

# Hiawatha Golf Course Property Master Plan FAQ

Updated June 7, 2019

## **First and foremost, this project will create a Master Plan. What is a Master Plan?**

- A Master Plan is a document the Minneapolis Park and Recreation Board (MPRB) uses to guide park development at individual parks or groups of parks. The time horizon for a master plan is important as it looks over a period of 20 years or more.
- The process for creating a Master Plan is designed to thoughtfully engage all communities affected by park development and produce a thoroughly vetted and sound final product.
- Master planning helps uncover many unknown aspects of a park and builds a concept that reflects these discoveries and the desires of the community.
- Most Master Plans use an appointed Community Advisory Committee (CAC) to work with the design team and stakeholders and recommend a concept for approval by the Minneapolis Park and Recreation Board of Commissioners.
- The final product guides conceptual park uses, but it is not intended to be a final design. It's a starting point.
- Master plans can also be amended, as we are doing here with the golf course property with Nokomis-Hiawatha Regional Park. We know trends change and Master Plans must be flexible.

## **Why is a new Master Plan for the Hiawatha Golf Course Property necessary and how does it relate to the Nokomis-Hiawatha Regional Park Master Plan?**

- Hiawatha Golf Course is a part of Nokomis-Hiawatha Regional Park.
- The Metropolitan Council requires all regional parks to have a current Master Plan to secure funding for both capital improvements and operations and maintenance.
- The Nokomis-Hiawatha Regional Park Master Plan was approved in March 2015, but the plan did not include the area of the golf course.
- In September 2015, the MPRB received information regarding groundwater pumping at the golf course that required a re-evaluation of the long-term plan for the golf course property.
- When the Hiawatha Golf Course Property Master Plan is approved, it will be as an amendment to the 2015 Nokomis-Hiawatha Regional Park Master Plan.

## **Who is paying for the Master Plan?**

- The Water Management Alternatives Assessment and the Master Plan are funded by the Enterprise Fund Improvements Budget.
- Funds are not being paid for by the Hiawatha Golf Course Budget.
- The Enterprise Fund is comprised of profits made by the MPRB's revenue generating operations (i.e. parking fees, golf, ice arenas, food vendors like Sand Castle, recreation rentals like Wheel Fun Rentals at Bde Maka Ska and Minnehaha Park). This is separate from the General Fund which is funded by tax proceeds.

### **Why is groundwater pumping and risk of flooding at Hiawatha Golf Course an issue?**

- The MPRB's permit for groundwater pumping, issued by the Minnesota Department of Natural Resources (MnDNR) in 2002, allowed for up to 36.5 million gallons annually for irrigation of the course.
- It was discovered that the MPRB pumps about 242 million gallons of groundwater annually to keep Hiawatha Golf Course open as a playable 18-hole golf course. This exceeded the limit of the permit by more than 200 million gallons and put the MPRB in violation of the permit.
- Climatologists at the State of Minnesota predict the current regime of higher than typical precipitation is likely continue in the coming decades. In 2014, the year of the flood, the course's net income was a loss of \$611,822.

### **What did this area look like before the golf course was here?**

- Historically, the land was a wetland (known as Rice Lake) with shallower open water in the general location of the current lake. Rice Lake was dredged and made deeper and the dredge spoils were placed on the surrounding marsh to create park land in preparation for a golf course. The photo below is looking northeast over Lake Hiawatha from above Lake Nokomis.



More historic photos are located here:

[https://reflections.mndigital.org/catalog?f\[subject\\_ssim\]\[\]=Hiawatha](https://reflections.mndigital.org/catalog?f[subject_ssim][]=Hiawatha)

## **How did MPRB Commissioners address the groundwater pumping violation?**

The Board of Commissioners voted to approve Resolution 2017-243 on August 9, 2017. The resolution directed MPRB staff to organize a process that:

- Evaluates future alternative uses for the Hiawatha Golf Course Property – which may still include golf in some form – based on community input.
- Recommends a Master Plan that accommodates changes to the Hiawatha Golf Course Property made necessary by a reduced groundwater pumping scenario.

The Board of Commissioners voted to amend Resolution 2017-243 on October 4, 2017.

