



KAWARTHA CONSERVATION

Discover • Protect • Restore



Lake Dalrymple Working Group Meeting #2

October 26, 2021



AGENDA

1. Welcome
2. Roundtable Introductions
3. Project Overview
4. Preliminary key findings from 2021 sampling activities
5. Lake health issues and opportunities
6. Community engagement
7. Closing – next meeting

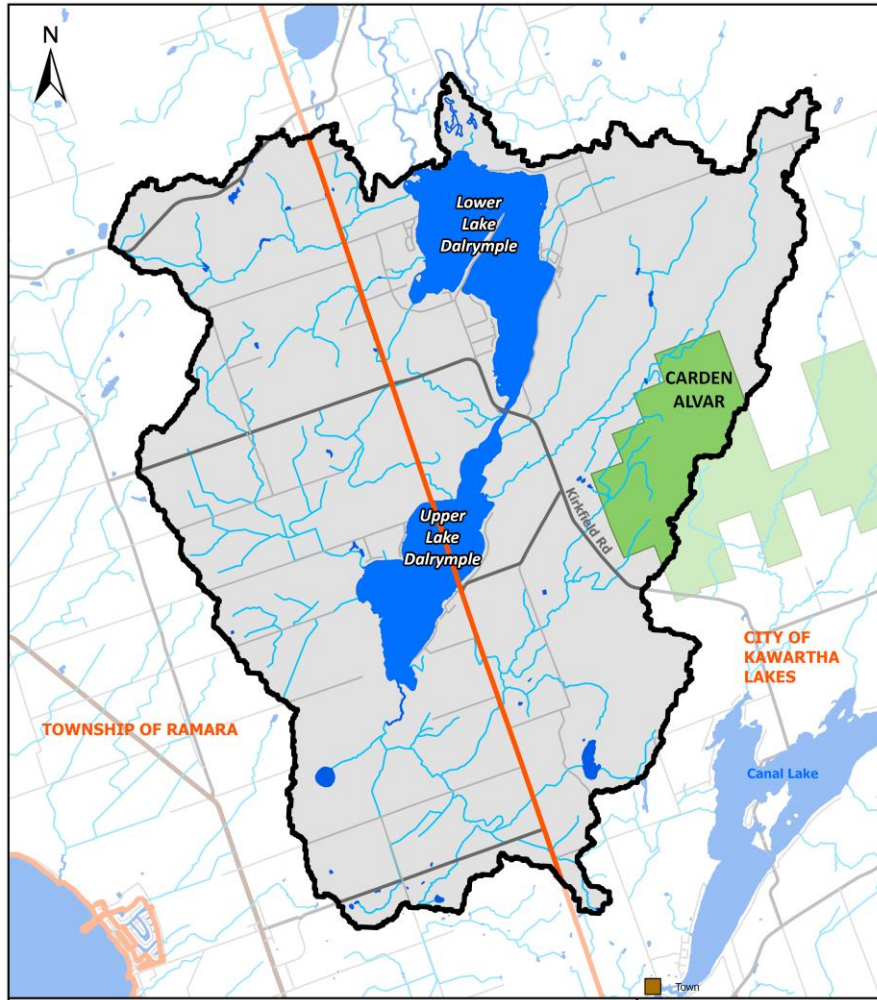
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Project Overview

Lake Dalrymple Management Plan

4 year project
(2021-2024)

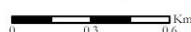


Lake Dalrymple Overview Map

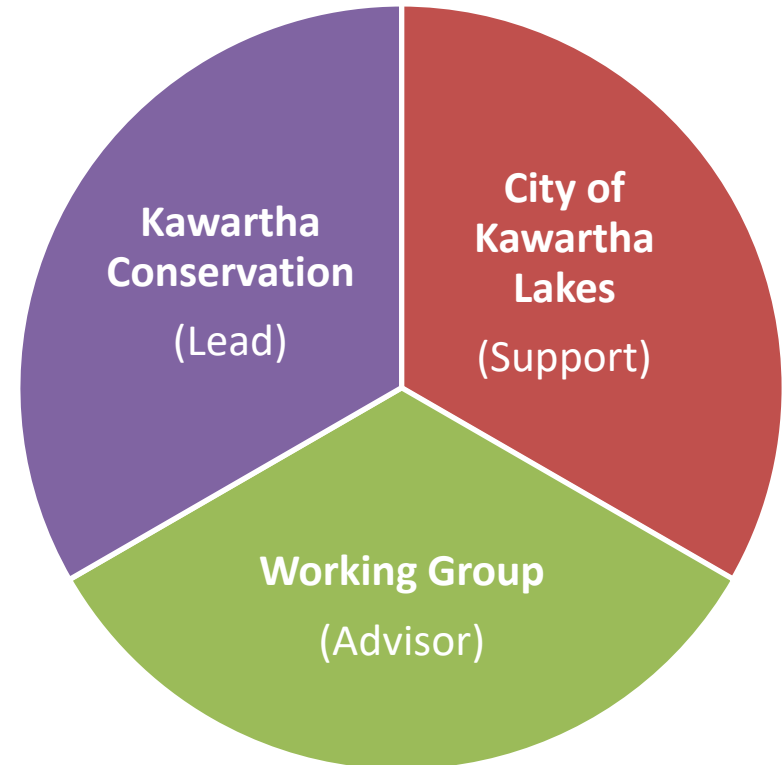


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Scale: 1: 95,000



- Highway
- Major Road
- Minor Road
- Watercourse
- Lake Dalrymple
- Provincial Park
- Municipal Boundary
- Watershed Boundary



Lake Health Monitoring Network



Watershed

- Land Classifying
- Precipitation



Tributaries

- Water Quality
- Water Flows
- Aquatic Habitats



Shoreline

- Land Classification
- Shoreline Survey
- Aquatic Habitats

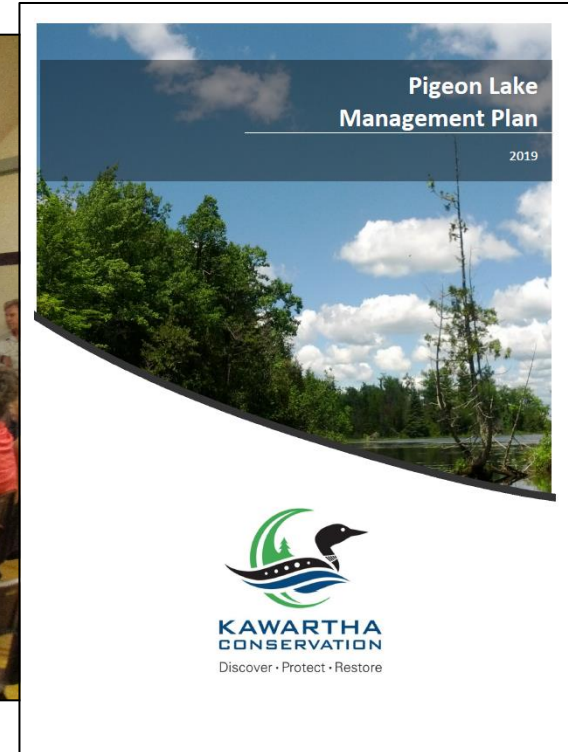
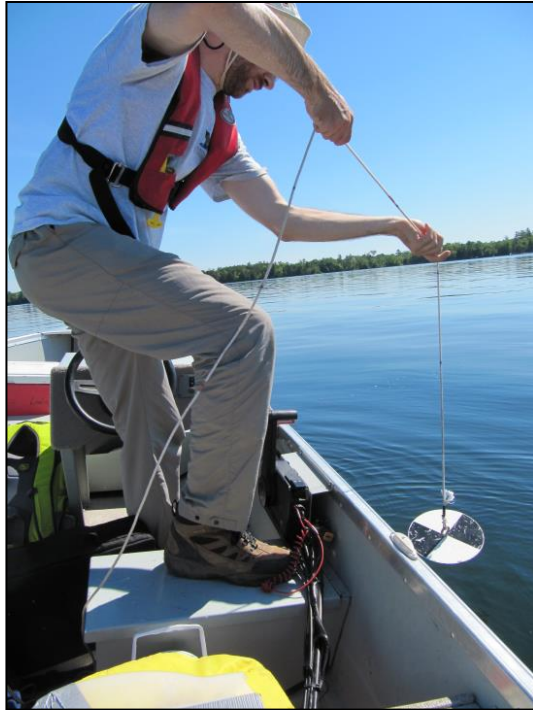


Open Lake

- Water Quality
- Water Levels
- Aquatic Habitats

Potential Characterization and Management Framework

Project Overview - requirements



Science + Community Input = Lake Plan



Project Overview - steps

Scoping

- Who are the key stakeholders?
- What are stakeholder's key values/issues/goals?
- What information is available?

Characterizing

- What are the key lake resources?
- What are the functions (benefits/values) and linkages?
- What are the key management issues?
- What are the information gaps?

