



Wednesday, September 18, 2024

## CITIZENS ADVISORY COMMITTEE MEETING MINUTES

MCWD Office, Board Room

[www.minnehahacreek.org](http://www.minnehahacreek.org)

### Board of Managers:

Sherry White, President; William Olson, Vice President; Jessica Loftus, Treasurer; Eugene Maxwell, Secretary; Richard Miller, Manager; Arun Hejmadi, Manager; Steve Sando, Manager

*Board Liaison: Manager Hejmadi*

### Citizens Advisory Committee Members Present:

Emily Balogh, Marcy Bean, Cara Donovan, Robert Glisky, Laurie Goldsmith, Suzanne Jiwani, Drew McGovern, Rich Nyquist, Janet Schaefer, Sheri Wallace

### Citizens Advisory Committee Members Absent:

Dan Flo, Lisa Fowler, John Iverson, Denise Tennen

### MCWD Staff Present:

Brian Beck, Samantha Hoppe, Maia Irvin, James O'Brien, Jill Sweet

6:35 pm

1. **Committee Meeting Call to Order and Roll Call**
2. **Approval of Agenda (Additions/Corrections/Deletions)**  
2.1 Sept. 18, 2024, agenda  
*Wallace, Glisky. All approved.*
3. **Approval of Minutes (Additions/Corrections/Deletions)**  
3.1 July 17, 2024, minutes  
*Jiwani, Schaefer. All approved.*
4. **Action Items**  
*No action items.*

6:40 pm

5. **Discussion Items**  
5.1 Carp Management Evaluation – **Sweet/Beck**  
Jill Sweet, a Research and Monitoring (R&M) Technician at the Minnehaha Creek Watershed District (MCWD), and MCWD's R&M Program Manager, Brian Beck, presented results from MCWD's Six Mile Creek-Halsted Bay (SMCHB) carp management program to the CAC. They also provided an update on MCWD's ongoing partnership to conduct a statewide carp management evaluation study.

Before Sweet began the presentation, MCWD's Outreach Manager, Samantha Hoppe, directed CAC members to an online platform called Mentimeter for an engagement exercise. CAC members were asked a series of questions, to gauge the CAC's baseline knowledge about carp management as a restoration strategy.

Sweet then presented a summary of MCWD's SMCHB carp management program, which was part of a broader habitat restoration initiative, and its results.

The program began in 2014 and completed in 2023. MCWD's Board of Managers designated the SMCHB Subwatershed as a focal geography because it is the watershed's headwaters and many of the waterbodies in the system are degraded. A 2013 diagnostic assessment showed that lakes in this subwatershed were impaired with poor habitat and vegetative conditions. The findings of this assessment noted that common carp were one potential driver of these issues. Other drivers included altered wetlands, stormwater runoff, and internal phosphorus loading. MCWD has implemented several strategies in this geography to address many of these drivers, including carp, over the past several years.

Sweet provided a brief background on carp as an invasive species. She noted that they were established in the Midwest in the 1880s and have traits that make them problematic and difficult to control. They are tolerant of poor water quality conditions, have a long lifespan, do not have many predators, reproduce many offspring, and are omnivorous bottom feeders. They can cause water resource issues because they stir up sediment, uprooting plants and decreasing water clarity, both of which lead to fewer and less diverse plants. Water clarity is also a key indicator of water health and quality because unclear water cannot provide a healthy ecosystem. Sweet also noted that most of the research and knowledge on carp comes from University of Minnesota (UMN) research published in 2009, which suggested that vegetative cover decreased in shallow lakes when carp biomass increased. In general, this research concluded that 100 kg/ha of carp biomass is the threshold at which carp begin to have a significant impact on vegetation and water clarity in an individual lake. Beck noted that external nutrient sources also impact water clarity.

