

Confederation Creek Water Quality Data

Open Water Sampling Season 2019



> A west-facing view of Confederation Creek as it runs through Confederation Park in Calgary, Alberta

CreekWatch is a program of the non-profit RiverWatch Institute of Alberta, specializing in community-based environmental monitoring and award-winning science education for twenty-five years. This 2019 Report shares our findings with the public, governments, and water quality professionals to collaboratively work towards the base-line monitoring and improvement of our urban creeks in Alberta.

This annual CreekWatch Report examines the state of Calgary's Confederation Creek based on the water quality data collected with the assistance of community-based environmental monitoring groups and water quality technicians. You can view a snapshot of data in the attached graphs generated by the RiverWatch online and responsive [graphing tool](#). Thank you to all of our dedicated volunteers and funders who have made this sampling season possible – we couldn't have done it without you!

Confederation Creek By-the-Numbers

April – October 2019

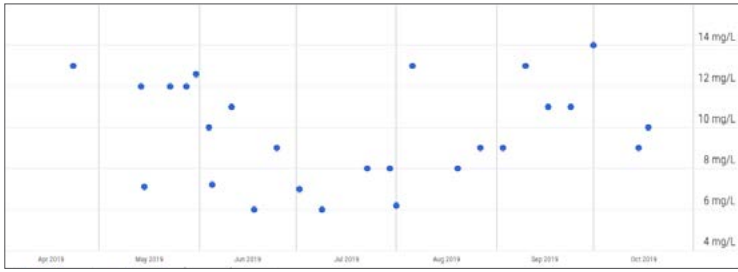
Number of Sampling Events	26
Number of Data Points	206
Number of Stormwater Outfalls	17

Confederation Creek Water Quality Data

April – October 2019 Median Values

Parameter	Median Value
Dissolved Oxygen (mg/L)	9.5
Water Temperature (°C)	15
Turbidity (NTU)	12
pH	8.0
Ammonia Nitrogen (mg/L)	0.25
Phosphate (mg/L)	0.00
Chloride (mg/L)	175

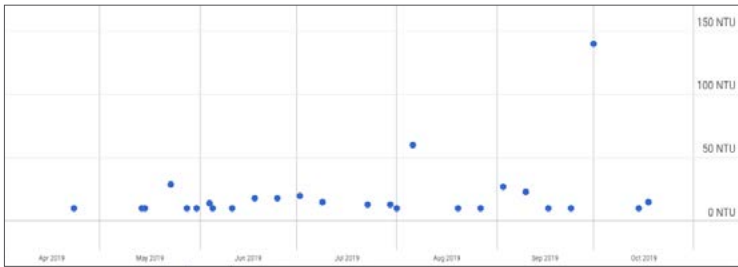
Dissolved Oxygen (mg/L)



Median 9.5

Dissolved oxygen concentrations are measured using either a YSI probe or a Hach kit with a drop-by-drop titration to show a change in water color until totally clear. Dissolved oxygen is tested during daylight while macrophyte and algae photosynthesis is underway and generating oxygen.

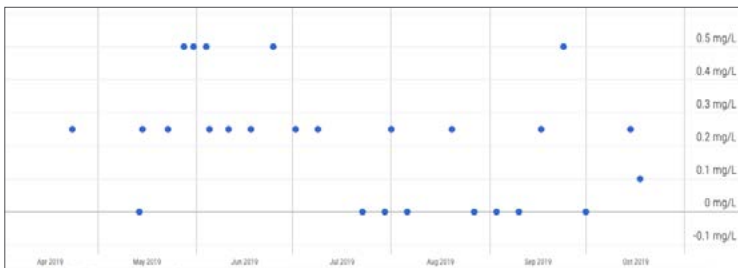
Turbidity (NTU)



Median 12

Turbidity is measured by slowly pouring water into a graduated cylinder marked with "Nephelometric Turbidity Units" or NTU's.

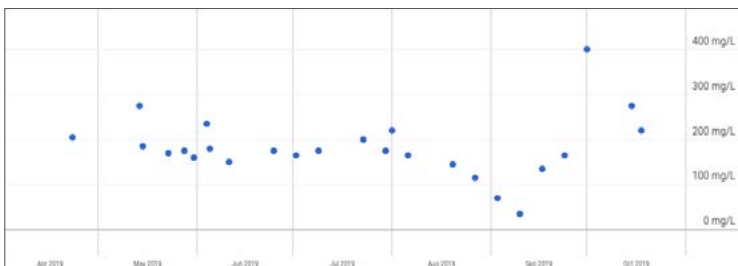
Ammonia Nitrogen (mg/L)



Median 0.25

Ammonia nitrogen concentrations are measured by dipping Hach test strips into water and noting the color change.

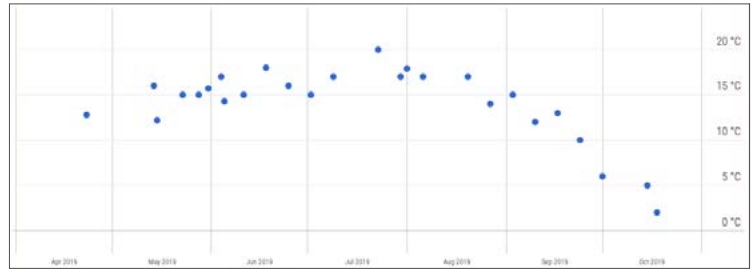
Chloride (mg/L)



Median 175

Chloride concentrations are measured using Hach kits with a drop-by-drop titration to show a change in water color from yellow to orange.

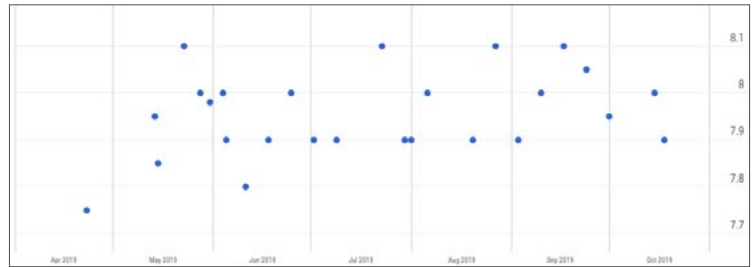
Water Temperature (°C)



Median 15

Water temperatures are measured using a thermometer placed in flowing, shallow water near shore.

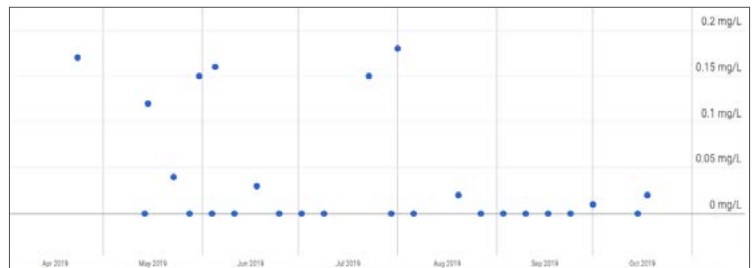
pH



Median 8.0

Creek pH is measured using Hach kits that compare a change in water color.

Phosphorus (mg/L)



Median 0.00

Orthophosphate concentrations are measured with Hach kits that compare a change in water color.

To review data with our online graphing tool, visit riverwatch.ab.ca/science/data