61	1.17	0.19	0.27	6.79	12.42	14.56	20.3	dry	dry	dry	dry	dry	dry	dry	3.61
Specific Conductance (µS/cm @ 25°C)	150-500	350	338	252	311	245	281	497	431	567	835	dry	dry	dry	dry	dry	dry	dry	424
Specific Conductance (µS/cm)	150-500	318	268	168	168	129	149	324	327	454	750	dry	dry	dry	dry	dry	dry	dry	251
Dissolved Oxygen (%)	nsl	37	62	62	76	85	44	63.6	74.4	85	67.8	dry	dry	dry	dry	dry	dry	dry	69.5
Dissolved Oxygen (mg/L)	> 6	3.36	5.34	7.28	10.78	12.28	6.29	7.74	7.93	8.61	6.4	dry	dry	dry	dry	dry	dry	dry	9.18
pH	6.5-8.3	6.7	7.0	7.3	7.2	6.5	6.7	6.9	7.1	7.26	7.45	dry	dry	dry	dry	dry	dry	dry	6.15
ORP	nsl	53	70	52	46	79	95	131	116	92.2	48	dry	dry	dry	dry	dry	dry	dry	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	1.87	1.90	3.27	1.90	1.73	1.67	1.89	1.85	2.3	4.2	dry	dry	dry	dry	dry	dry	dry	1.04
Alkalinity	< 300	40	40	40	100	0	0	0	100	100	100	dry	dry	dry	dry	dry	dry	dry	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	dry	dry	dry	dry	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	dry	dry	dry	dry	0
Hardness	nsl	100	100	0	40	0	0	0	20	20	40	dry	dry	dry	dry	dry	dry	dry	20
Velocity (ft/s)	nsl	0.1	0.13	0.45	0.37	Na	0.04	0.28	0.12	0.2	0.12	dry	dry	dry	dry	dry	dry	dry	0.574

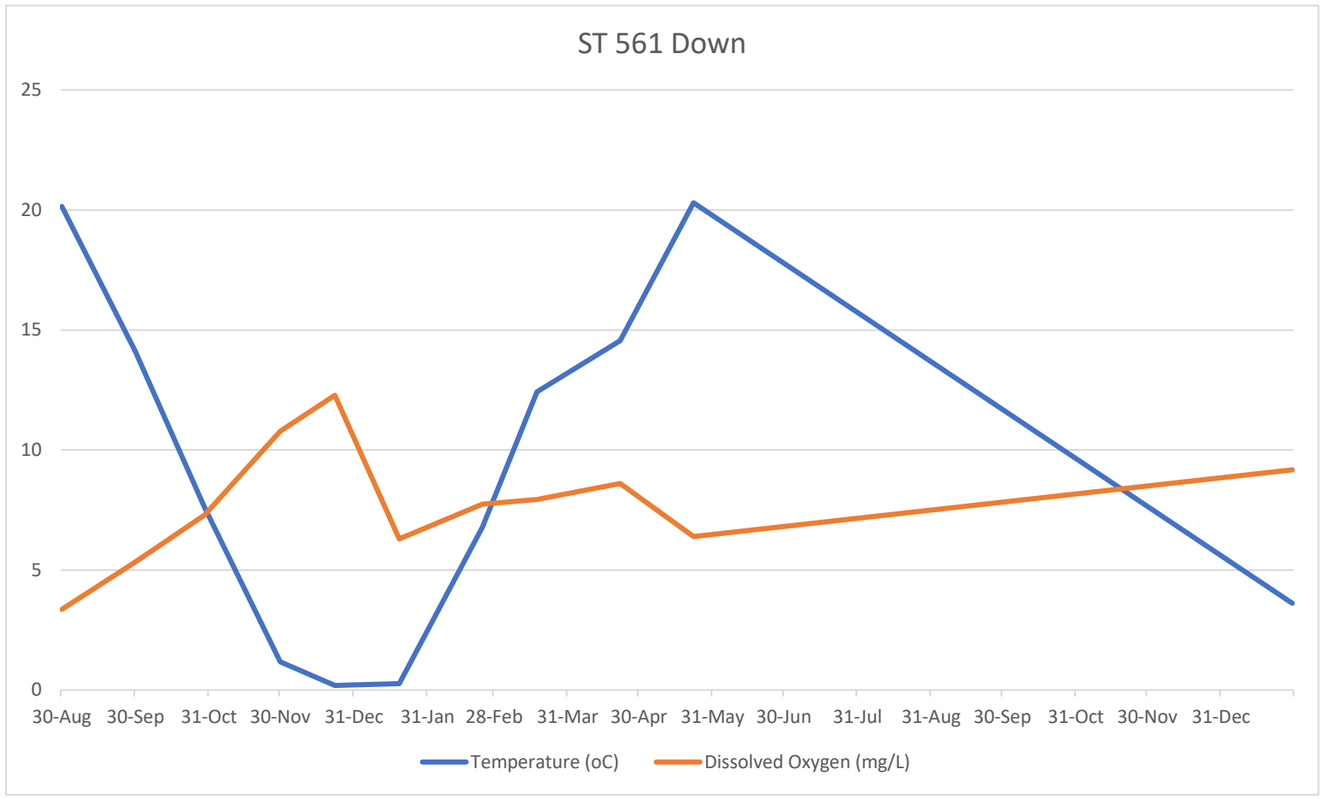


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 593 UP**																
Brook/Stream/Tributary	Conditions	Unnamed Stream																
Plan #	for	PLAN 60																
Direction of Flow	Cold	north																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (^{o}C)	< 20	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Specific Conductance (µS/cm @ 25^{o}C)	150-500	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Specific Conductance (µS/cm)	150-500	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Dissolved Oxygen (%)	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Dissolved Oxygen (mg/L)	> 6	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	6.5-8.3	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
ORP	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Turbidity (NTU)	free from turbidity that would impair fish habitat	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Alkalinity	< 300	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Chlorine, Free	< 4	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Chlorine, Total	< 4	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Hardness	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Velocity (ft/s)	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry

Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 593 DOWN**																
Brook/Stream/Tributary	Conditions	Unnamed Stream																
Plan #	for	PLAN 60																
Direction of Flow	Cold	north																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (^{o}C)	< 20	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Specific Conductance (µS/cm @ 25^{o}C)	150-500	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Specific Conductance (µS/cm)	150-500	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Dissolved Oxygen (%)	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Dissolved Oxygen (mg/L)	> 6	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	6.5-8.3	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
ORP	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Turbidity (NTU)	free from turbidity that would impair fish habitat	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Alkalinity	< 300	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Chlorine, Free	< 4	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Chlorine, Total	< 4	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Hardness	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Velocity (ft/s)	nsl	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry

Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 700 UP**																
Brook/Stream/Tributary	Conditions	Hop Brook Tributary																
Plan #	for	PLAN 61																
Direction of Flow	Cold	East																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	21.13	16.14	9.67	7.56	6.43	4.49	6.79	8.15	16.21	26	dry	dry	dry	13.88	11.4	dry	0.08	2.91
Specific Conductance (µS/cm @ 25°C)	150-500	1362	1129	1104	1110	1079	1689	2225	3094	2398	10112	dry	dry	dry	946	900	dry	942	1756
Specific Conductance (µS/cm)	150-500	1263	938	702	742	697	1027	1450	2098	1909	9978	dry	dry	dry	728	750	dry	501	1009
Dissolved Oxygen (%)	nsl	43	41	52	51	56	61	84.2	49.6	76.3	39.5	dry	dry	dry	48.9	46.8	dry	48.9	64.3
Dissolved Oxygen (mg/L)	> 6	3.96	4.13	5.87	5.45	6.88	7.84	10.19	5.78	7.11	3.7	dry	dry	dry	4.6	4.57	dry	6.71	8.67
pH	6.5-8.3	6.5	6.9	6.8	6.6	6.4	6.4	6.8	6.82	7.1	7.8	dry	dry	dry	7.6	6.7	dry	7.9	6.9
ORP	nsl	62	10	20	29	15	70	56.3	55	65	20	dry	dry	dry	105	82	dry	139	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	20.90	12.09	8.17	14.70	7.59	3.76	6.34	12.8	15	7.2	dry	dry	dry	3.7	5.1	dry	7.56	7.98
Alkalinity	< 300	40	80	40	250	0	100	250	250	100	250	dry	dry	dry	100	100	dry	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	0	0	dry	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	0	0	dry	0	0
Hardness	nsl	100	100	100	80	40	40	40	80	40	40	dry	dry	dry	40	40	dry	40	40
Velocity (ft/s)	nsl	0.23	0.02	0.05	0.01	Na	0.02	0.1	0.05	0.00	0.03	dry	dry	dry	0.02	0.03	dry	0.02	0.05

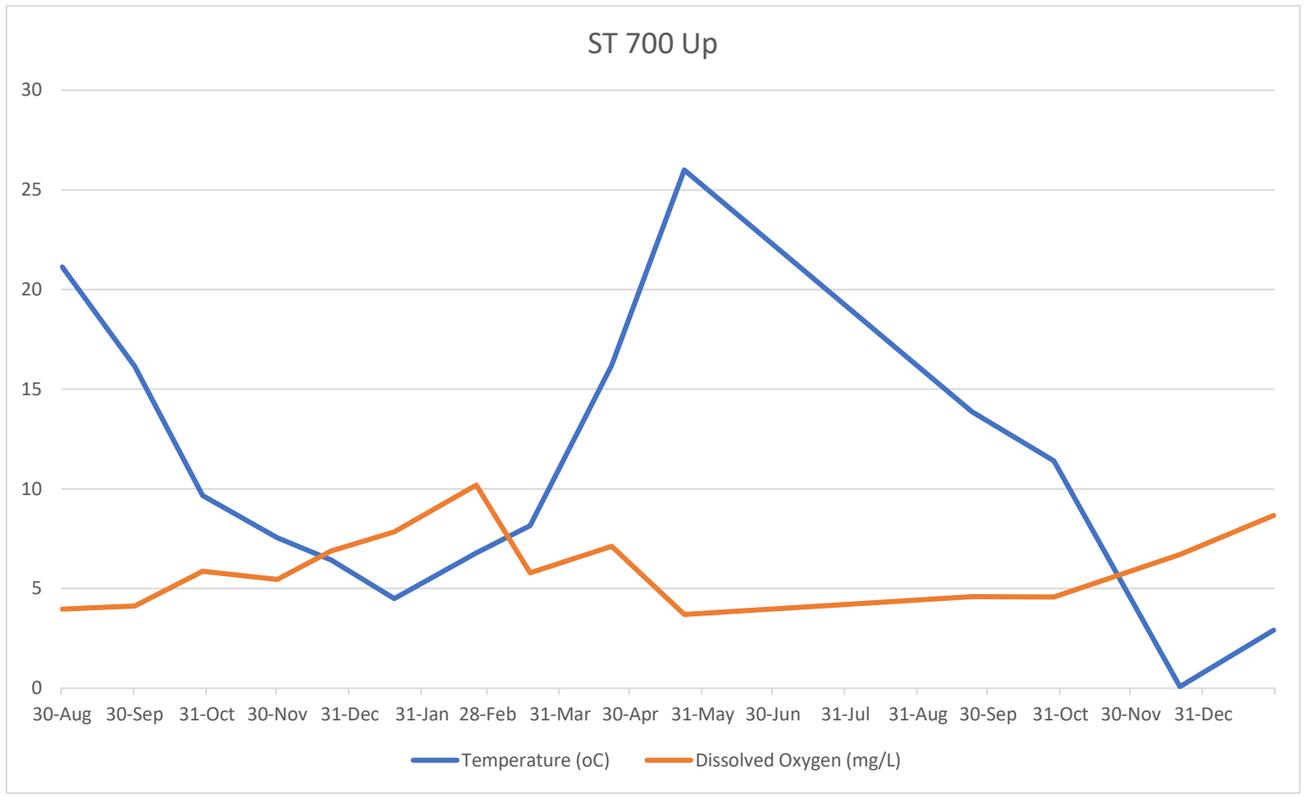


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 710 DOWN**																
Brook/Stream/Tributary	Conditions	Hop Brook Tributary																
Plan #	for	PLAN 63																
Direction of Flow	Cold	East																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	21.08	14.28	9.55	0.40	0.01	frozen	8.55	11.06	15.44	24	dry	dry	dry	13.94	11.35	dry	0.03	2.68
Specific Conductance (µS/cm @ 25°C)	150-500	1122	755	927	1054	1108	frozen	2215	3268	2228	10068	dry	dry	dry	878	1260	dry	955	1731
Specific Conductance (µS/cm)	150-500	1039	600	653	559	580	frozen	1520	2409	1822	9630	dry	dry	dry	677	867	dry	495	992
Dissolved Oxygen (%)	nsl	37	49	61	59	73	frozen	54.8	57.4	82.5	46.8	dry	dry	dry	53.5	24.3	dry	52.3	65.5
Dissolved Oxygen (mg/L)	> 6	3.30	4.97	6.87	8.52	10.51	frozen	6.35	6.25	8.18	4.2	dry	dry	dry	5.61	2.8	dry	7.66	8.83
pH	6.5-8.3	6.8	6.9	6.8	6.5	6.5	frozen	6.8	6.94	7.3	7.6	dry	dry	dry	7.54	6.76	dry	7.8	6.9
ORP	nsl	66	51	25	72	60	frozen	92.4	98	79	10	dry	dry	dry	110	72.7	dry	410	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	11.50	9.48	6.62	6.00	3.82	frozen	3.98	7.25	23	5.7	dry	dry	dry	3.65	4.58	dry	6.42	7.47
Alkalinity	< 300	100	120	40	100	0	frozen	100	250	100	100	dry	dry	dry	100	100	dry	100	100
Chlorine, Free	< 4	0	0	0	0	0	frozen	0	0	0	0	dry	dry	dry	0	0	dry	0	0
Chlorine, Total	< 4	0	0	0	0	0	frozen	0	0	0	0	dry	dry	dry	0	0	dry	0	0
Hardness	nsl	100	100	100	40	20	frozen	40	40	40	40	dry	dry	dry	40	40	dry	40	40
Velocity (ft/s)	nsl	0.08	0.02	0.07	0.02	Na	frozen	0.18	0.2	0.02	0.08	dry	dry	dry	0.06	0.04	dry	0.06	0.05

