ASYLUM LAKE POLICY AND MANAGEMENT COUNCIL
Minutes
October 13, 2022

Members Present: Pete Strazdas, Chair; Kay Chase, Council Secretary; Tom Sauber, Natural Areas Manager; Lynne Heasley; Steve Kienle; John Kreuzer; David Lemberg; Keith Pung; Paul Scott; Cybelle Shattuck; Marnie Twynham; Mark Weiss

Members Excused: Sharon Dever, Vice Chair; Tyler Bassett; Mark Frever; Duane Hampton

Guests: Mark Kieser; Paul MacNellis; Matt Reeves

I. CALL TO ORDER AND ZOOM ROLL CALL.
   • A quorum of members was present, and the meeting was called to order at 7:03 p.m.

II. WELCOME NEW COUNCIL MEMBERS.
   • Lynne Heasley, Professor in the Institute of the Environment and Sustainability, WMU.
   • Mark Weiss, Director of Environmental Health and Safety, WMU.
   • Keith Pung, Environmental Specialist, WMU. Alternate for Mark Weiss.

III. EDITING AND ADOPTION OF AGENDA FOR OCTOBER 13, 2022.
   • There were no changes to the Agenda, which was approved by unanimous vote.

IV. EDITING AND APPROVAL OF MINUTES FROM SEPTEMBER 8, 2022.
   • Under discussion about indigenous people, change spelling of name “Broadwin” to “Rodwan”. The Minutes were approved by unanimous vote.

V. FINANCIAL REPORT.
   • Funds in the amount of $75,000 were transferred into a university account from the Kalamazoo Community Foundation for the annual operating budget.
   • There was an expense of $154 dollars to remove a tree that fell over the trail at the Preserve. There were also charges for mowing, picking up trash and weed whipping.

VI. OLD BUSINESS.
   a. Project Updates and Project Finances.
   i. Storm Water and Research Project.
      • Mr. Strazdas met with Mark Kieser, Matt Reeves and with representatives from the Office of Governmental Affairs, the Business Office and the Research Office. They have a plan predicated on the basis of the legislative piece that was approved with assistance from State Representative, Julie Rogers.
      • Representative Rogers wrote the Michigan enhancement grant funding distribution plan for $550,000, which comes from the State budget that starts on October 1, 2022. Those grant funds are specifically for the shovel-ready stormwater project for the Asylum Lake Preserve. The State of Michigan will provide the grant funds to the university rather than the Council.
      • The Council has already spent $50,902 for work done by Kieser and Associates on the stormwater project. That money will be reimbursed to the Council from the grant funds. An additional $225,000 from the Council will be spent on the research component of the project. The total funding for both components of the stormwater project is $775,000. There is $499,000 still available for the shovel-ready portion of the stormwater project.
      • Kieser & Associates would like to get started immediately on coordinating with the Council regarding the stormwater construction project, and the value engineering suggestions that were made after the last meeting. The changes are intended to reduce the overall construction costs from what the previous bid was.
      • Some of the construction has been simplified so that it is not as deep in the ground. It will require less shoring up and be less expensive. Kieser & Associates will work with the university to rebid this project.
      • The updated plan will incorporate the infrastructure elements necessary to try and treat the chloride. Alum (aluminum sulfate) is a possible option for treating the chloride in the stormwater. The infrastructure might be
near the road and might require a concrete pad approximately the size of a port o potty. Substances used to treat the stormwater could be injected through a container of liquid, through pipes, and into the treatment stream.

- The State of Michigan is interested in finding out if chloride can be removed from the stormwater. The State of Michigan provided a permit for the original stormwater treatment design, and they need to be informed if the design is updated. The changes would be submitted to the EGLE (Environment Great Lakes and Energy) staff for approval.

- **Ms. Heasley, supported by Mr. Kienle, moved to have the Council accept the grant funds from the State of Michigan in the amount of $550,000 for the Asylum Lake shovel-ready, stormwater project. The motion carried unanimously.**

- Mr. Lemberg inquired regarding the cost estimate on a yearly basis and if the Council would pick up the cost. Mr. Kieser stated that the original bid of $379,000 was more than what the Council approved, and the project was put on hold. The engineering updates and construction costs will be paid from the remaining $499,000. The monitoring infrastructure might include an access port for sampling, rather than a manhole cover and that might be included in the cost, which should be fairly low.

