



NSWA Lake Stewardship Webinar

May 9, 2023

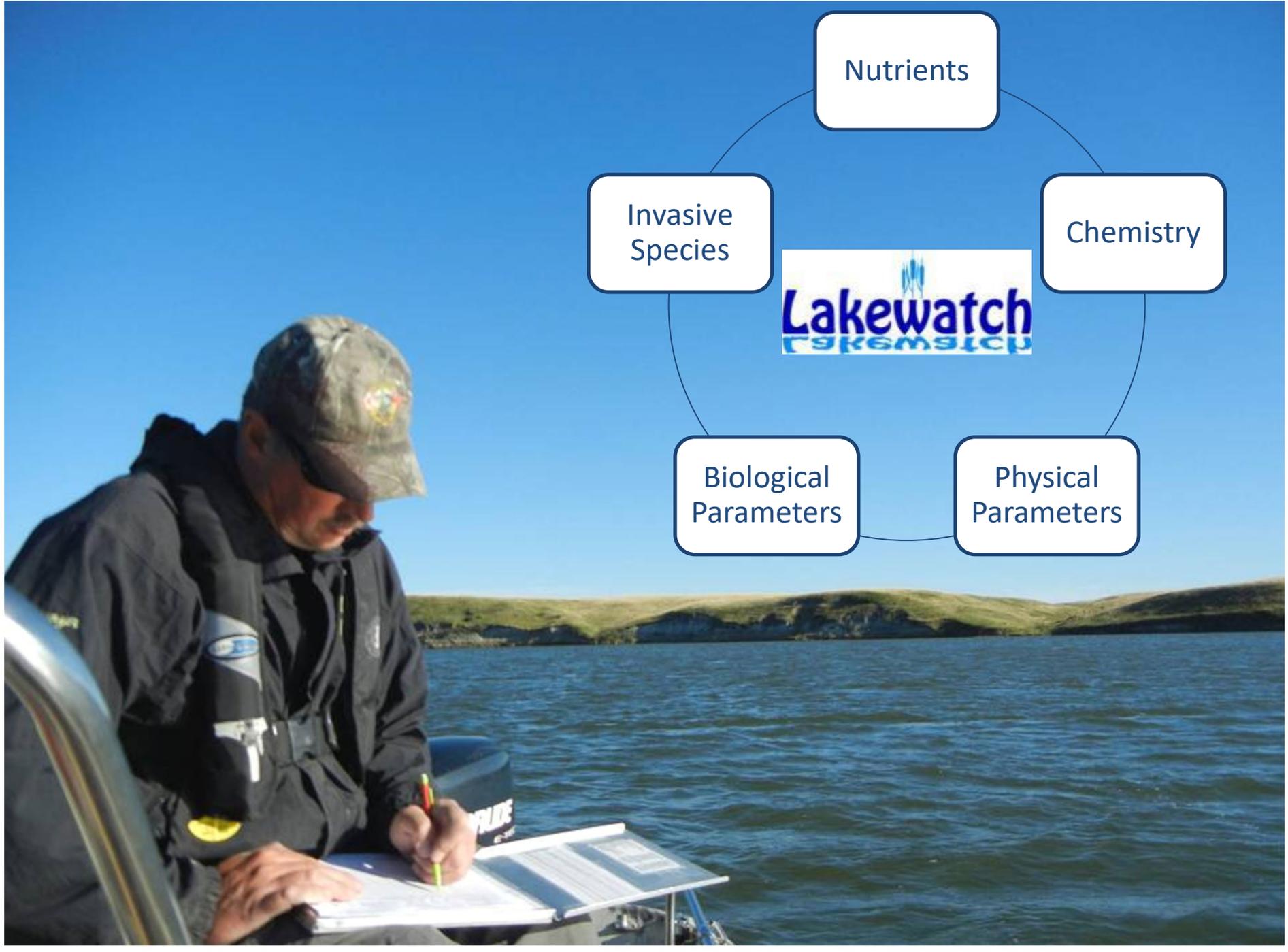




ALMS







Nutrients

Chemistry

Physical
Parameters

Biological
Parameters

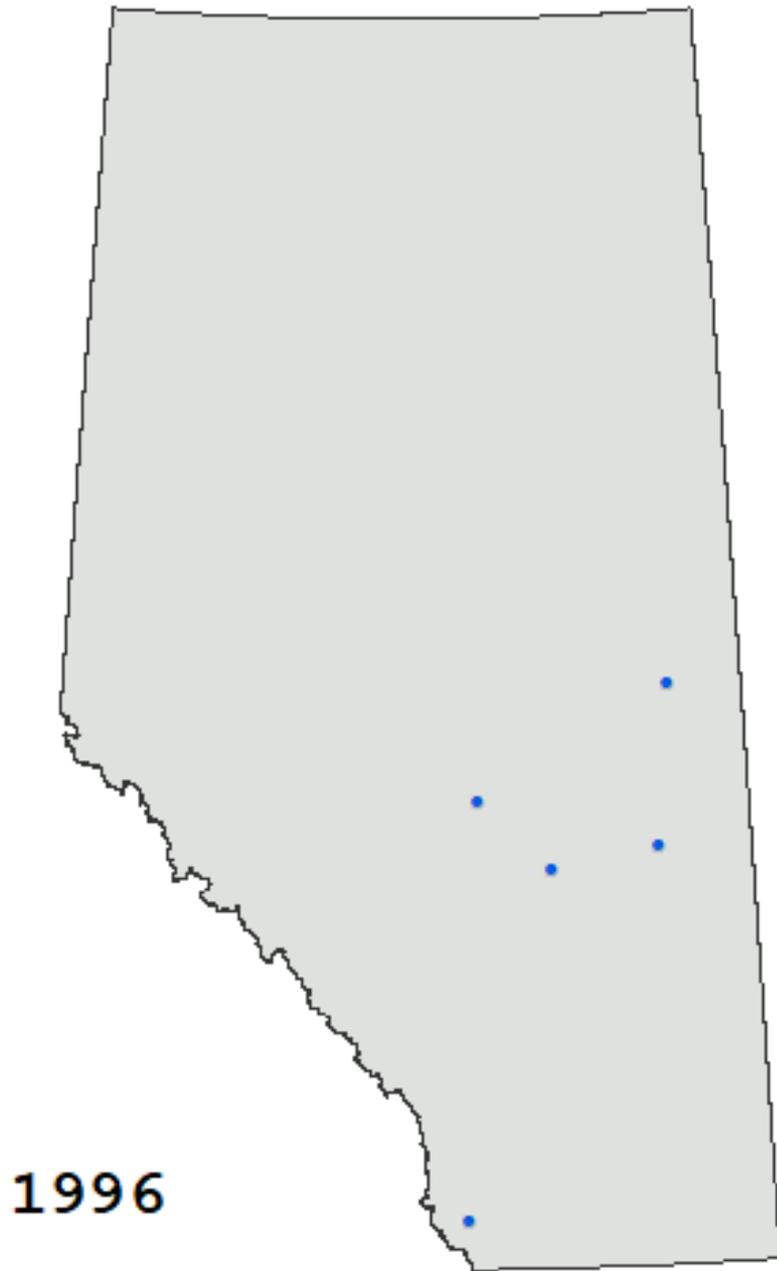
Invasive
Species



The logo for Lakewatch features a stylized blue graphic of water droplets or waves above the word "Lakewatch" in a large, bold, blue sans-serif font. Below "Lakewatch" is the word "LAKESWATCH" in a smaller, blue, all-caps sans-serif font.

