

# Real Time Water Quality Deployment Report Waterford River at Kilbride NF02ZM0009

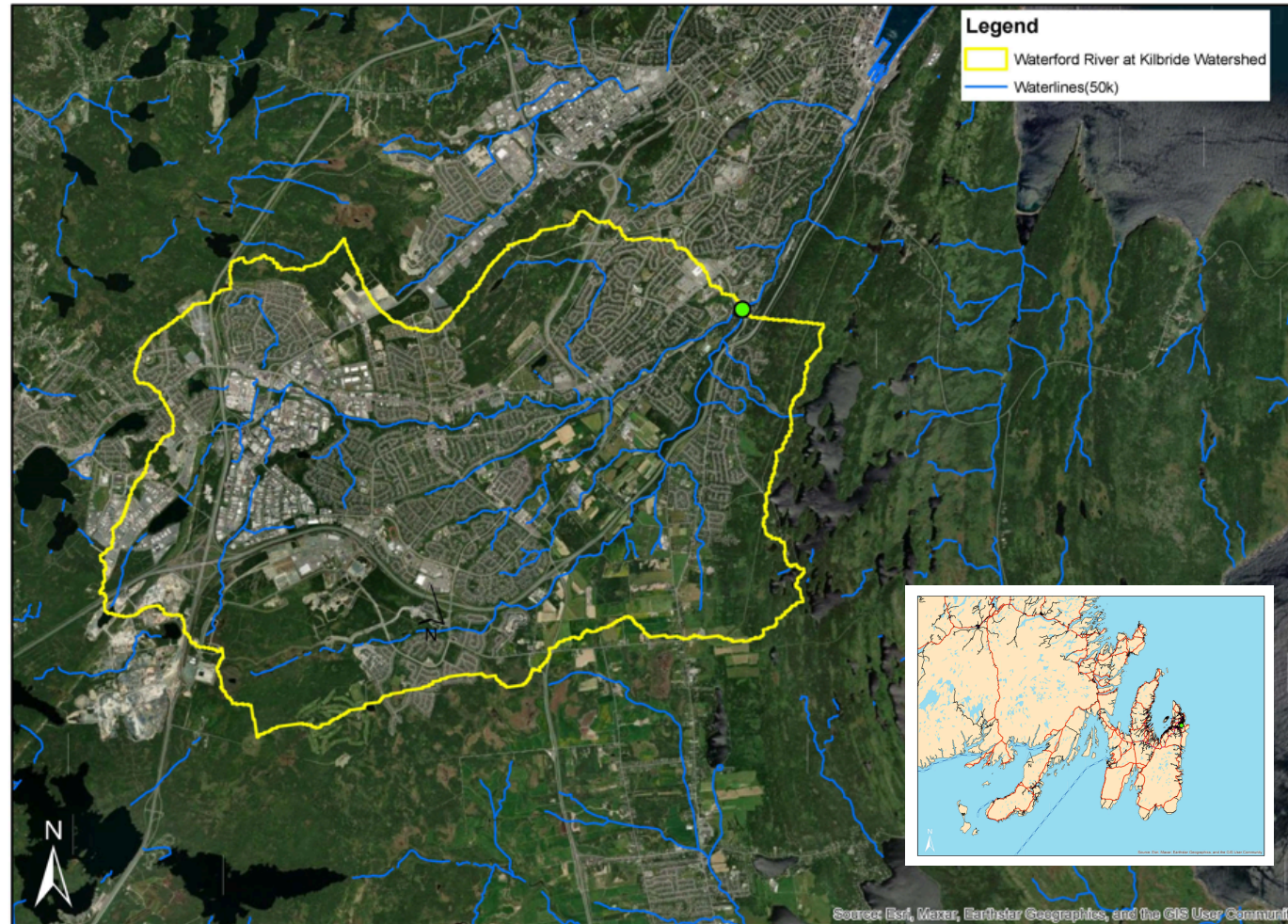
2025-11-19 to 2025-12-22



Government of Newfoundland & Labrador  
Department of Environment, Conservation & Climate Change  
Water Resources Management Division



# Waterford River at Kilbride NF02ZM009



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The Water Resources Management Division (WRMD), in partnership with Water Survey of Canada - Environment and Climate Change Canada (WSC-ECCC), maintain a real-time water quality and water quantity monitoring station on Waterford River at Kilbride.

The purpose of the real-time water quality station is to monitor, process and publish real-time water quality data.

On 2025-11-19, a clean and calibrated real-time water quality monitoring instrument was deployed at the station Waterford River at Kilbride. The instrument was deployed for a period of 69 days and was removed on 2025-12-22.

Note: Significant data collection and communication issues were experienced during this deployment. An alternate sonde will be redeployed to ensure continuous results.

# Quality Assurance and Quality Control



As part of the Quality Assurance and Quality Control protocol (QA/QC), an assessment of the reliability of data recorded by an instrument is made at the beginning and end of the deployment period. The procedure is based on the approach used by the United States Geological Survey. Water Survey Canada operates the hydrometric component of this station. Due to differences in protocols, Water Survey Canada hydrometric data is quality controlled on a less frequent basis than water quality data. The hydrometric data shown in this report is provisional and has not undergone quality control checks. Corrected hydrometric data can be obtained at <https://wateroffice.ec.gc.ca/> or upon request to Water Survey Canada.