- Something the size of two, 55-gallon drums might be used in a season or two for the substance that is injected into the system for the passive capture of chlorides. The estimated cost for that would be a couple hundred dollars. There will also be a capture device for sediment. City of Kalamazoo staff will clean out the sediment; that cost will not accrue to the Council. If the plan works, there should be a fairly low yearly cost to capture the chlorides in the stormwater.

- Mr. Kienle inquired as to how this project is scaled. If someone builds on the south side of Stadium Drive, will the project be scaled to support the additional run-off? The response to that question was deferred until later in the presentation.

- Mr. Strazdas introduced Matt Reeves to provide details about the chloride removal project.

- Matt Reeves is a Hydrogeologist with a strong geochemistry background. He has focused on contamination issues, including radioactive releases on a Nevada test site. He worked on a road salt project at Spring Valley Lake to study how much of the road salt is moving through the watershed and into the lake and how much is captured by city wells. He also does work on PFAS. He directs the hydrogeology field course with his colleague Tom Howe; Asylum Lake is their home base.

- Mr. Reeves spoke with Mark Kieser about nine months ago regarding road salt (chloride) removal at Asylum Lake. They have some ideas about the chloride removal process. They are also working on details regarding the non-disclosure agreement to respect intellectual property.

- Injections of alum into the stormwater stream are under discussion. They are trying to promote reactions that will remove the salt from the stormwater. It is a novel idea, and they are uncertain if it will work. The pH acidity is an issue and that will be taken into consideration as the design is developed.

- Bench scale testing will be done in addition to the laboratory tests. They will look at the concentration of chloride in the stormwater and how much could potentially be removed. Stormwater flow is intermittent; it is happening in the winter months, so timing of the treatment needs to be considered, as well as temperature. The research will be basic in the beginning and then get more complicated as the project progresses.

- Mr. Reeves is looking into bringing on a masters-level graduate student to help with this project. Dr. Dan Cassidy and Matt Reeves work closely together on PFAS and bench scale testing in the laboratory. They will look at the specific chemistry of the stormwater to see what is dissolved in it and what might potentially complicate or hinder the reaction.

- They plan on having this project serve as a masters student’s thesis. They are seeking two years of funding for the masters student, which would be a majority of the project, a week’s salary each for Mr. Cassidy and Mr. Reeves, and costs for laboratory consumables and equipment. They will be working with Mark Kieser and his colleagues. Kieser & Associates will provide the stormwater samples to be analyzed. They will probably talk with Mr. Kieser every other week and have meetings every four to six weeks.

- Dr. Lemberg suggested if the chloride removal process works, maybe the process could be taken a step further and used to treat the water in Asylum Lake. We know from previous reports that the depths of Asylum Lake are a noxious saline mess. He inquired if the water in Asylum Lake could be pumped out of the depths of the lake and treated to make the lake healthy again. There is only a 10-foot deep, livable layer at the top of the lake.
• Kieser & Associates will monitor the lake and the system performance. If they can successfully remove chloride from the stormwater, they will look at what to do about the lake but that is down the road.
• **Mr. Lemberg, supported by Mr. Weiss, moved to allocate $225,000 of the Council’s funding toward the research project regarding chloride removal at Asylum Lake. The motion carried unanimously.**
• Mr. Reeves stated that the $225,000 would be distributed between Kieser & Associates and the research at WMU. Mr. Kieser & Mr. Reeves are working out the budget; Mr. Reeves thinks he needs around $92,000. He is looking for a graduate student to start right away. He will need money soon to get started on the project.
• Mr. Strazdas suggested that Mr. Kieser and Mr. Reeves put together a written budget and present it to the Council.
• Mr. Kieser stated that $4,000 is needed to revisit the value engineering discussed with the stormwater committee. By the time the Council meets next month, there should be more details available. Kieser & Associates needs approval to look at the engineering piece, which has a January deadline. They hope to bid the project out in February.
• **Mr. Kienle, supported by Mr. Scott, moved to allocate $4,000 from the remaining $499,000 of the grant money, for Kieser & Associates to begin the re-engineering on the shovel-ready stormwater project. The motion was approved unanimously.**
• Mr. Scott mentioned that the Council does not usually meet in December because of the holidays.