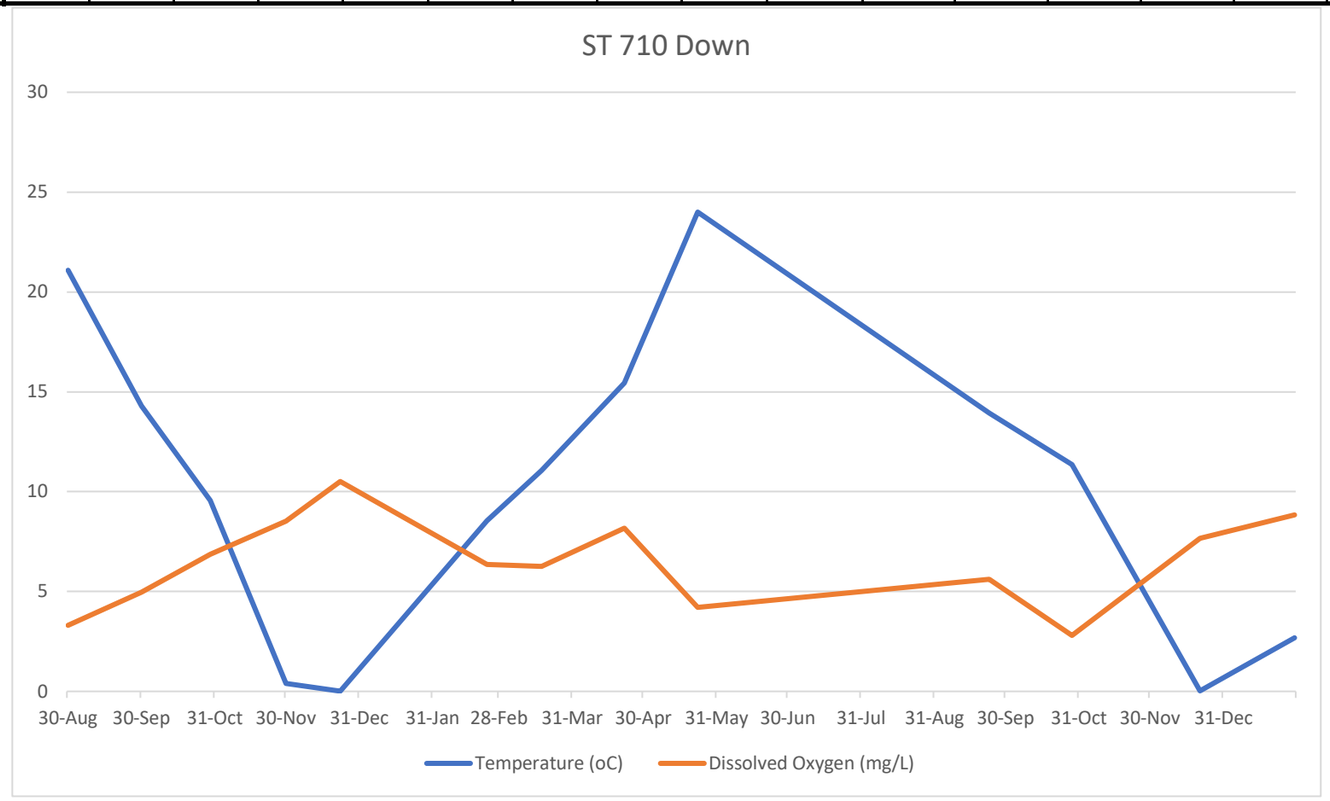


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 725 UP**																
Brook/Stream/Tributary	Conditions	Hop Brook																
Plan #	for	PLAN 65																
Direction of Flow	Cold	south																
Type	Water	perennial																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	20.55	14.52	7.67	1.17	0.54	0.05	6.3	8.9	12.12	22.2	18.63	21.51	21.36	14.26	10.28	1.17	0.12	2.6
Specific Conductance (µS/cm @ 25°C)	150-500	393	355	380	309	358	487	789	653	726	817	750	777	807	658	650	738	520	655
Specific Conductance (µS/cm)	150-500	360	284	254	168	190	255	507	452	548	773	659	725	750	523	475	402	273	375
Dissolved Oxygen (%)	nsl	75	87	94	95	97	105	82.8	83	94	85.9	68.9	67.6	67.3	69.9	74.6	84.3	83	84.8
Dissolved Oxygen (mg/L)	> 6	6.74	8.87	11.23	13.48	13.89	15.20	10.29	9.56	10.07	7.47	6.43	5.93	5.95	7.15	8.32	11.9	12.07	11.48
pH	6.5-8.3	6.8	7.0	6.9	7.1	7.2	7.4	7.2	7.49	7.75	7.89	6.8	7.63	7.2	6.8	6.8	6.8	7.2	6.72
ORP	nsl	97	96	88	81	94	35	88.5	121	116	91	Ns	134	100	140	127	Nm	215	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	2.62	2.15	2.62	2.42	2.25	2.21	2.07	1.86	0.78	3.1	4.59	2.42	3.52	2.29	2.44	2.98	3.08	1.96
Alkalinity	< 300	40	0	0	100	0	0	0	100	100	100	100	100	100	100	100	100	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardness	nsl	100	0	0	40	0	0	0	20	40	40	40	40	80	40	40	40	0	40
Velocity (ft/s)	nsl	0.23	0.15	0.51	0.23	Na	0.46	0.34	0.57	0.38	0.2	0.06	0.1	0.18	0.2	0.27	0.027	0.17	0.19