Parameter	Excellent	Good	Fair	Marginal	Poor
Dissolved oxygen	$\leq \pm 0.3$ mg/L	$\leq \pm 0.31 - 0.5$ mg/L	$\leq \pm 0.51 - 0.8$ mg/L	$\leq \pm 0.81 - 1$ mg/L	$> \pm 1$ mg/L
pH	$\leq \pm 0.2$ units	$\leq \pm 0.21 - 0.5$ units	$\leq \pm 0.51 - 0.8$ units	$\leq \pm 0.81 - 1$ units	$> \pm 1$ units
Specific Conductance	$\leq \pm 3$ $\mu$ S/cm or $\leq \pm 3\%$ , whichever is greater	$\leq \pm 3.1 - 10$ $\mu$ S/cm or $\leq \pm 3.1 - 10\%$ , whichever is greater	$\leq \pm 10 - 15$ $\mu$ S/cm or $\leq \pm 10.1 - 15\%$ , whichever is greater	$\leq \pm 15.1 - 20$ $\mu$ S/cm or $\leq \pm 15.1 - 20\%$ , whichever is greater	$> \pm 20$ $\mu$ S/cm or $> \pm 20\%$ , whichever is greater
Turbidity	$\leq \pm 2$ turbidity units or $\leq \pm 5\%$ , whichever is greater	$\leq \pm 2.1 - 5$ turbidity units or $\leq \pm 5.1 - 10\%$ , whichever is greater	$\leq \pm 5.1 - 8$ turbidity units or $\leq \pm 10.1 - 15\%$ , whichever is greater	$\leq \pm 8.1 - 10$ turbidity units or $\leq \pm 15.1 - 20\%$ , whichever is greater	$> \pm 10$ turbidity units or $> \pm 20\%$ , whichever is greater
Water Temperature	$\leq \pm 0.2^\circ$ C	$\leq \pm 0.21 - 0.5^\circ$ C	$\leq \pm 0.51 - 0.8^\circ$ C	$\leq \pm 0.81 - 1^\circ$ C	$> \pm 1^\circ$ C

At deployment and removal, a QA/QC Sonde is temporarily deployed adjacent to the Field Sonde. Values for temperature, pH, conductivity, dissolved oxygen and turbidity are compared between the two instruments. Based on the degree of difference between parameters recorded by the Field Sonde and QA/QC Sonde at deployment and at removal, a qualitative statement is made on the data quality.

There are a few circumstances which may cause QA/QC rankings below excellent, including the placement of the QA/QC sonde in relation to the field sonde, the amount of time each sonde was given to stabilize before readings were recorded, and deteriorating performance of one of the sensors.

The temperature sensor on any sonde is the most important. All other parameters can be divided into subgroups of: temperature dependent, temperature compensated, and temperature independent. Due to the temperature sensor's location on the sonde, the entire sonde must be at a constant temperature before the temperature sensor will stabilize. The values may take some time to climb to the appropriate reading; if a reading is taken too soon it may not accurately portray the water body.

## QAQC Rankings

Parameter	Deployment Ranks	Removal Ranks	Grab Sample Ranks
Temperature ( $^\circ$ C)	Fair	Excellent	
Dissolved Oxygen (mg/l)	Good	Fair	
Specific Conductivity ( $\mu$ S/cm)	Good	Marginal	Good
pH	Excellent	Poor	Excellent
Turbidity (NTU)	Excellent	Poor	Excellent

At deployment and removal, when the field sonde was compared to the QA/QC sonde, all parameters were rated as 'Poor' or 'Excellent'. Upon removal, Dissolved Oxygen ranking dropped to 'Fair', Specific Conductivity to 'Marginal'. pH and Turbidity ranking dropped to 'Poor' upon removal. These lower rankings are likely the result of calibration differences, sensor drift or biofouling.

# Water Temperature (°C)

**3.34**  
Average (°C)

**3.06**  
Median (°C)

**0.75**  
Minimum (°C)

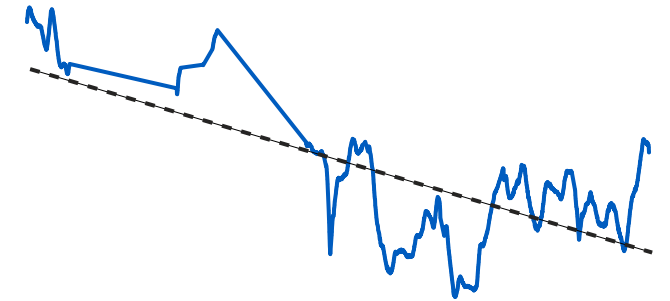
**7.52**  
Maximum (°C)



