

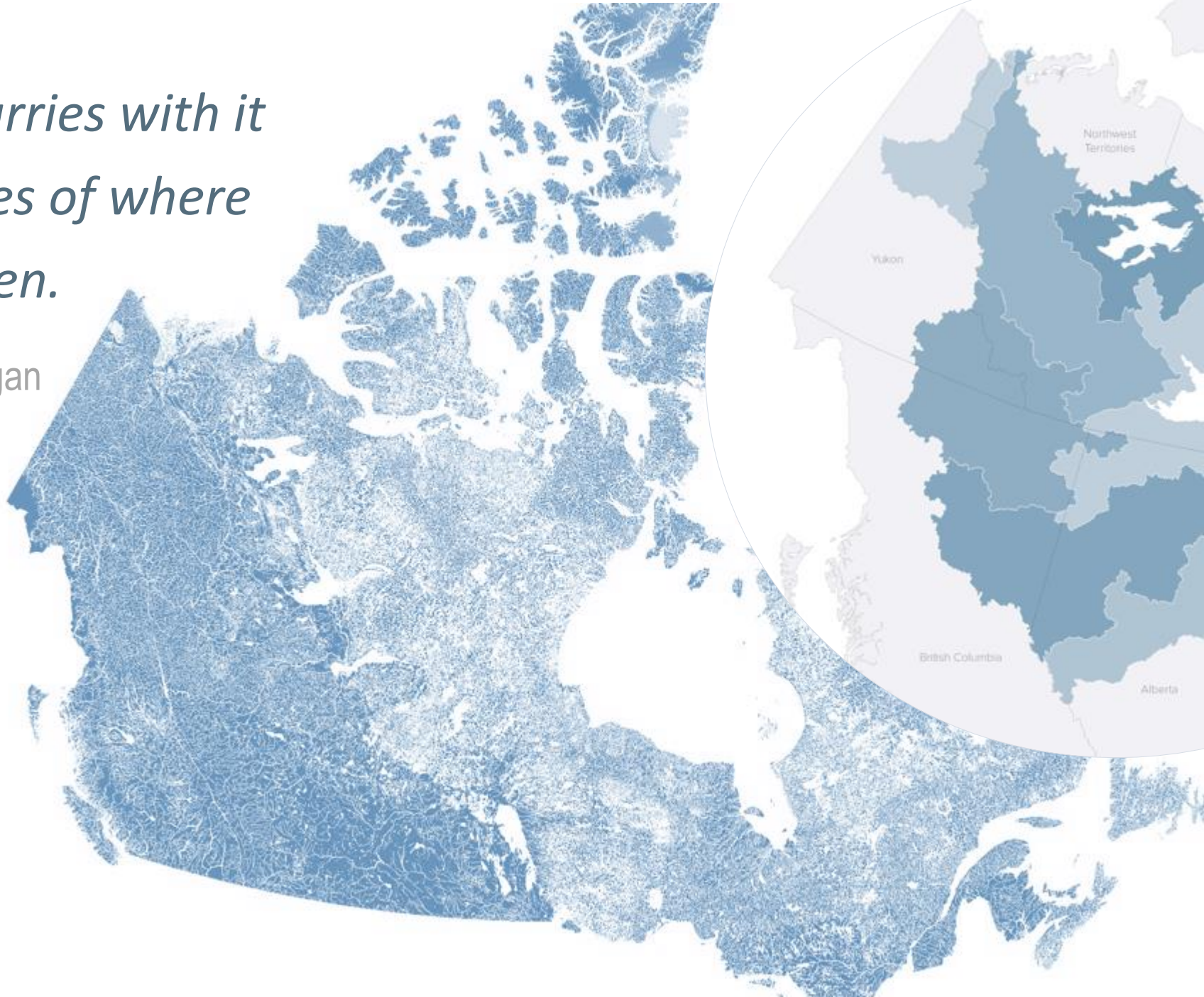
DataStream

An open access hub for sharing water data



*Water carries with it
the stories of where
it has been.*

- Linda Hogan



Mackenzie DataStream

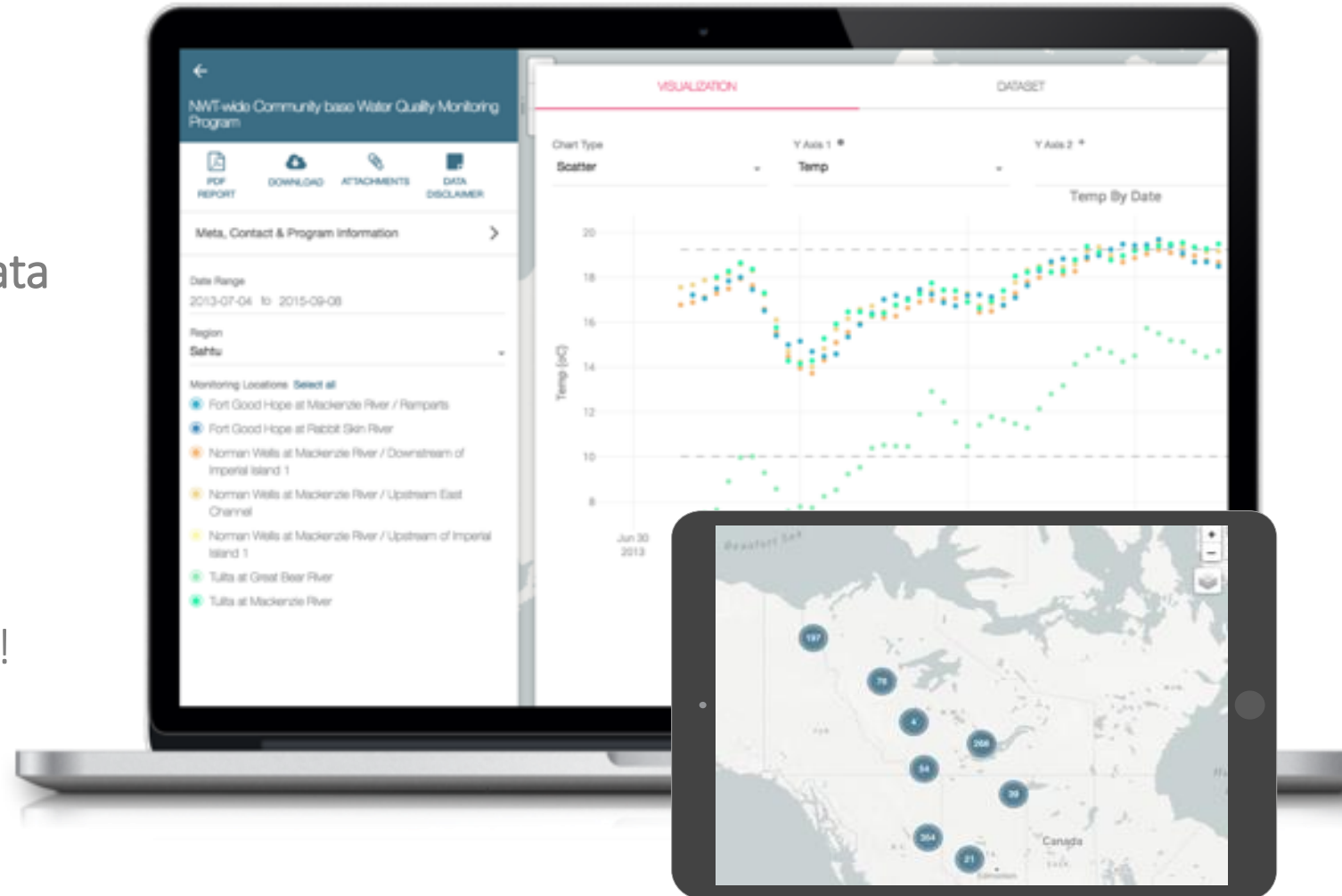
An open access hub for sharing water data.

Our mission is to promote knowledge sharing and advance
collaborative water stewardship.

[EXPLORE DATA](#)

DataStream

- Open access site for water quality data
- Free and open for anyone to use
- User friendly visualization tools
- Puts programs and data on the map!