- References to a “reduced groundwater pumping scenario” were deleted from the body of the resolution and direction to “address issues around excessive pumping identified by the MnDNR” was inserted.
- A CAC member requested that the Board of Commissioners modify the title of Resolution 2017-243 so that it aligns with the body of the amended resolution.
- MPRB staff reviewed the resolution and inconsistencies noted by the CAC member and, based on a vote by the CAC, requested clarification from the Board of Commissioners.

The Board of Commissioners addressed the CAC concerns and request for clarity and approved Resolution 2018-230 on July 25, 2018

- July 11, 2018 – Board discussion regarding the April 30, 2018 request of the Hiawatha Golf Course Property Master Plan Project’s Community Advisory Committee to consider revising Resolution 2017-243 to allow for the “exploration of all uses related to a reduced pumping scenario and for all uses related to a circumstance that would perpetuate the current pumping situation.”
- July 25, 2018 – The Board passes Resolution 2018-230. The resolution includes the clarification to 2017-243 to indicate the master planning process shall pursue a reduced pumping scenario as conceptualized in Alternative B, and the Board of Commissioners intends for the CAC to bring forward a solution resulting from the master planning process that includes, at a minimum, a flood-resilient and ecologically-driven nine-hole configuration for a golf course in the property, and the Board of Commissioners intends for the CAC to reflect in the master plan appropriate methods of recognizing the role of Hiawatha Golf Course and the history of black golfers in the Minneapolis park system.

## **What is the short-term plan for Hiawatha Golf Course?**

Hiawatha Golf Course will continue to operate as an 18-hole course until a new Master Plan is adopted and any changes to the property are implemented. The master plan, on its own, will not change the golf course. If there is a substantive change recommended in the master plan, a process of design, engineering, and permitting will begin, which is likely to take two to three years. No physical changes will be made until funding is secured for the changes. During that time, the MPRB will continue to coordinate with the MnDNR related to dewatering of the golf course.

### **Is the MPRB in compliance with the MnDNR?**

Yes. The MPRB has recently obtained a permit from the MnDNR to allow pumping at current levels. The DNR requires the MPRB to notify them of the plans to change the authorized appropriation of water approved under the current permit by August 2023.

### **Why did Hiawatha Golf Course reopen earlier than Meadowbrook Golf Course?**

Two MPRB golf courses – Hiawatha and Meadowbrook – sustained significant damage due to the June 2014 flood. At Hiawatha, the Front Nine reopened in Fall 2014 and the entire course reopened in Spring 2016. At Meadowbrook, the entire course remained closed until all 18 holes reopened in Summer 2017. This was due to a variety of factors:

#### **Meadowbrook sustained greater flood damage and experienced setbacks unrelated to the flood**

The flood affected the two courses differently. Water receded relatively quickly at Hiawatha, while damage was more extensive at Meadowbrook, which created a more challenging restoration.

Meadowbrook also suffered number of setbacks not related to the flood:

- An emergency well closure required by the Minnesota Department of Health to seal off potentially contaminated water in a shallow aquifer.
- Clubhouse demolition after a major water line break.
- Roof repairs to the cart barn.

#### **Different course conditions and management strategies created different repair timelines**

Because the water receded relatively quickly, and the community wanted to course to open as soon as possible, Hiawatha groundskeepers began repairing the course as soon as waters receded enough to allow work on the course. Staff worked tirelessly to reopen the Front Nine before the 2014 season ended. As the water receded more slowly at Meadowbrook and the damage was more widespread, management took a different approach, choosing to repair the course completely before reopening.

#### **The groundwater pumping discovery at Hiawatha delayed long-term course investment**

After the groundwater pumping violation was discovered, MPRB staff did not feel it was prudent to make long-term investments at Hiawatha until the situation is understood and resolved.