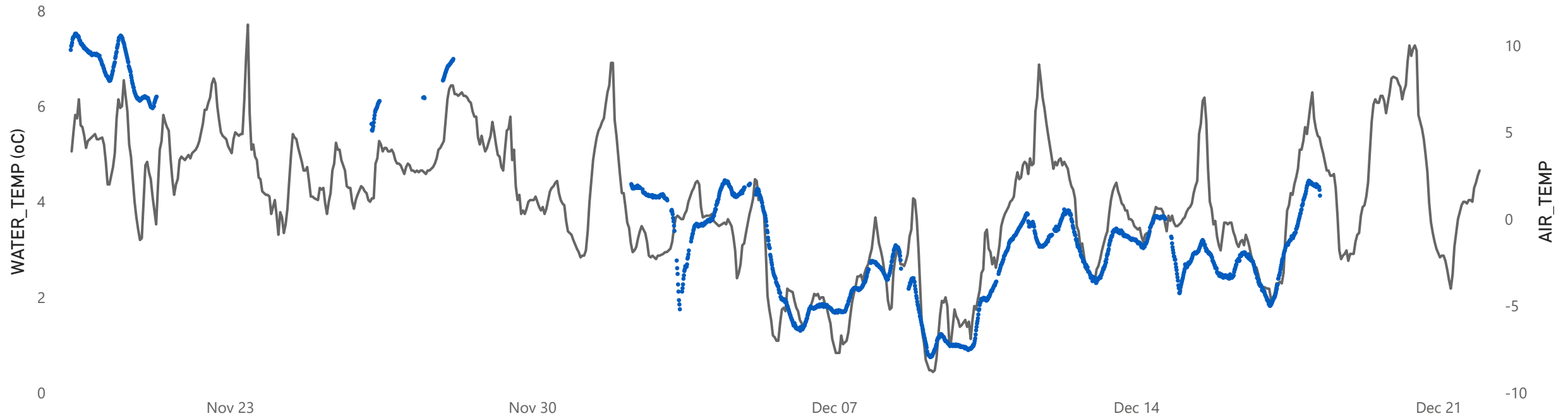
Water temperature is an important parameter for wildlife. Many organisms cannot regulate their own temperatures, and rely on surrounding air and water temperatures. Water temperature may be affected by inputs from industry or by modifying natural conditions like clearing trees and other vegetation, which eliminates the canopy protection they offer. Water temperature also affects other parameters monitored including dissolved oxygen and specific conductivity.

Water temperature during the monitoring period 2025-11-19 to 2025-12-22 exhibited a clear seasonal cooling trend consistent with late fall conditions. Temperatures ranged from a minimum of 0.75 °C to a maximum of 7.52 °C, with an average of 3.34 °C, indicating generally cold water conditions throughout the deployment. The data show typical short-term fluctuations, with temperatures rising during the day and falling overnight in response to air temperature changes. Despite this variability, the overall trendline indicates a gradual decline in temperature over time, reflecting the transition from late fall toward early winter. This pattern is consistent with expected seasonal behaviour.

## Water Temperature Trendline



● WATER\_TEMP (oC) ● AIR\_TEMP



# pH

3.52  
Average pH

2.67  
Median pH

0.46  
Minimum pH

7.53  
Maximum pH

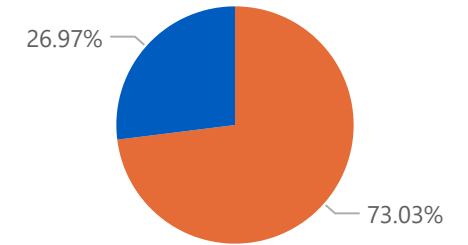


pH relates to the free hydrogen ions in water and it is a measure of acidity in water. A pH of 7 indicates a neutral pH, below 7 is considered acidic, and above 7 is considered basic. The [Canadian Council of Ministers of the Environment](#) (CCME) Freshwater Aquatic Life guideline provides a basis by which to judge the overall health of the brook. Their freshwater guidelines recommend a minimum pH of 6.5 and a maximum pH of 9.0; however, many rivers in Newfoundland and Labrador are naturally more acidic due to the local geology. Water parameter maps can be found on the [Water Resources Management website](#).

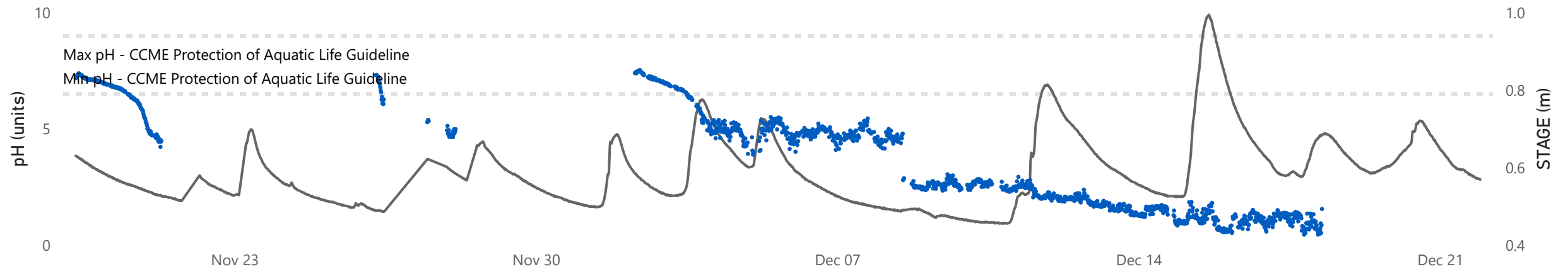
pH data for this deployment was collected from 2025-11-19 until 2025-12-22. The minimum pH, 0.46 pH units, occurred on 2025-12-17, while the maximum pH of 7.53 pH units occurred on 2025-12-02. The average pH during the deployment was 3.52; however, these values are not considered reliable. The dataset shows significant variability and sustained periods of unusually low pH that are not representative of typical conditions for the Waterford River. These anomalies are attributed to sensor performance issues and intermittent communication interruptions during the deployment period. As a result, the pH record is considered erroneous and should be interpreted with caution, and no definitive conclusions regarding in-stream pH conditions can be made for this period.