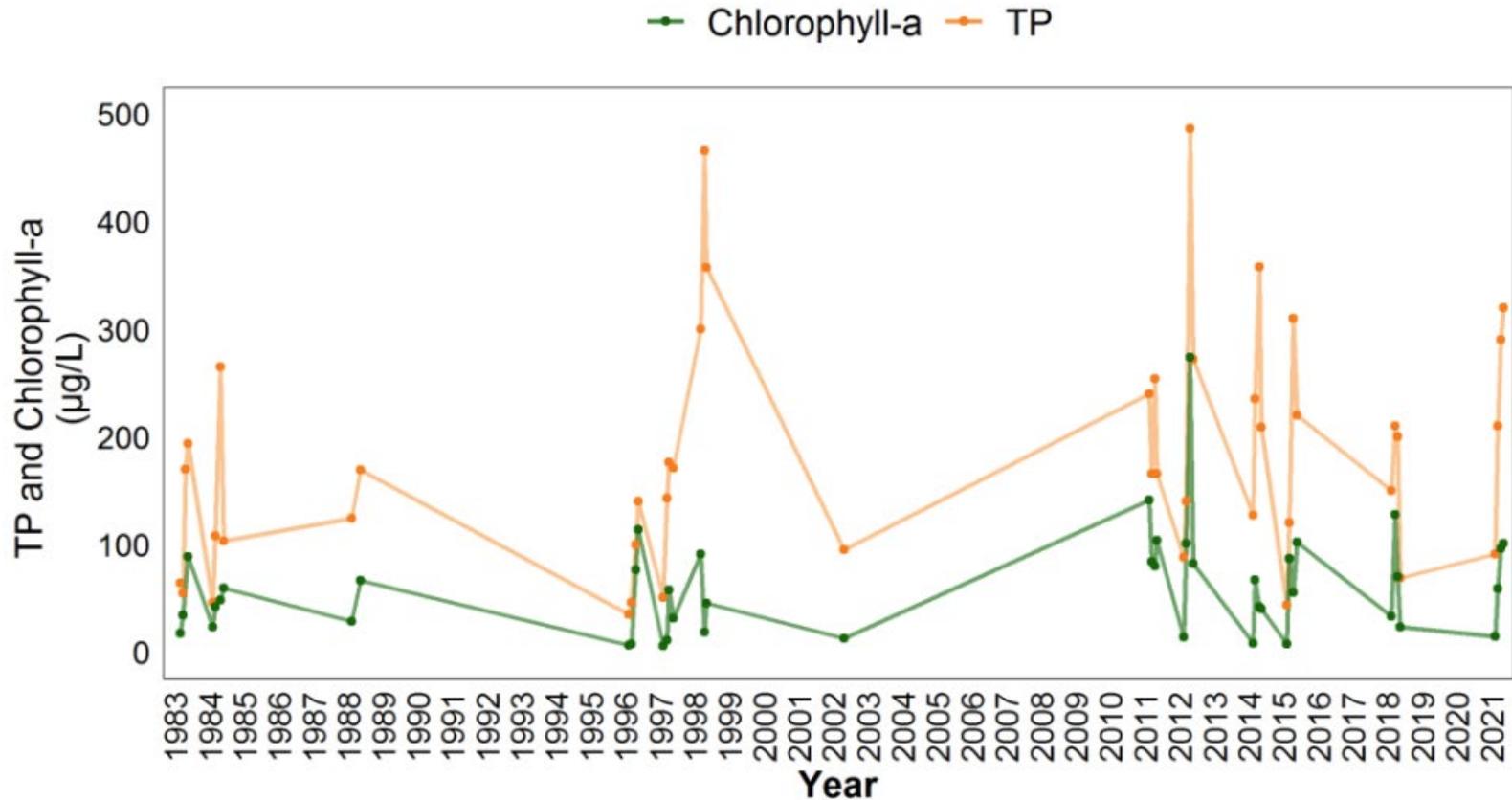
Lakewatch

LAKESWATCH



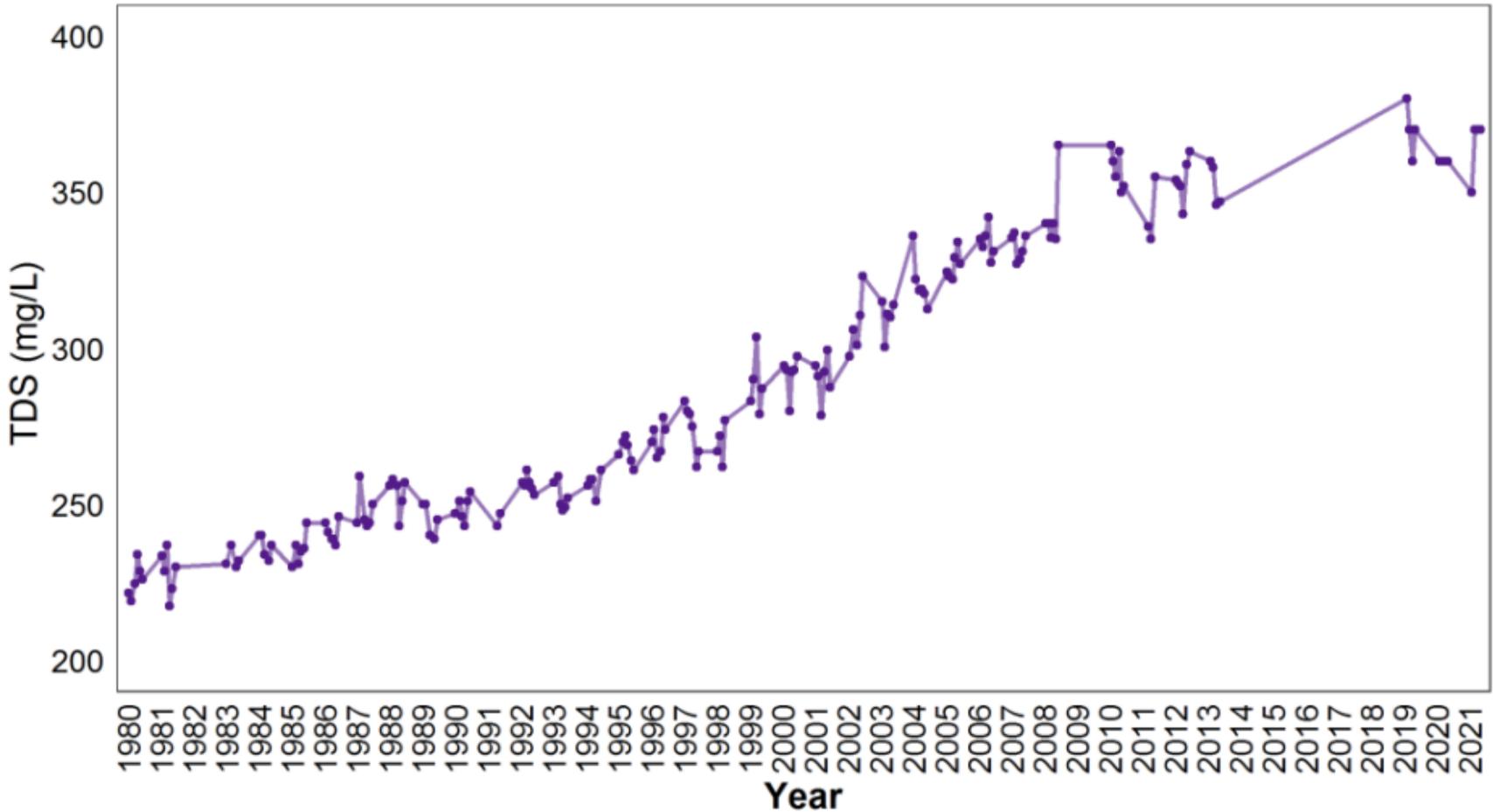
- Participatory program
- Established in 1996
- Currently intensive monitoring on 30 lakes annually.
- Long term trends in water quality.

