Best Practices for Lake Monitoring and Management for Drag and Spruce Lake Property Owners Association

Background

1. Located in Haliburton Highlands
2. Lake Trout and Smallmouth Bass present
3. Surface area of 1003 ha
4. 550 Lots on the two Lakes Combined
   - Many lots utilize in-water pumps/inlets to draw lake water to be filtered for domestic uses (i.e., cooking, cleaning, bathing)
5. Recreational Uses
   - Swimming, watercraft sports, fishing
6. Aiming to maintain lake health, biodiversity, and beauty

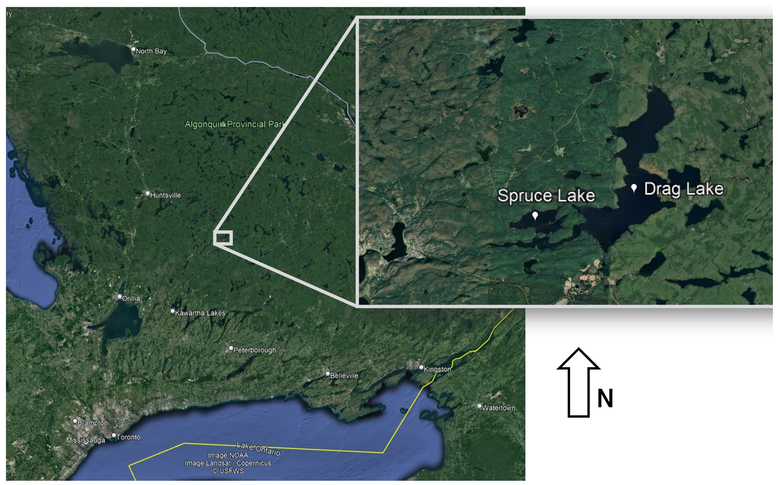
Threats

1. Invasive species (Eurasian watermilfoil, European frogbit, phragmites, zebra mussels)
   - The presence of invasive species is often a sign of a greater lake/ecosystem health related issue
2. Land use leading to nutrient loading
   - Septic tanks that are not built to code and/or maintained are the main source of excess nutrients entering the lakes
   - Agricultural operations in the area of Haliburton County that are apart of the same watershed can have an influence on excess nutrient levels in the lakes
   - Shoreline destruction from more cottager development (i.e., guest cabins, sheds, boat houses, docks, clearing beaches, mowing lawns)

Current Strategies

Strategies that are recommended to be continued

1. Love your Lake Program
   - Personal assessment of individual properties shorelines. Utilizes a developed scale based on three categories.
2. Lake Partner Program
   - Province wide volunteer-based water quality monitoring program. Focus on turbidity, clarity, and total phosphorus.
3. Septic Inspection Program
   - Inspection of septic tanks within 30m of the lake's shoreline.
4. Management of Invasive Species
5. Clarity/Turbidity (Secchi Depth)
6. TP (Total Phosphorus/Phosphate)
7. Dissolved Oxygen
8. pH
9. Nitrogen (Ammonia, Nitrites, Nitrates)



Resources

1. WWEW Drag and Spruce Lake Water Quality Analysis Program (2022)
2. Balsam and Cameron Lakes Watershed Characterization Report (2015) – Macroinvertebrates
3. Eurasian Watermilfoil Best Management Practices in Ontario (Ontario Invasive Plant Council, 2020) – Invasive Species
4. A Lake and Watershed Management Plan For Koshlong Lake (2013) – Septic
5. Fisheries Management Zone 15 Management Plan Draft (2022) – Fish Management

Recommendations

Recommendations for Monitoring

1. Macroinvertebrate monitoring
   - Develop an OBBN monitoring program to establish a 5-year baseline dataset
2. Conduct yearly fish and spawning surveys
   - Monitoring Lake Trout and Smallmouth Bass Populations. The ability of each species to reproduce represents different aspects of lake health.

Strategies

3. Partner with educational organizations to perform monitoring programs
4. Increasing the capital of DSLPOA to allow for a more self-sustaining lake management future
   - Getting DSLPOA members OBBN certified
   - Holding seminars to better educate DSLPOA members on the ecology of their lake to increase the ability to act on issues appropriately

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