## CCME Freshwater Aquatic Life Guideline

● Below Guidelines ● Within Guidelines

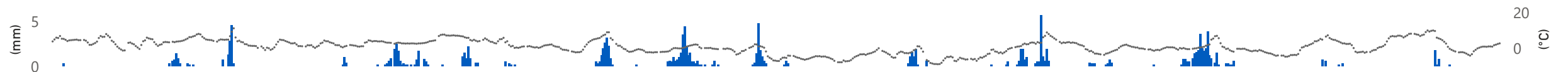


● pH (units) ● STAGE (m)



## Climate data from St. John's West Climate Station

● Precipitation (mm) ● Air Temperature (°C)



# Specific Conductivity

906.94  
Average  $\mu\text{S}/\text{cm}$

882.51  
Median  $\mu\text{S}/\text{cm}$

364.65  
Minimum  $\mu\text{S}/\text{cm}$

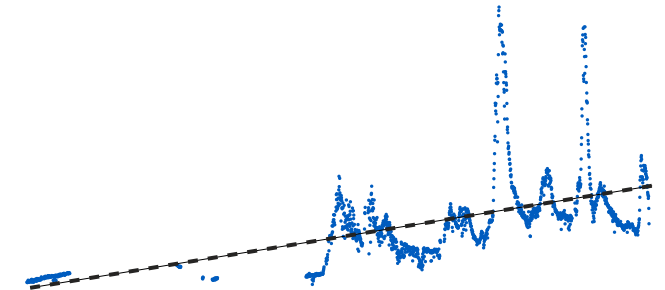
2.80K  
Maximum  $\mu\text{S}/\text{cm}$



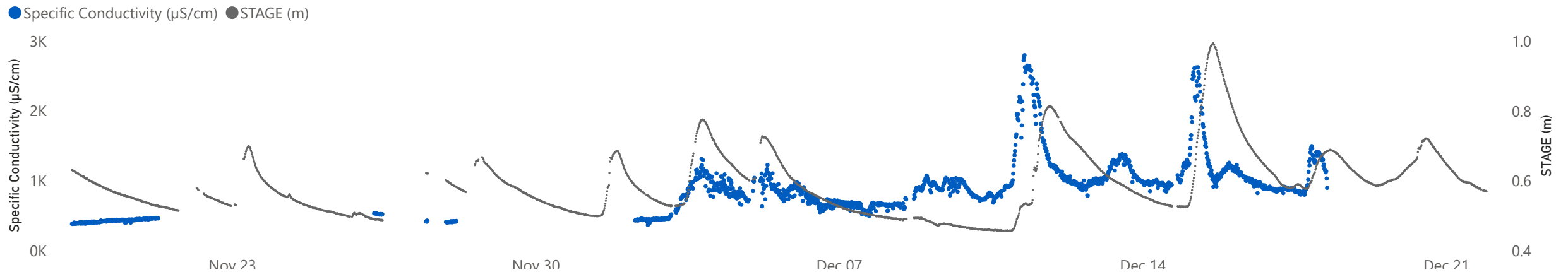
Conductivity relates to the ability of an electric charge to pass through a solution. Pure water has low conductance and water with dissolved ions has higher conductance. Specific conductance is corrected to 25°C to allow comparison across temperatures. Water parameter maps can be found on the [Water Resources Management website](#).

Specific conductivity data for this deployment was collected from 2025-11-19 until 2025-12-22. The minimum conductivity, 364.65  $\mu\text{S}/\text{cm}$ , and the maximum value of 2,800  $\mu\text{S}/\text{cm}$  reflect a dataset with notable variability and several pronounced spikes. The average conductivity was 906.94  $\mu\text{S}/\text{cm}$ , with a median of 882.51  $\mu\text{S}/\text{cm}$ , indicating generally elevated conditions throughout the monitoring period. Elevated conductivity is expected in an urban river system during late fall and early winter due to the application of road salt for snow and ice control. Periods of increased variability and sharp changes in conductivity are likely the result of precipitation events, where runoff introduces dissolved ions from surrounding surfaces into the river.

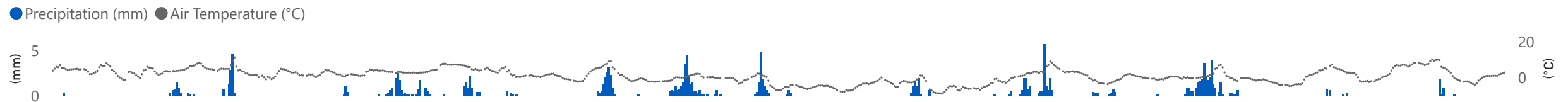
## Specific Conductivity Trendline



## Specific Conductivity ( $\mu\text{S}/\text{cm}$ ) and STAGE (m) by NST\_DAT1



## Climate data from St. John's West Climate Station



# Dissolved Oxygen Concentration and Saturation

**12.95** Average (mg/L)    
 **12.97** Median (mg/L)    
 **11.85** Minimum (mg/L)    
 **13.88** Maximum (mg/L)

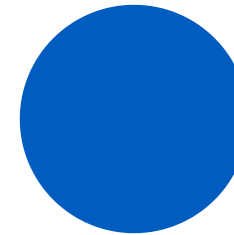


Dissolved oxygen (DO) in water is crucial for aquatic life. The [CCME \(Canadian Council of Ministers of the Environment\)](#) Freshwater Aquatic Life guidelines provide a basis by which to judge the overall health of waterways. The minimum guideline for early life stages in cold water is 9.5 mg/L and the minimum guideline for other life stages is 6.5 mg/L. DO and water temperatures are correlated; colder waters can hold higher concentrations of DO than warm waters.