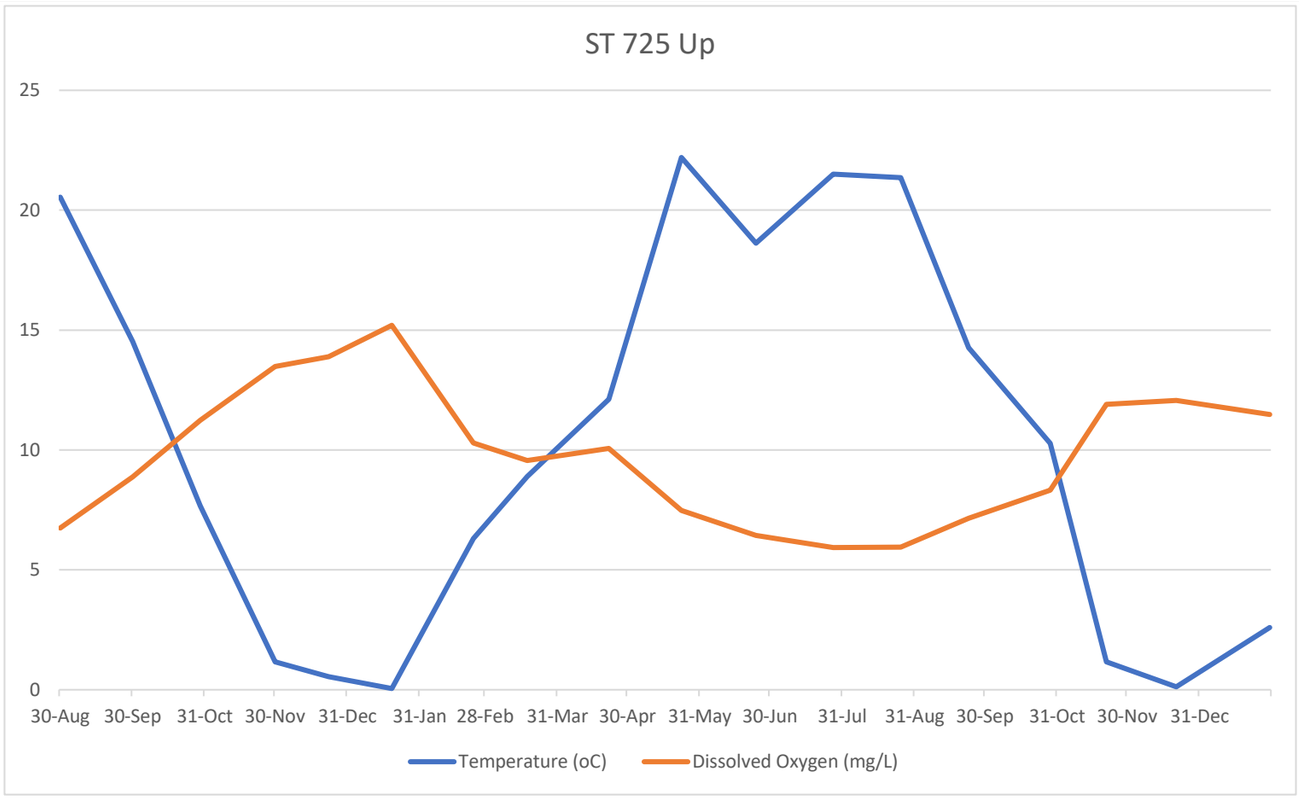


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 725 DOWN**																
Brook/Stream/Tributary	Conditions	Hop Brook																
Plan #	for	PLAN 65																
Direction of Flow	Cold	south																
Type	Water	perennial																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	20.49	14.45	7.63	1.13	0.51	0.06	4.91	8.81	12.17	22.14	18.57	21.5	21.39	14.23	10.24	1.24	0.06	2.49
Specific Conductance (µS/cm @ 25°C)	150-500	399	360	378	324	358	487	777	658	719	833	767	816	788	681	650	728	540	680
Specific Conductance (µS/cm)	150-500	365	287	253	176	190	255	479	455	543	788	673	760	733	541	467	398	283	388
Dissolved Oxygen (%)	nsl	80	79	100	102	101	106	74	81.5	93	87	62.4	65.1	65.2	70.6	75.6	83.6	88.1	89.1
Dissolved Oxygen (mg/L)	> 6	7.20	8.00	11.88	14.37	14.52	15.39	9.44	9.45	9.95	7.57	5.83	5.83	5.77	7.22	8.47	11.78	12.79	12.17
pH	6.5-8.3	7.2	7.0	7.1	7.2	7.2	7.3	7.1	7.6	7.78	7.98	6.8	7.61	7.25	6.8	6.8	6.8	7	7.07
ORP	nsl	98	98	80	76	92	29	128	124	122.2	89	Ns	140.3	110	120	120	Nm	51	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	2.63	2.19	3.05	2.25	2.21	2.40	2.76	1.19	0.94	3.22	1.52	2.3	3.89	1.92	2.3	3.45	3.62	1.92
Alkalinity	< 300	40	0	0	100	0	0	100	100	100	100	100	100	100	100	100	100	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hardness	nsl	100	0	0	0	0	0	0	20	40	40	40	40	80	40	40	40	0	40
Velocity (ft/s)	nsl	0.08	0.13	0.17	0.28	Na	0.3	0.28	0.25	0.35	0.27	0.1	0.16	0.11	0.22	0.23	0.038	0.32	0.558