DataStream

Growth and Expansion

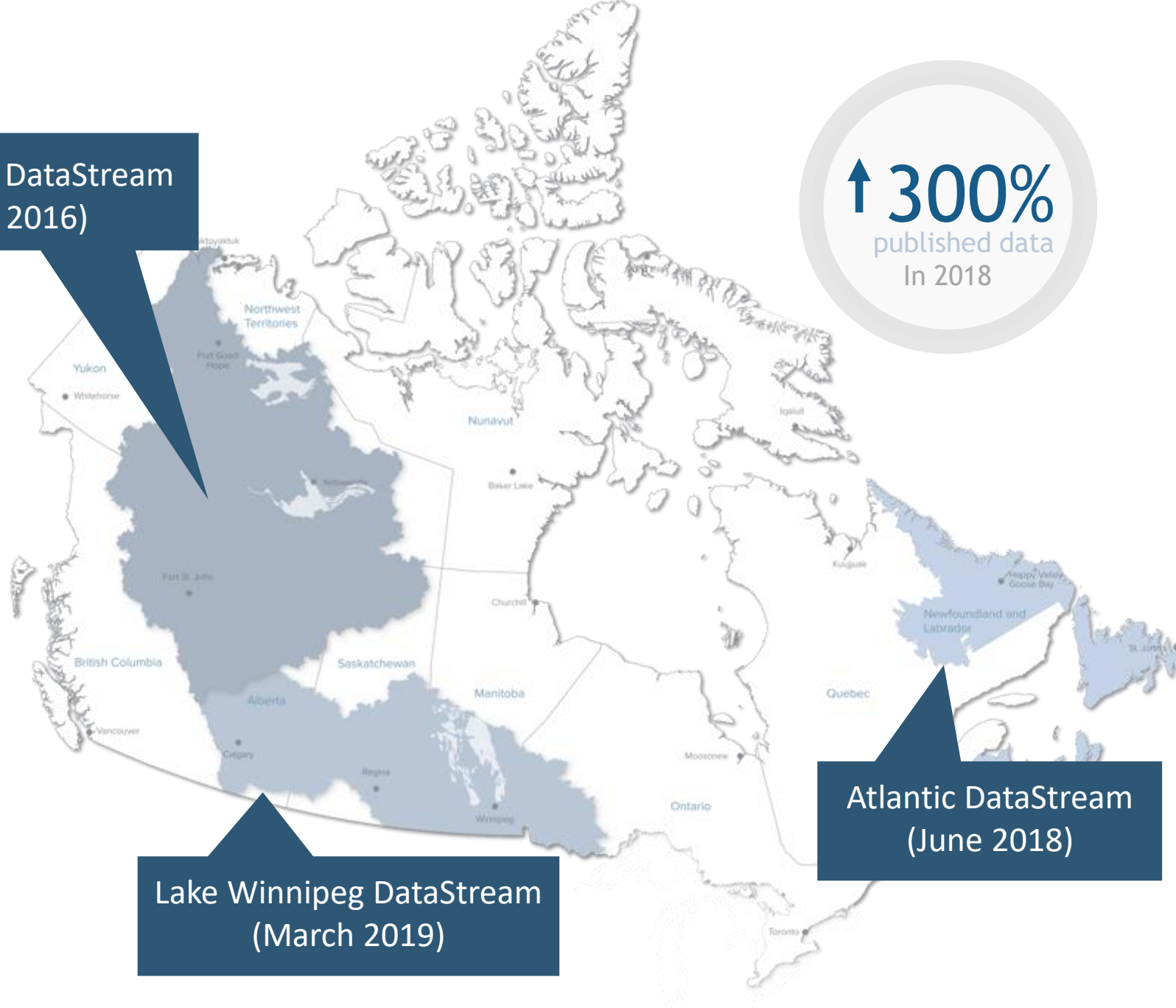
- > 2 million unique observations
- > 3600 monitoring sites
- 70 monitoring groups

Mackenzie DataStream
(Nov 2016)

↑ 300%
published data
In 2018

Lake Winnipeg DataStream
(March 2019)

Atlantic DataStream
(June 2018)





Data Challenges

- Sharing, finding and accessing water data
- Rivers and lakes don't stop at provincial boundaries but datasets often do
- Bad data can happen to good people



Alberta Environment and Parks

WATERSHED PLANNING & ADVISORY COUNCILS

- MUNICIPALITIES
- WATERSHED PLANNING & ADVISORY COUNCILS

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Note: Information as depicted is subject to change, therefore the Government of Alberta

assumes no responsibility for discrepancies at time of use

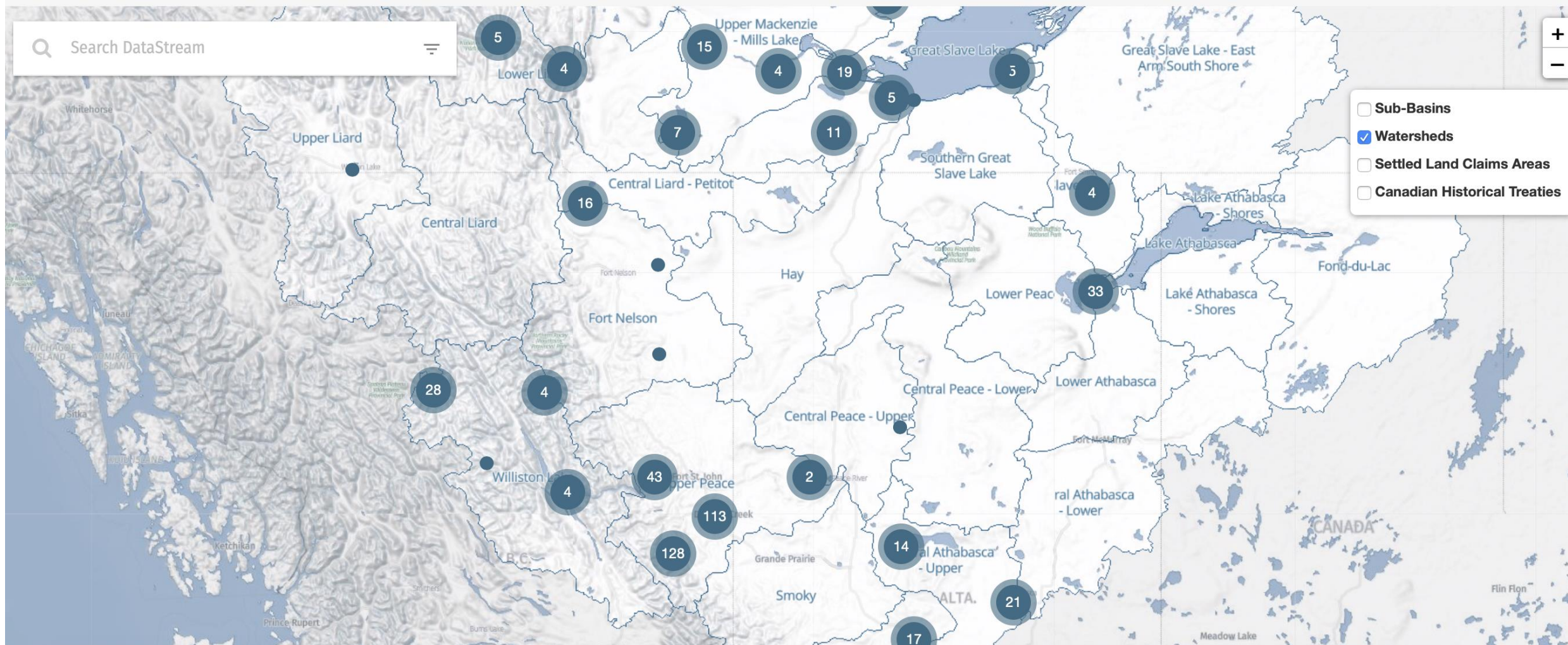
Base produced by Provincial Geospatial Centre, Environment and Parks, August 22, 2019
Base Map Data provided by the Government of Alberta under the Open Government Licence - Alberta
© 2019 Government of Alberta

Data can be messy....



Stored in many places, in many different ways...