Long Term Trend Analysis of Phosphorus and Chlorophyll



ALMS Reports: www.alms.ca/reports

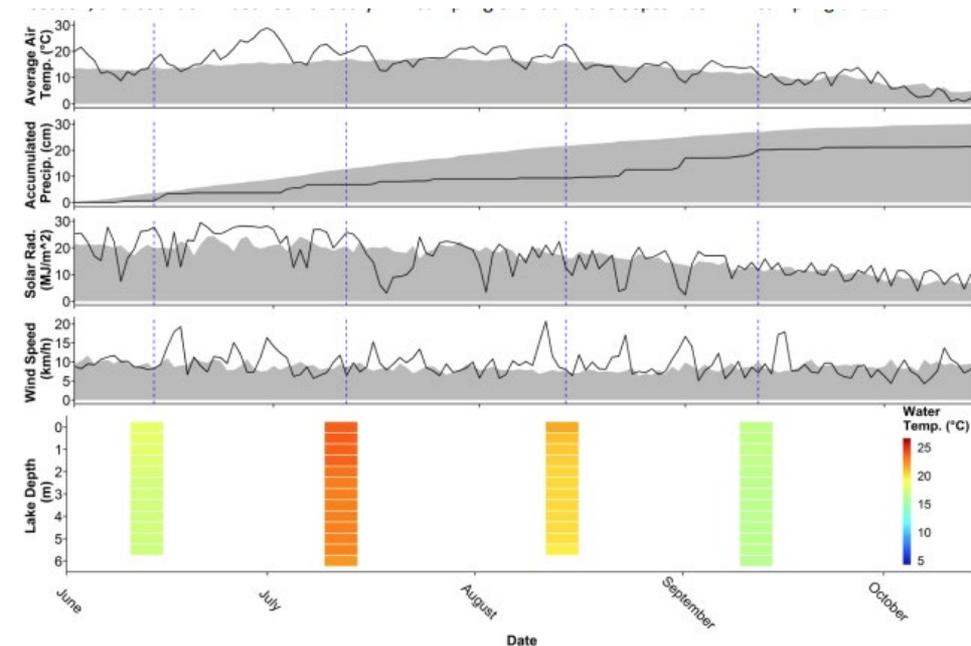
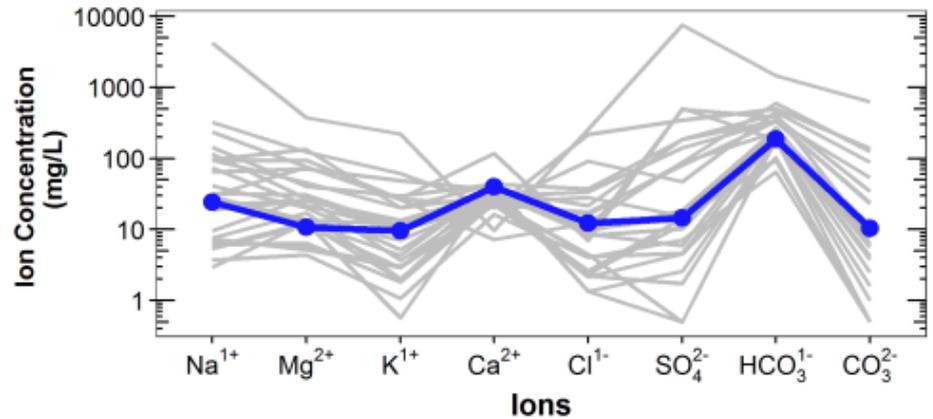
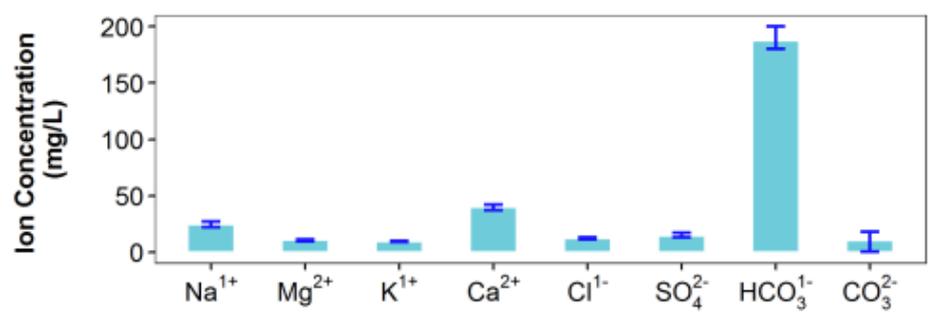
Long Term Trend Analysis of Total Dissolved Solids



Understanding Ion Chemistry

Impact of Road Salts on our Freshwaters

<https://alms.ca/2021-webinar-series/>



Understanding Annual Weather



- Accessing LakeWatch Data:
 - ALMS Website
 - www.alms.ca/reports
 - Provincial Water Quality Portal
 - <https://www.alberta.ca/surface-water-quality-data.aspx>
 - Water Levels
 - rivers.alberta.ca



LakeKeepers



- More traditional citizen science approach.
- Larger geographic reach.



LakeKeepers

- Participants trained and equipped.
- Collection of water quality samples and measurements.
- Three samples per season.
- Standard method ideal for smaller lakes.





