Minneapolis
Park & Recreation Board

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Cedar Lake and Lake of the Isles Master Plan
Community Advisory Committee (CAC) Questions and Answers

CAC Water Quality Meeting #7 Part 1

Q: What is the cleaning schedule for Cedar Meadows Wetlands (planned versus reality)?

A: There are two components to the "Cedar Meadows Wetland":

- 1) The water area on the west side is a 1.6-acre wet detention basin constructed to remove sediment and nutrients
- 2) The water area on the east side is a 2.8-acre wetland that was constructed a shallow marsh with emergent vegetation.

When the wet detention basin has a 50% loss in storage volume, the basin will be excavated to remove the accumulated sediment. Minnehaha Creek Watershed District (MCWD) surveys the wet detention basin approximately every 3 years for sediment accumulation. It has been surveyed in 2004, 2007, 2010, 2014, 2017, and 2020.

Q: Is dredging part of the routine maintenance at Cedar Meadows Wetlands?

A: Yes, dredging of the west wet detention basin is part of the routine maintenance.

Q: Is Cedar Meadows Wetland overdue for maintenance to function to its full potential?

A: No, Minnehaha Creek Watershed District's (MCWD) 2020 sediment survey indicated that the wet detention basin had a 18% loss in storage volume (50% loss in storage volume is the trigger for dredging). MCWD will survey the west wet detention basin again in 2023 and anticipates that the pond may need dredging in 2025.

An updated maintenance plan may be needed to better reflect what the parties must accomplish and better designate responsibilities.

Q: What is MPRB's position on dredging?

A: As with every water quality improvement strategy, MPRB does a cost benefit analysis of the pros and cons of the improvement. Dredging is most often considered as a technique in shallow lake restoration. Considerations that have deterred MPRB from dredging in the past include:

- It is very expensive procedure when compared to other in-lake treatments
- It is highly disruptive to the environment and ecosystems within lakes
- Because dredging is so disruptive to the environment, a clear environmental benefit must be shown to be able to obtain permits from the DNR and other agencies.

Q: Will there be a master plan goal to achieve measurable increases in water quality that can be monitored and reported to the public?

The Water Quality Subcommittee will further discuss measurable goals within the master plan. One potential goal of the master plan could be for the lake to meet the Clean Water Partnership (CWP) goals with an identified timeline. The CWP goals were set via an extensive scientific process that included significant community input. The CWP goals are more stringent than current state standards. A new path towards achieving the CWP goals would be creation of a new diagnostic study and lake management plan.

Having the master plan recommendations affirm the desire for a new diagnostic study and lake management plan will assist in obtaining funding for this process. A set of projects would be designed to meet water quality goals after a renewed diagnostic study and lake management plan has been completed for the lakes.

Since the lakes sit within watersheds that cross several jurisdictions, a large-scale partnership would be needed to implement projects outside of MPRB property.

If yes, what are the measurable goals that the plan seeks to achieve? If not, why not?

A: Clean Water Partnership (CWP) Water Quality goals and State of Minnesota standards will be presented to the Water Quality Subcommittee with guidance from in-house and consultant water quality experts. A potential goal would be for the master plan to recommend that the lakes meet the current water quality goals set by the CWP.

Q: Will the plan address street or boulevard runoff into the Lakes? How?

A. The master plan will aim to address runoff into the lakes from impervious surface on parklands. Recommendations can guide partnership work with other agencies to address water quality treatment for impervious surface outside of park jurisdiction. The majority of street runoff to the lakes is outside of MPRB control. MPRB property is not the only place to address stormwater runoff from hard surfaces.

CAC Water Quality Meeting #7 Part 2

Q: What's the existing measurement and what's the MPRB goal to that we are trying to reach? Do the consultants believe the proposal meets those goals?

The Clean Water Partnership (CWP) set numeric Trophic State Index (TSI) Goals that were derived from growing season phosphorus, chlorophyll, and water clarity measurements. They also set action goals for MPRB such as: starting the annual monitoring program, aquatic plant management, goose management, public education, starting the beach management program etc. A working group that consisted of water quality experts and community members set these CWP goals. The State of Minnesota also has set standards for Minnesota lakes based on summertime levels of phosphorus, chlorophyll, and water clarity. The water quality subcommittee will review these goals and the current water quality status of each lake.

The project consultant will help answer basic questions around water quality goals and lake management strategies during the upcoming Subcommittee meetings

Q: I've reviewed the 2020 Water resources report by MPRB, and Cedar Lake hasn't met its goal in 3 years, is this a trend? Know that there have been improvements but wants to understand if it's an average?

What we know is that Cedar Lake met its Clean Water Partnership (CWP) goal after project implementation in almost every year until 2016. From 2017 to the present, the CWP goal has not been met. At the same time, our region has experienced the wettest decade on record, resulting in increased runoff to the lake. What is unknown is what portion of the change in Trophic State Index (TSI) was due to external factors like excess run-off or other internal factors. We do not know what future runoff conditions will be. To fully understand the situation, a new diagnostic study, like was undertaken in the CWP, may be needed. The Master Plan recommendations can include the creation of a new diagnostic study for the lake.

Q: What are the Best Management Practices (BMPs) that would address run off from impervious surfaces within the parkland?

A: MPRB will work with the Water Quality Subcommittee to identify areas within the master plan to focus in on with more detail for the preferred park concept to be able to answer this question. Strategies would be different for different types of hard surfaces. For example, runoff from a path could be allowed to infiltrate in vegetated areas next to the path while runoff from a parking area may need an engineered infiltration area.

Q: Which parking lots and which streets are getting treatments?

A: Currently, runoff from much of the largest watershed to Cedar Lake receives water quality treatment via the Twin Lake – Cedar Meadows treatment train.

Q: Is sampling occurring and data being collected to gauge whether incoming pollutants are increasing from other pipes/communities as development and impervious areas increase in first-ring suburbs? Do water quality targets need to be informed by such projections/estimates?

A: Currently MPRB staffing, and funding levels do not allow for continuous monitoring of upstream watersheds.

Due to redevelopment under new watershed rules, the impact to the lakes should decrease as redevelopments must meet updated water quality standards that older developments did not.

Estimates of upstream nutrient contributions must be taken into consideration when water quality goals are created. For example, the original Clean Water Partnership (CWP) goals for Lake of the Isles were not expected to be fully achieved due to the extensive impact of upstream nutrient loading and the limited ability to treat this water.

For the purposes of the master plan effort, it is likely that the original estimates of loading from the CWP effort could be used as a guide. An updated watershed loading projection based on current climate projections would require a new diagnostic study modeling effort outside the scope of this project.