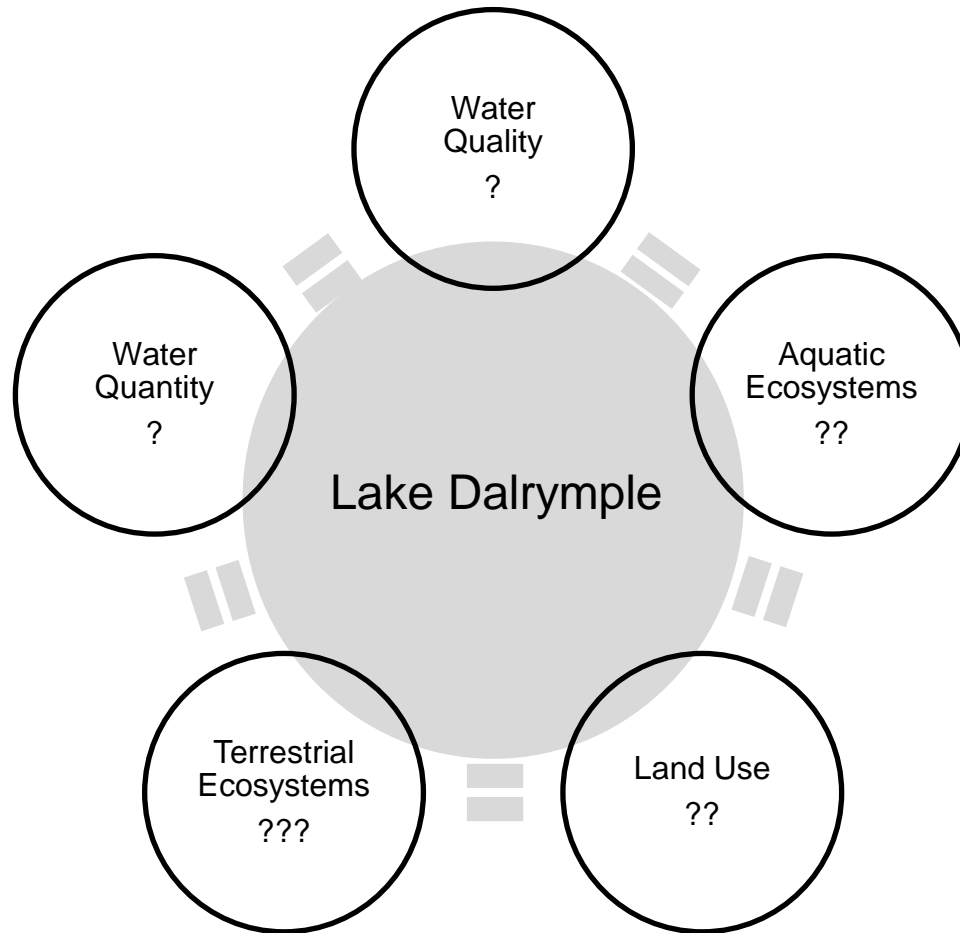
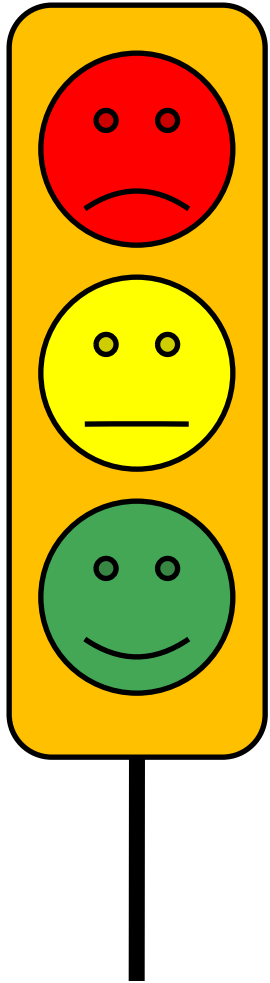
Plan Crafting

- What are the plan goals and objectives?
- What are the preferred management actions?
- What are management targets?
- How should implementation proceed?

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State of the Lake



Lake Health Monitoring Network - core



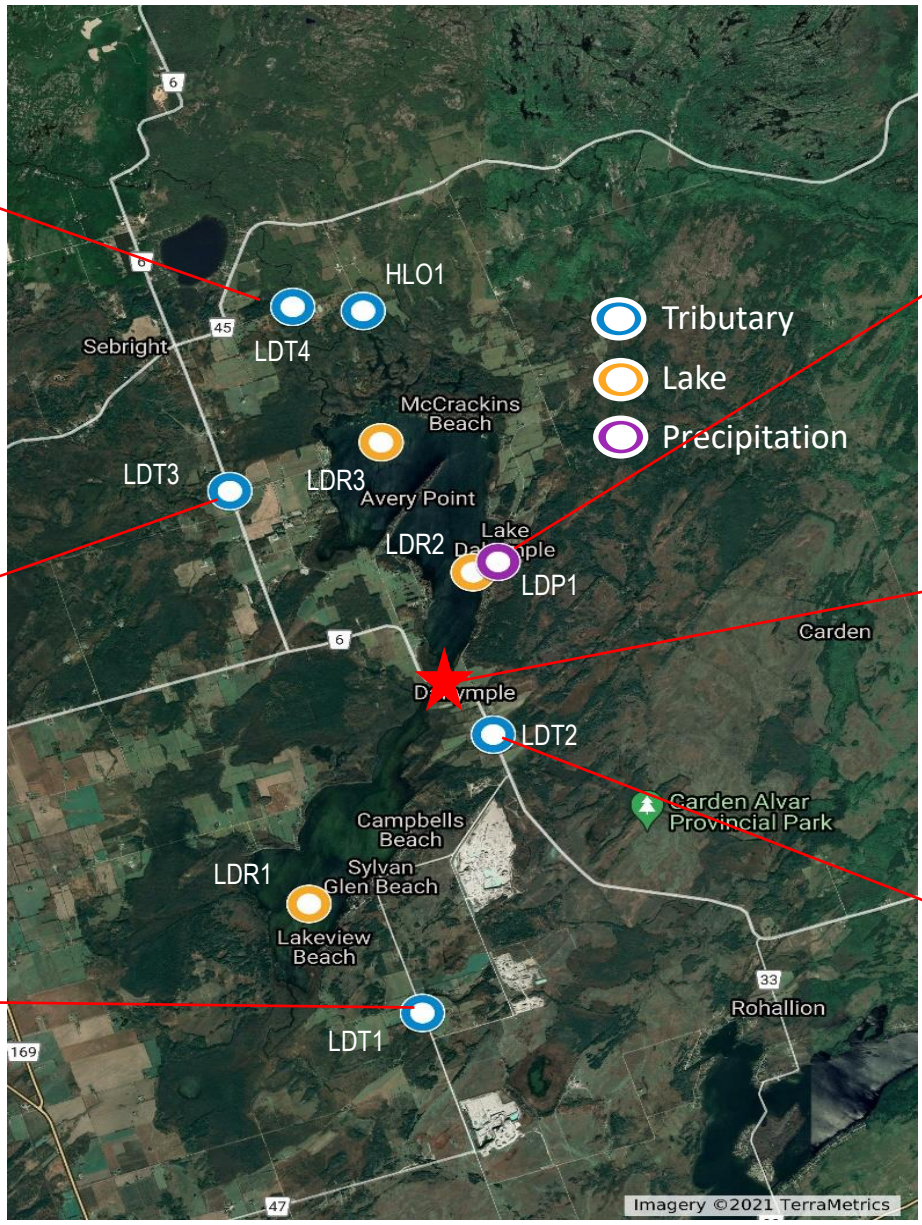
Taylor's Rd.



Kirkfield Rd.



Boundary Rd.



Rec. Centre



Kirkfield Rd.