Dissolved oxygen data for this deployment was collected from 2025-11-19 until 2025-12-22. The minimum dissolved oxygen concentration, 11.85 mg/L, (2025-11-19) and the maximum value of 13.88 mg/L (2025-12-10) indicate consistently well-oxygenated conditions throughout the monitoring period. The average concentration was 12.95 mg/L, with a median of 12.97 mg/L, demonstrating minimal variability. Dissolved oxygen levels remained stable, with only minor short-term fluctuations likely associated with changes in water temperature and flow conditions. All recorded values remained well above the CCME guidelines for the Protection of Aquatic Life for both early life stages (9.5 mg/L) and other life stages (6.5 mg/L), indicating favorable conditions for aquatic organisms during the deployment period.

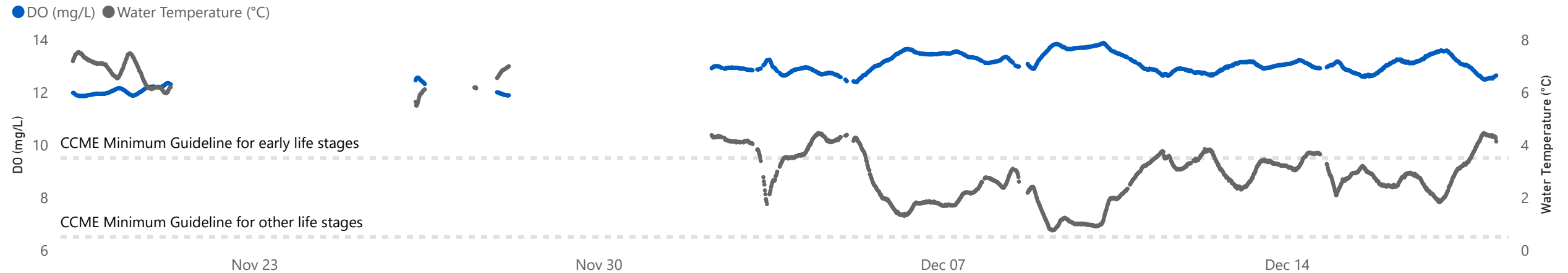
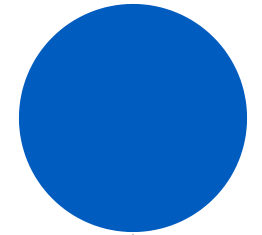
## CCME Early Life Stages Guideline

● Above

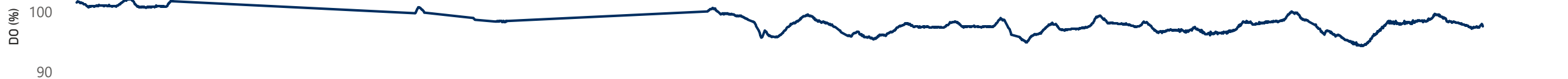


## CCME Other Life Stages Guideline

● Above



## Percent Saturation (%)



# Turbidity

**42.61**  
Average (NTU)

**1.07**  
Median (NTU)

**0.00**  
Minimum (NTU)

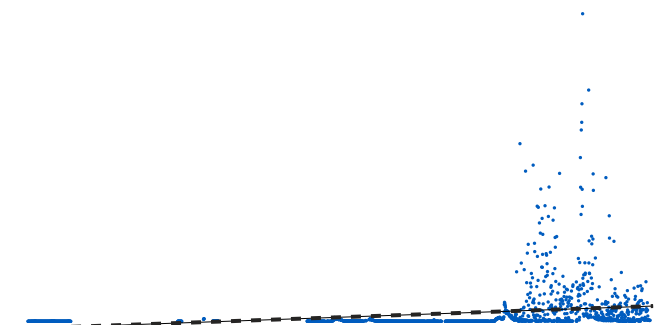
**1.81K**  
Maximum (NTU)



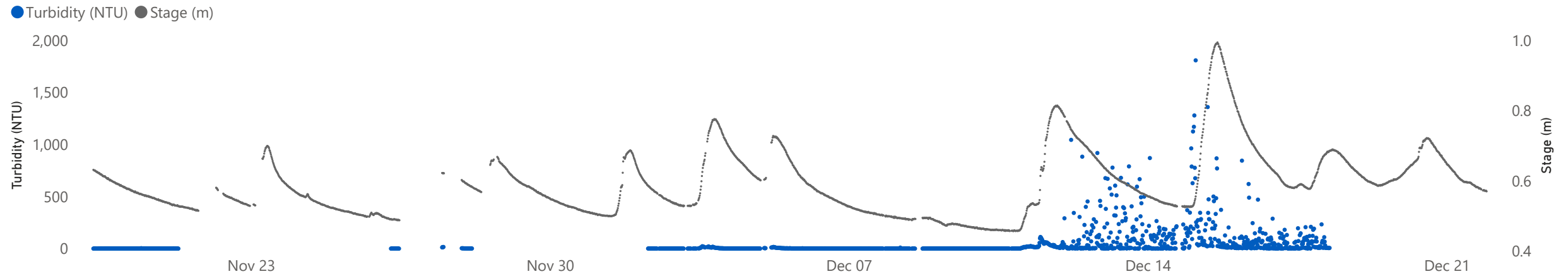
Water turbidity is characterized by the cloudiness or haziness caused by suspended particles and can significantly impact water quality. High turbidity reduces light penetration, hindering photosynthesis and affecting aquatic vegetation growth and habitat suitability. It can lead to temperature fluctuations, oxygen depletion from microbial decomposition of organic matter, and sedimentation, smothering benthic habitats and compromising biodiversity.