LakeKeepers



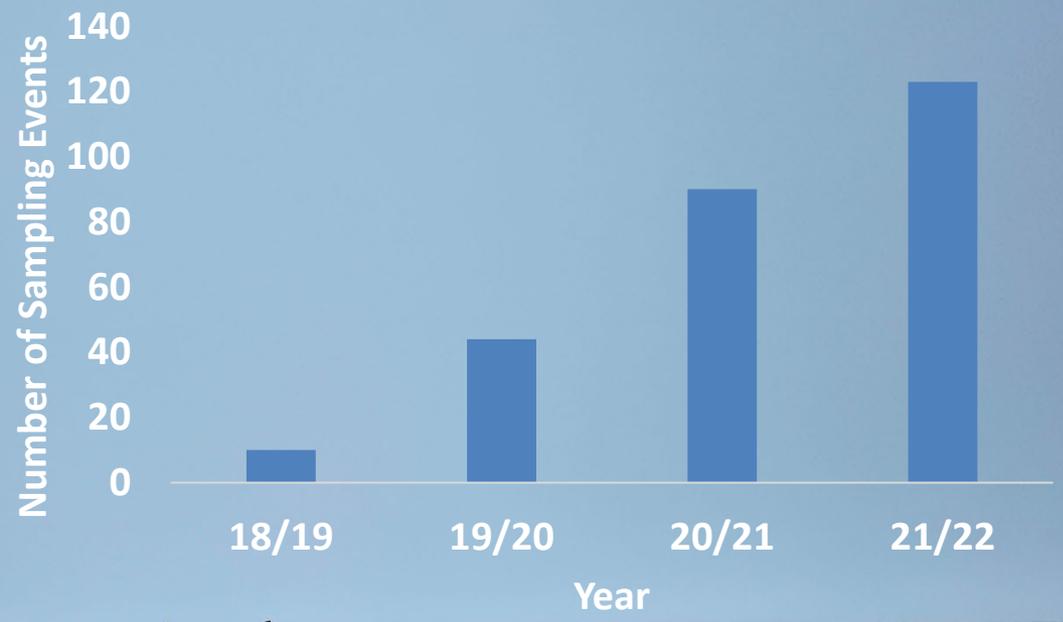


Nutrients

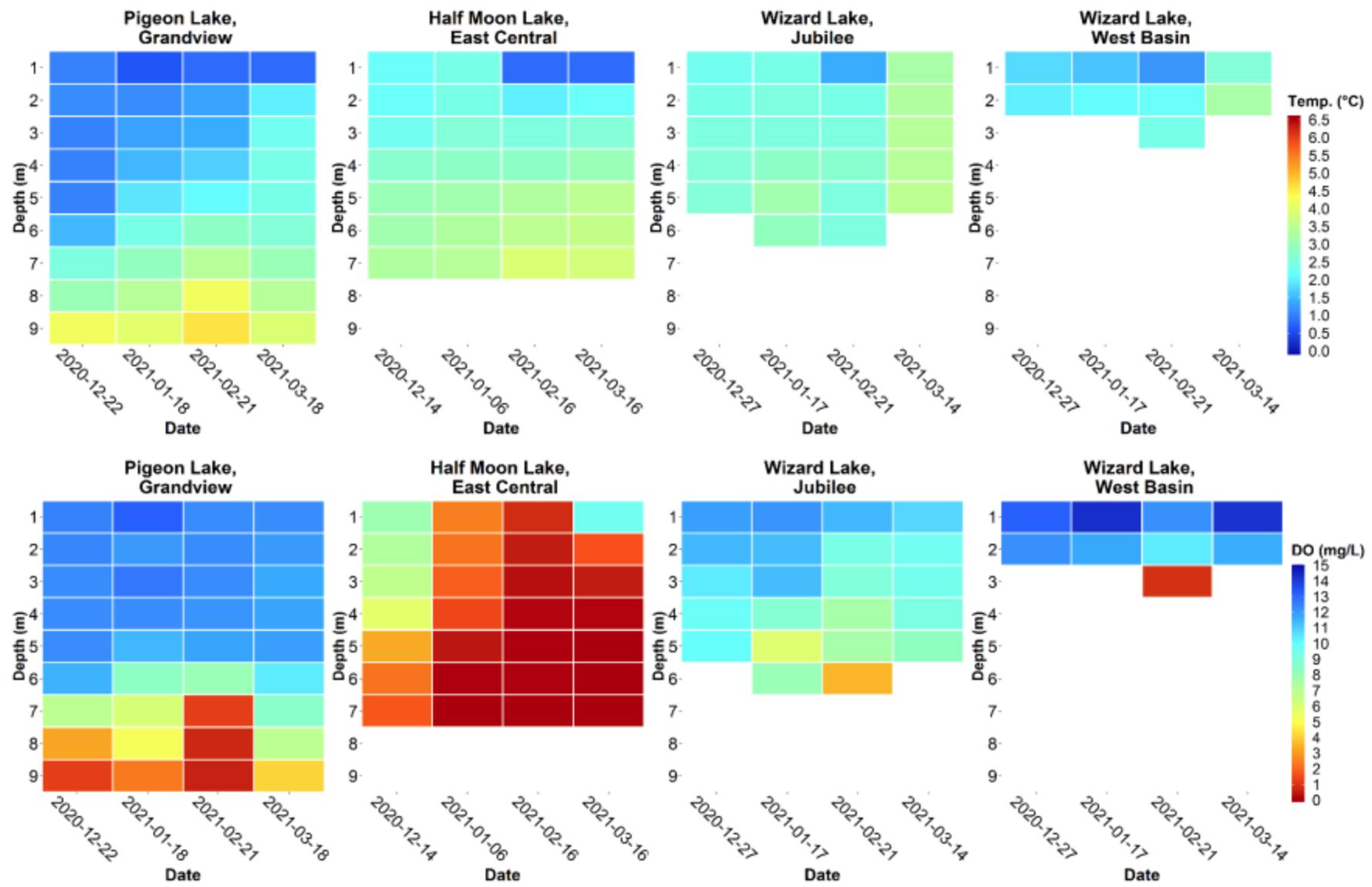
Biological
Parameters

Chemistry

Physical
Parameters



Winter Reports Highlight Nutrients, Temperature, Oxygen, and More.