## ii. Land Management Plan Committee.
• Mr. Heslinga has not received the ecological study update or some of the data regarding phosphorus or the water quality of the lake. The Land Management plan needs to include that data. It was suggested that the Orbis document should be shared with Justin Heslinga. The Council needs to know how to manage the land based on what has happened in the past.
• Mr. Heslinga sent the draft management plan to the subcommittee (Ms. Huxmann, Mr. Kreuzer, Ms. Chase and Mr. Scott) and requested comments. Mr. Kreuzer forwarded the plan to the Council and provided feedback to Mr. Heslinga. He suggested anticipating what the future issues might be regarding light, sound and noise and be proactive in dealing with those issues. Mr. Sauber requested that Jennifer Heilman send that information to the Council.
• Mr. Sauber will ask Mr. Bassett and Mr. Heslinga if they can provide a presentation to the Council at the November meeting. The presentation will probably take 45 minutes to an hour.
• It was suggested that the Council members filter their ideas through Mr. Bassett and copy Mr. Sauber.

## iii. Ecological Study.
• Orbis has the data for the study, and they will summarize it. The report should be available soon for the Council to review.
• The contractor did data points to show what is in the field, wooded and non-wooded areas. The earlier studies are on the Asylum Lake website. The last study was done in 2008. The contractor is using the same transects as the 2008 study. The report will show the previous data and what is there now.
• Ms. Heasley commented that Phragmites is an issue in the Great Lakes region. She would like to know if there have been successful efforts to deal with it. She suggested connecting the information from Orbis to educational opportunities for students; that could be a future conversation.
• Mr. MacNellis mentioned that the Great Lakes Phragmites Coalition provides updates about what is happening with the Phragmites. Mr. MacNellis and Ms. Huxmann will provide the information they gathered about Phragmites at Asylum Lake to Mr. Sauber so he can forward it to Orbis.
• Mr. Strazdas offered to work with Ms. Heasley to coordinate a two-hour forum for Orbis to present information to the Council, to local college students and to the community.

## iv. Ecological Maintenance.
• Mr. Sauber forwarded a map from Bill Schneider at Wildtype to the Council. The contractor is working on reducing the invasive plants at Asylum Lake. The map shows where they are working. Mr. Schneider will update the map with a summary of what they have done and what they plan to do. They have mostly worked on the Locust and some other invasives but not the Phragmites.
v. Sign Committee.

- No report.

vi. Trails Management Committee.