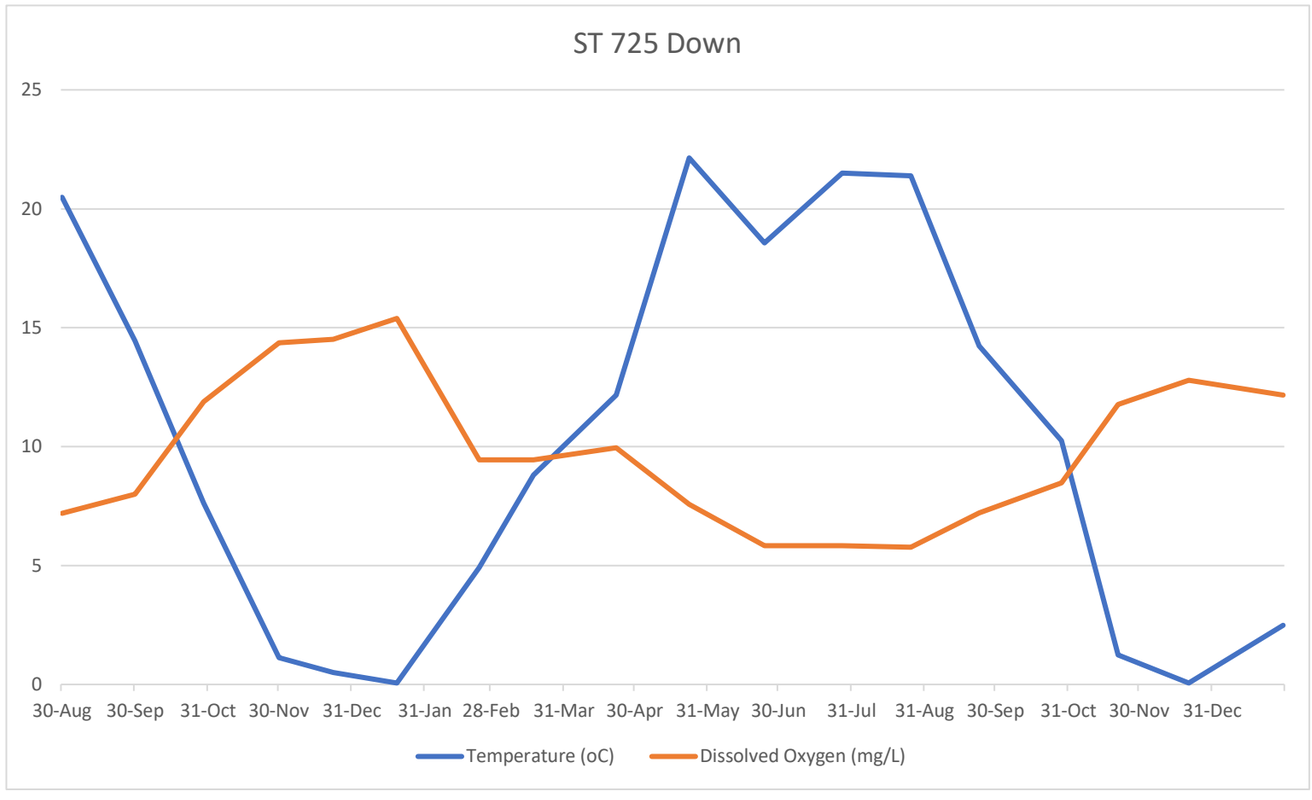


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 747 UP**																
Brook/Stream/Tributary	Conditions	Wash Brook Tributary																
Plan #	for	PLAN 67																
Direction of Flow	Cold	south																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	19.39	13.34	7.72	1.94	0.32	0.83	5.04	8.81	12.86	19.02	16.01	dry	dry	dry	9.6	dry	0.6	3.62
Specific Conductance (µS/cm @ 25°C)	150-500	524	418	379	451	377	530	774	626	798	826	832	dry	dry	dry	627	dry	509	595
Specific Conductance (µS/cm)	150-500	468	325	254	252	200	286	473	432	612	730	689	dry	dry	dry	451	dry	272	352
Dissolved Oxygen (%)	nsl	91	86	89	92	107	97	73.5	79.6	80.5	72.5	67	dry	dry	dry	54.2	dry	77.5	82.7
Dissolved Oxygen (mg/L)	> 6	8.32	9.02	10.57	12.66	15.15	13.77	9.33	9.23	8.5	7.49	6.6	dry	dry	dry	5.87	dry	11.12	10.93
pH	6.5-8.3	7.2	7.0	6.6	7.2	7.2	7.4	7.15	7.55	7.5	7.4	6.8	dry	dry	dry	6.8	dry	7.6	6.67
ORP	nsl	58	60	80	59	76	-15	124	98	92	101	Ns	dry	dry	dry	102	dry	340	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	0.72	1.15	1.88	1.69	1.58	2.17	3.32	1.28	1.29	2.6	2.42	dry	dry	dry	1.67	dry	0.29	1.48
Alkalinity	< 300	80	40	40	100	0	0	100	100	100	100	100	dry	dry	dry	100	dry	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	0	dry	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	0	dry	0	0
Hardness	nsl	100	100	100	40	20	40	40	40	40	40	40	dry	dry	dry	40	dry	40	40
Velocity (ft/s)	nsl	0.24	0.23	0.35	0.33	Na	0.1	0.36	0.43	0.55	0.19	0.03	dry	dry	dry	0.14	dry	0.38	0.245

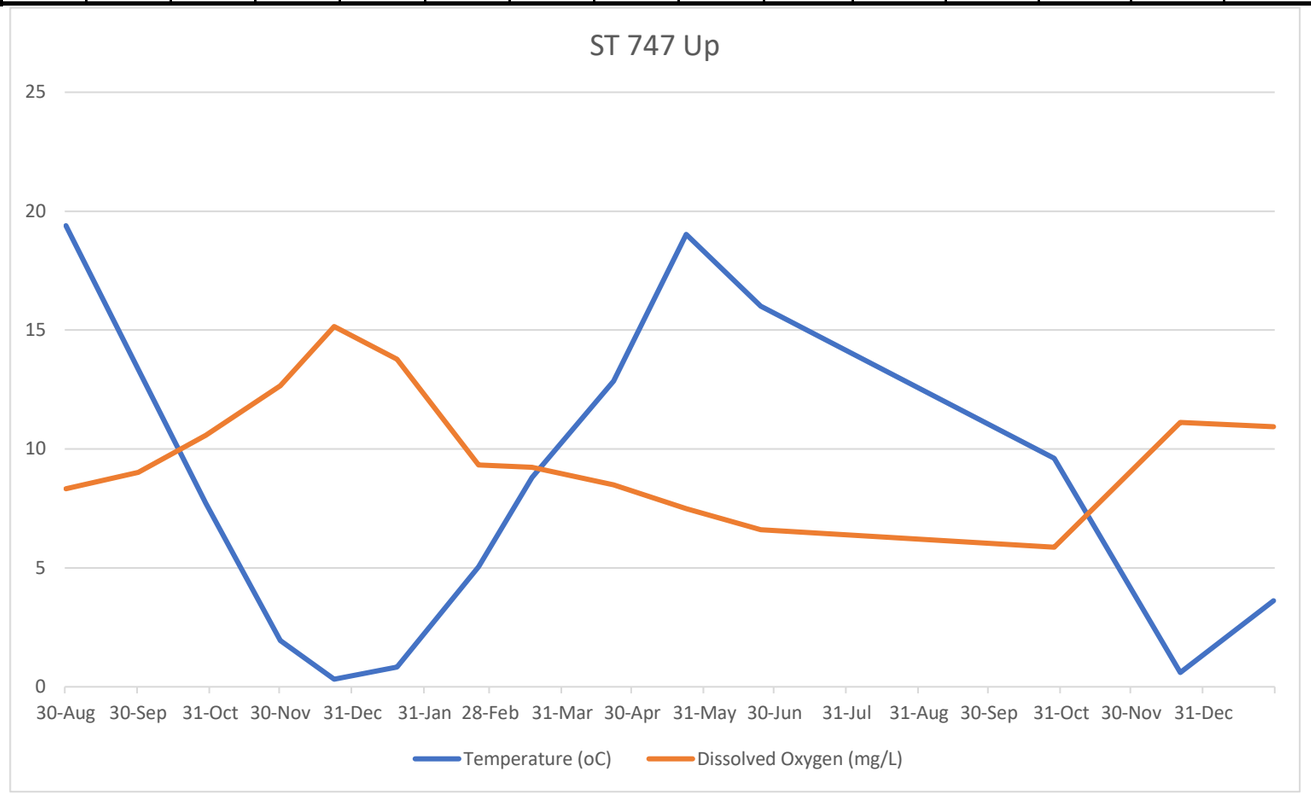
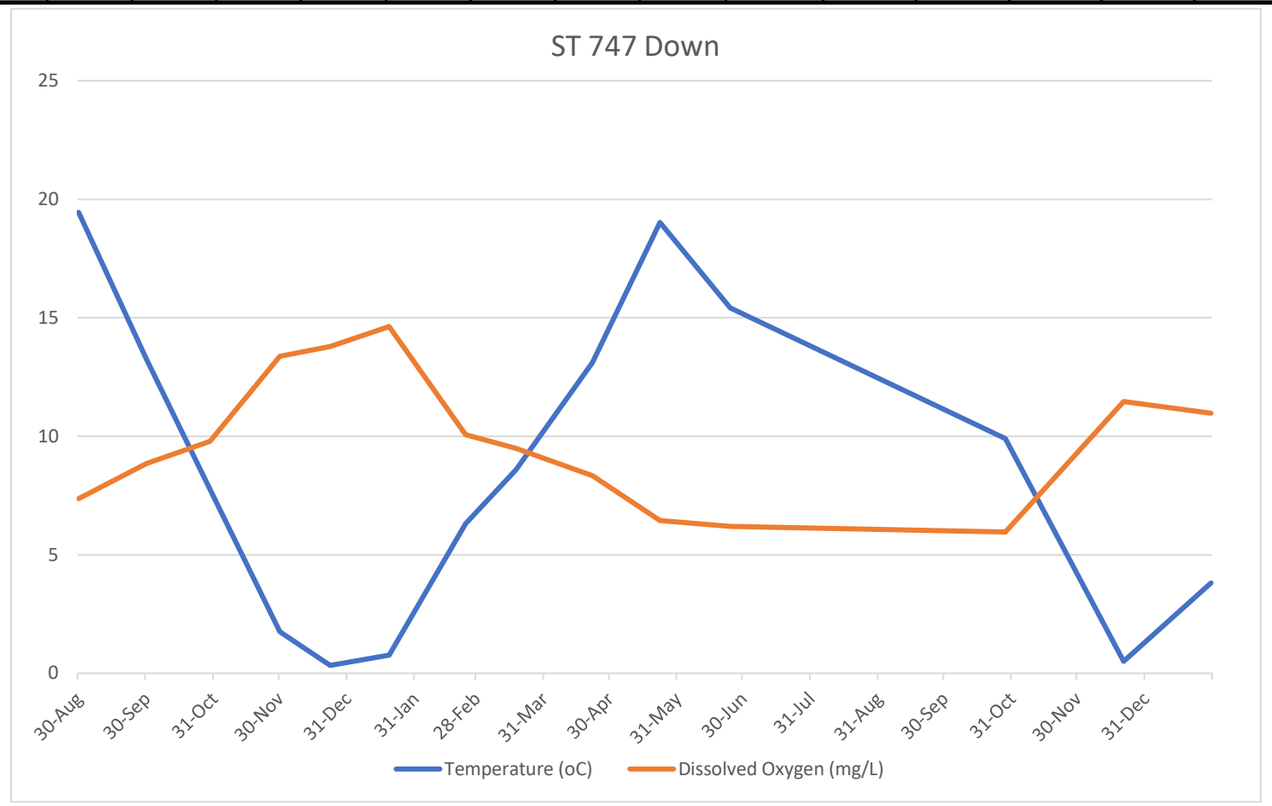