Pigeon Lake Sensor Array: High Frequency Data





Muriel Lake May 2023



Photos by Richard
Bourgeois MLBMS

Lakes of the Carvel Pitted Delta

Photo Credit: O2 Planning + Design Inc. and Parkland County

- 25 named lakes
- 75 unnamed lakes

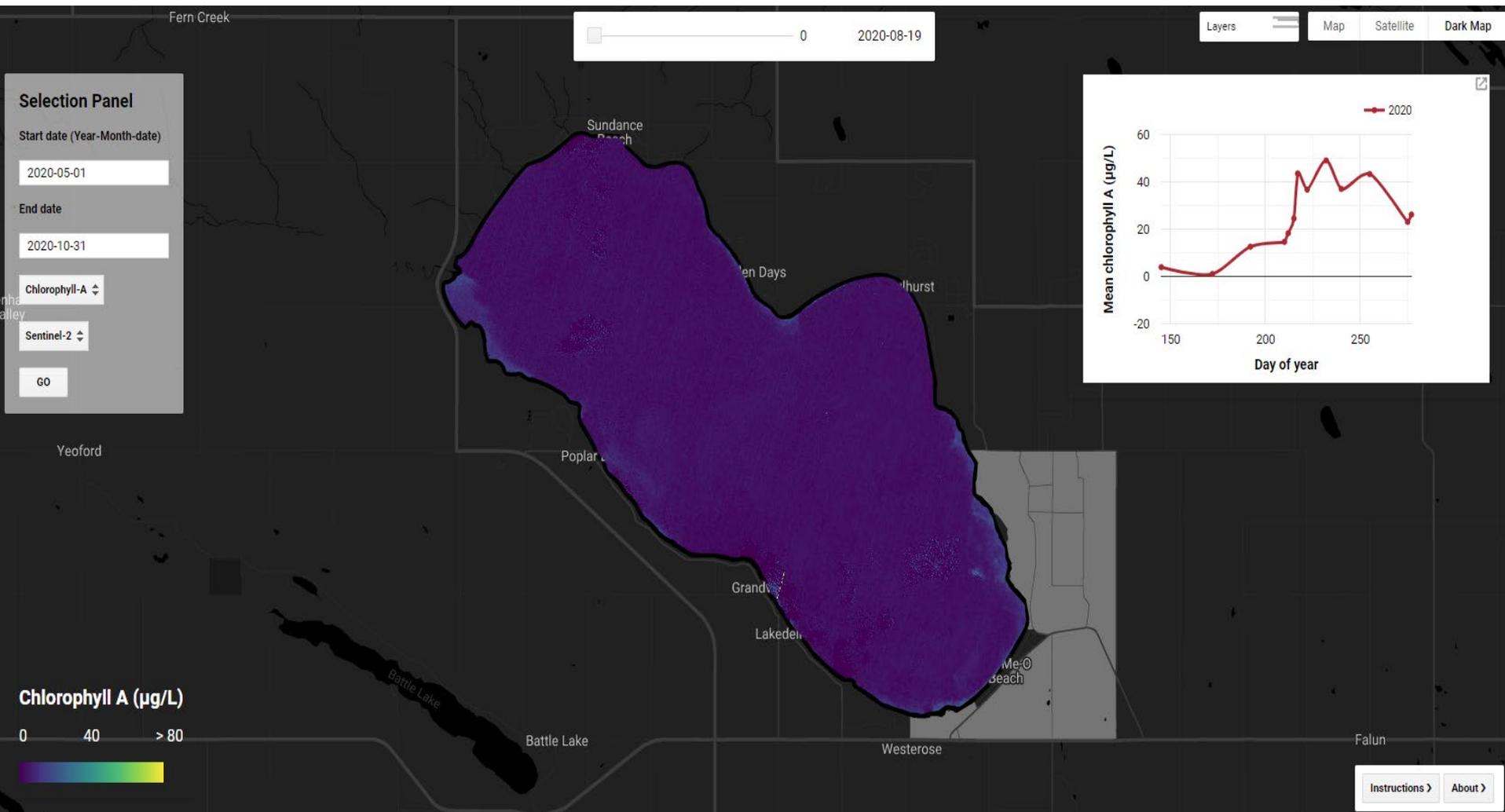
- 40 lakes monitored in summer 2021
- 50 lakes monitored in summer 2022