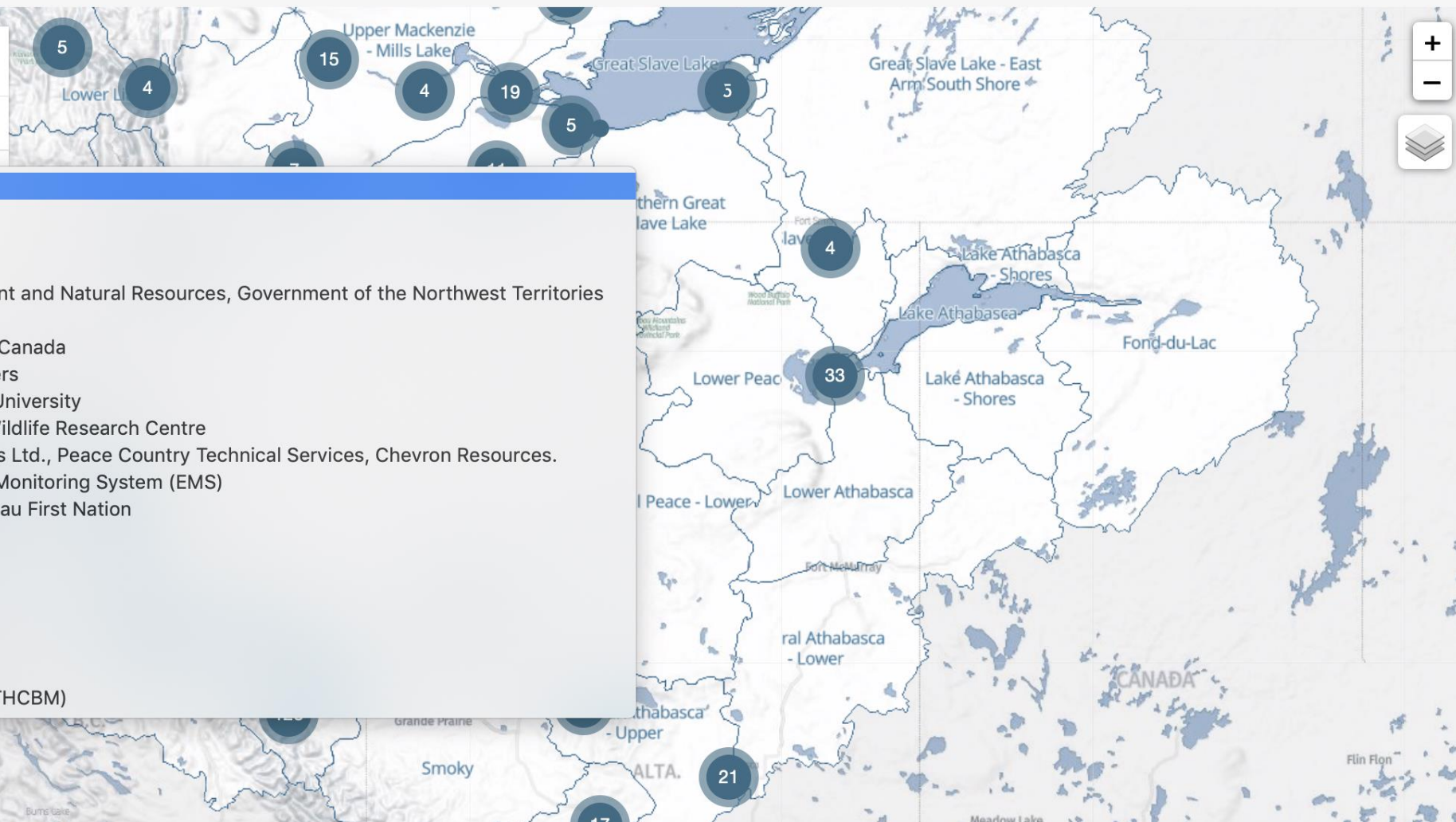




[View All Datasets](#)

✓ Filter by Organization

- AANDC Water Division (Chris Spence)
- Alberta Lake Management Society
- Athabasca Chipewyan First Nation
- Communities of the NWT with support by Environment and Natural Resources, Government of the Northwest Territories
- Dr. Michael Pisaric, Brock University
- Environment and Climate Change Canada and Parks Canada
- Environment and Climate Change Canada and Partners
- Environment and Climate Change Canada, Carleton University
- Environment and Climate Change Canada National Wildlife Research Centre
- Fort Nelson First Nation, Kerr Wood Leidal Associates Ltd., Peace Country Technical Services, Chevron Resources.
- GW Solutions, data sourced from BC Environmental Monitoring System (EMS)
- GW Solutions, municipality of Hudson's Hope, Sauleau First Nation
- K'ágeé Tú First Nation (KTFN)
- Kirsty Gurney
- Mikisew Cree First Nation
- The Alberta Lake Management Society
- The Lesser Slave Watershed Council
- University of Alberta
- Upper Athabasca Community Based Monitoring (UATHCBM)





LakeWatch Water Quality Data



DOWNLOAD ATTACHMENTS DATA LICENSE

Meta, Contact & Program Information

Date Range
1995-07-29 to 2016-09-29

Monitoring Locations [Select all](#) [Clear selection](#)

- ☒ Bear Lake Profile At The Deep Spot (AB07GE0270)
- ☒ Calling Lake Profile At Centre (AB07CB0790)
- ☒ Chip Lake Profile At The Deep Spot (AB07BB0980)
- ☒ Chip Lake Whole Lake Composite (AB07BB0970)
- ☒ Clairmont Lake Profile (AB07GE1040)
- ☒ Flyingshot Lake Profile (AB07GE1060)
- ☒ George Lake Profile (AB07FD1410)
- ☒ Goose Lake Profile (AB07AH0500)
- ☒ Iosegun Lake Profile At Centre (AB07GG0040)
- ☒ Island Lake Profile At Centre (AB07BE0870)
- ☒ Lac La Biche East Basin Composite (AB07CA0200)
- ☒ Lac La Biche East Basin Profile - East Of Sir Winston



VISUALIZATION

STATISTICS

DATASET PREVIEW

Chart Type

Scatter

Y-Axis 1 ●

Temperature, water (deg C)