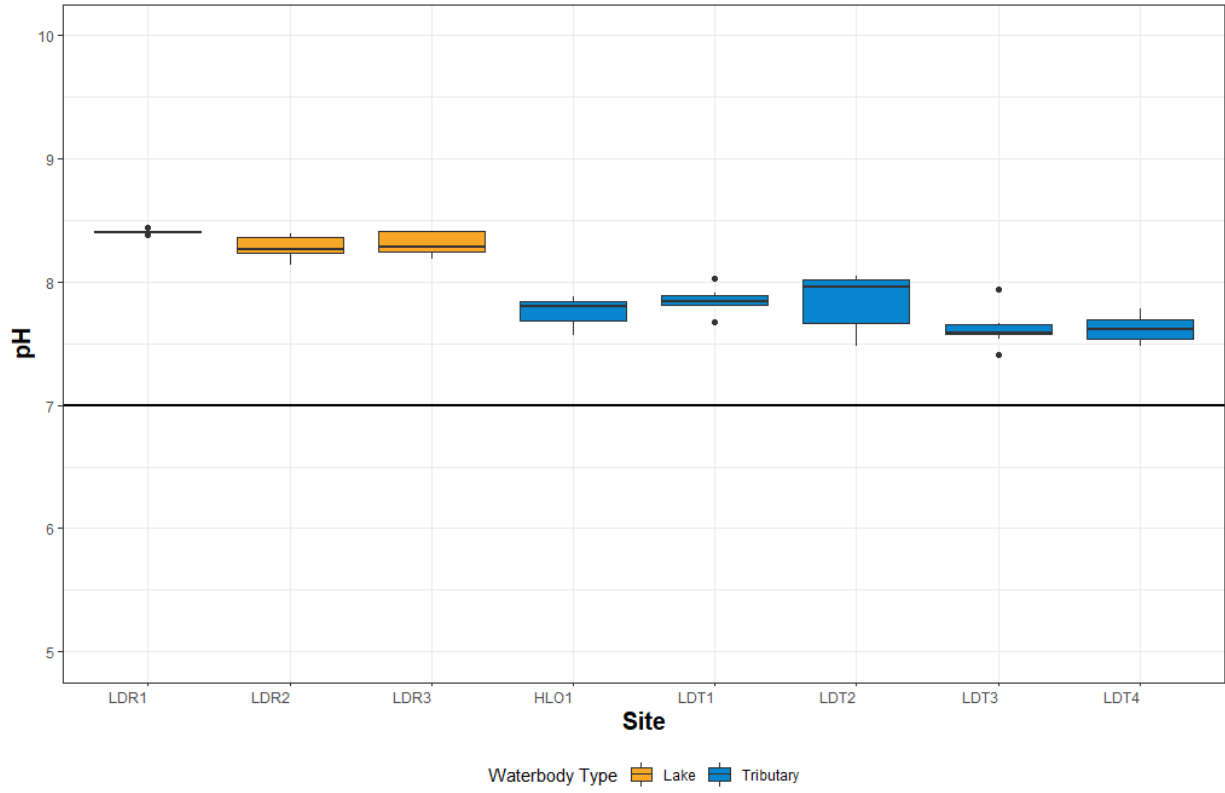
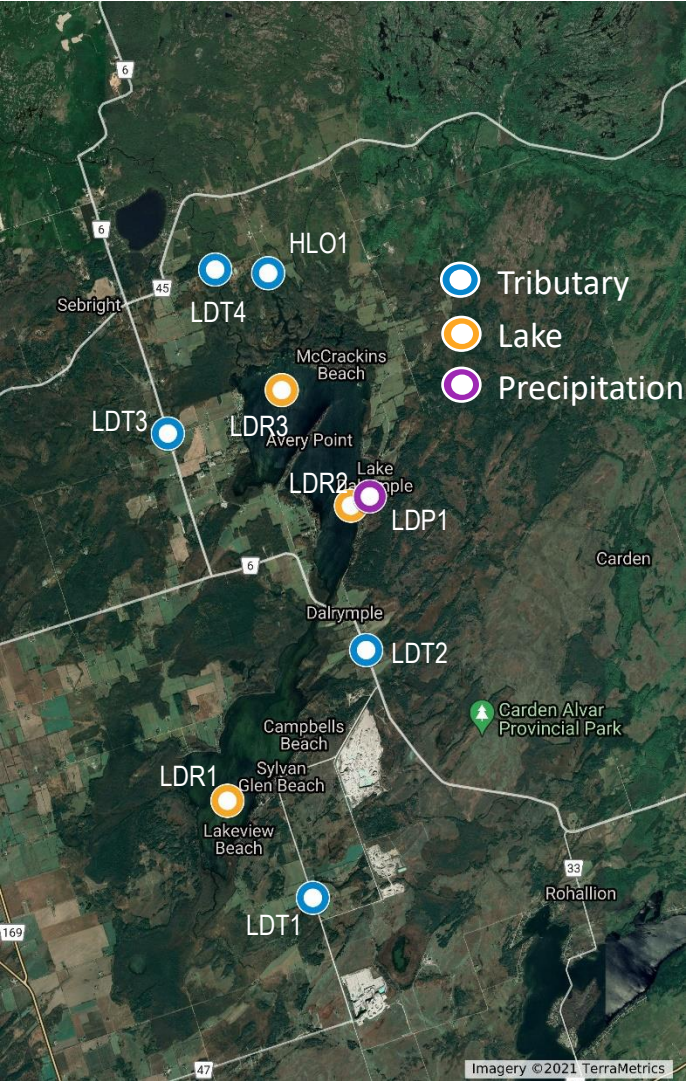


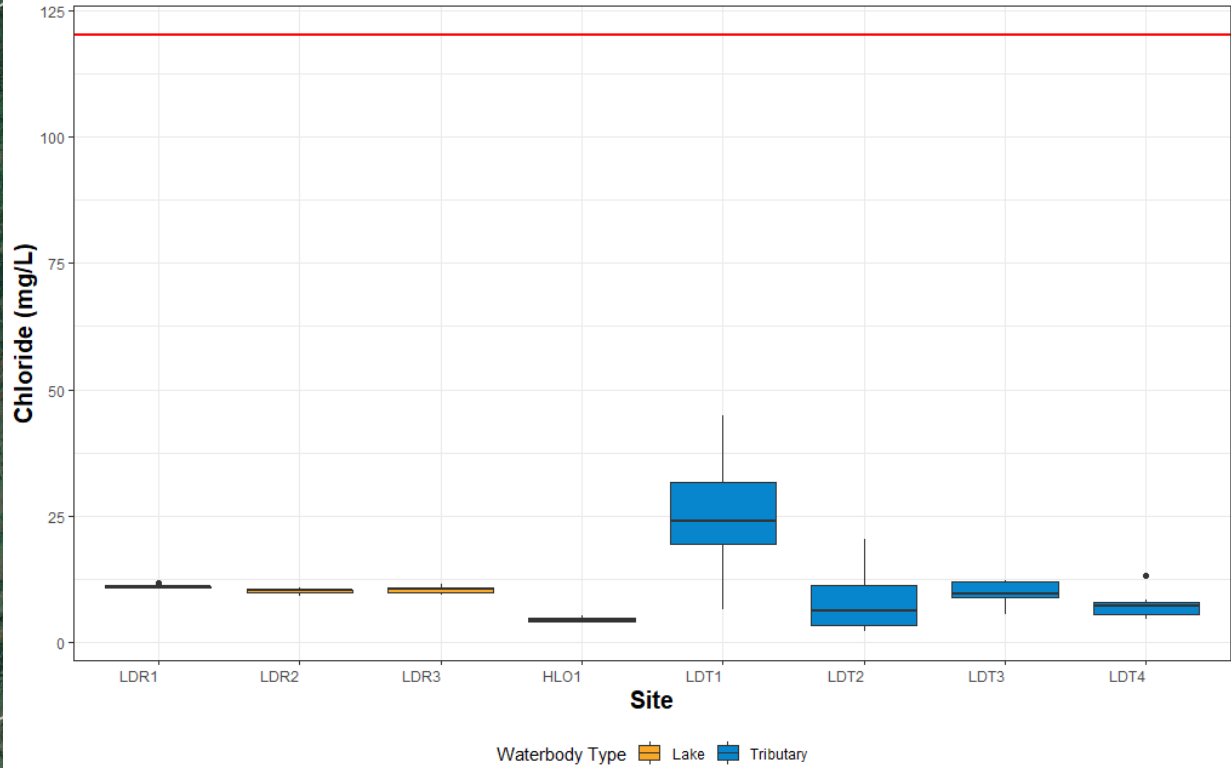
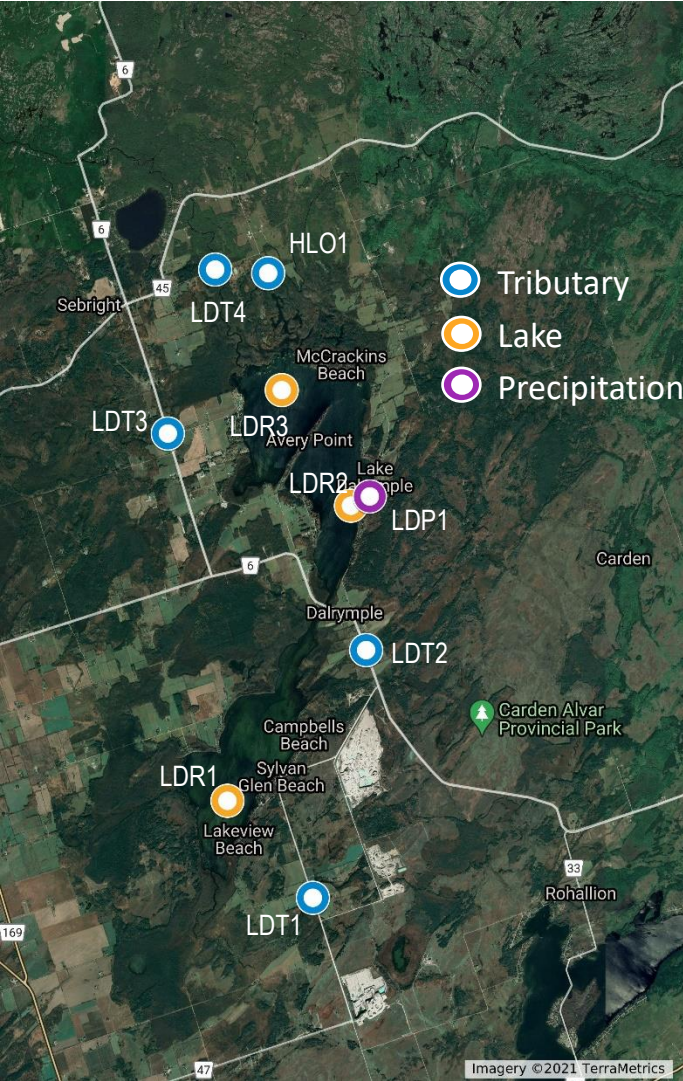
Kirkfield Rd.