Table 3: Cold Water Fisheries Monitoring Results
Sudbury to Hudson Reliability Project

Station #	Favorable	**ST 747 DOWN**																
Brook/Stream/Tributary	Conditions	Wash Brook Tributary																
Plan #	for	PLAN 67																
Direction of Flow	Cold	south																
Type	Water	intermittent																
Date	Fisheries	**30-Aug**	**30-Sep**	**29-Oct**	**30-Nov**	**23-Dec**	**19-Jan**	**23-Feb**	**18-Mar**	**22-Apr**	**23-May**	**24-Jun**	**27-Jul**	**25-Aug**	**23-Sep**	**28-Oct**	**21-Nov**	**21-Dec**	**30-Jan**
Temperature (°C)	< 20	19.45	13.26	7.76	1.75	0.33	0.76	6.31	8.59	13.12	19.03	15.42	dry	dry	dry	9.9	dry	0.5	3.81
Specific Conductance (µS/cm @ 25°C)	150-500	495	451	382	453	403	532	803	643	795	875	836	dry	dry	dry	647	dry	532	575
Specific Conductance (µS/cm)	150-500	443	350	256	252	213	285	516	441	614	775	683	dry	dry	dry	460	dry	283	342
Dissolved Oxygen (%)	nsl	80	85	82	96	95	103	81.8	81.6	79.5	69.8	62.3	dry	dry	dry	53	dry	79.8	83.4
Dissolved Oxygen (mg/L)	> 6	7.36	8.85	9.79	13.37	13.79	14.63	10.06	9.49	8.33	6.45	6.2	dry	dry	dry	5.96	dry	11.46	10.98
pH	6.5-8.3	7.0	6.8	6.5	7.3	7.1	7.8	7.07	7.77	7.55	7.58	6.8	dry	dry	dry	6.7	dry	7.12	6.6
ORP	nsl	73	75	84	57	82	21	25.5	106	94	91.1	Ns	dry	dry	dry	100	dry	368	<Null>
Turbidity (NTU)	free from turbidity that would impair fish habitat	0.79	1.87	1.81	1.82	1.77	2.27	2.21	1.56	1.11	2.9	1.92	dry	dry	dry	1.9	dry	0.18	0.46
Alkalinity	< 300	80	40	40	100	0	0	0	100	100	100	100	dry	dry	dry	100	dry	100	100
Chlorine, Free	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	0	dry	0	0
Chlorine, Total	< 4	0	0	0	0	0	0	0	0	0	0	0	dry	dry	dry	0	dry	0	0
Hardness	nsl	100	100	100	40	40	40	0	40	40	40	40	dry	dry	dry	40	dry	40	40
Velocity (ft/s)	nsl	0.07	0.1	0.2	0.17	Na	0.06	0.39	0.31	0.46	0.22	0.06	dry	dry	dry	0.13	dry	0.36	0.305



APPENDIX C

Field Logs

	Summary of Field Monitoring (pg 1/3)								
	11/21/2022								
Stream Point ID	**Station Number**	**Weather**	**AirTemp**	**Technician**	**Date**	**Upgradient or Downgradient**	**Flow Appearance**	**Flow_Odor**	**Location**
ST 400 up	Hop Brook	sunny	32	ALH	11/21/2022	Upgradient	clear	none	From Bridge
ST 400 down	Hop brook	sunny	32	ALH	11/21/2022	Downgradient	clear	none	From Bridge
ST 527 up	Unnamed	sunny	32	ALH	11/21/2022	Upgradient	dark_tea	none	From Headwall
ST 527 down	Unnamed	sunny	32	ALH	11/21/2022	Downgradient	dark_tea	none	From Headwall
ST 540 up	Dudley brook	sunny	32	ALH	11/21/2022	Upgradient	light_tea	none	From Headwall
ST 540 down	Dudley Brook	sunny	32	ALH	11/21/2022	Downgradient	light_tea	none	From Headwall
ST 561 up	Unnamed	sunny	32	ALH	11/21/2022	Upgradient	Dry	Ns	Ns
ST 561 down	Unnamed	sunny	32	ALH	11/21/2022	Downgradient	Dry	Ns	Ns
ST 593 up	Unnamed	sunny	32	ALH	11/21/2022	Upgradient	Dry	Ns	Ns
ST 593 down	Unnamed	sunny	32	ALH	11/21/2022	Downgradient	Dry	Ns	Ns
ST 700 up	Hop Brook tributary	sunny	32	ALH	11/21/2022	Upgradient	Dry	Ns	Ns
ST 710 down	Hop brook tributary	sunny	32	ALH	11/21/2022	Downgradient	Dry	Ns	Ns
ST 725 Up	Hop Brook	sunny	32	ALH	11/21/2022	Upgradient	clear	none	From Bridge
ST 725-D	Hop Brook	sunny	32	ALH	11/21/2022	Downgradient	light_tea	none	From Bridge
ST 747-U	Wash brook tributary	sunny	32	ALH	11/21/2022	Upgradient	Dry	Ns	Ns
ST-747-D	Wash brook tributary	sunny	32	ALH	11/21/2022	Downgradient	Dry	Ns	Ns

