ASYLUM LAKE POLICY AND MANAGEMENT COUNCIL
Minutes
March 13, 2025

Members Present: Mark Frever, Acting Chair; Dave DeBack; Judy Huxmann; John Kreuzer; Matt Reeves; Silvia Roederer; Paul Scott; Mark Weiss; Mike Weis

Members Excused: Pete Strazdas; Cybelle Shattuck; Lynne Heasley; Steve Kienle; David Lemberg; Keith Pung; Tiffany Schriever; Tom Sauber

Guests: Mark Kieser, Kieser & Associates; Bill Schneider, Wildtype; Kay Chase; Josh Kieser

I. CALL TO ORDER AND ROLL CALL.

- There was a quorum of members present, and Mr. Frever called the meeting to order at 7 p.m.

II. EDITING AND ADOPTION OF AGENDA FOR MARCH 13, 2025.

- There were no changes to the Agenda. The Agenda was approved by unanimous voice vote.

III. EDITING AND APROVAL OF MINUTES FROM JANUARY 16, 2025.

- There were no changes to the Minutes. The Minutes were approved by unanimous voice vote.

IV. FINANCIAL REPORT.

a. Asylum Lake Operations Financial Report.

- The financial report was provided to the Council. Mr. Frever reported that there were $517.50 in operational expenses last month.

V. OLD BUSINESS.

a. Project Updates and Project Finances.

i. Storm Water and Research Project .

- Mark Kieser provided the following update:
- The stormwater treatment system in the Preserve has been working for a year. Kieser & Associates has been checking to make sure there are no issues with erosion. There has been good vegetation regrowth in the Preserve where the treatment system was installed.
- Chloride sampling has been done to confirm that the treatment system is working. There is a small amount of chloride funding remaining.
- The pilot study for the chloride removal was scheduled to be done a year and a half ago. Kieser & Associates is waiting for the Michigan Department of EGLE (Environment Great Lakes and Energy) to approve an amendment to the WMU stormwater permit. The amendment would allow Kieser & Associates to put additives in the stormwater as part of the chloride removal process.
- They are hoping for another snowstorm and use of chloride (road salt) to test the system for chloride removal efficiency. They have been told the amendment will be approved on March 14th.
- When the temperature reaches about 26 to 27 degrees, the snow and ice on the road surface starts to melt after the chloride application. That is when the chloride starts to trickle into the storm sewer. That initial amount of snow/ice melt has the highest concentration of chloride.
- Kieser & Associates has been monitoring the chloride run-off from U.S. 131 at the bottom of the hill near the interchange, which is near the Preserve. They have also been testing the stormwater that is coming into the new treatment system.
- The highest chloride concentration by Drake Road was over 9,000 parts per million in the stormwater run-off.
- Mr. Kieser and Dr. Reeves have been working on some project proposals and ideas for the next step. They have protected the intellectual property from the stormwater research project with a provisional patent.
- Dr. Reeves and Mr. Alhinaai provided their research on-line. There have been many reviews of that research internationally. Kieser & Associates hired Mr. Alhinaai on a part-time basis to help with the stormwater project.
- The research, proof of concept and testing have been successful. Kieser & Associates plans to do a small scale demonstration of the stormwater treatment process and the pilot testing, which should lead to additional grant

funding of $30,000 from the State of Michigan for more bench scale testing. Part of that grant can be used to find additional grant funding.

