

ASYLUM LAKE POLICY AND MANAGEMENT COUNCIL

Minutes
May 8, 2025

Members Present: Pete Strazdas, Chair; Cybelle Shattuck, Council Secretary; Tom Sauber, Natural Areas Manager; Dave DeBack; Mark Frever; Lynne Heasley; Steve Kienle; John Kreuzer; David Lemberg; Matt Reeves; Paul Scott; Mike Weiss; Mark Weiss

Members Excused: Tiffany Schriever; Jay Emerson; Cybelle Shattuck;

Guests: Judy Huxmann; Josh Kieser; Paul MacNellis; Mark Kieser, Kieser & Associates; Wendy Denning

I. CALL TO ORDER AND ROLL CALL.

- Mr. Strazdas called the meeting to order at 7 p.m.

II. EDITING AND ADOPTION OF AGENDA FOR MAY 8, 2025.

- There were no changes to the agenda.
- **Mr. Weiss, supported by Mr. Kienle, moved approval of the May 8, 2025 Agenda. The motion carried by unanimous voice vote.**

III. EDITING AND APPROVAL OF MINUTES FROM APRIL 10, 2025.

- There were no changes to the Minutes.
- **Mr. Scott, supported by Mr. Frever, moved approval of the April 19, 2025 Minutes. The motion carried by unanimous voice vote.**

IV. FINANCIAL REPORT.

a. Asylum Lake Operations Financial Report.

- Mr. Frever provided the financial report to the Council.
- **Mr. Weiss, supported by Ms. Shattuck, moved approval of the financial report. The motion carried by unanimous voice vote.**

V. OLD BUSINESS.

a. Project Updates and Project Finances.

i. Storm Water and Research Project.

- Dr. Reeves was not available to attend the May Council meeting.
- The stormwater construction project has been completed.
- The stormwater research project is close to being completed. Dr. Reeves wants to talk to the Council about future opportunities.
- Mark Kieser provided the following information:
- Matt Reeves, Marwan Al Hinaai, Mark Kieser and John Jacobson provided a presentation this morning at the Michigan Department of Transportation Infrastructure Conference regarding the chloride research project. The presentation included information about how to reduce chloride (road salt) on the roads and what to do about chloride run-off from the roads.
- They have been working on a mobile process for chloride removal and that information was also presented at the conference.
- The State of Michigan and the Great Lakes area has the most stringent water quality standards. There is a potential process to reduce chloride, and the State of Michigan will talk to municipalities about that.
- It will take approximately two to three million dollars and three to five years for the stormwater research to result in royalties.
- The Michigan Department of EGLE (Environment, Great Lakes and Energy) provided permission for pilot testing of the chloride removal system in early April but there was no snow or ice at that time.
- There is a small budget remaining from the Council. The research team has reserved that money to do the pilot test of the chloride removal system during the next snow event.

- Dr. Reeves and Mark Kieser are working on the research and a million dollar grant application to the State of Michigan. They are a long way from selling the chloride removal system and receiving any royalties from it. They need more grant funding to pursue the chloride removal system.
- The Council made the initial investment in the chloride removal research. The question now is how to return that investment to the Council.
- The research team is using an obscure industrial process for removing chloride from the stormwater. They received approval from the State of Michigan to do that under Western Michigan University's MS4 stormwater permit.
- They are hoping it will proceed to the pilot testing phase and further research. If someone invests in that process it is possible that the Council can be reimbursed for their initial investment in the research.
- Ms. Heasley inquired if Kieser & Associates would need to approach the Michigan Department of EGLE again for permission. Mr. Kieser advised that with a general permit (MS4 permit) from the State of Michigan additives can be put in the stormwater to remove pollution.
- Kieser & Associates has been using two simple chemicals to remove chloride from the stormwater. The pH level goes up to 12 when the chemicals are mixed into the stormwater. The State of Michigan regulations state that the pH level cannot be above 9.
- The chemicals will be diluted right away in the equalization pond. Another way to reduce the pH level is to add CO₂ (carbon dioxide) into the treatment stream and that will bring the pH level down to 9.
- The MS4 permit allows four pilot studies. Testing falls under that permit.
- Dr. Reeves' research team is looking at what to do when a lake has chloride levels above the water quality standard. Asylum Lake is almost to that point. One of the pilot tests might involve pumping water out of the lake and treating it.
- During January through March of 2025, approximately 19,500 pounds of chloride (about 10 tons of chloride) were used by the U.S. 131 interchange west of Drake Rd. near the Preserve.
- With the proposed removal process, that could be treated for chloride at approximately \$5 per pound or a treatment system could be built for four million dollars.
- It would cost approximately \$100,000 to treat 19,000 pounds of chloride for two months. The treatment process could produce 100 tons of precipitate. The research team is looking into possible reuses for the precipitate. A 20 yard roll-off box would contain the pile of precipitate. It will take time for this process to be commercialized.
- Kieser & Associates applied for the EGLE grant in December of 2024. They are hoping MDOT (Michigan Department of Transportation) will provide funding for this project. They put chloride on the highway near the Preserve.
- It is possible the Council could be reimbursed for the money they invested in the stormwater research project if it is successful. Dr. Reeves will pursue that possibility.
- There has been no legal agreement with regard to possible royalties the research team might receive if their research produces income in the future. The intellectual property belongs to Kieser & Associates, but there is no value in that unless the chloride removal process is commercialized in the future.

ii. Ecological Maintenance.