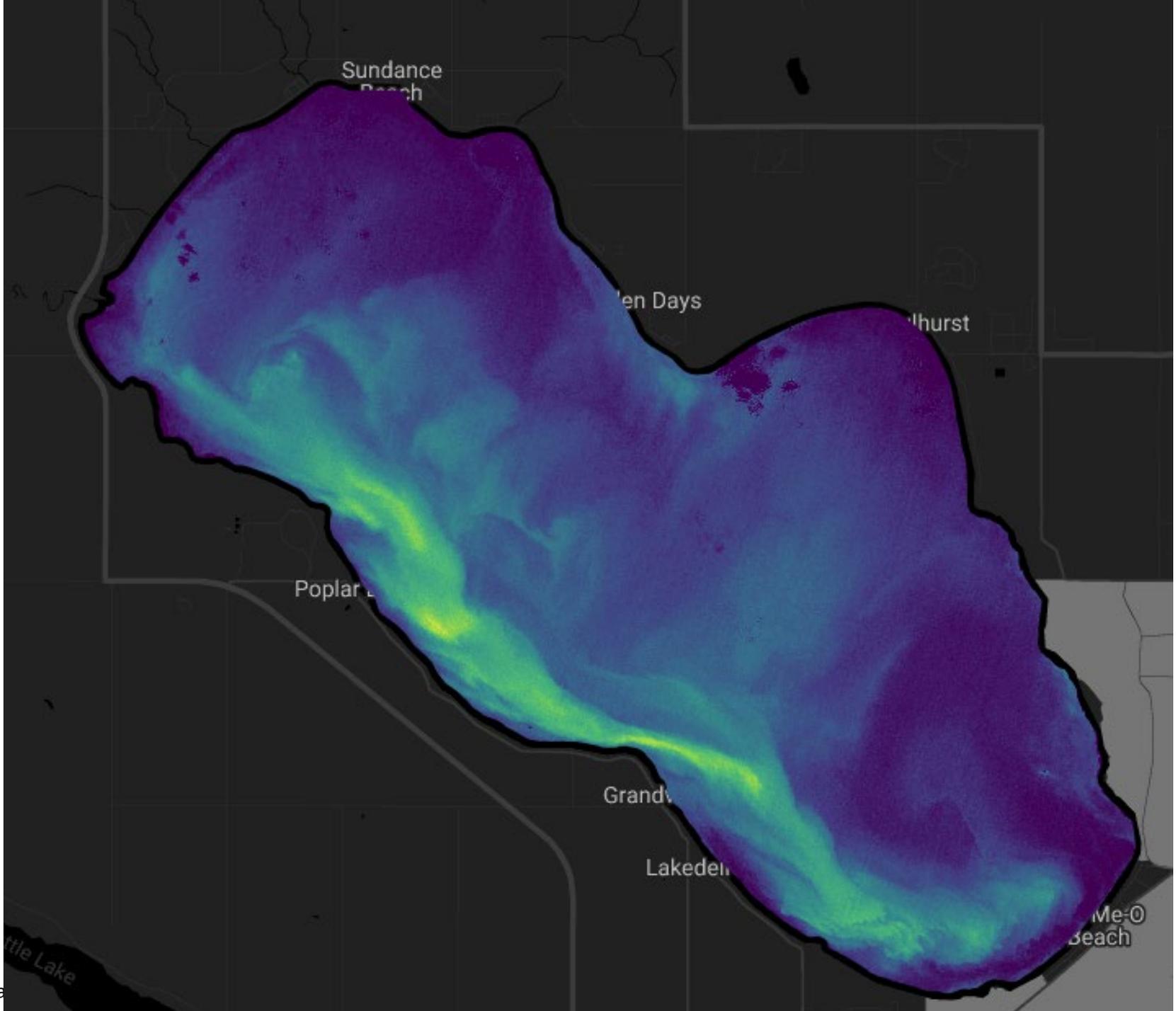




- Accessing LakeKeepers Data
 - ALMS Website
 - <https://alms.ca/summer-lakekeepers/>
 - <https://alms.ca/winter-lakekeepers/>
 - DataStream
 - <https://gordonfoundation.ca/initiatives/datastream/>