- Once the chemicals are added to the stormwater to remove the chloride, the stormwater has a milky white appearance for a while. One of the main questions that Dr. Reeves will be looking at is how long the milky state (chloride attached to precipitant) exists.
- If it is inert and never unbinds, that is helpful because the chloride and the chemicals can be removed more easily after the stormwater is treated.
- If the chloride dissolves and mixes back into the stormwater, they need to know the time frame in which that process occurs so they can remove the chloride before it mixes into the stormwater again. That process might take two hours or it might take
- twelve hours. The time period when the precipitant is captured will help determine how large the removal system will need to be.
- Kieser & Associates will be coming back to the Council in the near future to discuss additional stormwater treatment system sampling in the spring, which is the critical phosphorus sediment loading period. They will also continue with Asylum Lake monitoring.
- The Michigan Department of EGLE is done with their chloride monitoring at Asylum Lake.
- According to the weather forecast, it looks like there is potential for another snowstorm next week. They will only dose the stormwater with the chemical precipitant for a half hour. The milky substance should drop to the bottom of the stormwater after it is treated in the barracuda trap by the road. The State of Michigan needs to know every chemical that is added to the stormwater.
- If there is not another snow storm this spring, that could delay the testing for several months. MS4 permittees (WMU) are allowed to put additives in stormwater. The toxicologist questioned what was being added to the stormwater.
- One of the additives is something that is used to filter out phosphorous from lakes. The additive is under a different rule in the EGLE regulations. They need to know the dose rate so it doesn't upset the pH (acidity) in the water. The toxicity testing must be provided under the stormwater rules. Kieser & Associates is hoping to get the permit before the next snow event.
- The objective is to get the maximum amount of chloride removal with the minimum amount of chemical additives. The chemicals used for chloride removal are expensive.
- Dr. Reeves commented that it is not necessary to remove all of the chloride to have a big impact. Asylum Lake is good for pilot scale testing, but it will not be cleaned up with the existing treatment system. The same technology might be used to pump water out of Asylum Lake and remove chloride with a continuous low-volume pumping treatment system.
- Mr. Kieser mentioned the possibility of getting an implementation grant to help create a chloride removal system by U.S. 131. The cost of constructing a permanent treatment system was impractical, so they discussed the possibility of a mobile system. The chloride removal is a seasonal issue. Maybe the equipment could be stored off-site and moved to areas where it could have the most positive impact.

ii. Ecological Maintenance.

- Bill Schneider from Wildtype provided the following information:
- Wildtype is an ecologically focused contractor based in Mason, Michigan. They do work in Preserves and parks for the Department of Natural Resources and forest services. They also operate a native plant nursery.
- Wildtype has been doing work in the Asylum Lake Preserve for about 15 years. Mr. Schneider has provided updates to the Council on a couple of occasions during that time period. He and his staff are deeply vested in the success of their work in the Preserve. They want to see the results of their efforts.
- Before and after pictures were presented showing positive changes in the Preserve as a result of the work that Wildtype has done. There are pre-settlement Oak trees in the Preserve.
- Wildtype felt that it was important to prioritize the management units in the Preserve to best utilize the limited amount of time and money they have. Certain areas of the Preserve will benefit more than others from the work that is being done. The management units were created based on the trails in the Preserve.
- Over time, they have occasionally deviated from the plan. At this point, they are abandoning the old plan and using the plan that Mr. MacNellis has provided.