A CAC member asked how many carp equal 100 kg/ha. Sweet responded that it depends on the average weight of carp in the system and the size of the lake. On average, carp are 3.5-4 kg. For example, Wassermann Lake, which reached the 100 kg/ha threshold during this program, is estimated to have about 1,700 carp of average size.

Sweet then spoke about a 3-year study MCWD conducted with UMN Minnesota Aquatic Invasive Species Research Center (MAISRC) researchers from 2014-2017 as the first step in the SMCHB carp management program. The study assessed carp in the subwatershed, including carp population numbers, movement patterns, and spawning areas.

The study found that the majority of SMCHB lakes were above the 100 kg/ha threshold and that carp were moving freely throughout the system, especially along a "carp highway" between Mud Lake and Halsted Bay of Lake Minnetonka. The study also identified several spawning locations in shallower lakes and wetlands with fewer predators. Based on these findings, MCWD developed a carp management plan with three strategies:

1. Block carp migration
2. Prevent recruitment
3. Remove adult carp

MCWD received grant funding from the Lessard Sams Outdoor Heritage Council during this time to implement the management plan.

First, MCWD worked to block carp migration from Lake Minnetonka into SMCHB, by installing a large barrier between Halsted Bay and Mud Lake. The subwatershed was then split into management units and additional barriers were installed to prevent carp movement and aid removal efforts. The barriers also prevented carp from reaching shallower lakes in the subwatershed, where they could successfully spawn. Sweet noted that the barriers do prevent movement of all fish of a certain, larger size and that carp try to get through the barriers by digging under them or jumping over them depending on water conditions.

Next, MCWD installed aerators in three lakes – North Lundsten, South Lundsten, and Mud – to limit carp recruitment by reducing winterkill of predators of their eggs, such as Bluegill. MCWD has been monitoring the surface aerators in coordination with Three Rivers Park District.

Lastly, MCWD coordinated with commercial fishermen to remove adult carp. Sweet mentioned that the first two strategies were important to implement first because otherwise, removal of adult carp would have temporary impacts. Carp were removed through a variety of tactics – seining, box netting, and stream trapping – on eight lakes in the subwatershed. There were about fifty removal efforts, and the successful attempts removed about 30,000 pounds of carp. A CAC member asked if each method has a different success rate. Sweet responded that winter seining is the most cost-effective, but it is difficult to find commercial fishermen to do it for a variety of reasons.

Sweet then presented the management program's carp biomass removal results. As of 2023, the program had successfully achieved carp biomass totals below the 100 kg/ha threshold in nearly all the 14 lakes in the system. However, Sweet said it is important to remember the true goal of the SMCHB Habitat Restoration initiative, which was restoring the lakes and improving water quality and vegetation. So, R&M analyzed whether there were improvements in water clarity and vegetation following successful carp removals.

To understand the effects of carp management on vegetation, staff evaluated the amount of vegetative coverage as well as species diversity. Sweet said that staff did see some change in vegetation, primarily in three lakes, where vegetation increased, however, these lakes also had the highest carp biomass starting out and saw the largest carp biomass decreases, which likely contributed to the impact to vegetation. However, the other lakes analyzed did not show as much change in vegetation after carp removals because they had a higher percentage of vegetative cover and lower carp biomass prior to carp removal efforts. In addition to the amount of vegetation, R&M also evaluated changes in plant diversity. The analysis showed small changes in diversity, but most of the lakes remained degraded for vegetation diversity.

Taking all the vegetation data together, Sweet compared carp biomass to aquatic plant quality in the subwatershed's lakes. The data demonstrated that lakes with extremely high carp biomass had low aquatic plant quality. However, some lakes that had low carp biomass had good plant quality, while others continued to have poor vegetation even with lower carp biomass. However, water clarity is also a contributing factor to vegetation growth. The program results indicate that high carp biomass limited plant growth, but plants continued to be limited if the lake continues to have poor water clarity even after carp biomass decreased.