LakeWatch in Space





Sundance Beach

ten Days

thurst

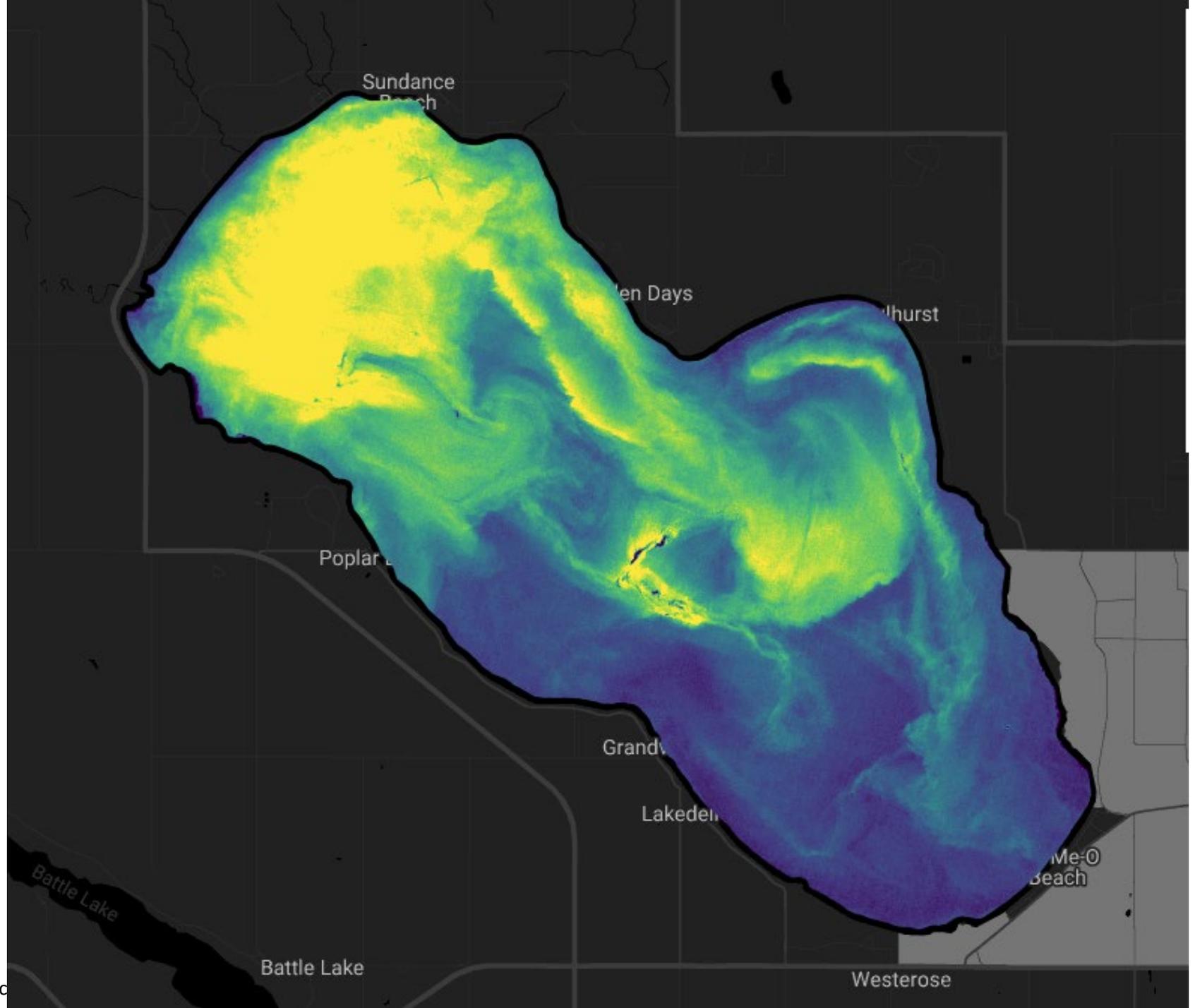
Poplar Lake

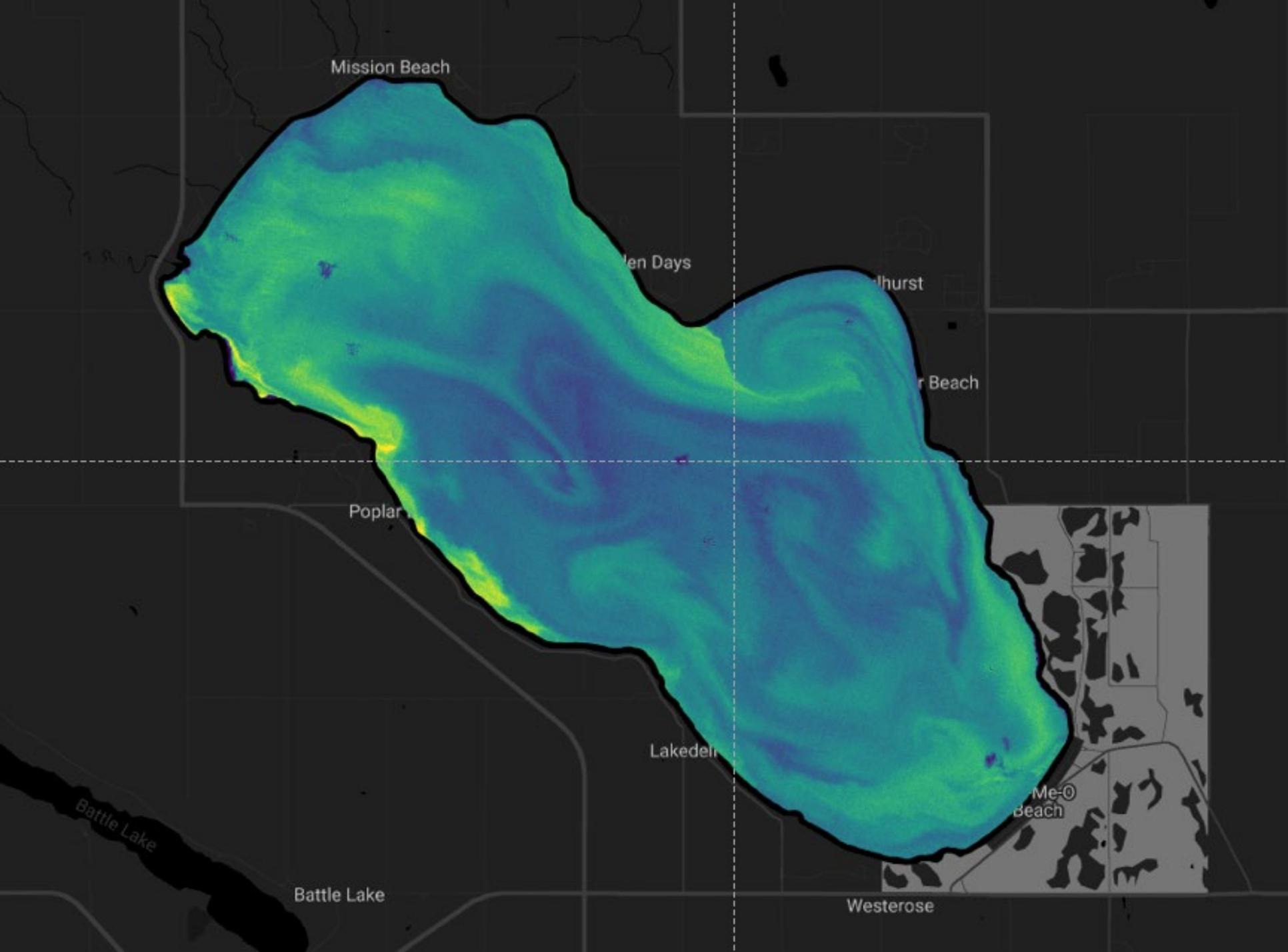
Grand

Lakeden

Me-O Beach

Classifica





No zebra or quagga mussels or
Eurasian Water-Milfoil
detected in 2022.



Thanks to the NSWA for their support in watermilfoil monitoring.

ALBERTA LAKE MANAGEMENT SOCIETY

Eurasian Watermilfoil

Myriophyllum spicatum



Northern Watermilfoil

Myriophyllum sibiricum

SUBMERGED

SUBMERGED

Flower spike may be long and stick out of the water

Stem can range from green to red in colour

Leaves in groups of 3 to 5, whorled around a round stem

4-8 cm

- Leaves appear feather-like, with 14 - 20 divisions on either side
- Leaves are limp and don't hold their shape out of water (unlike Northern Milfoil)
- Leaflets have a squared off appearance at the end, rather than a point

This invasive plant can create new plants from small fragments, no roots needed

Plant can appear sparse or dense with leaves, depending on the season

Flower spike may be long and stick out of the water

4-8 cm

- Leaves appear feather-like with less than 12 divisions on either side
- Leaves are stiff and retain their shape out of water (unlike Eurasian Milfoil)
- Leaflet length gives leaves an overall pointed appearance

Plant can appear sparse or dense with leaves, depending on the season

Can hybridize with Eurasian Watermilfoil