- When they started work in the Preserve years ago, there was an impenetrable wall of invasive shrubs in the wooded area. They cut and stump treated areas of the Preserve based on what would provide the best ecological benefit, and where the public would benefit most.
- Staff from Wildtype cut, piled and burned invasive species in the Preserve during the winter months. The focus was on woody plants. There was no specific scope of work. Wildtype created summaries at the end of the season of the work they had done.
- There is an underlying issue in some areas of the Preserve with Vinca, Lilly of the Valley, Day Lillies and Creeping Euonymus. Some of that was addressed at almost no additional cost because they were already working in the area. It was a cost efficient, ecologically beneficial thing to do.
- Over time, as Wildtype opened up the canopy in the Preserve, the ground layer responded in some places. The Mayapple and Pen Sedge were suppressed but they are recovering. Some fire-dependent species rely on the sunlight coming through the canopy.
- In some locations, Wildtype has also removed small native trees, and some invasive trees, under six inches. The Council should have a discussion about removing more small trees.
- Conversations with Mr. MacNellis about the Preserve have been helpful. It feels like the Preserve property has been managed as if it were two separate Preserves. As if one area was fire-dependent and the other area was not. They are both fire dependent landscapes. Mr. MacNellis has already begun to integrate the management of the Preserve.
- The areas with Black Locust trees were ranked as the lowest priority. Timing of the chemical control is important. Sometimes thousands of sprouts emerge after three years and treatment needs to continue.
- Tom Sauber coordinated with the Grounds Department to have a forestry mower go through these areas. That was a very cost effective approach in helping to control the invasive species. Management of Phragmites requires a different strategy.
- The employees wear GPS units to track where they have been in the Preserve. This helps them plan their strategy for the following year. Some of the problem areas with Black Locust have been identified.
- The general protocol for the woody invasives is to cut and stump treat a certain amount in a particular year. Some of the budget is reserved to spray seedlings in the areas that were stump-treated the year before. The seedlings should be sprayed again in two to three years. If the seedling aren't sprayed, they will grow fast enough to create a living wall in seven years.
- Seedling spraying goes much faster and is much less expensive than other methods and the employees can take care of a large area. Cutting and stump treating makes more work for the next two years. There is a system of prioritization based on the tracks of where the work has been done and what needs to be done the following year.
- The Norway Maples are also a problem. There is a high cost per acre to drill and fill to kill these trees with herbicide. This could create a liability issue if there is standing wood by the trails. Then you have to replant the area with something else.
- Wildtype felt they needed more direction from the Council before proceeding with that work. Ecologically it is not as significant as some of the other areas and that is why it ranked much lower.
- Garlon (Triclopyr) is used to kill woody plants and Milestone and Garlon are used on the Black Locust trees. They use a drill and fill method. The chemicals are applied in the hole that is drilled. They want to minimize collateral issues and use the smallest amount of chemical possible.
- Garlon has a very short half-life. There are several formulations. The formulation used by Wildtype is a wetland-approved formulation. It does not have any residual soil activity.
- Milestone does have residual soil activity. That is one of the benefits of using it but also one of the things you have to be careful about. It has a half-live of approximately nine months to a year. It is mobile in the soil. It is used at a concentration of 11 milliliters per three gallons. It is very potent and used in small concentrations rather than being broadcast. It is also selective rather than being broad-spectrum like Glyphosate.
- The term Roundup is a brand name. It no longer means that it is Glyphosate. There are other herbicides that are being formulated into the product sold as Roundup.
- Mr. MacNellis mentioned that Triclopyr and Glyphosate are enzyme blockers. There are 22 enzymes that a plant needs to produce food. Both of those chemicals block two of the enzymes, which breaks the chain that the plant needs to produce food. The chemicals cause the plant to starve.

- Mr. Schneider stated that Glyphosate, 24D and Triclopyr will kill the leaves on Black Locust and Japanese Knot Weed and a number of other plants. It is not absorbed far enough into the system to kill the plant. Milestone has a residual element that is more effective at killing specific plants.
- Phragmites is only vulnerable to herbicide when it starts to tassel, which is usually from around the middle of August until frost. There is not enough systemic transfer to kill it.
- There are several other ways to manage Phragmites. Sodium chloride (road salt) accumulation is stimulating Phragmites to grow. Along highways there is a lot of Phragmites because of the high concentration of road salt in those areas. Addressing the sodium chloride level in Asylum Lake should also address the Phragmites issue.
- Another way to kill Phragmites is to cut it off below water level, which will starve it of oxygen. This method is effective on a small population of Phragmites. It is not easy to cut it during growing season. Last year's dead stalks remain with the new stems.
- The goal is to use less chemicals. A special permit is needed if spraying is done over water.
- Wildtype likes to burn off last year's residue and only apply chemicals to living plants. That makes the chemical use more efficient. Fire alone won't kill Phragmites.
- Paul MacNellis has a digital outline of the priorities for 2025. Wildtype hopes to continue working on the Black Locust trees if the Council requests help with that issue in the future.
- Mr. MacNellis has priorities for the entire Preserve, not just specific sections of it. This is a big step forward and Wildtype would like to be a part of that process. They are trying to spend the Council's money wisely as the priorities are being addressed.
- Mr. MacNellis stated that the Phragmites needs to be addressed with a specific program. He is also looking at the Norway Maple trees as a specific project. There are Norway Maple trees on the hillside. There might be concern from the public if trees are removed from the hillside.
- Sunlight penetration to ground level is important. Norway Maples are densely leafed trees. Nothing grows under them. Red Maple trees are a native tree that is less dense than Norway Maples. Red Maples dominate the landscape when there is no fire.
- The best first step you can take is to remove the invasive species. Wildtype has removed many of the invasive species over the years.
- Mr. Weis mentioned the importance of watching what happens after the invasive species are removed and that might take a while. He is impressed with the understory. The sedges have rebounded in the last five years where there are breaks in the canopy.
- Ms. Huxmann inquired if the end goal is to make the Preserve self-sustaining or if there will be a need for continued maintenance.
- Mr. Schneider stated that the goal would be to strive for a pre-settlement landscape, but that might not be possible for many reasons. It isn't practical to take the Preserve back to what it might have looked like in the 1800's.
- The Preserve will require ongoing stewardship to maintain the desired level of diversity. Spraying for seedlings and having controlled burns will be required. The Preserve will need regular management but not the kinds of things Wildtype has been doing over the past 15 years.
- Mr. MacNellis suggested that if the work that is being done in the Preserve isn't working, look at the canopy (sunlight infiltration) and the type of plants. Also look at the soil, check microbes, bacteria and fungus. The process is very holistic.
- Mr. Schneider suggested looking at rehabilitated versus restored landscape. That is a topic for another day. For the land that was farmed, a different approach is needed.
- Mr. MacNellis mentioned that Black Locust trees make good fence posts because of their dense cellular structure.
- Ms. Roederer inquired as to why the Council hasn't made a longer renewable contract with Wildtype. Mr. Frever inquired regarding the best time to engage Wildtype annually.
- Mr. Schneider stated that Wildtype will spend the Council's money wisely. If the Council is not happy with the work Wildtype has done, they can opt to not renew the contract. It costs less to do the work by time and materials. They have never been fired from a job. Mr. Schneider encouraged the Council to watch his staff work; they do a good job.