Staff also sought to understand how carp removals affected water clarity. Sweet shared that this analysis suggested that there have not been significant changes in clarity because of the carp removal. Though staff and researchers have theorized that carp are a driver of water clarity in lakes, poor water clarity could be attributed to many other drivers in the system as well, such as internal and external nutrient loading.

Based on the results presented, Sweet summarized key findings from MCWD's carp management program.

- MCWD's efforts succeeded at removing carp biomass, which improved vegetation coverage to a degree on some lakes. However, other factors, like water quality, are continuing to impact vegetation diversity.
- Carp biomass larger than 300 kg/ha limited healthy aquatic plant communities in the SMCHB system.
- SMCHB lakes that have achieved carp biomass targets have not demonstrated measurable improvement in water clarity yet.
- Obtaining a healthy plant community required low carp biomass and good water clarity.
- There was a variety of responses across different lakes, due to lake type and existing conditions.

Sweet then asked the CAC for questions on the information presented. A CAC member asked if temperature impacts vegetation responses. Sweet responded that it has indirect effects on vegetation. Another CAC member asked if climate change will cause carp populations to increase because it limits lake biodiversity. Sweet said that climate change will potentially limit fish that require lower temperatures, and that R&M is also researching how drastic differences in water levels may impact vegetation. A CAC member asked about the possibility of reintroducing native plants, and Sweet replied that reintroduction would require good existing water clarity to be successful.

A CAC member asked about the possibility of removing the carp barriers MCWD installed, to decrease maintenance needs. Sweet said the largest barrier blocking Halsted Bay would need to remain in the near term, and this is the barrier that requires the most maintenance. However, she noted the goal would be to start opening a few of the smaller barriers soon. Another CAC member asked about the possibility of installing a velocity barrier. Sweet responded that SMCHB does not have the correct elevations for that.

Sweet then introduced the statewide carp efficacy study that MCWD is working on with the Minnesota Pollution Control Agency (MPCA), the Minnesota Department of Natural Resources (DNR), and the UMN. Sweet noted that MCWD interacted with these organizations during the SMCHB Habitat Restoration initiative and carp management program, which was one reason the organizations decided to partner on a statewide study. The DNR also has permitting authority for carp removals, and the MPCA develops strategies for improving lakes. Additionally, the partners discovered that each agency had the same knowledge gaps and questions about carp management, such as how lake size, pre-removal conditions, and other factors impact water quality and vegetation following carp removal. Each partner had an interest in expanding the carp management dataset and performing a statewide effectiveness assessment.

This partner study began in 2024, and MCWD has helped request and compile data from carp managers across the state, including carp removals/biomass

estimates, water quality, and vegetation data. UMN researchers are performing the data analysis. So far, there are only fifteen lakes that have all these datasets, so MCWD and UMN researchers are working to increase this number and find ways to effectively tell the story.

UMN researchers have presented some preliminary results on vegetation and water clarity. These results have shown water clarity improvements in some lakes. However, the data supports the idea that to achieve positive, meaningful impacts on vegetation, both carp removal and starting water quality conditions are important.

Sweet mentioned that MCWD plans to share information on the SMCHB program and the statewide study with policymakers and water resource professionals at upcoming conferences, through accessible publications and digital content, and an academic journal publication. CAC members noted that MCWD could share this information with lake associations and MNCOLA through pre-recorded presentations, factsheets, and FAQ, etc. A CAC member asked whether MCWD had started contacting other watershed districts about this study and results. Sweet said she reached out to other watershed districts that have implemented carp management when compiling data, and they will continue to be involved and engaged as results are reported.

CAC members were asked to share what their major takeaway and understanding was from the presentation. Answers included:

- Effective carp management seems more difficult in larger areas.
- 100 kg/ha may not be the magic number for carp biomass.
- Removing carp for the sake of removing carp is not the goal. The goal is to restore the lakes. MCWD has seen that some lakes with removal success have not substantially improved.
- Carp removal is expensive, so what are the alternatives? It is important to understand the return on investment.
- There may not be enough data yet to tell the story or determine what the story is.
- This is a topic with charisma, and it will engage many people.