Imagery ©2021 TerraMetrics

WATER QUALITY

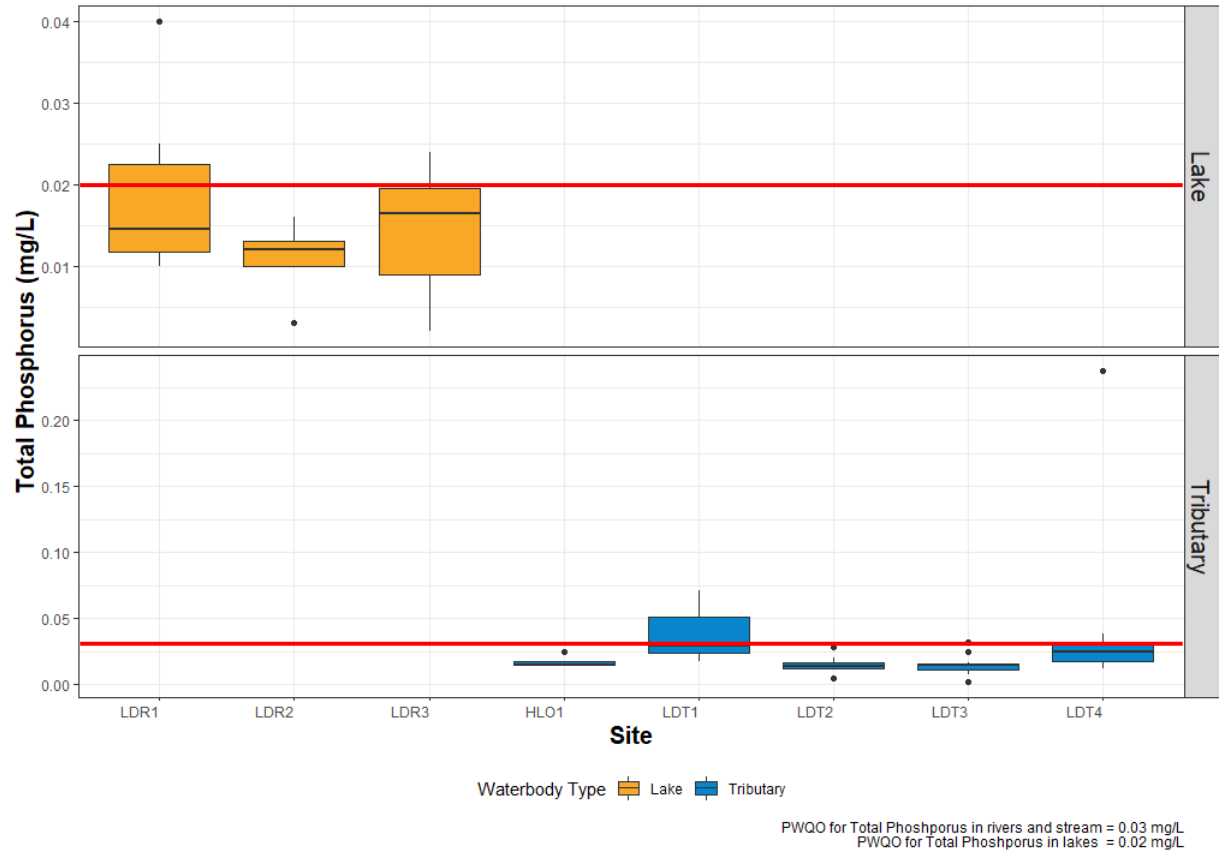
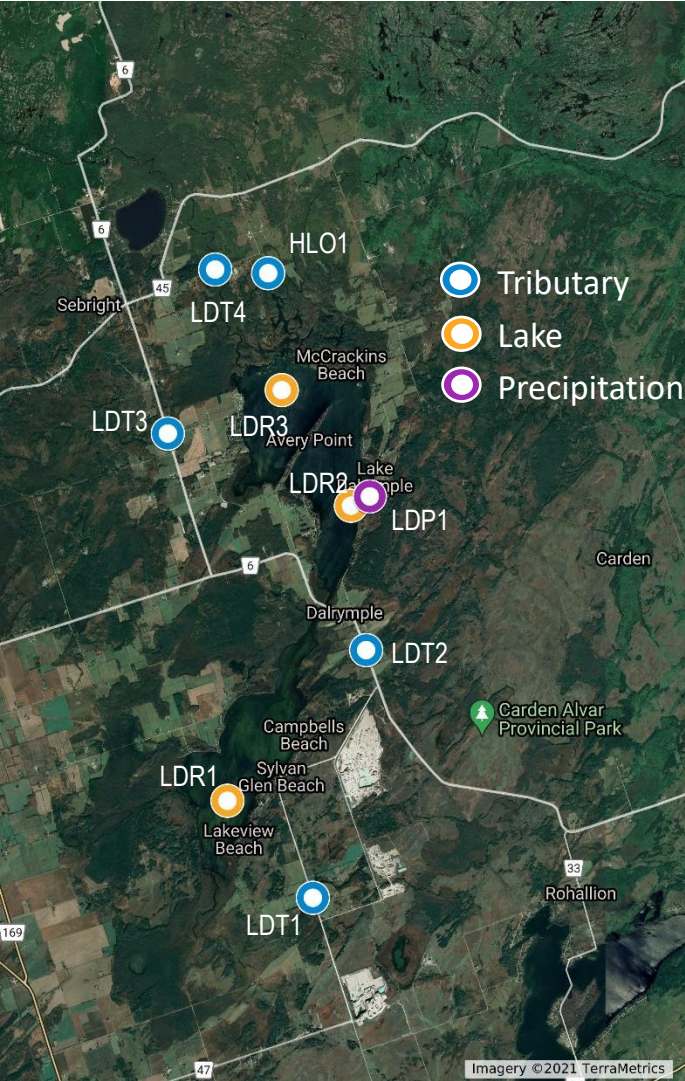




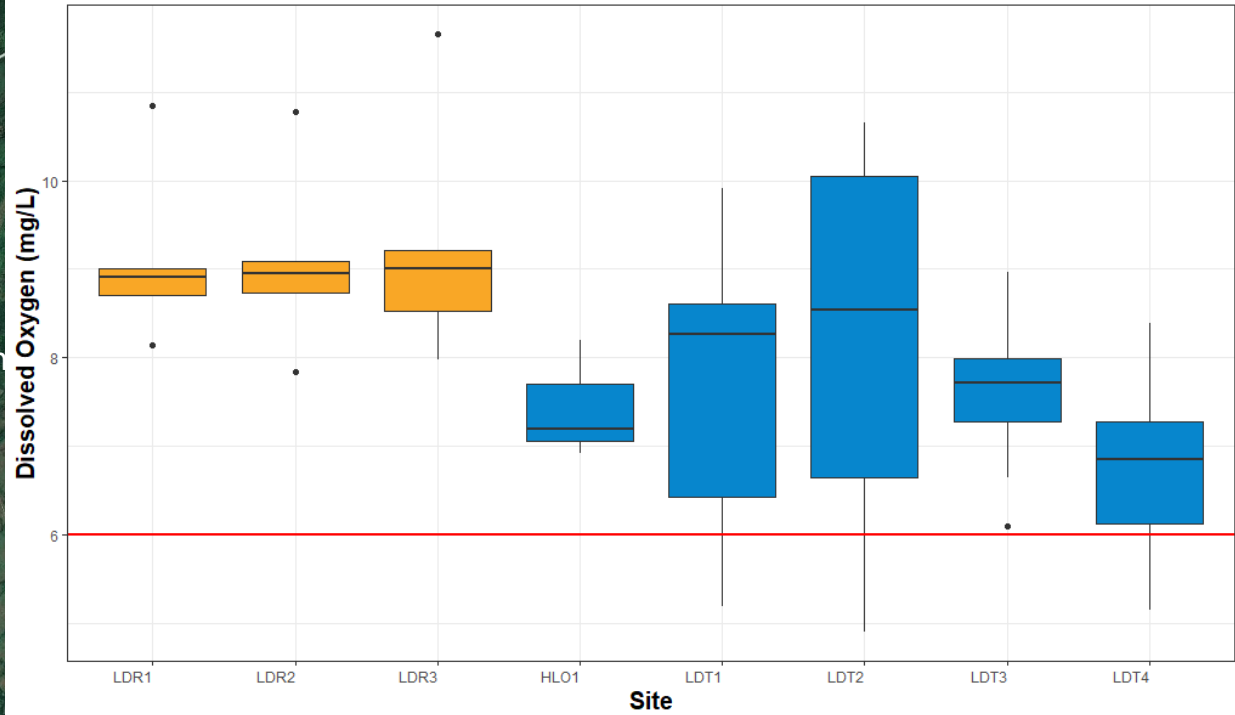
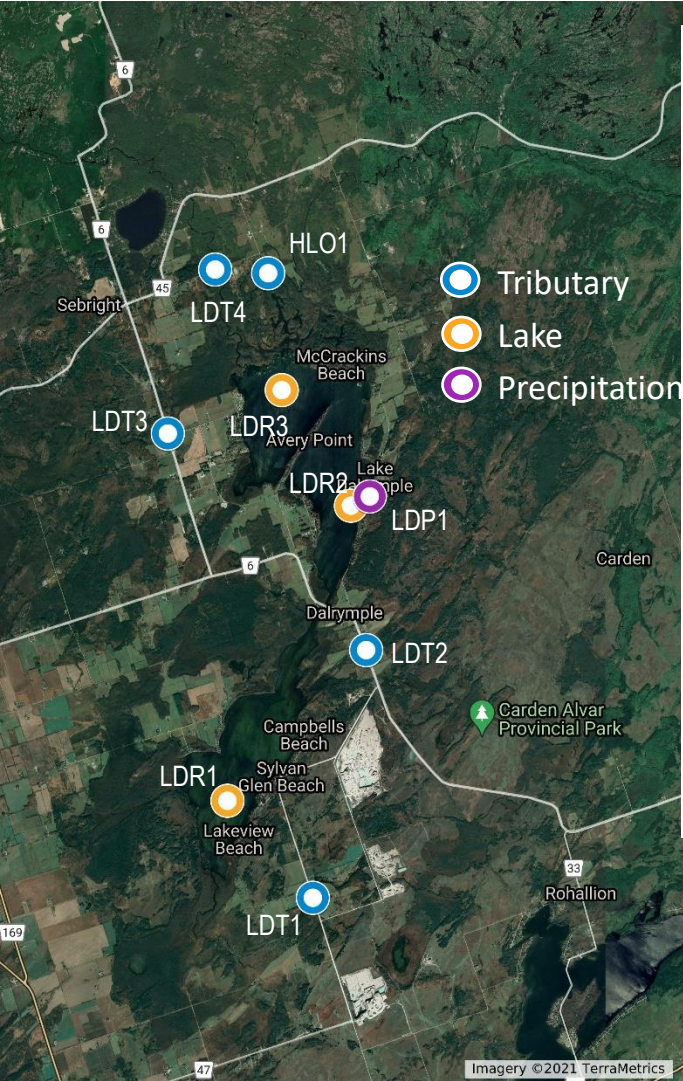