Turbidity data for this deployment was collected from 2025-11-19 until 2025-12-22. The minimum turbidity, 0.00 NTU, reflects generally clear baseline conditions, while the maximum value of 1,810 NTU indicates the presence of extreme spikes in the dataset. The average turbidity was 42.61 NTU, with a median of 1.07 NTU, suggesting that typical conditions were low but heavily influenced by intermittent high values. These elevated spikes are not consistent with expected environmental conditions and are likely the result of sediment accumulation within the casing during the deployment. As a result, the turbidity statistical data is considered unreliable during periods of extreme values and should be interpreted with caution.

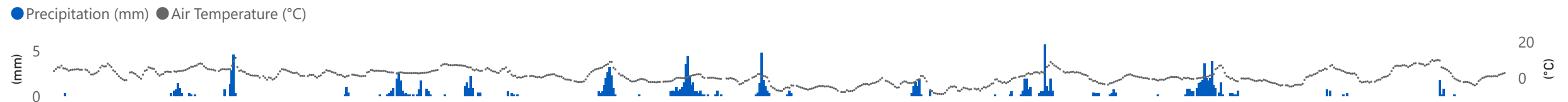
## Turbidity Trendline



## Turbidity (NTU) and Stage (m) by NST\_DATI



## Climate data from St. John's West Climate Station

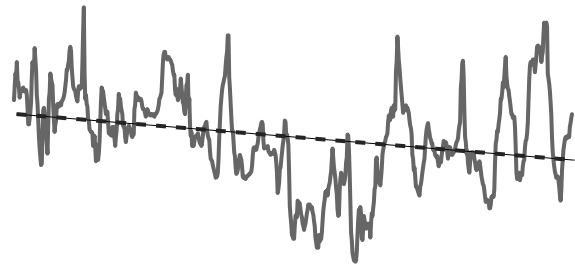


# Meteorological and Hydrometric Data

\*Climate data obtained from St. John's West Station



### Air Temperature Trendline



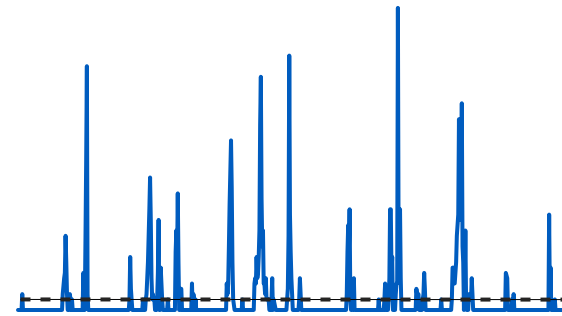
**0.99**  
Average (°C)

**1.10**  
Median (°C)

**-8.80**  
Minimum (°C)

**11.20**  
Maximum (°C)

### Precipitation Trendline



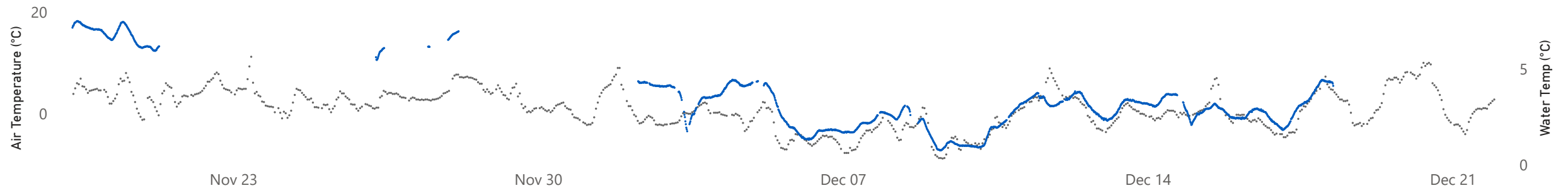
**0.20**  
Average (mm/hr)

**0.00**  
Median (mm/hr)

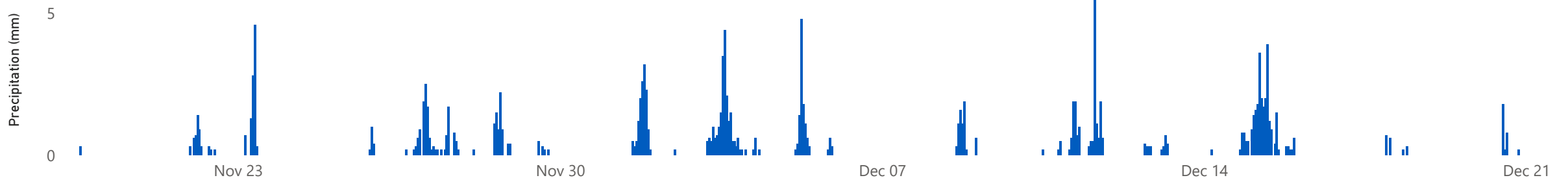
**0.00**  
Minimum (mm/hr)

**5.70**  
Maximum (mm/hr)

● Air Temperature (°C) ● Water Temperature (°C)



### Precipitation (mm) by NST\_DATI



# Conclusions



A clean and calibrated real-time water quality monitoring instrument was deployed at the Waterford River at Kilbride station on 2025-11-19 and removed on 2025-12-22. Significant data collection and communication issues were experienced during this deployment, which affected the reliability of select parameters.