	Summary of Field Monitoring (pg2/3)							
		11/21/2022						
Stream Point ID	**Sampling Site**	**Signs of Flow**	**Floatables**	**Condition of Bottom**	**Survey Comments**	**Water Temperature**	**Specific Conductance µS/cm @ 25 Degrees**	**Specific Conductance µS/cm**
ST 400 up	Open Channel	Present-Fast	None	sandy	<Null>	2.3	764	432
ST 400 down	Open Channel	Present-Fast	None	sandy	<Null>	2.29	761	431
ST 527 up	Open Channel	Present-Slow	_Bacteria,Floating_Sc	not_visible	<Null>	1.82	623	389
ST 527 down	Open Channel	Not Seen	Debris_buildup	not_visible	<Null>	1.68	624	402
ST 540 up	Open Channel	Present-Slow	Debris_buildup	not_visible	Lots of leaves an	1.47	599	330
ST 540 down	Open Channel	Present-Fast	None	sandy	Also rocks on bo	1.56	585	323
ST 561 up	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 561 down	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 593 up	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 593 down	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 700 up	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 710 down	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 725 Up	Open Channel	Present-Slow	None	mud_clay	<Null>	1.17	738	402
ST 725-D	Open Channel	Present-Slow	ing_Solids,Debris_bu	sandy	<Null>	1.24	728	398
ST 747-U	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST-747-D	Ns	Dry	dry	dry	dry	Ns	Ns	Ns

		Summary of Field Monitoring (pg 3/3)								
		11/21/2022								
Stream Point ID	**Dissolved Oxygen %**	**Dissolved Oxygen mg/L**	**pH**	**ORP**	**Turbidity (NTU)**	**Hardness**	**Chlorine_Free**	**Chlorine_Total**	**Alkalinity**	**Velocity (ft/s)**
ST 400 up	84.5	11.55	6.8	135	2.4	100	0	0	40	0.35
ST 400 down	83.7	11.46	6.8	140	2.45	100	0	0	40	0.37
ST 527 up	65.3	8.91	6.8	87	3.76	100	0	0	40	0.013
ST 527 down	67.4	8.46	6.8	76	3.78	100	0	0	40	0.01
ST 540 up	59.7	8.35	6.9	100	3.56	100	0	0	40	0.035
ST 540 down	59.4	8.27	6.98	120	2.97	100	0	0	40	0.045
ST 561 up	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 561 down	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 593 up	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 593 down	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 700 up	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 710 down	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 725 Up	84.3	11.9	6.8	Nm	2.98	100	0	0	40	0.027
ST 725-D	83.6	11.78	6.8	Nm	3.45	100	0	0	40	0.038
ST 747-U	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST-747-D	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns

	Summary of Field Monitoring (pg 1/3)								
	12/21/2022								
Stream Point ID	**Station Number**	**Weather**	**AirTemp**	**Technician**	**Date**	**Upgradient or Downgradient**	**Flow Appearance**	**Flow_Odor**	**Location**
ST 400 up	Hop Brook	sunny	38	ALH	12/21/2022	Upgradient	clear	none	From Bridge
ST 400 down	Hop brook	sunny	38	ALH	12/21/2022	Downgradient	clear	none	From Bridge
ST 527 up	Unnamed	sunny	38	ALH	12/21/2022	Upgradient	dark_tea	none	From Headwall
ST 527 down	Unnamed	sunny	38	ALH	12/21/2022	Downgradient	dark_tea	none	From Headwall
ST 540 up	Dudley brook	sunny	38	ALH	12/21/2022	Upgradient	light_tea	none	From Headwall
ST 540 down	Dudley Brook	sunny	38	ALH	12/21/2022	Downgradient	light_tea	none	From Headwall
ST 561 up	Unnamed	sunny	38	ALH	12/21/2022	Upgradient	Dry	Ns	Ns
ST 561 down	Unnamed	sunny	38	ALH	12/21/2022	Downgradient	Dry	Ns	Ns
ST 593 up	Unnamed	sunny	38	ALH	12/21/2022	Upgradient	Dry	Ns	Ns
ST 593 down	Unnamed	sunny	38	ALH	12/21/2022	Downgradient	Dry	Ns	Ns
ST 700 up	Hop Brook tributary	sunny	38	ALH	12/21/2022	Upgradient	cloudy_milky	none	From Headwall
ST 710 down	Hop brook tributary	sunny	38	ALH	12/21/2022	Downgradient	cloudy_milky	none	From Headwall
ST 725 Up	Hop Brook	sunny	38	ALH	12/21/2022	Upgradient	light_tea	none	From Bridge
ST 725-D	Hop Brook	sunny	38	ALH	12/21/2022	Downgradient	light_tea	none	From Bridge
ST 747-U	Wash brook tributary	sunny	38	ALH	12/21/2022	Upgradient	clear	none	From Bank
ST-747-D	Wash brook tributary	sunny	38	ALH	12/21/2022	Downgradient	clear	none	From Bank

	Summary of Field Monitoring (pg2/3)							
		12/21/2022						
Stream Point ID	**Sampling Site**	**Signs of Flow**	**Floatables**	**Condition of Bottom**	**Survey Comments**	**Water Temperature**	**Specific Conductance µS/cm @ 25 Degrees**	**Specific Conductance µS/cm**
ST 400 up	Open Channel	Present-Fast	None	sandy	<Null>	2.37	579	328
ST 400 down	Open Channel	Present-Fast	None	sandy	<Null>	2.37	572	325
ST 527 up	Open Channel	Present-Slow	Foam	not_visible	<Null>	0.92	462	241
ST 527 down	Open Channel	Present-Slow	None	not_visible	<Null>	0.89	481	274
ST 540 up	Open Channel	Present-Fast	Debris_buildup	mud_clay	Lot of leaf litter (	0.86	461	248
ST 540 down	Open Channel	Present-Fast	None	gravel	<Null>	1	484	262
ST 561 up	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 561 down	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 593 up	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 593 down	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 700 up	Open Channel	Present-Slow	Foam,Iron_Bacteria ,Oil_Sheen	not_visible	<Null>	0.08	942	501
ST 710 down	Open Channel	Present-Slow	Debris_buildup	not_visible	<Null>	0.03	955	495
ST 725 Up	Open Channel	Present-Slow	Trash,Foam	not_visible	<Null>	0.12	520	273
ST 725-D	Open Channel	Present-Slow	None	not_visible	<Null>	0.06	540	283
ST 747-U	Open Channel	Present-Slow	Foam	sandy	<Null>	0.6	509	272
ST-747-D	Open Channel	Present-Slow	None	sandy	<Null>	0.5	532	283