Y-Axis 2 +

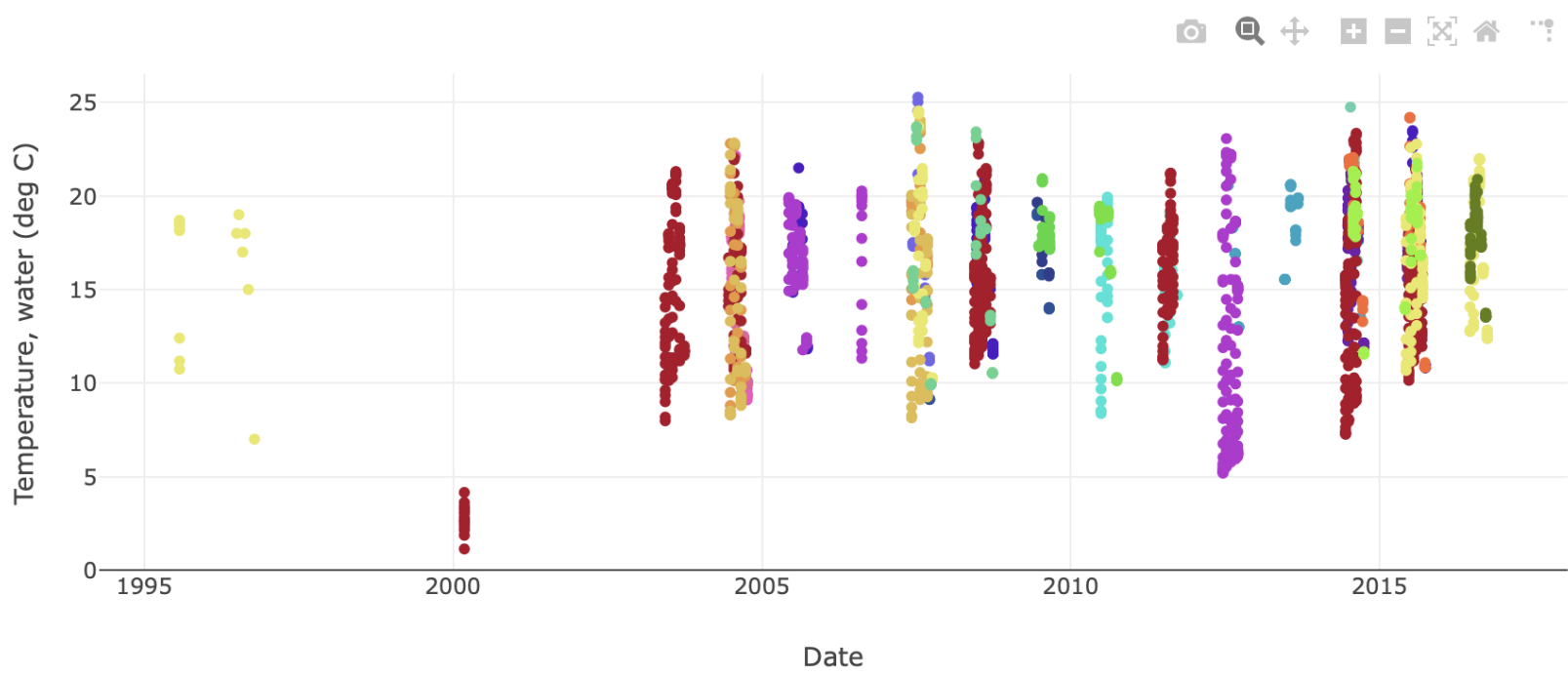
None

Percentiles

SELECT

Guidelines ⓘ

SELECT





LakeWatch Water Quality Data



DOWNLOAD



ATTACHMENTS



DATA LICENSE

Meta, Contact & Program Information



Date Range

1995-07-29



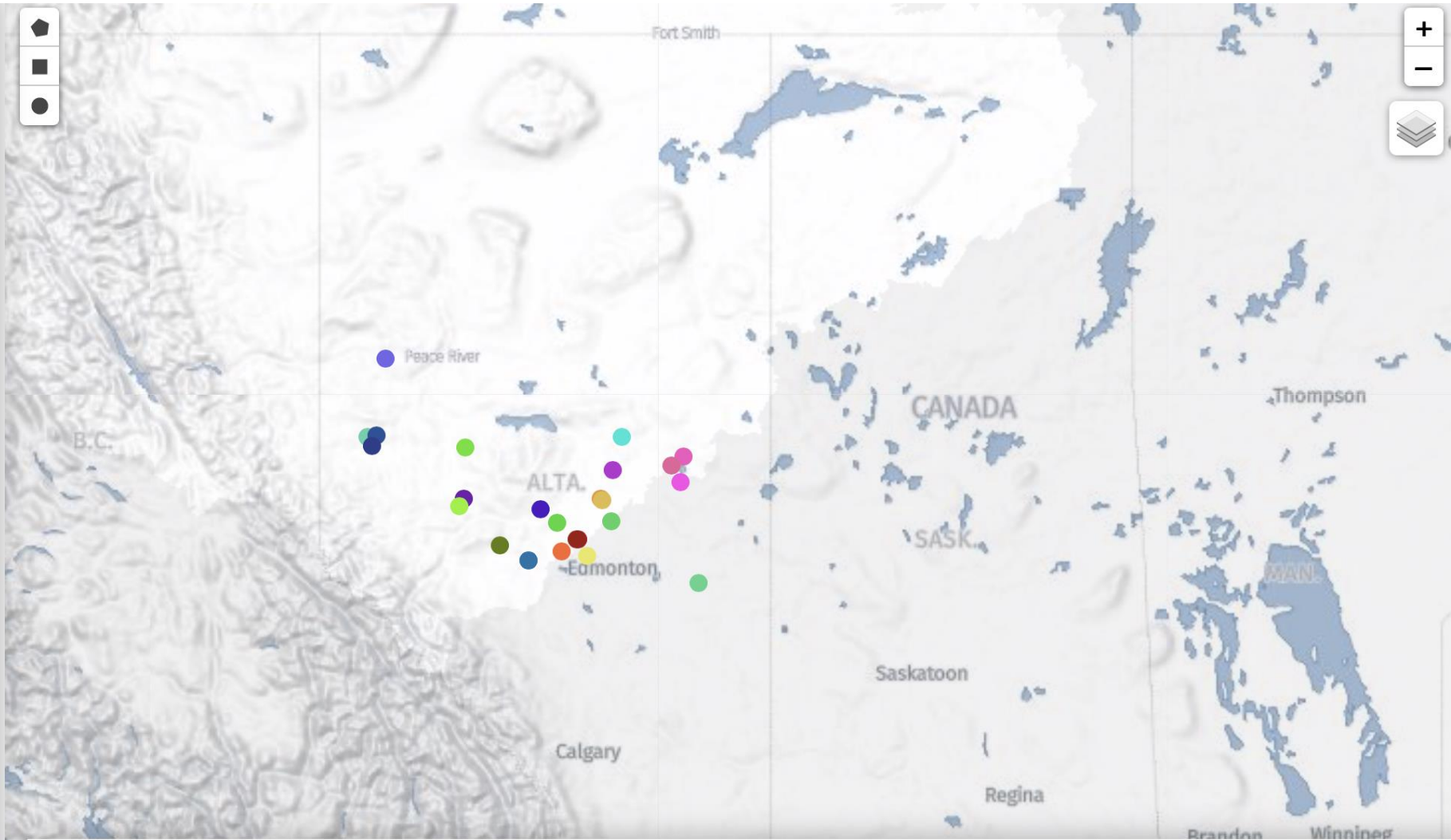
to

2016-09-29



Monitoring Locations [Select all](#) [Clear selection](#)

- ☒ Bear Lake Profile At The Deep Spot (AB07GE0270)
- ☒ Calling Lake Profile At Centre (AB07CB0790)
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- ☒ Lac La Biche East Basin Composite (AB07CA0200)
- ☒ Lac La Biche East Basin Profile - East Of Sir Winston



VISUALIZATION

STATISTICS

DATASET PREVIEW

Chart Type

Scatter



Y-Axis 1 ●

Temperature, water (field)



Y-Axis 2 +

None



Percentiles

SELECT



Guidelines ⓘ

SELECT






 [DOWNLOAD](#)
 [ATTACHMENTS](#)
 [DATA LICENSE](#)

Meta, Contact & Program Information

Date Range

1995-07-29  to 2016-09-29 

Monitoring Locations [Select all](#) [Clear selection](#)

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- Calling Lake Profile At Centre (AB07CB0790)
- Chip Lake Profile At The Deep Spot (AB07BB0980)
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- Clairmont Lake Profile (AB07GE1040)
- Flyingshot Lake Profile (AB07GE1060)
- George Lake Profile (AB07FD1410)
- Goose Lake Profile (AB07AH0500)
- Iosegun Lake Profile At Centre (AB07GG0040)
- Island Lake Profile At Centre (AB07BE0870)
- Lac La Biche East Basin Composite (AB07CA0200)
- Lac La Biche East Basin Profile - East Of Sir Winston Churchill Lake (AB07CA0210)