- **Water Temperature** ranged from 0.75 °C to 7.52 °C, with an average of 3.34 °C. Temperatures followed expected seasonal and diurnal patterns and showed strong correlation with air temperature, with an overall cooling trend observed through the deployment period.
- **pH** values ranged from 0.46 to 7.53, with an average of 3.52. However, the dataset is considered unreliable due to sensor performance issues and communication interruptions. Sustained periods of unusually low values are not representative of typical conditions for the Waterford River, and no definitive conclusions can be drawn for this parameter.
- **Specific Conductivity** ranged from 364.65 to 2,800  $\mu\text{S}/\text{cm}$ , with an average of 906.94  $\mu\text{S}/\text{cm}$ . Elevated conductivity is consistent with an urban watershed during late fall and early winter due to road salt application. Variability and short-term spikes are likely associated with precipitation events and runoff inputs.
- **Dissolved Oxygen** ranged from 11.85 to 13.88 mg/L, with an average of 12.95 mg/L. Dissolved oxygen levels remained stable and well above CCME guidelines for the Protection of Aquatic Life for both early and other life stages, indicating favourable conditions throughout the monitoring period.
- **Turbidity** ranged from 0.00 to 1,810 NTU, with an average of 42.61 NTU. Typical conditions were low, but extreme spikes were observed and are not considered representative of environmental conditions. These values are likely influenced by sediment accumulation within the sonde casing and potential sensor interference, and should be interpreted with caution.
- **Stage** conditions were generally stable, with fluctuations corresponding to precipitation events and runoff responses typical of an urban watershed.

With the exception of water quantity data (stage), all data used in the preparation of the graphs and subsequent discussion have undergone QA/QC procedures. Water Survey of Canada is responsible for QA/QC of water quantity data. Corrected data can be obtained upon request.

Appendix 1  
Grab Sample Results



Your P.O. #: 224006869  
 Your C.O.C. #: N/A, 2025-1725-00-SI-SP

**Attention: Robert Richard Harvey**

NL Department of Environment, Climate Change and Municipalities  
 Water Resources  
 PO Box 8700  
 St. John's, NL  
 CANADA A1B 4J6

**Report Date: 2025/12/05**  
 Report #: R8663486  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C5E7044**

**Received: 2025/11/20, 09:10**

Sample Matrix: Water  
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity	1	N/A	2025/12/02	ATL SOP 00142	SM 24 2320 B
Anions (1)	1	N/A	2025/11/23	CAM SOP-00435	SM 24 4110 B m
Colour	1	N/A	2025/12/04	ATL SOP 00020	SM 24 2120C m
Organic carbon - Diss (DOC)-Lab Filtered (2)	1	N/A	2025/11/29	ATL SOP 00203	SM 24 5310B m
Conductance - water	1	N/A	2025/12/02	ATL SOP 00004	SM 24 2510B m
Fluoride	1	N/A	2025/12/02	ATL SOP 00043	SM 24 4500-F- C m
Hardness (calculated as CaCO3)	1	N/A	2025/11/24	ATL SOP 00048	Auto Calc
Mercury - Total (CVAA,LL)	1	2025/12/03	2025/12/03	ATL SOP 00026	EPA 245.1 R3 m
Metals Water Total MS	1	2025/11/21	2025/11/21	ATL SOP 00058	EPA 6020B R2 m
Nitrogen Ammonia - water	1	N/A	2025/12/04	ATL SOP 00015	EPA 350.1 R2 m
Nitrogen - Nitrate + Nitrite	1	N/A	2025/12/04	ATL SOP 00016	USGS I-2547-11m
Nitrogen - Nitrite	1	N/A	2025/12/03	ATL SOP 00017	SM 24 4500-NO2- B m
Nitrogen - Nitrate (as N)	1	N/A	2025/12/04	ATL SOP 00018	ASTM D3867-16
pH (3)	1	N/A	2025/12/02	ATL SOP 00003	SM 24 4500-H+ B m
Calculated TDS (DW Pkg)	1	N/A	2025/12/03	N/A	Auto Calc
Total Kjeldahl Nitrogen - calculated	1	2025/11/20	2025/12/03	Auto Calc	Auto Calc
Nitrogen - Total	1	N/A	2025/12/01	ATL SOP-00208	ASTM D8083 m
Organic carbon - Total (TOC) (2)	1	N/A	2025/12/04	ATL SOP 00203	SM 24 5310B m
Total Phosphorus Low Level Colourimetric (1)	1	2025/11/24	2025/11/25	CAM SOP-00407	SM 24 4500-P I
Total Suspended Solids	1	2025/11/20	2025/11/21	ATL SOP 00007	SM 24 2540D m
Turbidity	1	N/A	2025/12/04	ATL SOP 00011	EPA 180.1 R2 m

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8

(2) TOC / DOC present in the sample should be considered as non-purgeable TOC / DOC.

(3) The APHA Standard Method requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the APHA Standard Method holding time.



