

Mill Creek Water Quality Data

Open Water Sampling Season 2019



> A north-facing view of Mill Creek in Edmonton, 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 Edmonton’s Mill 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!

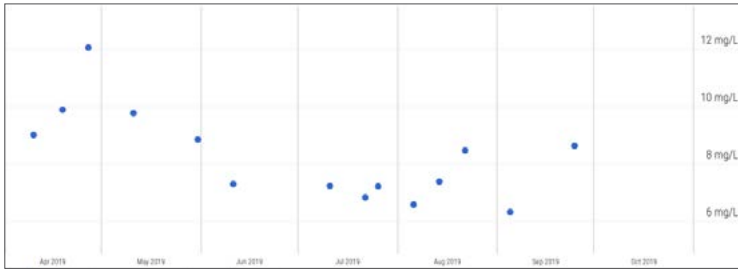
Mill Creek By-the-Numbers April – October 2019

Number of Sampling Events	14
Number of Data Points	159
Number of Stormwater Outfalls	46

Mill Creek Water Quality Data April – October 2019 Median Values

Parameter	Median Value
Dissolved Oxygen (mg/L)	7.9
Water Temperature (°C)	15
Turbidity (NTU)	12
pH	8.1
Ammonia Nitrogen (mg/L)	0.25
Phosphorus (mg/L)	0.37
Chloride (mg/L)	200

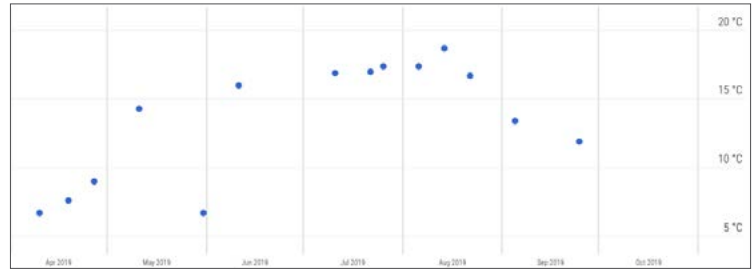
Dissolved Oxygen (mg/L)



Median 7.9

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.

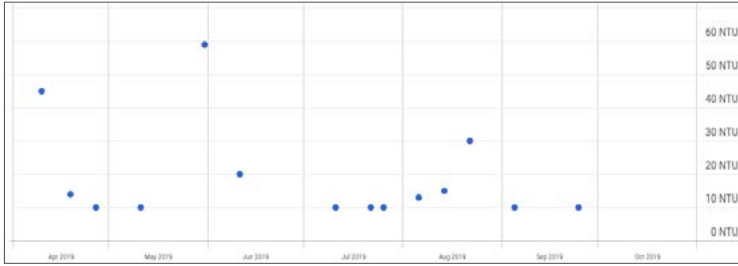
Water Temperature (°C)



Median 15

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

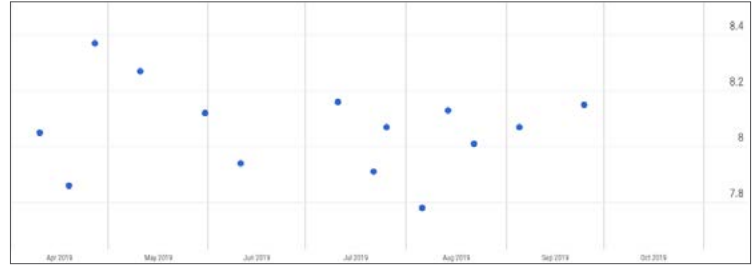
Turbidity (NTU)



Median 12

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

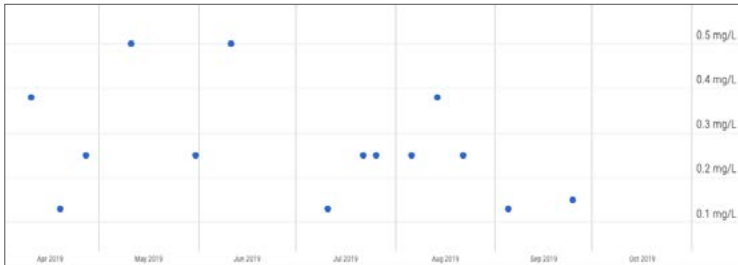
pH



Median 8.1

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

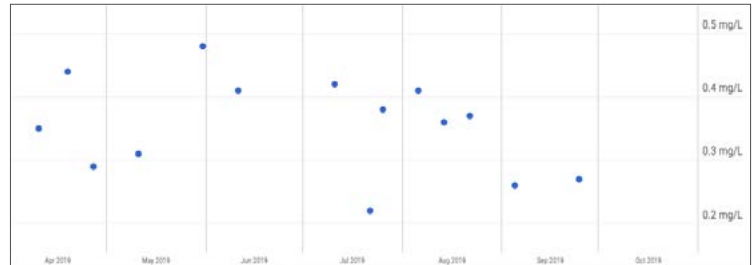
Ammonia Nitrogen (mg/L)



Median 0.25

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

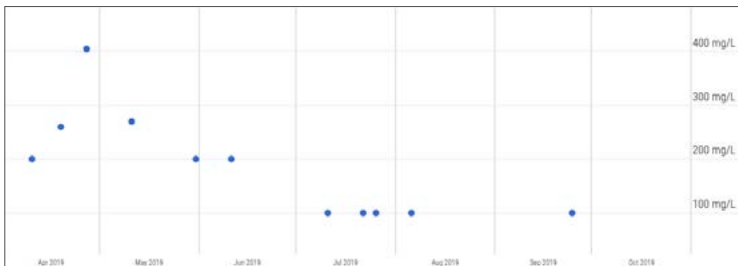
Phosphorus (mg/L)



Median 0.37

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

Chloride (mg/L)



Median 200

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

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