8:25 pm

## 6. Informational Items + Updates

### 6.1 CAC Member Updates

- Hoppe reminded CAC members of the 2025 recruitment and appointment process. The application for the 2025 CAC opened on Sept. 9, 2024, and was posted to MCWD's website. The application closes on Monday, Oct. 21. CAC members were encouraged to share the application with their networks.

### 6.2 Board Liaison Updates

- Manager Hejmadi shared an update on MCWD's 2025 budget and levy certification. MCWD staff presented the draft budget to the CAC in July. Staff have refined the budget over the past few months and at the Sept. 12, 2024, Board meeting, the Board formally adopted the 2025 budget and certified the 2025 tax levy. MCWD will host another public meeting at the Nov. 21, 2024, Board meeting, to provide a final opportunity to submit comments before the budget goes into effect.
- Manager Hejmadi also announced that the Board authorized a contract for Stantec to develop a Flood Action Plan at the Aug. 22, 2024, Board meeting. The development of a flood action plan was a near-term action item identified

in MCWD's Climate Action Framework, to delineate MCWD's operations during flood events with local emergency managers. MCWD will work closely with Stantec to develop a plan by the end of 2024 that provides clear roles and expectations during a flood event, defines flood event categories, documents operational protocols for consistency and efficiency, and provides strategic guidance and recommendations for future improvements.

### 6.3 Staff Updates

- Hoppe provided an update on water levels and dam operations. Though it has been a wet Spring and Summer, conditions are drying out. Lake Minnetonka was recorded at 929.0 ft on September 18<sup>th</sup>, and Minnehaha Creek was recorded flowing at 80 cubic feet per second (cfs) at the Hiawatha Ave. USGS gauge. Gray's Bay Dam has been discharging 50 cfs since early September to slowly bring the lake down while prolonging flow in the creek for as long as possible. In the fall, MCWD operates the GBD, in accordance with its operating plan, to bring the lake toward 928.6 ft, which is the ideal level for ice-in, providing storage for Spring snowmelt.
  
- Hoppe provided updates on four active capital projects:
  - o Minneapolis Partnership Projects – Work on the first three projects will start at the end of September with the feasibility kick-off meeting. Feasibility is expected to finish around January 2025 before the projects move into the design phase.
  - o 325 Blake Road – MCWD is approaching the deadline for the site's purchase and sale agreement on Nov. 1, 2024. The project has been delayed due to poor market conditions and challenges securing capital for the development. However, MCWD's Board wants to move the stormwater projects forward as soon as possible. MCWD staff and Board liaisons met with City of Hopkins and Alatus staff on Sept. 18, 2024, to discuss project implementation options ahead of the approaching deadline.
  - o East Auburn Wetland Restoration – The project is currently in the design phase, but has delayed due to this year's wet conditions, which presented challenges for completion of the geotechnical analysis. MCWD plans to complete design in Spring 2025 and then bid and construct the project in Winter 2025. In the meantime, staff are coordinating with the City of Victoria to determine design options for the site's boardwalk.
  - o County Road 6 Stormwater Pond Retrofit – The project is near 60% design; however, it may be delayed due to an opportunity staff are exploring to work with a neighboring landowner to improve the pond's water treatment ability. Staff are working to determine if MCWD can move forward with this opportunity and how it would impact the project's design and construction timelines. Construction may be delayed a year, but the project could deliver greater water quality benefits. Delaying would also allow MCWD to bid the project for construction at a more ideal time.

8:40 pm

7. **Adjournment**  
*Schaefer. Glisky. All approved.*

### Upcoming Meeting

Wednesday, Nov. 13, 2024, Citizens Advisory Committee Meeting (Manager Sando, Board Liaison)