CWQG for the Protection of Aquatic Life = 120 mg/L for long-term exposure

Waterbody Type	2021	1972 (MECP, 1972)
Lake	9.3-11.9	3-6
Tributaries	1.8-45	4-5



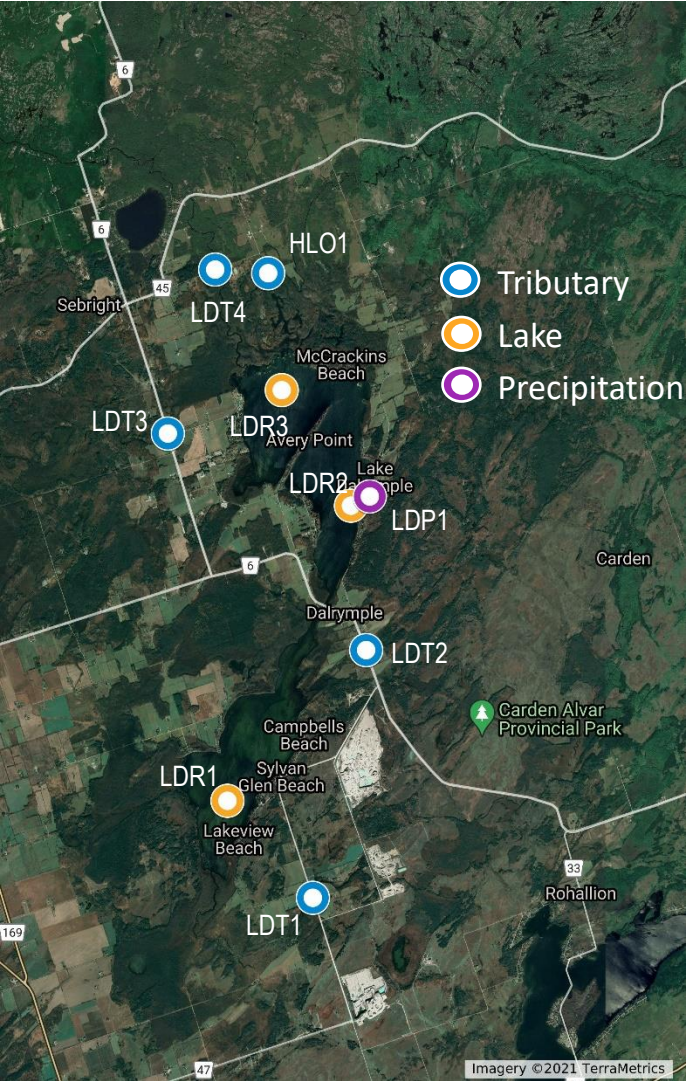
Observations of TP for LDT1 show an exceedance % of 33%, i.e., three of nine.



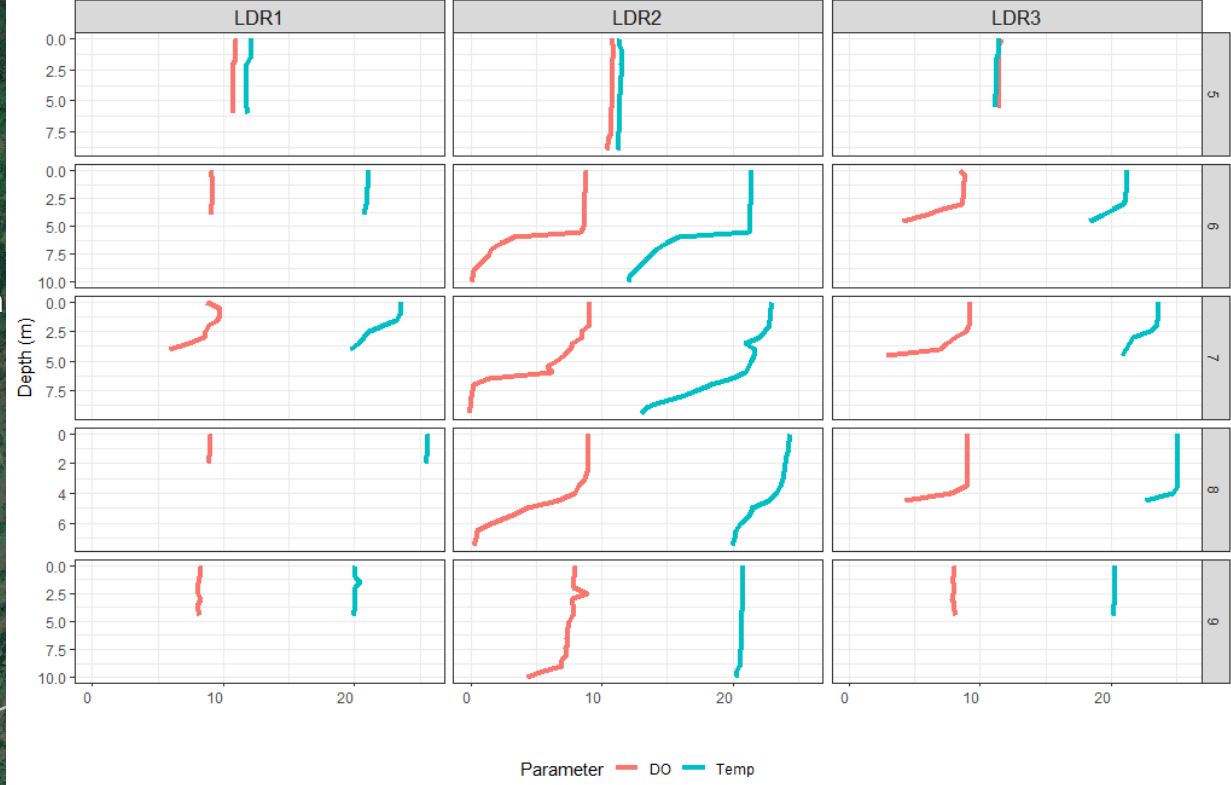
Waterbody Type ■ Lake ■ Tributary

CWQG for the Protection of Aquatic Life = 6.0 mg/L for early life stage

Only five (5) of fifty-one (51) observations showed DO concentrations below the CWQG of 6.0 mg/L.