### **What is the relationship between groundwater pumping at Hiawatha Golf Course and water issues near Lake Nokomis?**

There is no engineering study that points to a relationship between pumping at Hiawatha Golf Course and high water in the Lake Nokomis area. Information on efforts by the City of Minneapolis, the MPRB, the DNR, and the MCWD to understand water level issues in the neighborhoods near Lake Nokomis can be found here:

<http://www.minneapolismn.gov/publicworks/stormwater/nokomisgroundwater>

**Given the number of water-related issues in the area, why aren't we focusing on the entire Minnehaha Creek Watershed?**

The master planning effort at Lake Hiawatha is not meant to produce a solution to the watershed area's problems. A strong partnership exists between the MPRB, City of Minneapolis, and Minnehaha Creek Watershed District, and each organization is committed to continuing work towards sustainable water management. It's good practice to keep the whole watershed in mind during the master planning process, but this project is specifically focused on the Hiawatha Golf Course Property. The MPRB cannot issue plans for land or subjects it doesn't hold authority over.

**Can't we just dredge the lake to make more room for water?**

No. Dredging a lake whose water level is dictated by the groundwater level will not lower the lake level. If dredged, the lake will only fill back up to the level of the groundwater.

**Can we remove the weir at the outlet of Lake Hiawatha to lower the lake?**

No. Once the water overtops the weir structure and equalizes with the level of the creek beyond, the weir is essentially useless and not holding back water. As of spring 2019, there is no difference in water level on either side of the weir, and the weir is fully submerged.

**Can we raise the level of the golf course and bring it up out of the floodplain?**

No. This would reduce floodplain storage volume. Removing floodplain storage volume only pushes the water to other low-lying areas and is not permissible.

**What if we planted hundreds of trees? Will they soak up the water?**

Yes, but nowhere near the amount required. According to the United State Geological Survey (USGS), a mature oak tree can transpire (release water into the air) about 40,000 gallons of water per year. And 500 mature oak trees would transpire about 20,000,000 gallons of water per year. This amount would have almost no impact on the regional groundwater which constantly flows through this area with enough volume behind it to overcome the amount of water the trees can transpire. New trees will take decades to mature and are dormant for months out of the year where no transpiration takes place. We require a much larger consumption of water per year and a solution that is quicker to implement and more dependable. New trees are planted throughout our park system every spring to replace removed trees and to fill in areas where there are no trees yet. Our golf courses can replace removed trees and plant new trees, however they must be planted in ways that do not impact the playability of the courses.

USGS Water Cycle Information:

[https://www.usgs.gov/special-topic/water-science-school/science/water-cycle-adults-and-advanced-students?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/special-topic/water-science-school/science/water-cycle-adults-and-advanced-students?qt-science_center_objects=0#qt-science_center_objects)

**What is a constructed wetland and what does the EPA have to say about them? Are we creating a constructed wetland?**

“Constructed wetlands” is a term that is used differently across agencies and fields. The EPA defines this as a specific thing for creating a new wetland where one never was. Our master planning process uses the term more literally, as in, we are constructing wetlands.

The EPA uses the term “constructed wetlands” when talking about new wetlands created to treat waste water (i.e. agricultural wastewater, domestic wastewater, coal mine drainage, stormwater) where no wetland has existed. A more appropriate term we may use in our master plan for the Lake Hiawatha area is restored wetlands. The wetlands that are suggested in each of the concepts are certainly engineered and shaped to fit the site’s needs but doing so in the interest of restoring them to a similar state they were in approximately 90 years ago.

Here’s a few quotes taken directly from the EPA’s website to help distinguish constructed wetlands from restored or created wetlands:

“Constructed wetlands are generally built on uplands and outside floodplains or floodways in order to avoid damage to natural wetlands and other aquatic resources. Wetlands are frequently constructed by excavating, backfilling, grading, diking and installing water control structures to establish desired hydraulic flow patterns. If the site has highly permeable soils, an impervious, compacted clay liner is usually installed and the original soil placed over the liner. Wetland vegetation is then planted or allowed to establish naturally.” -

<https://www.epa.gov/wetlands/constructed-wetlands>,  
<https://nepis.epa.gov/Exe/ZyPDF.cgi/30005UPS.PDF?Dockey=30005UPS.PDF>

“In its 1992 report, *Restoration of Aquatic Ecosystems*, the National Research Council defined restoration as the “return of an ecosystem to a close approximation of its condition prior to disturbance.” The concept of restoration is further clarified by defining many types of restoration-related activities. These activities, such as creation, reallocation and enhancement, are similar to restoration, but differ in some way from the process of renewing native ecosystems to sites where they once existed.” - <https://www.epa.gov/wetlands/wetlands-restoration-definitions-and-distinctions>