STATISTICS

DATASET PREVIEW

Chart Type

Scatter

Y-Axis 1 ●

Arsenic; Total Recoverable

Y-Axis 2 +

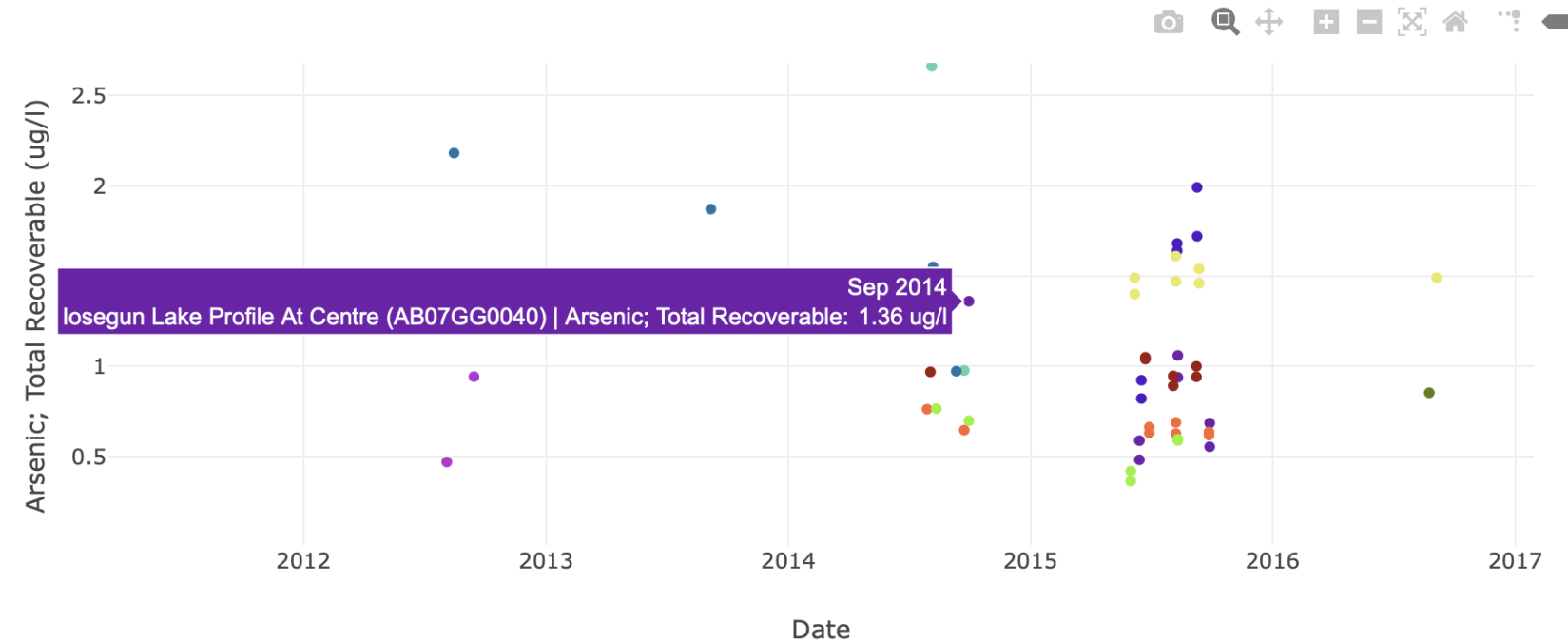
None

Percentiles

SELECT

Guidelines

SELECT



LakeWatch Water Quality Data

DOWNLOAD

ATTACHMENTS

DATA LICENSE

Meta, Contact & Program Information

Date Range

1995-07-29

to

2016-09-29

Monitoring Locations

Select all

Clear selection

Bear Lake Profile At The Deep Spot (AB07GE0270)

Calling Lake Profile At Centre (AB07CB0790)

Chip Lake Profile At The Deep Spot (AB07BB0980)

Chip Lake Whole Lake Composite (AB07BB0970)

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Goose Lake Profile (AB07AH0500)

Iosegun Lake Profile At Centre (AB07GG0040)

Island Lake Profile At Centre (AB07BE0870)

Lac La Biche East Basin Composite (AB07CA020)

Lac La Biche East Basin Profile - East Of Sir Winston

VISUALIZATION

STATISTICS

DATASET PREVIEW

Chart Type

Scatter

Y-Axis 1

Uranium; Total Recoverable (G

Y-Axis 2

None

Percentiles

SELECT

Guidelines

CCME FRES...

CCME Freshwater Acute

CCME Freshwater Chronic

Uranium; Total Recoverable (ug/l)

15

10

5

0

2000

2005

2010

2015

Date

LakeWatch Water Quality Data

DOWNLOAD

ATTACHMENTS

DATA LINKS

Meta, Contact & Program Information

Date Range

1995-07-29

▼

to

2017-07-29

▼

Monitoring Locations

Select all

Clear

☒ Bear Lake Profile At The Deep Sp

☒ Calling Lake Profile At Centre (AB

☒ Chip Lake Profile At The Deep Sp

☒ Chip Lake Whole Lake Composite

☒ Clairmont Lake Profile (AB07GE10

☒ Flyingshot Lake Profile (AB07GE1060)

☒ George Lake Profile (AB07FD1410)

☒ Goose Lake Profile (AB07AH0500)

☒ Iosegun Lake Profile At Centre (AB07GG0040)

☒ Island Lake Profile At Centre (AB07BF0870)

Download Dataset

Licence, Disclaimer, and Terms of Use

Step 1: Select a version

v1.0 (Current) - Sep 17, 2019

View Changelog

Details ▼

Blockchain Status

Details ▼

☒ Blockchain Verification Successful

Blockchain technology improves data security, tracking and transparency on DataStream. Want to learn even more? [Click Here](#)

Step 2: Review Data License, Disclaimer and Terms of Use

This dataset is made available under the Open Data Commons Attribution License (ODC-By):
<https://opendatacommons.org/licenses/by/1.0/>