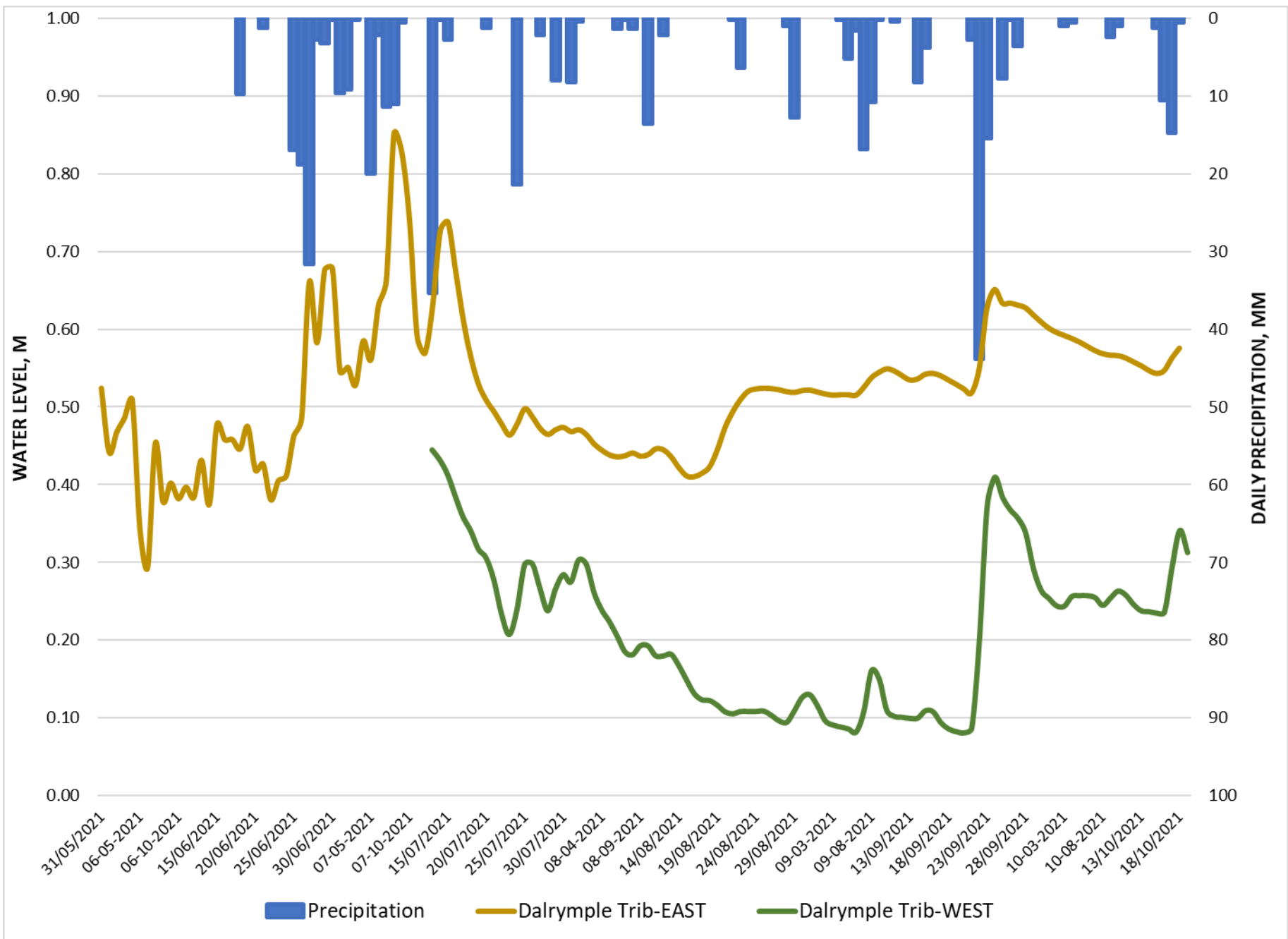


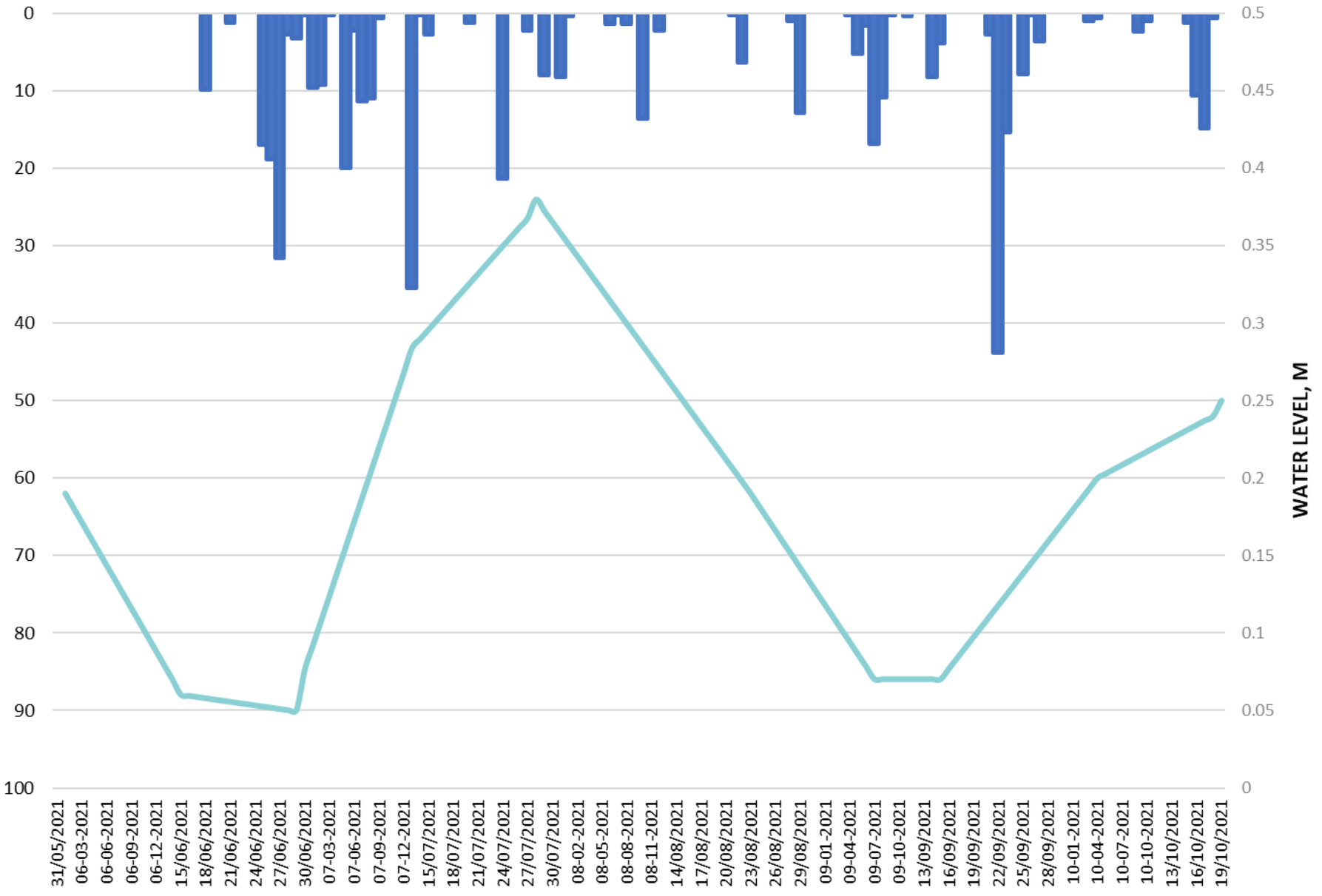
Vertical Lake Profiles for temperature and dissolved oxygen



WATER QUANTITY







■ Precipitation
 — Lake Dalrymple WL

AQUATIC HABITATS



Thermal Regime Sampling

1. Flow permanence
2. Sensitive aquatic life

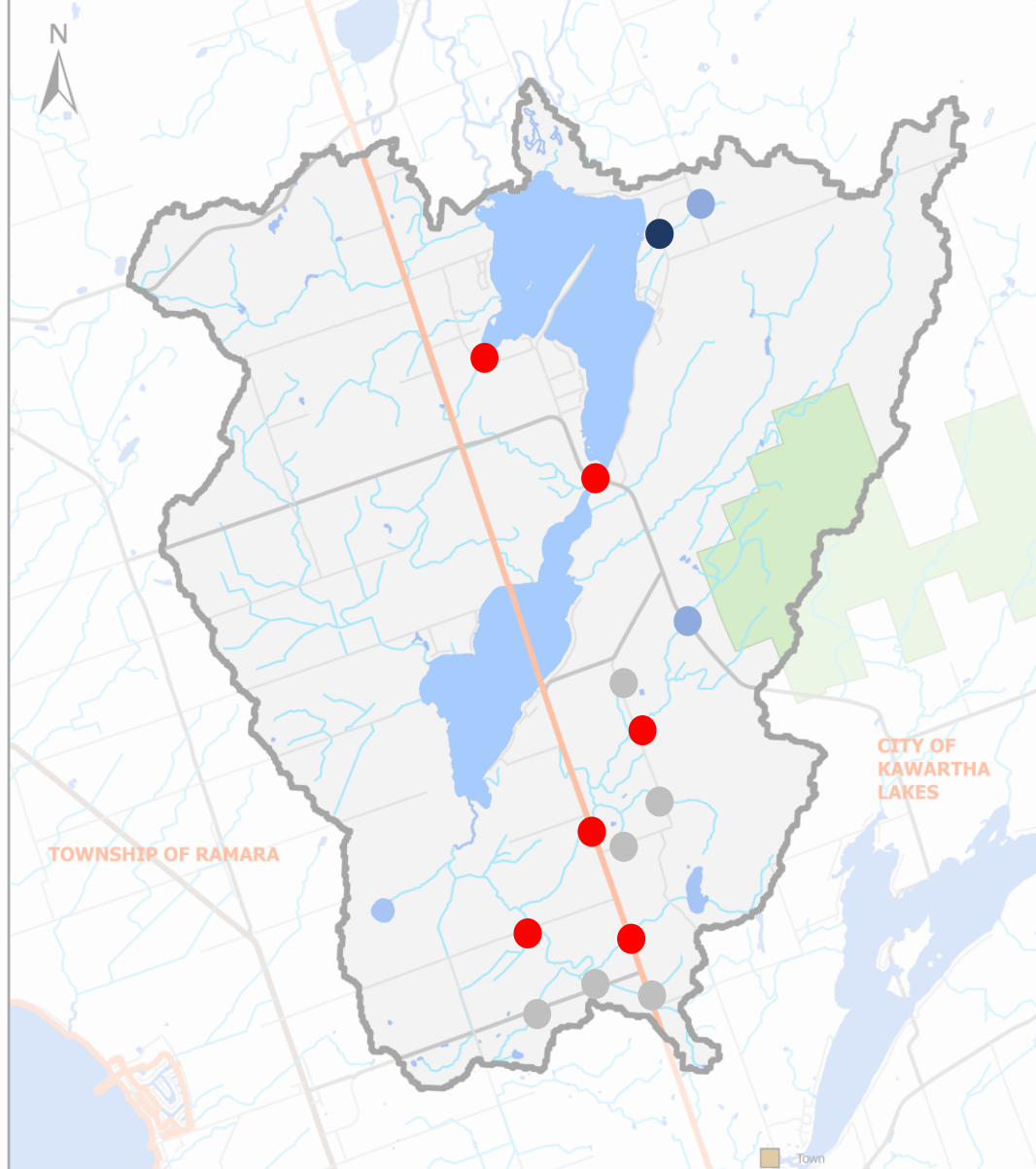
Water temperature monitoring

- summer, heat wave, no rain

Approx. 35 road-stream crossings

- **15** sampled in 2021

- Dry (no flow)
- Warm-water (>25C)
- Cool-water (18<=>25C)
- Cold-water (<18C)