- The Council hired a consultant to work on the Ecological Maintenance Plan over a year ago. Paul MacNellis agreed to help implement the Plan.
- Mr. MacNellis provided information about the burn schedule, the grid map of the Preserve that will be used, and the invasive plants in the Preserve.
- A burn schedule through 2027 was provided, which includes the Savanna (S), Prairie (P) and Forest (F) areas. Last year there were prescribed burns in the F4 and F5 areas.
- The Asylum Lake Preservation Association (ALPA) volunteers are helping with the plant inventory in the Preserve. Tyler Bassett sent a list of native plants to Mr. MacNellis. The list includes plants that have grown at Asylum Lake since the 1930's. The volunteers hope to find those plants and add to the plant inventory.

- Bill Schneider from Wildtype will focus on eradicating invasive species in sections F4 & F5. The ALPA volunteers have helped pull Garlic Mustard in those locations. It is important to proceed with recovery efforts in sections F4 and F5; seeding will be done in those areas this fall.
- On Saturday May 10th, Dave Mindell from Plantwise will have a crew in the Preserve to burn sections F3 and F8. The Council members were encouraged to attend the burn and direct visitors in the Preserve to go around the burn area. A plant inventory will be done in those locations next year, followed by seeding.
- The next goal is to do a plant inventory in sections F7 and F8. There is a three-year plan to increase the number of plants in those sections.
- A map was presented showing the 100 meter grids in the Preserve that will be a guide for the plant inventory. The ALPA volunteers have a mapping program on their phones to show them where they are in the Preserve. They are working on eight grid squares, including two forest areas, that equate with areas F4 and F5.
- A map was presented showing which areas of the Preserve will be focused on over the next three years. Wildtype previously killed a lot of the Black Locust trees in some of those areas, by girdling the trees.
- Recommendations for management of invasive Garlic Mustard are changing. Garlic Mustard seeds are viable for six to eight years. The plants live two years; they flower the second year and that's when the seeds are produced.
- Garlic Mustard is an allelopathic plant. It makes the soil sour to other plant seeds so they won't germinate. If chemicals or herbicides are used to eradicate the Garlic Mustard plants, you can't put other plants in that area for years.
- If there is a dense patch of Garlic Mustard, the best way to deal with it is to leave it alone. The edges of the patch should be contained so that it doesn't spread farther. The Garlic Mustard plants make the soil toxic, and it eventually kills itself.
- The proposed budget for the Ecological Maintenance Plan for 2025 and 2026 is as follows: \$9,600 for the controlled burns, \$3,800 for seeding, \$1,200 for trees and shrubs, \$30,000 for invasive species control. The total is approximately \$45,000.
- **Mr. Scott, supported by Ms. Heasley, moved approval of the three-year Ecological Maintenance Plan from Paul MacNellis, along with funding for that plan in 2025 and 2026 in the amount of \$45,000. With a voice vote, the motion carried unanimously.**
- Sections F4 and F5 are 8.5 acres. This year, three acres of that area will be seeded. After observing which plants grow well in that area, more seeding will be done in the future.
- Sixty to seventy percent canopy is needed in the forest areas so that the required amount of dappled sunlight is maintained to allow for understory growth. Current tree canopy is 100%. Some of the trees will be eliminated to reach the 70% goal.
- Trees to be planted include: Chinkapin Oaks, which are native to Indiana but are moving north due to climate change. They are very effective for carbon sequestration. More Burr Oak, White Oak and Red Oak trees will also be planted in the Preserve.
- The seeds will need to be broadcast. Backpack blowers will be used to blow the leaves away before the seeding is done. After the seeding, the leaves will be blown back into the area.
- Ms. Heasley mentioned a book called "Slow Wood" which talks about finding local woodworkers to use wood that is harvested. Black Locust is a favorite wood for certain projects. It can last for decades underground and is good for building decks or sheds. Could people access that wood from the Preserve for projects they are doing?
- Mr. DeBack mentioned that there is a group in Ann Arbor doing that. They are bonded and insured, and they work with wood workers. He will follow up and try to provide more information to the Council.

iii. Sign Committee.

- Temporary signs were used in the Preserve during the Garlic Mustard pull. Those signs have been retrieved.
- Some of the fishing signs around the lake disappeared in late winter.

b. Council Discussion on Indigenous Peoples.

- No report.

c. Lake Water Level.

- Tom Holmes and his grandson cleared the beaver deceiver cage in the Preserve, and the water level in the lake is lower now.
- Mr. MacNellis recommended putting in two pipes instead of one to help maintain the water level. The existing pipe is 14 inches in diameter.
- The metal cage is collapsing. It was suggested that a diamond-shaped cage would be helpful. Mr. Sauber will seek a quote from a contractor to get the work done. Ms. Huxmann will join Mr. Sauber for the discussions with the contractor.
- The beavers have figured out how to dam up the pipe in the beaver deceiver.

VI. NEW BUSINESS.

a. Application for Preserve Use.

- A group from the Mattawan school district will be using the Preserve on May 9th.
- The yearly application for the hydrology camp was approved for July 1st through August 30th.
- Students from the Michigan Envirothon will be using the Preserve from May 14th through the 16th.

VII. NEXT MEETING.

- The next Council meeting is scheduled for June 12th. There will be no meeting in July. The August meeting is scheduled for the 14th.
- If ALPA needs questions answered, they can communicate with Mr. Sauber or Mr. Frever in July.

VIII. COUNCIL/STAFF COMMENTS.

- None

IX. PUBLIC COMMENTS.

- None

X. ADJOURNMENT.

- The meeting adjourned at 8:07 p.m.