		Summary of Field Monitoring (pg 3/3)								
		12/21/2022								
Stream Point ID	**Dissolved Oxygen %**	**Dissolved Oxygen mg/L**	**pH**	**ORP**	**Turbidity (NTU)**	**Hardness**	**Chlorine_Free**	**Chlorine_Total**	**Alkalinity**	**Velocity (ft/s)**
ST 400 up	87.6	11.97	7.2	30	1.38	100	0	0	40	1.36
ST 400 down	88	12.03	7.2	34	1.25	100	0	0	40	1.25
ST 527 up	76.5	9.49	7	100	1.77	100	0	0	40	0.15
ST 527 down	73.5	10.21	7	60	1.48	100	0	0	40	0.1
ST 540 up	70	9.97	7.2	173	0.92	100	0	0	40	0.52
ST 540 down	75.1	10.61	7.2	43	0.42	100	0	0	40	0.48
ST 561 up	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 561 down	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 593 up	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 593 down	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 700 up	48.9	6.71	7.9	139	7.56	100	0	0	40	0.02
ST 710 down	52.3	7.66	7.8	410	6.42	100	0	0	40	0.06
ST 725 Up	83	12.07	7.2	215	3.08	100	0	0	0	0.17
ST 725-D	88.1	12.79	7	51	3.62	100	0	0	0	0.32
ST 747-U	77.5	11.12	7.6	340	0.29	100	0	0	40	0.38
ST-747-D	79.8	11.46	7.12	368	0.18	100	0	0	40	0.36

	Summary of Field Monitoring (pg 1/3)								
	Jan-23								
Stream Point ID	**Station Number**	**Weather**	**AirTemp**	**Technician**	**Date**	**Upgradient or Downgradient**	**Flow Appearance**	**Flow_Odor**	**Location**
ST 400 up	Hop Brook	sunny	44	FH	1/30/2023	Upgradient	light_tea	none	From Bridge
ST 400 down	Hop brook	sunny	44	FH	1/30/2023	Downgradient	light_tea	none	From Bridge
ST 527 up	Unnamed	cloudy_overcast	45	FH	1/30/2023	Upgradient	dark_tea	none	From Headwall
ST 527 down	Unnamed	cloudy_overcast	45	FH	1/30/2023	Downgradient	dark_tea	none	From Headwall
ST 540 up	Dudley brook	cloudy_overcast	44	FH	1/30/2023	Upgradient	dark_tea	none	From Headwall
ST 540 down	Dudley Brook	cloudy_overcast	44	FH	1/30/2023	Downgradient	dark_tea	none	From Headwall
ST 561 up	Unnamed	cloudy_overcast	43	FH	1/30/2023	Upgradient	light_tea	Ns	From Headwall
ST 561 down	Unnamed	cloudy_overcast	43	FH	1/30/2023	Downgradient	light_tea	Ns	From Headwall
ST 593 up	Unnamed	cloudy_overcast	43	FH	1/30/2023	Upgradient	Dry	Ns	Ns
ST 593 down	Unnamed	cloudy_overcast	43	FH	1/30/2023	Downgradient	Dry	Ns	Ns
ST 700 up	Hop Brook tributary	cloudy_overcast	43	FH	1/30/2023	Upgradient	yellow_orange	none	From Headwall
ST 710 down	Hop brook tributary	sunny	43	FH	1/30/2023	Downgradient	cloudy_milky	none	From Headwall
ST 725 Up	Hop Brook	sunny	43	FH	1/30/2023	Upgradient	dark_tea	none	From Bridge
ST 725-D	Hop Brook	sunny	43	FH	1/30/2023	Downgradient	dark_tea	none	From Bridge
ST 747-U	Wash brook tributary	cloudy_overcast	43	FH	1/30/2023	Upgradient	light_tea	none	From Bank
ST-747-D	Wash brook tributary	cloudy_overcast	43	FH	1/30/2023	Downgradient	light_tea	none	From Bank

		Summary of Field Monitoring (pg2/3)						
		Jan-23						
Stream Point ID	**Sampling Site**	**Signs of Flow**	**Floatables**	**Condition of Bottom**	**Survey Comments**	**Water Temperature**	**Specific Conductance µS/cm @ 25 Degrees**	**Specific Conductance µS/cm**
ST 400 up	Open Channel	Present-Fast	None	sandy	<Null>	4.35	523	316
ST 400 down	Open Channel	Present-Fast	None	sandy	<Null>	4.34	525	318
ST 527 up	Open Channel	Present-Slow	Foam	mud_clay	<Null>	5.31	366	229
ST 527 down	Open Channel	Present-Slow	None	sandy	<Null>	4.74	374	229
ST 540 up	Open Channel	Present-Fast	None	sandy	<Null>	3.55	405	238
ST 540 down	Open Channel	Present-Slow	Foam	sandy	<Null>	3.33	406	238
ST 561 up	Open Channel	Present-Fast	None	gravel	<Null>	4.1	408	245
ST 561 down	Open Channel	Present-Fast	None	gravel	<Null>	3.61	424	251
ST 593 up	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 593 down	Ns	Dry	dry	dry	dry	Ns	Ns	Ns
ST 700 up	Open Channel	Not Seen	Oil_Sheen,Iron_Bacteria,Foam,Trash	not_visible	<Null>	2.91	1756	1009
ST 710 down	Open Channel	Not Seen	None	mud_clay	<Null>	2.68	1731	992
ST 725 Up	Open Channel	Present-Fast	Foam,Trash,Debris_buildup	mud_clay	<Null>	2.6	655	375
ST 725-D	Open Channel	Present-Fast	None	sandy	<Null>	2.49	680	388
ST 747-U	Open Channel	Present-Fast	None	gravel	<Null>	3.62	595	352
ST-747-D	Open Channel	Present-Fast	None	gravel	<Null>	3.81	575	342

		Summary of Field Monitoring (pg 3/3)								
		Jan-23								
Stream Point ID	**Dissolved Oxygen %**	**Dissolved Oxygen mg/L**	**pH**	**ORP**	**Turbidity (NTU)**	**Hardness**	**Chlorine_Free**	**Chlorine_Total**	**Alkalinity**	**Velocity (ft/s)**
ST 400 up	89.9	11.66	6.68	<Null>	0.87	100	0	0	40	0.48
ST 400 down	91	11.79	6.79	<Null>	0.86	100	0	0	40	0.475
ST 527 up	85.5	10.82	6.14	<Null>	1.64	0	0	0	0	0.186
ST 527 down	75.3	9.65	6.87	<Null>	1.94	0	0	0	0	0.155
ST 540 up	73.9	9.78	6.22	<Null>	0.42	100	0	0	40	1.445
ST 540 down	72.2	9.62	6.32	<Null>	0.96	0	0	0	40	1.128
ST 561 up	73.8	9.63	6.43	<Null>	2.24	100	0	0	20	0.478
ST 561 down	69.5	9.18	6.15	<Null>	1.04	100	0	0	20	0.574
ST 593 up	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 593 down	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
ST 700 up	64.3	8.67	6.9	<Null>	7.98	100	0	0	40	0.05
ST 710 down	65.5	8.83	6.9	<Null>	7.47	100	0	0	40	0.05
ST 725 Up	84.8	11.48	6.72	<Null>	1.96	100	0	0	40	0.19
ST 725-D	89.1	12.17	7.07	<Null>	1.92	100	0	0	40	0.558
ST 747-U	82.7	10.93	6.67	<Null>	1.48	100	0	0	40	0.245
ST-747-D	83.4	10.98	6.6	<Null>	0.46	100	0	0	40	0.305