Lake Dalrymple Overview Map



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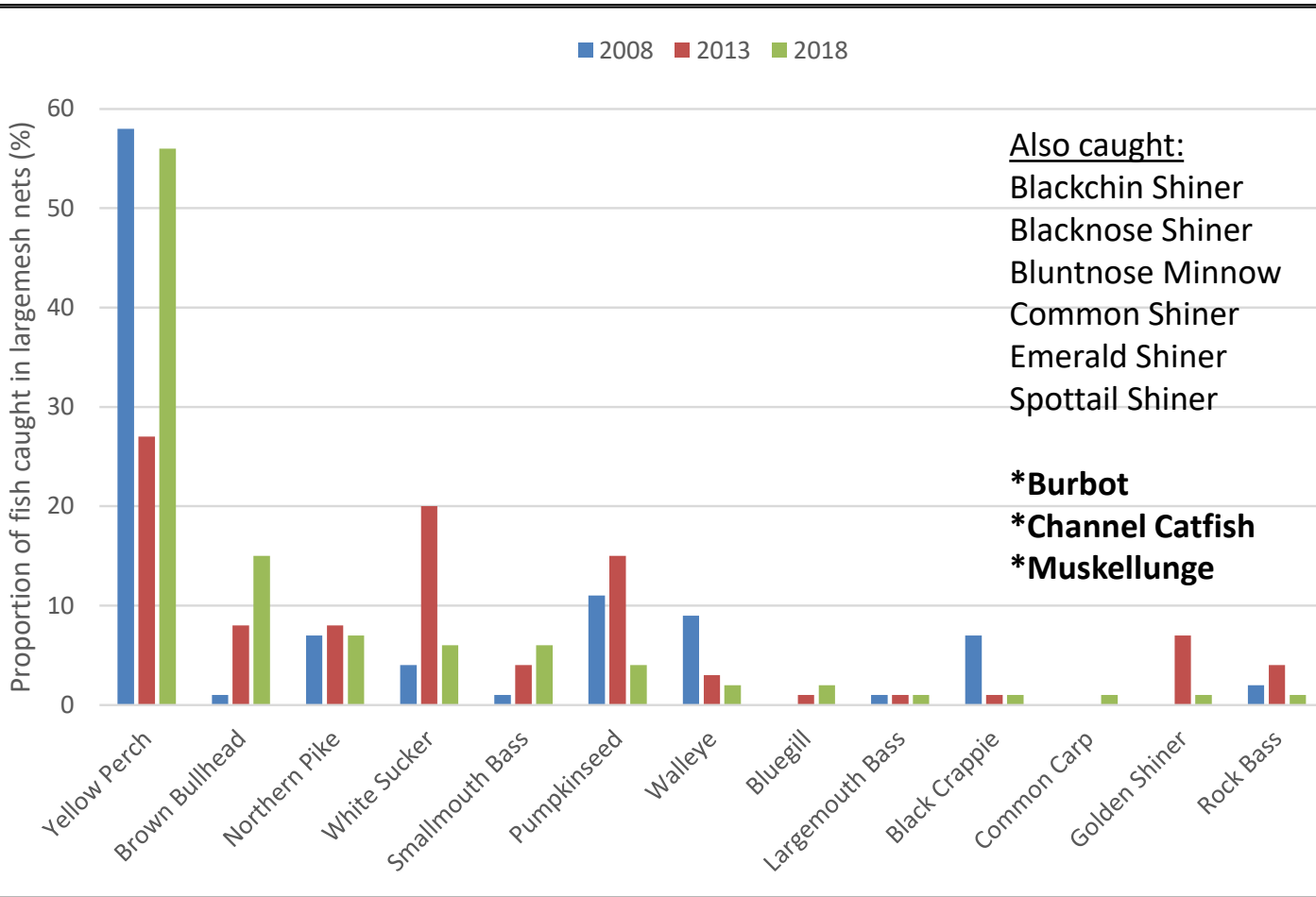
Scale: 1: 95,000



- Town
- Highway
- Major Road
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- Watercourse
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- Provincial Park
- Municipal Boundary
- Watershed Boundary

Lake Fish Community Data

MNDMNRF – Broadscale Monitoring Program
 www.fishonline.com



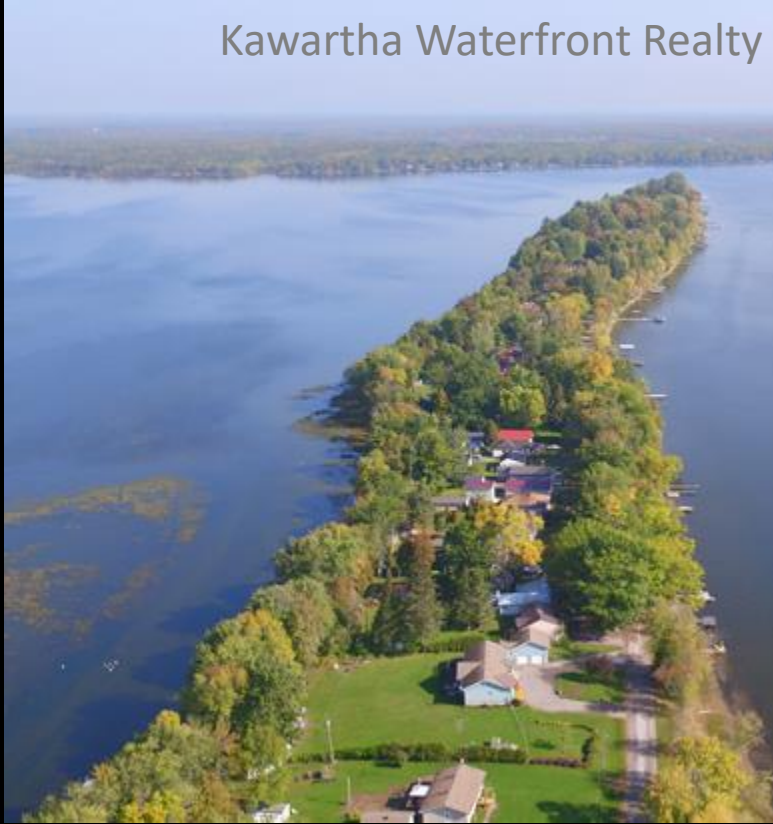
Also caught:
 Blackchin Shiner
 Blacknose Shiner
 Bluntnose Minnow
 Common Shiner
 Emerald Shiner
 Spottail Shiner

***Burbot**
***Channel Catfish**
***Muskellunge**

22 fish species
 No Species at Risk
 No recent Musky
 Several migratory fish
 Several sport fish
 Ice fishing prevalent

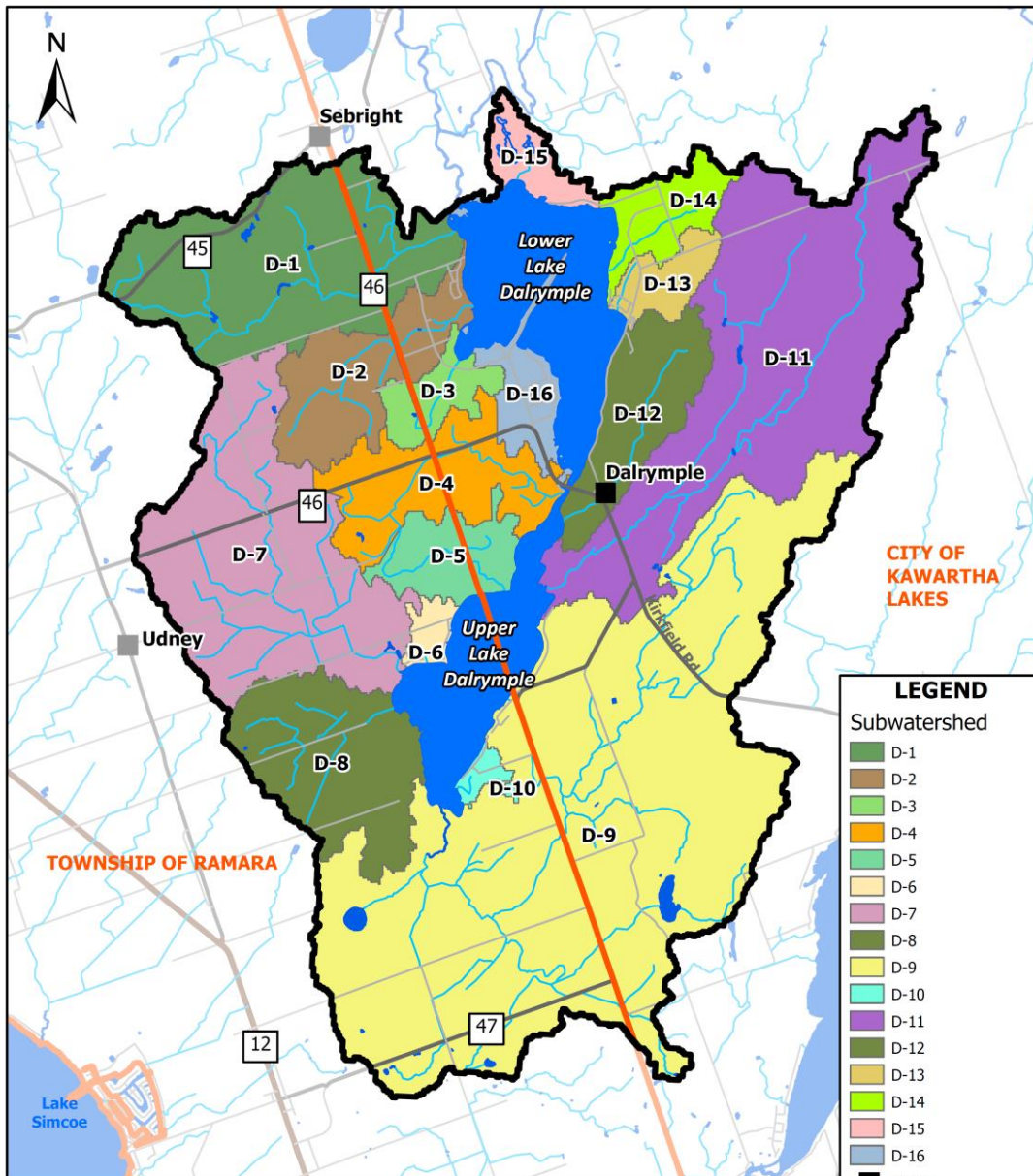
LAND USE

Kawartha Waterfront Realty



Trip Advisor





Subwatershed Name	Area (Km2)
D9	47.32
D11	22.23
D16	16.21
(Lake Watershed)	
D7	15.78
D1	13.54
D8	7.94
D4	6.16
D2	5.60
D12	4.95
D5	3.18
D14	2.64
D3	2.01
D13	1.74
D15	1.74
D6	0.80
D10	0.55
TOTAL	153km2