Your P.O. #: 224006869  
Your C.O.C. #: N/A, 2025-1725-00-SI-SP

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NL Department of Environment, Climate Change and Municipalities  
Water Resources  
PO Box 8700  
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CANADA A1B 4J6

**Report Date: 2025/12/05**  
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Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C5E7044**  
**Received: 2025/11/20, 09:10**

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:  
Gemarie Balatico, Project Manager  
Email: Gemarie.Balatico@bureauveritas.com  
Phone# (902)440-8951

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BUREAU  
VERITAS

Bureau Veritas Job #: C5E7044  
Report Date: 2025/12/05

NL Department of Environment, Climate Change and  
Municipalities  
Your P.O. #: 224006869

Sample Details/Parameters	A	Result	RDL	UNITS	Extracted	Analyzed	By	Batch
AXNN85 WATERFORD RIVER @KILBRIDE								
Sampling Date		2025/11/19 10:41						
Matrix		W						
Sample #		2025-1725-00-SI-SP						
Registration #		SA-0000						
<b>RESULTS OF ANALYSES OF WATER</b>								
<b>Calculated Parameters</b>								
Hardness (CaCO3)	-	30	1.0	mg/L	N/A	2025/11/24		A058015
Total Kjeldahl Nitrogen (TKN)	-	0.32	0.10	mg/L	N/A	2025/12/03		A058029
Nitrate (N)	-	0.52	0.050	mg/L	N/A	2025/12/04		A058232
Total dissolved solids (calc., EC)	-	220	1.0	mg/L	N/A	2025/12/03		A058027
<b>Inorganics</b>								
Conductivity	-	400	1.0	uS/cm	N/A	2025/12/02	J1A	A065445
Chloride (Cl-)	-	97	1.0	mg/L	N/A	2025/11/23	VP2	A059556
Dup.Chloride (Cl-)	-	97	1.0	mg/L	N/A	2025/11/23	VP2	A059556
Bromide (Br-)	-	ND	1.0	mg/L	N/A	2025/11/23	VP2	A059556
Dup.Bromide (Br-)	-	ND	1.0	mg/L	N/A	2025/11/23	VP2	A059556
Sulphate (SO4)	-	14	1.0	mg/L	N/A	2025/11/23	VP2	A059556
Dup.Sulphate (SO4)	-	14	1.0	mg/L	N/A	2025/11/23	VP2	A059556
Total Alkalinity (Total as CaCO3)	-	13	2.0	mg/L	N/A	2025/12/02	J1A	A065446
Colour	-	31	5.0	TCU	N/A	2025/12/04	M2C	A066594
Dissolved Fluoride (F-)	-	ND	0.10	mg/L	N/A	2025/12/02	J1A	A065448
Nitrate + Nitrite (N)	-	0.52	0.050	mg/L	N/A	2025/12/04	MCN	A066595
Nitrite (N)	-	ND	0.010	mg/L	N/A	2025/12/03	MCN	A066597
Nitrogen (Ammonia Nitrogen)	-	ND	0.050	mg/L	N/A	2025/12/04	MCN	A066800
Total Nitrogen (N)	-	1.5	0.10	mg/L	N/A	2025/12/01	S6S	A064646
Dissolved Organic Carbon (C)	-	5.4	0.50	mg/L	N/A	2025/11/29	S6S	A063548
Total Organic Carbon (C)	-	4.9	0.50	mg/L	N/A	2025/12/04	S6S	A066378
pH	-	7.02		pH	N/A	2025/12/02	J1A	A065442
Total Phosphorus	-	0.021	0.004	mg/L	2025/11/24	2025/11/25	VKH	A060711
Total Suspended Solids	-	1.4	1.0	mg/L	2025/11/20	2025/11/21	DME	A058331
Turbidity	-	1.1	0.10	NTU	N/A	2025/12/04	J1A	A064948
<b>MERCURY BY COLD VAPOUR AA (WATER)</b>								
<b>Metals</b>								
Total Mercury (Hg)	-	ND	0.000013	mg/L	2025/12/03	2025/12/03	JEP	A065346
Dup.Total Mercury (Hg)	-	ND	0.000013	mg/L	2025/12/03	2025/12/03	JEP	A065346
<b>ELEMENTS BY ICP/MS (WATER)</b>								
<b>Metals</b>								
Total Aluminum (Al)	-	0.097	0.0050	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Antimony (Sb)	-	ND	0.0010	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Arsenic (As)	-	ND	0.0010	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Barium (Ba)	-	0.014	0.0010	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Boron (B)	-	ND	0.050	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Cadmium (Cd)	-	0.000020	0.000010	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Calcium (Ca)	-	9.3	0.10	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Chromium (Cr)	-	0.0011	0.0010	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Copper (Cu)	-	0.0027	0.00050	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Iron (Fe)	-	0.16	0.050	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Lead (Pb)	-	ND	0.00050	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Magnesium (Mg)	-	1.8	0.10	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Manganese (Mn)	-	0.045	0.0020	mg/L	2025/11/21	2025/11/21	MTZ	A058829



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Bureau Veritas Job #: C5E7044  
Report Date: 2025/12/05

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Your P.O. #: 224006869

Sample Details/Parameters	A	Result	RDL	UNITS	Extracted	Analyzed	By	Batch
AXNN85 WATERFORD RIVER @KILBRIDE								
Sampling Date 2025/11/19 10:41								
Matrix W								
Sample # 2025-1725-00-SI-SP								
Registration # SA-0000								
<b>ELEMENTS BY ICP/MS (WATER)</b>								
<b>Metals</b>								
Total Nickel (Ni)	-	ND	0.0020	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Phosphorus (P)	-	ND	0.10	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Potassium (K)	-	1.6	0.10	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Selenium (Se)	-	ND	0.00050	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Sodium (Na)	-	61	0.10	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Strontium (Sr)	-	0.037	0.0020	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Uranium (U)	-	ND	0.00010	mg/L	2025/11/21	2025/11/21	MTZ	A058829
Total Zinc (Zn)	-	0.010	0.0050	mg/L	2025/11/21	2025/11/21	MTZ	A058829



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### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C
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**Results relate only to the items tested.**



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### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

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Ernlie Publicover, Scientific Specialist

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Louise Harding, Scientific Specialist

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