By accessing this data you agree to DataStream's [Terms of Use](#).
☐ I agree

Step 3: Select Intended Data Usage

Select intended data usage to begin download

Select One

CLOSE

DOWNLOAD

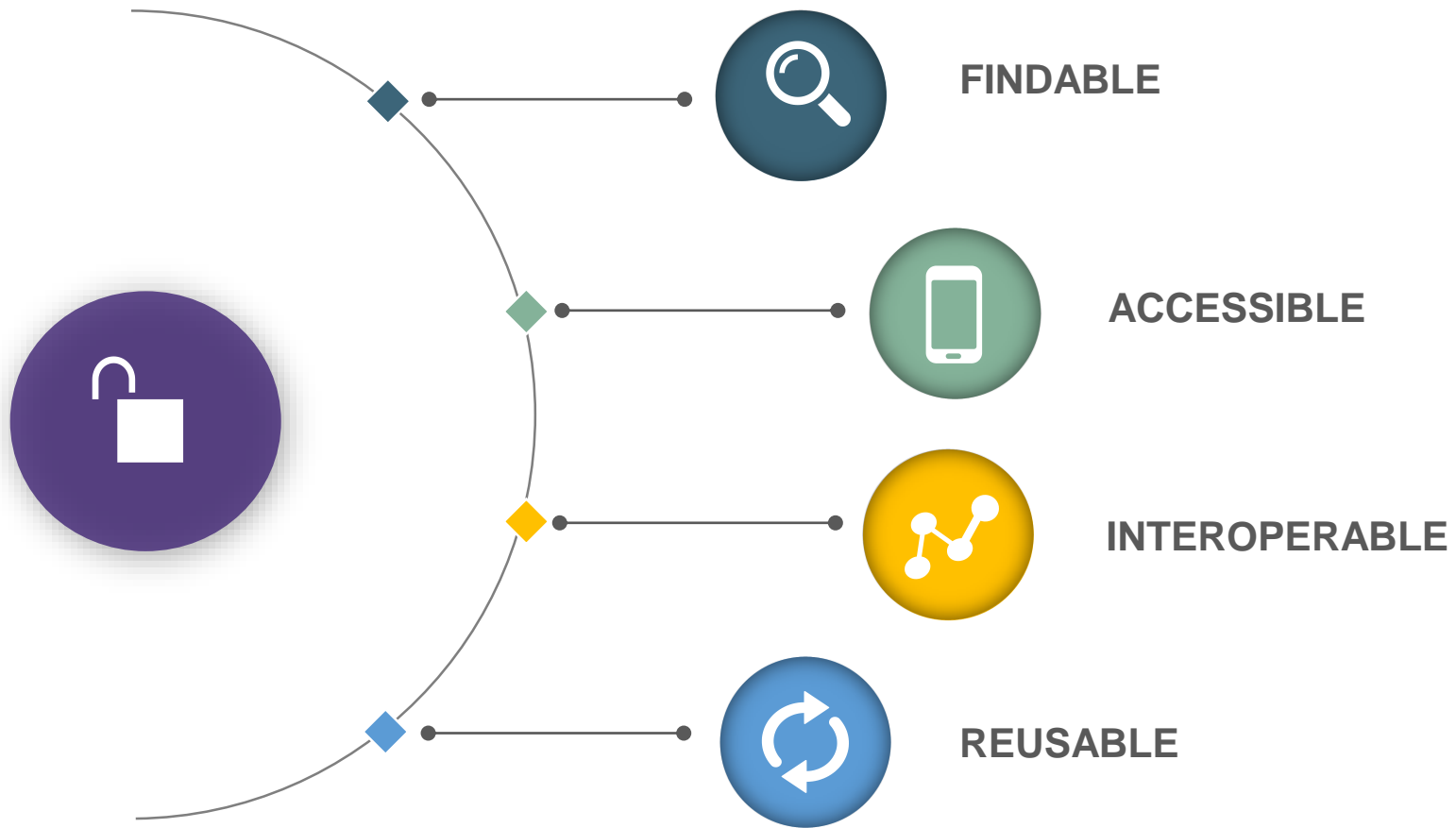
PREVIEW

Guidelines ⓘ

SELECT

20162017

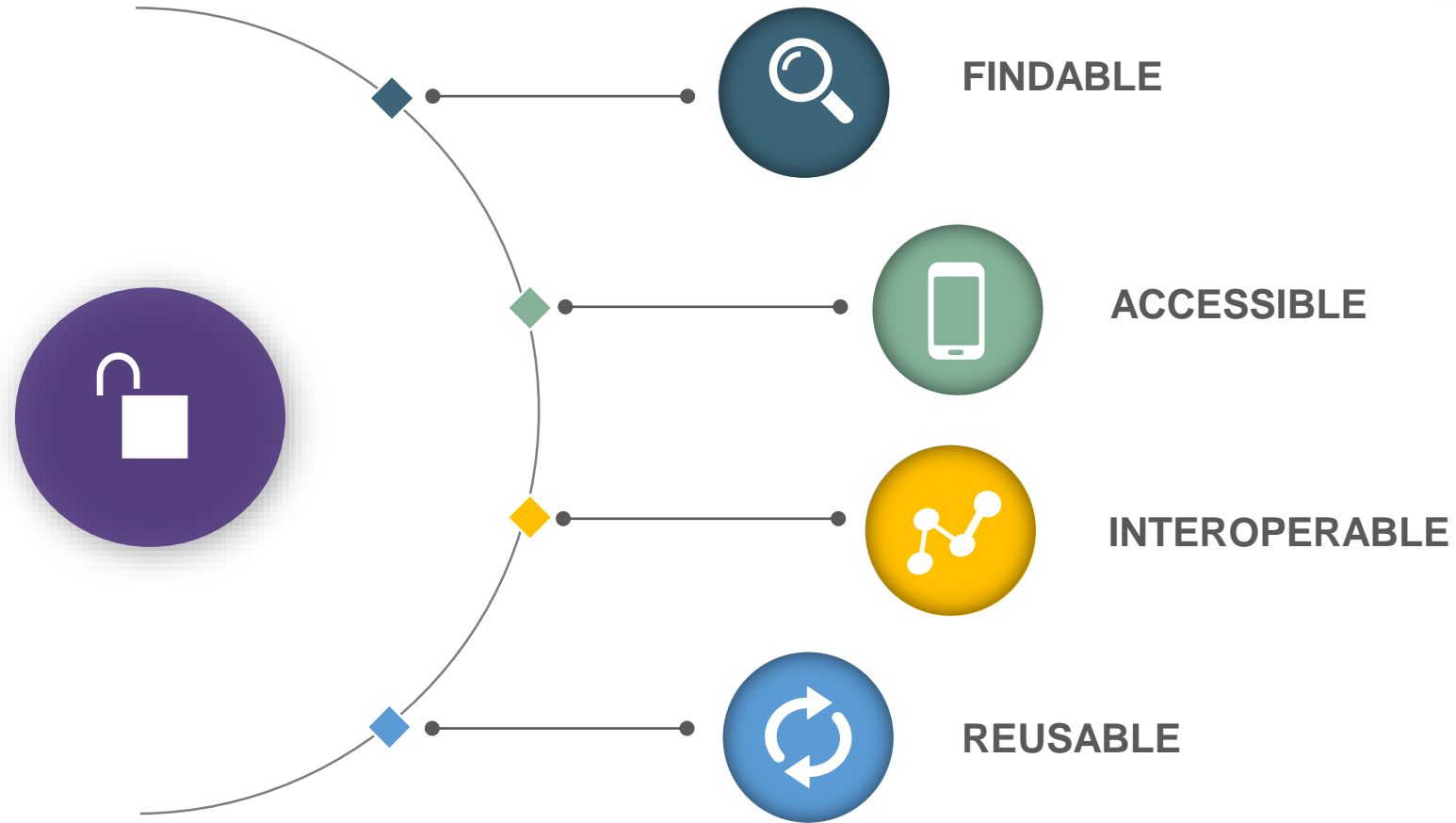
Date



DataStream is designed to support the *'FAIR' principles of open data*

Mark D. Wilkinson et al. (2016). *Nature*.

DOI's



←

LSWC tributary monitoring program

DOWNLOAD ATTACHMENTS DATA LICENSE

Dataset Information

Dataset Name
LSWC tributary monitoring program

Data Collection Organization
The Lesser Slave Watershed Council

Data Steward Email
info@lswc.ca


Start Date
April 25, 2017

End Date
May 23, 2019

DOI
10.25976/vmet-ct64

Abstract ▼

The Lesser Slave Watershed Council Tributary Monitoring Program collects water quality data for the five major tributaries of Lesser Slave Lake at upstream, mid and



Google Dataset Search

Google Dataset Search

Q Northeast Avalon

X

About

5 results found

A

Water Quality Monitoring of Regional Rivers (Northeast...
atlanticdatastream.ca

A

Enhancement of an Urban Wetland, Lundrigan's Marsh
atlanticdatastream.ca

A

Kelligrews Ecological Enhancement Program (KEEP)...
atlanticdatastream.ca

A

Manuels River Water Quality Monitoring
atlanticdatastream.ca

Water Quality Monitoring of Regional Rivers (Northeast Avalon)

Explore at atlanticdatastream.ca

Unique identifier

<https://doi.org/10.25976/bv8z-1z40>

Dataset provided by

DataStream

License

Attribution License (ODC-By) v1.0

Time period covered

2013-09-24T14:33:00.000Z/6/20/2017, 7:00:00 AM

Area covered

Bell Island, Paradise, Holyrood, Conception Bay South, Portugal Cove-St. Philip's, Torbay, Bay Bulls, St. John's

Description

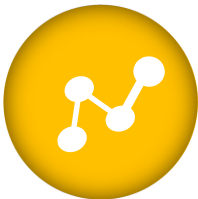
Northeast Avalon ACAP (NAACAP) completed a three year Water Quality Monitoring of Regional Rivers project on the Northeast Avalon, repre... watersheds where continuous monitoring had not previously been completed. Training and equipment from Saint Mary's University CURA H2 Community Based Environmental Monitoring Network facilitated data collection by NAACAP and community partners: Kelligrews Ecological Enhancement Program (KEEP). The Quidi Vidi/Rennie's River Development Foundation, and the Manuels River Experience. Ongoing communi...



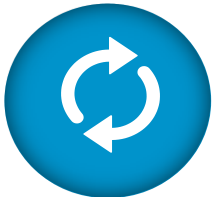
FINDABLE



ACCESSIBLE



INTEROPERABLE



REUSABLE

Data Model

Dataset level metadata

Observation level (within dataset)

- Aligned with WQX
- Validation on upload



Monitoring location

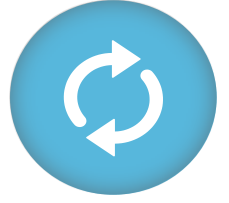
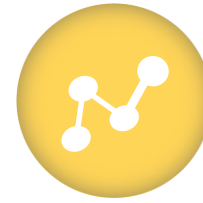
Site name, ID
Coordinates
Reference datum
Waterbody type

Sample collection

Sample type (e.g. field, lab, blank)
Date, time
Collection equipment
Depth

Parameter/result

Characteristic name, speciation, sample fraction
Result value, units
Analysis method, date, time
Detection limits



- Open data licenses
- Blockchain verification
- API development
- Ongoing improvements

Where DataStream fits in

WE DO

- Provide a place to publish data openly
- Provide support to format and upload data
- Schema validation checks

WE DO NOT

- Collect, fund or own any water monitoring data
- Analyze data and interpret results
- Fully QA/QC data



Community

Communities are connected to their waters and best-placed to see changes as they happen.