BE ON THE LOOKOUT FOR THIS INVASIVE LOOK-ALIKE

Variable-leaf Watermilfoil
Myriophyllum heterophyllum

The variable leaf watermilfoil looks similar to northern watermilfoil, however the emergent stalk has leaves which can measure up to 3 cm long

Photo: Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Leaves grouped in four, whorled on a round stem

Stem can range from green to red in colour

Lake Stewardship Community of Practice

The Lake Stewardship Community of Practice is hosted by the Alberta Lake Management Society and supported by the Land Stewardship Centre of Canada.



<https://alms.ca/lake-stewardship-community-of-practice/>

Date	Topic
May 2022	Community Engagement featuring Blake Bartlett of the Wizard Lake Watershed Stewardship Society
July 2022	Advocating for your Lake featuring Don Davidson and Catherine Pierce of the Pigeon Lake Watershed Association
September 2022	Lake Management SWOT Analysis
February 2023	High and Low Lake Water Levels: featuring Kellie Nichiporik of the Moose Lake Watershed Society and Peter Cordingley of the Muriel Lake Basin Management Society

Find us on Facebook -Alberta Lake Stewardship-



Alberta Lake Stewardship



[+ Invite](#)

Alberta



NSWA
NORTH SASKATCHEWAN
WATERSHED ALLIANCE



Cabela's

OUTDOOR FUND



Alberta Conservation
Association



Thank You!

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