Lake Dalrymple Subwatershed Map



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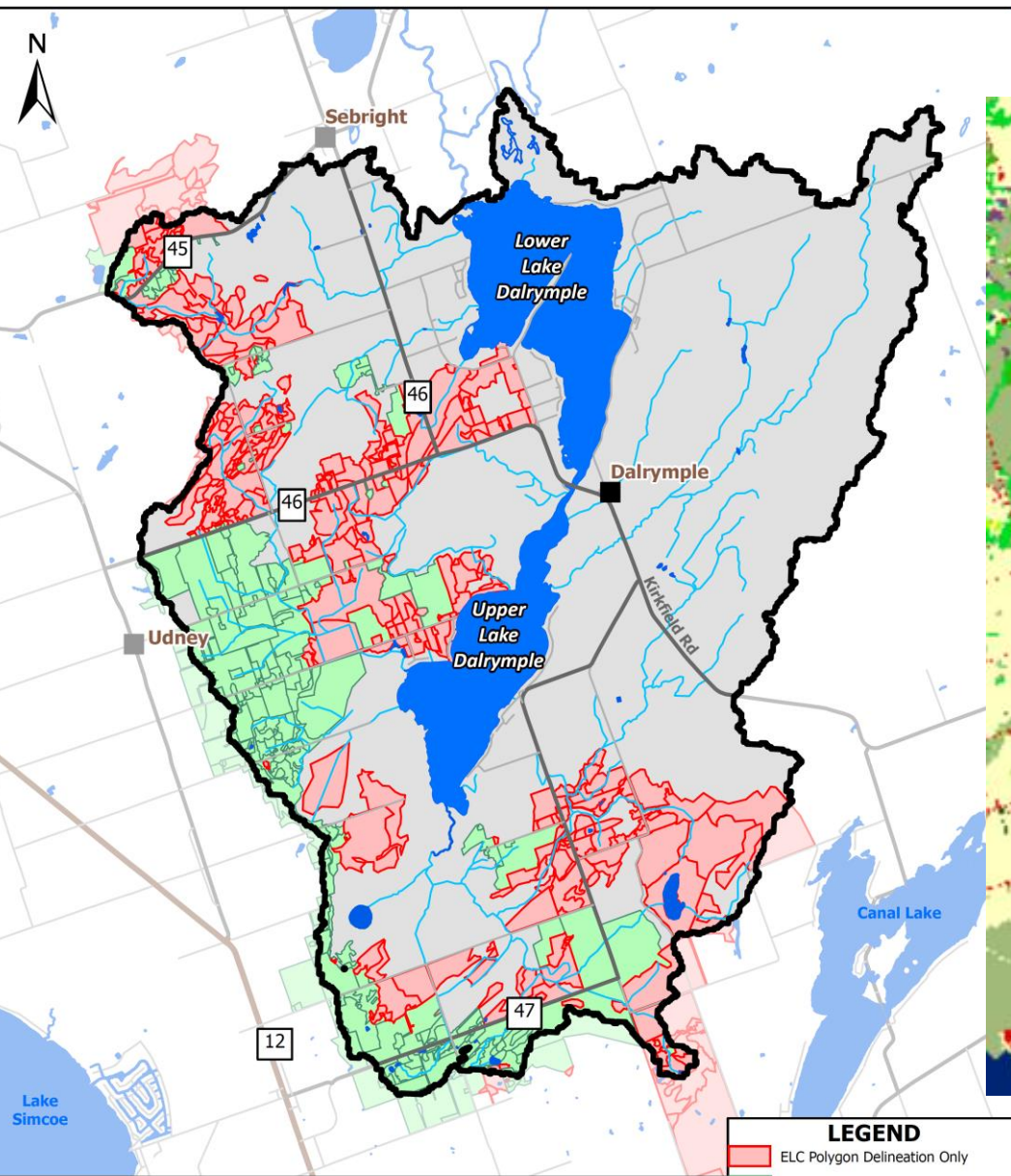


LEGEND

Subwatershed

- D-1
- D-2
- D-3
- D-4
- D-5
- D-6
- D-7
- D-8
- D-9
- D-10
- D-11
- D-12
- D-13
- D-14
- D-15
- D-16

- Town
- Highway
- Major Road
- Minor Road
- Watercourse
- Lake Dalrymple
- Municipal Boundary
- Watercourse Boundary



Lake Dalrymple ELC Delineation

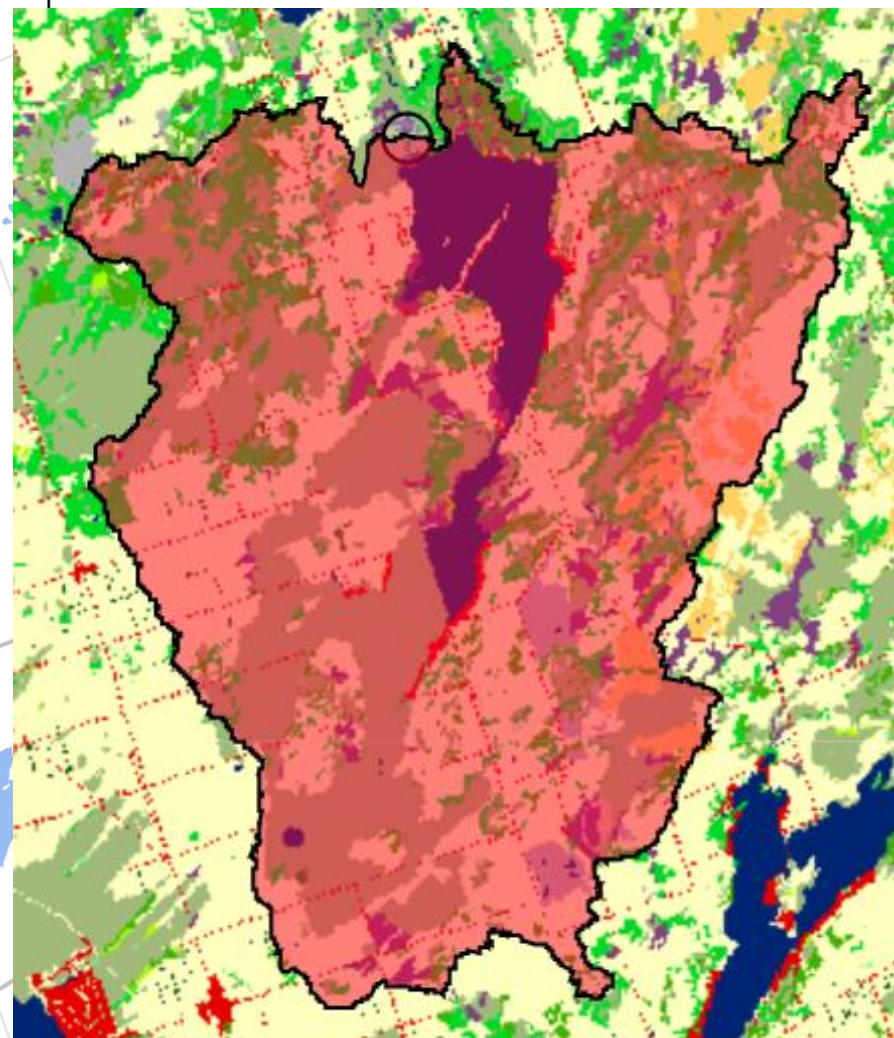
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Scale: 1: 95,000

0 0.3 0.6 Km

LEGEND

- ELC Polygon Delineation Only
- ELC Polygon Delineation and Coded
- Town
- Major Road
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Ontario Flow Assessment Tool

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Lake Health Issues

- Heavy fishing pressure
- Walleye and muskellunge now rare
- Ice fishing pressure
- 'Toxic dump' on the former Black property on Hwy 47
- High runoff potential into lake from shallow soils, and pollution related issues
- Dug airplane canal
- Potential for more shoreline development
- Out of date shoreline septic systems
- Mid summer algae blooms
- Overall water quality in lake
- Receding water levels over time
- Nutrient loading
- Heavy metal accumulation in sediments
- Bacterial levels in water, especially in summer
- Control of public boat launch at narrows
- Rocks in narrows re navigation issues
- Weed and algae growth
- Effluent spill from 244 Lake Dalrymple Road/ MOE investigation outcome?
- Regulation of vessels re safety, noise, and pollution
- Impacts of quarries – cumulative impacts study??
- Dissolved oxygen under ice in winter
- OTHERS?

Lake Health Opportunities

- Clean water drawing from lake
- Good and sustainable fishing opportunities
- Education and outreach re keeping lake clean and sustainable
 - E.g., not allowing grass fertilizer or weed killer to travel from lawns to the lake?
 - Not bringing non-bio-degradable soaps and shampoos into the lake?
 - Anything about pumping water from the lake for residential uses?
- OTHERS?



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Community Engagement Opportunities

- Roundtable:
 - Re: Working Group membership, are we missing any key stakeholders?
 - Trailer parks?
 - Ramara Township?
 - Farming community?
 - Following new individuals have expressed interest:
 - Alexandra Jane Mason
 - Sylvan Glen Beach Assoc.
 - Deb Barnes
 - Harry Hall
 - Re: Community Engagement, any ideas on how to reach out to lake stakeholders for their input?
 - Winter 2021/2022 engagement priorities?
 - Fleming College GIS program

Closing

Thank you!

Lake Dalrymple Management Plan Webpage

<https://www.kawarthaconservation.com/en/environmental-sciences/lake-dalrymple-management-plan.aspx>

Examples of Lake Management Plans

<https://www.kawarthaconservation.com/en/environmental-sciences/lake-and-environmental-management-plans.aspx>

Contact Us!

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