Policy & Action

Knowledge can be translated into action to protect the health of watersheds on which we all depend.



DataStream

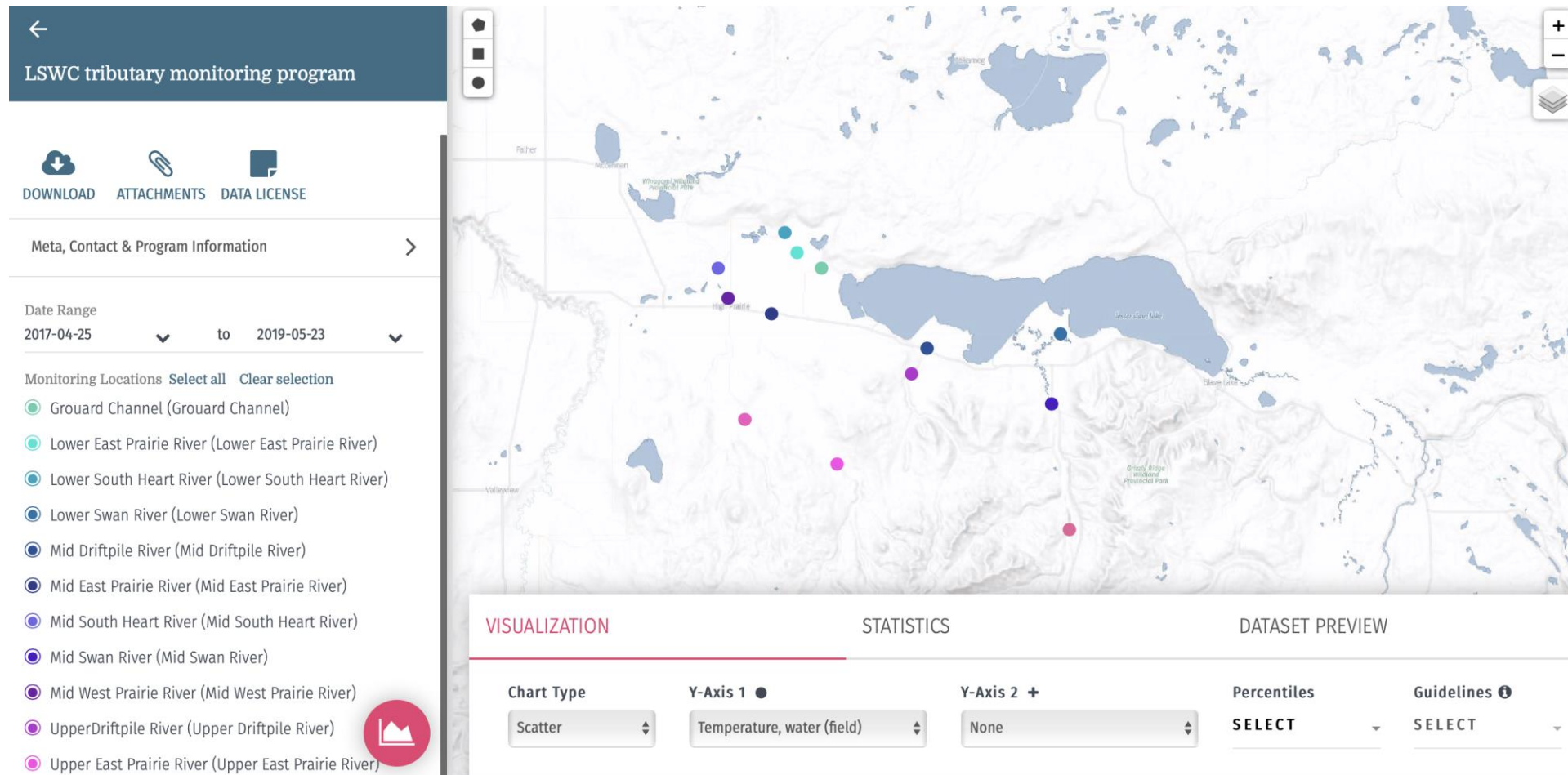
DataStream provides a place to store, share, and compare water monitoring data across watersheds.



Open Data To Knowledge

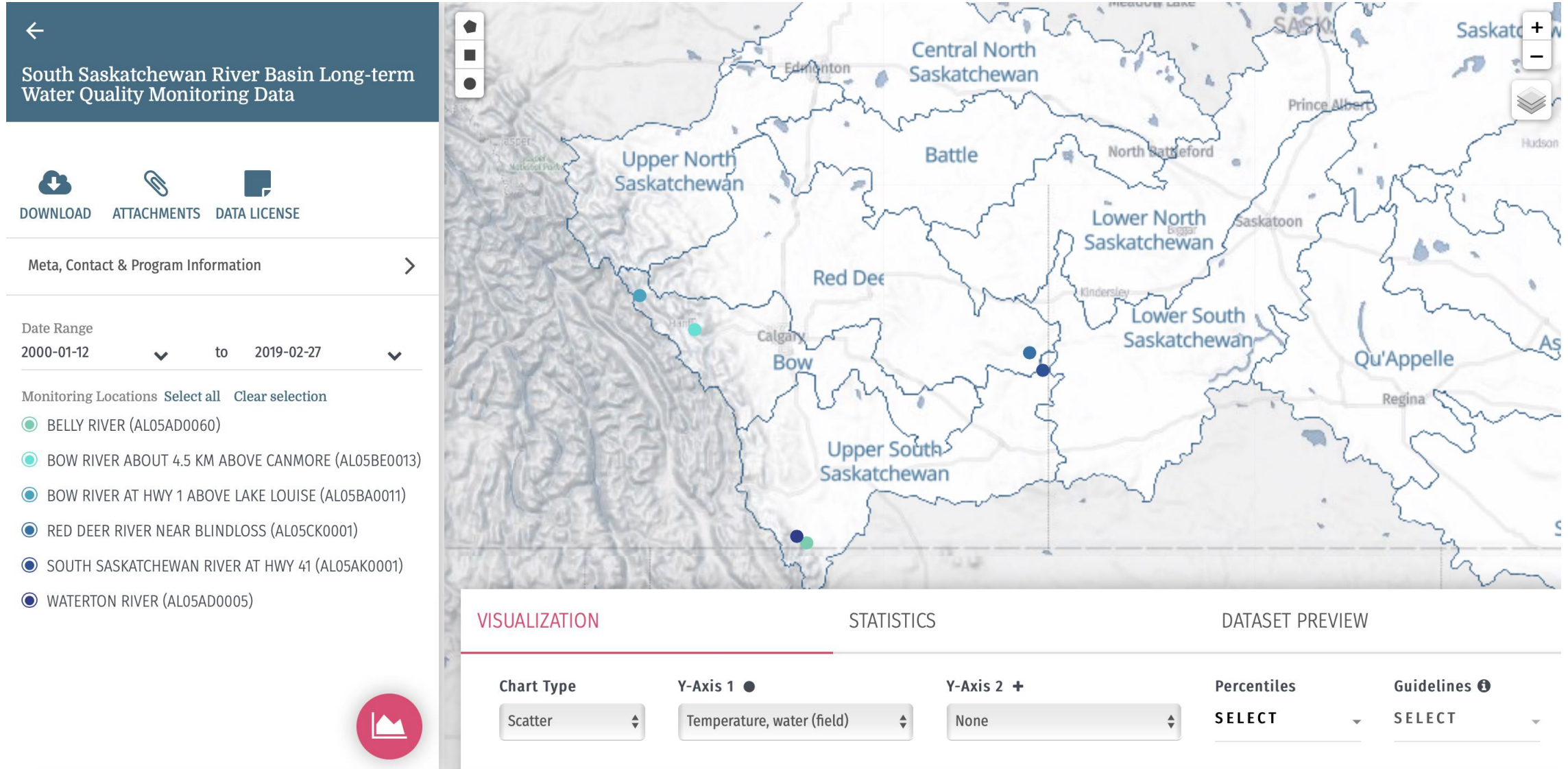
Open data advances scientific knowledge, supports collaboration, and fuels innovation.