iii. Sign Committee.

- No report.

iv. Trails Management Committee.

- Mr. Scott stated that the trails subcommittee has not met recently. There is no report at this time.

b. Council Discussion on Indigenous Peoples.

- Cybelle Shattuck was not able to attend the March meeting to provide an update.

c. Lake Water Level Update.

- Ms. Huxmann reported that the lake water level is high. The beaver deceiver is clogged; Mr. Sauber will take care of it as soon as he is able to.

VI. NEW BUSINESS.

a. Application for Preserve Use.

- The Michigan Envirothon, which is sponsored by the Michigan Association of Conservation Districts, has submitted a request to use the Preserve. They are working with Steve Case at Western Michigan University.
- They are requesting use of the Preserve from May 14th through the 16th. They want to use the Preserve from 8 a.m. to 1 p.m. on the 16th.
- Eighty students will be doing field observation tests in small groups, supervised by MACD volunteers. They are trained to leave no trace of evidence that they were there. They will use paths to reach their location. No samples will be taken. They will only be there for observation and inventory.
- Michigan Envirothon participants are from all over the state. They work with the Arts and Sciences Department.
- Mr. Frever reported that Karen Larson withdrew her application for use of the Preserve. She wanted to incorporate a 5K run in the Winchell/Drake area. She rerouted the run so that it does not include the Preserve.
- Some of the Council members heard that it was a walk or a hike rather than a 5K run. Someone heard that the event would start at Kleinstuck Preserve and end at Asylum Lake. The date was changed to the 19th of April.
- Mr. Frever stated that 5K runs and marathons are not allowed in the Preserve.

b. ALPA update.

- Mr. Kreuzer provided handouts to the Council outlining upcoming ALPA (Asylum Lake Preservation Association) projects in the Preserve.
- The spring clean-up is scheduled for March 22nd. They will work on protecting the Oak trees from beaver damage. The Garlic Mustard pull is also scheduled to take place in the Preserve.
- Volunteers are needed for the plant inventory on the central section of the Preserve.
- Mr. Sauber's staff will dig a pit in the Preserve for the volunteers to dump the Garlic Mustard.

VII. NEXT MEETING.

- The next meeting is scheduled for April 10th at the Campus Services building on Oliver Street.

VIII. COUNCIL/STAFF COMMENTS.

- The Council members expressed appreciation for having Mr. Schneider provide a presentation at the meeting.
- The Council talked about having David Mindell from Plantwise, LLC provide a presentation at a future meeting.

IX. PUBLIC COMMENTS.

- Kay Chase stated that she has not been on the Council's distribution list lately and would like to be included in future communications.
- She inquired if the Council would receive Marwan Alhinaai's publication regarding the stormwater research. Dr. Reeves will send the publication to Mr. Frever or Mr. Strazdas to distribute to the Council.

X. ADJOURNMENT.

- The meeting adjourned at 8:50 p.m.