- The following Council members serve on the Trails Management Subcommittee: Tom Sauber, Paul Scott, John Kreuzer, Judy Huxmann, Paul MacNellis. The subcommittee reviews information regarding the trails and infrastructure in the Preserve, such as the beaver deceiver, the spillway, the parking lots, etc.
- There are five trail projects. The subcommittee has been focusing on how to strengthen the main trails that would support emergency vehicles, etc. Work on the trails has been put on hold as other more urgent matters have developed.
- There are four projects, which are not ready for full presentation at this point. Mr. MacNellis stated that the other four projects are around the spillway, which is the culvert that goes from big Asylum Lake to Little Asylum Lake. There is erosion above the culvert on either side of the seating area. One side is a natural slope down to the inlet. The other side was fortified with fieldstones and boulders. Someone decided that the boulders looked better in the stream, and they had to be returned to their original location. Efforts to prevent that from happening again have not been successful.
- Landscape architects, O’Boyle, Cowell, Blalock & Associates, and environmental engineers, Prein and Newhoff, were hired to assist with trails projects in the Preserve. OCBA has proposed using step stones to help fortify both sides of the culvert, the seating area, the inlet and the outlet below. The stones are similar to the ones used at the Winchell entrance to the Preserve but will be more stable because of their size. Some of the step stones might be used on the other side of the culvert where there is currently no erosion control.
- The area by the outlet, near the bench and the fieldstone steps, is also eroding. The contractor is suggesting trail modifications for that area, possibly installing a French drain, and redoing the fieldstone retaining feature with stack stones by the bench.
- Mr. MacNellis suggested that the highest priority should be the beach at the west end of Asylum Lake. There is a geotech style treatment there, which has worked great for 16 to 18 years, but it is failing with age. That is a higher priority because it will require moving equipment over the spillway area. It would be preferable not to move the equipment over something that has already been rebuilt.
- Those four projects are 50% into the design phase now. The next phase of the project would be presented when it is 90% complete. That would not include the bid documents, which would be an additional expense. The budget covers up to the 90% design. The subcommittee would request more money from the Council after 90% of the design is completed.
- The expansion of the Parkview parking lot is on hold for now, but the subcommittee is continuing to work through the details of the other four projects. Mr. Strazdas suggested that in a month or two, enough details should be presented to the Council so that funds can either be allocated for these projects or they can be put on hold for now.
- Ms. Chase mentioned that she has seen children who want to play in the water below the spillway. She inquired if it would be possible to accommodate that or if that would not be advisable. Mr. MacNellis expressed concern about possible liability if people are encouraged to play in that area. A Preserve should remain as natural as possible. It would be preferable to not have a beach environment. If the area remains natural, that limits the liability.
- Discussion followed regarding the five trail projects. It was suggested that the trails subcommittee should establish priorities to present to the Council. Concern was expressed that discussions continue but no motions have been made that would allow the contractor to start on any of these projects.
- The Parkview parking lot expansion has been discussed in conjunction with the recent ban of on-street parking at the Winchell entrance.
- Mr. Strazdas commented that the Council did approve funding for the subcommittee to come up with ideas for trails projects. The Council would like more details, a budget, and a final recommendation about these projects before they make a motion.
vii. Water Quality Testing with WMU Class.

- No report.


- On September 30th Ms. Shattuck attended a meeting of the Native American Affairs Council. This group is affiliated with WMU and the local tribes. She asked about a good process for reaching out to the three local Potawatomi bands about participating on the Council. They said it would be better to form an advisory committee rather than being on the Council.
- They advised reaching out to the heritage divisions of the three local tribes regarding historical use of the land and the presence of those communities at Asylum Lake. Someone at the meeting who represented the Native American Student Organization suggested that Native American students could get involved in the process regarding new signage for the Preserve. Ms. Shattuck will follow up on that suggestion.
- Mr. Strazdas stated that the bylaws would not need to be updated if additional voting members are not being added to the Council.

VII. NEW BUSINESS.

a. Application for Preserve Use.

- Nothing new has been presented for approval. The previous request was approved by e-mail vote.

VII. NEXT ONLINE MEETING.

- The next online meeting is scheduled for November 10, 2022.

VIII. COUNCIL/STAFF COMMENTS.

- Mr. Sauber spoke with Allen from Fulton Excavating about the beaver deceiver. They will meet on-site Monday around 1 p.m. The existing pipe is plugged; the new pipe has been ordered. The contractor is hoping to install the new pipe this fall.
- The beavers built a dam at Asylum Lake. A cage (beaver deceiver) was created around the spillway. Beavers don’t like running water, so they blocked off the area by the cage. There is a pipe under that area and the water continues to run through the culvert. The pipe is only 20 feet long and it has become plugged with sediment. The contractor will install a longer pipe, so it isn’t continuing to clog up. The objective is to have the beavers remain at the Preserve and keep the water flowing through the pipe.
- Mr. MacNellis encouraged the new members to go to the Asylum Lake website to review information. There are lots of reports, maps, and research posted on the website. It is helpful to be familiar with the issues that come up at the meetings.
- Mr. Scott advised that he could respond in writing to the ALPA (Asylum Lake Preservation Association) letter regarding the expansion of the Parkview parking lot. The Council received a communication from the City and that can be added to the next agenda.

IX. PUBLIC COMMENTS.

- None

X. ADJOURNMENT.

- The meeting adjourned at 8:58 p.m.