Watershed Planning and Advisory Councils

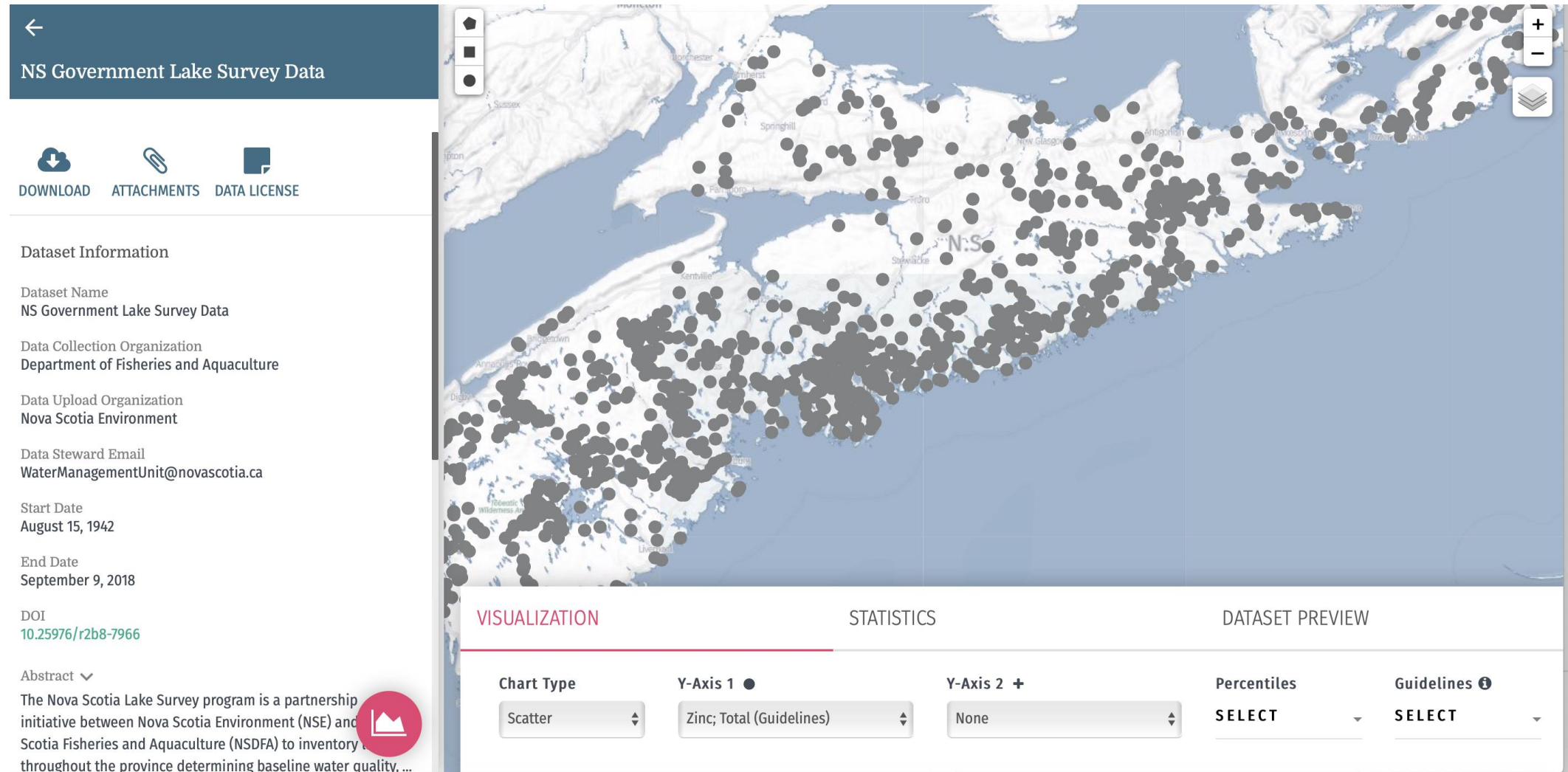




National Long-term Water Quality Monitoring Program



Provincial and Territorial Governments

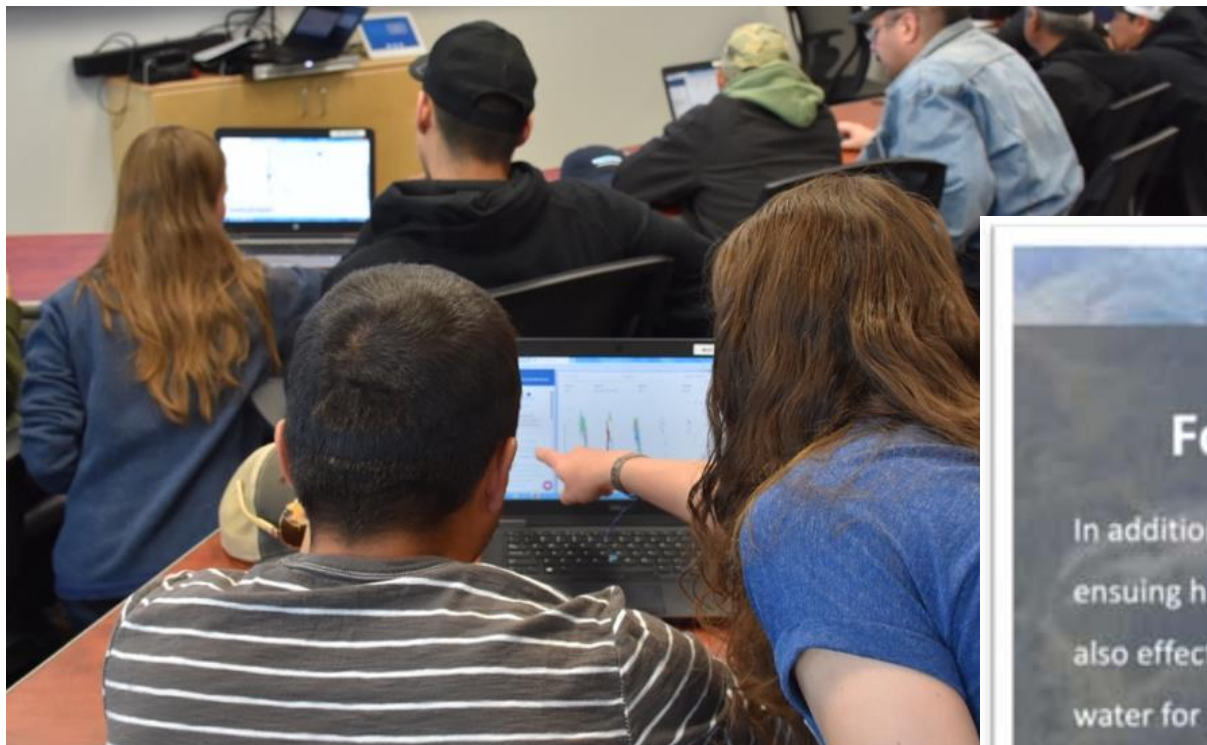


NWT Cumulative Impacts Monitoring Program



NWT Cumulative Impact Monitoring Program (NWT CIMP)

DataStream Data-thons!



Forest Fires

In addition to permafrost melt and the ensuing high turbidity, forest fires can also effect the levels of metals in the water for years after the fires. One metal that is a key indicator of this is Mercury.

QUESTION 5:

In 2013 and 2014 there were a number of forest fires in the areas surrounding Behchoko. Create a bar graph of the Total Mercury values for the site '*Behchoko at Franks Channel/Upstream of Bridge*' and determine in what year the peak mercury value dropped back below the CCME guideline.

Thank you



Lindsay Day
DataStream Coordinator
The Gordon Foundation

Lindsay@gordonfn.org

www.DataStream.org
@DataStreamH2O