Wetland restoration or a form thereof is our master plan’s aim. More information from the EPA regarding wetlands can be found here: <https://www.epa.gov/wetlands/wetlands-restoration-definitions-and-distinctions>

### **Why aren’t we doing more engineering studies now? And why aren’t we looking at the whole watershed?**

The Water Management Alternative produced in 2017 lays out a feasible pumping solution for which master planning can build upon. Both are conceptual at this point. Final design and engineering including exact dimensions of the system will be completed and final modeling will be conducted after the conceptualization phase (Water Management Alternative and Master Plan) of the project concludes. The Master Plan will be reviewed by multiple permitting authorities during its conception and after its approval by the MPRB. One of the permitting authorities is the Minnehaha Creek Watershed District. They have been studying and overseeing water related issues and projects since 1967. They are studying the whole watershed, and their sole purpose is to improve the watershed. The MPRB and the Master Plan at Lake Hiawatha are only small parts of a bigger system of projects and studies. Here is a link to the MCWD’s projects: <https://www.minnehahacreek.org/project>



### **How will reducing pumping protect homes?**

The plan is to pump smarter, and not dewater more than is necessary.

The current pumping system in the golf course creates a cone of depression centered around the ponds in the golf course. This current cone of depression has a second, inadvertent effect, of protecting low basements in the neighborhood from groundwater intrusion by artificially lowering the groundwater level over an area larger than the golf course. By moving a pumping system closer to the homes, as is suggested in the Water Management Alternative, the system would not need to be sized to dewater the entire golf course and larger surrounding area, but rather could be sized to create a smaller cone of depression in the local area around the targeted homes and protect low basements to the extent they are protected today.

In a new pumping system, just like in the current system, pumped water would be removed from the ground and directed downstream via Lake Hiawatha and Minnehaha Creek.

### **What will happen with increased precipitation levels due to climate change:**

Our climate will continue to exhibit wet and dry fluctuations, including some periods of significant drought, but the general expectation is that conditions will continue getting wetter with time, with more frequent and sometimes larger heavy precipitation events. The area is currently in the wettest period on record which has included an increase in precipitation in the month of April when soils are usually thawed but vegetation is not growing and cannot take up additional water. This has led to increasing groundwater recharge rates.

Increased precipitation and increased groundwater levels mean that Hiawatha Golf Course must continually pump more water to remain dry. It also means that the golf course may suffer from large rain events that overtop the berm causing damage to the course and loss of revenue, similar to the 2014 flood.

State Climatology website: [https://www.dnr.state.mn.us/climate/climate\\_change\\_info/index.html](https://www.dnr.state.mn.us/climate/climate_change_info/index.html)

### **Who controls how much water flows through Minnehaha Creek and how much water can come into Lake Hiawatha through storm sewers?**

According to the USGS, a watershed “is an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream channel. The word watershed is sometimes used interchangeably with drainage basin or catchment.” The Minnehaha Creek Watershed District (MCWD) encompasses 178 square miles that drains into Minnehaha Creek. Minnehaha Creek is 22 miles long and flows through Meadowbrook Lake and Lake Hiawatha and ultimately drains into the Mississippi River. Given this understanding, water has always flowed through Lake Hiawatha before making its way to the Mississippi River. The amount of water that flows into Minnehaha Creek and through Lake Hiawatha is dependent on how much precipitation falls across the watershed.

Since its establishment in 1967, the MCWD has been operating a permitting program to protect the watershed’s natural resources from degradation associated with land use change. In the beginning, MCWD’s permitting rules were not based on how the land was used, but rather on ensuring that regardless of how the land was used, the water resources were protected from the impacts of that land



use. There is overlap in MCWD permitting rules with local planning and zoning authorities of cities, such as limiting stormwater flow increases from development. Currently MCWD's permitting rules include requirements for development and redevelopment projects to implement water quantity and water quality controls to reduce impacts on downstream resources. All communities within MCWD, including the City of Minneapolis, are subject to MCWD stormwater management rules which prohibit increases in peak discharges as part of land development projects. Additionally, the City of Minneapolis through its Chapter 54 Stormwater Management Ordinance also has similar requirements as MCWD's permitting rules.