

Proposed Water Quality Goals for the Cedar-Isles Master Plan

Lake Management Plan-Level Goals

Based on the discussion from Subcommittee Meeting #3, CAC members suggested renewing the rigorous goals established during the Clean Water Partnership (1989-2001), and adapt to climate change (precipitation patterns, water temperatures, lake stratification, and ice-cover/open water dynamic)

Goal: Manage Lake of the Isles as an ecologically healthy, shallow lake

- maintain phosphorus levels below ≤ 40 micrograms per Liter (ug/L)
- establish diverse native and adapted, non-invasive aquatic plants
- establish an aquatic food web

Objective: develop lake management plan for Lake of the Isles to manage in-lake nutrients, littoral zone, and shoreline goals and activities.

Goal: Manage Cedar Lake as an ecologically healthy, deep lake

- phosphorus levels should be below ≤ 25 micrograms per liter (ug/L)
- establish diverse native and adapted, non-invasive aquatic plants
- establish an aquatic food web

Objective: develop lake management plan for Cedar Lake to manage in-lake nutrients, littoral zone, and shoreline goals and activities.

- Reduce internal phosphorus loading at Cedar Lake

Master Plan Level Goals

THEME 1: Address and Manage 100% of Runoff from Parkland Before it Reaches the Lakes

Goal: Address run-off from all hard surfaces on parkland

- Treat water runoff from paved surfaces on parkland before it runs into the lake, including parkways and parking lots
- Limit paved surfaces and, where appropriate, make it pervious
- Perform enhanced sweeping of all paved surfaces on park property that drain to lake
- Restore soil health, including restoring compacted soil that currently provides limited infiltration
- Eliminate exposed soil on park land except established beaches

Goal: Reduce chloride, trash, and sediment from entering the lake

- Reduce chloride (salt) use through continuing to condense maintained paths within the winter networks
- Minimize to the extent practical, use of chloride-based de-icing materials on hard surfaces within the park
- Provide education to staff and the public around the impacts of chloride (salt)
- Perform enhanced sweeping of all paved surfaces on park property to remove trash and sediment

THEME 2: Balance the Recreational Needs of Increased Park Visitors with Need to Maintain Ecologically Healthy Lakes

Goal: Maintain and stabilize shoreline with native vegetation in all areas except for formal access points and historic viewsheds

- Establish a minimum naturalized lake buffer in all areas where water access is not needed. (above shoreline)
- Naturalize the littoral fringe with emergent vegetation in all areas where lake access is not needed (below shore)
- Reduce sedimentation into the lake through adjacent erosion and runoff by ensuring park soils and slopes remain vegetated
- Formalize the location of access points and ensure they are clearly identified

Goal: Maximize and restore habitat (terrestrial and aquatic) to improve health of the lake and have spaces for wildlife

- Restore and improve natural areas that have no interaction with park visitors (ie islands at LOI) to higher functioning plant communities
- Restore and improve natural areas that interact with park visitors (ie NE forest at Cedar Lake) to higher functioning plant communities
- Establish and conduct fisheries sampling to routinely determine the Fish-based Index of Biological Integrity (F-IBI)
- Determine wildlife and target species at each lake and develop biological monitoring program
- Reestablish native and adapted rooted aquatic vegetation community by controlling invasive species including watermilfoil and curlyleaf pondweed
- Restore natural areas throughout the parkland in a manner that favors the Species of Greatest Conservation Need (SGCN) that are likely to use the areas

Goal: Meet state swimming standards at Cedar Lake and meet state boating standard for Lake of the Isles

- Reduce water quality impacts from pets and geese

Communication Goal: Achieve broad community knowledge and understanding about the health of each lake, the factors impacting lake health and ways they can help protect the lakes

High-Level Watershed Goals

- **Goal: Utilize Cedar-Isles Master Plan as an MPRB case study to implement master plans through development of specific measurable outcomes to meet goals and objectives.**
- **Goal: Formalize collaborative community-agency (citywide?) committee to continue monitoring and developing rapid solutions for water quality in the face of a changing climate**
- **Goal: Reduce watershed pollutant loading by reinvigorating the partners of the Clean Water Partnership and renew efforts to meet the objectives that have either not been completed or currently need to be repeated**
 - Establish new regulatory controls aimed at eliminating the introduction of pollutants into water bodies
 - Monitor and evaluate existing watershed infrastructure to ensure it's still working
 - Reduce all pollutants (chloride, phosphorous, trash, and sediment) from entering each lake
 - Identify new opportunities and locations to implement water management strategies
- **Goal: Achieve broad community knowledge and understanding about the health of each lake, the factors impacting lake health and ways they can help protect the lakes**