I. CALL TO ORDER AND ZOOM ROLL CALL.
- The meeting was called to order at 7:00 p.m.

II. EDITING AND ADOPTION OF AUGUST 13 2020 AGENDA.
- Add discussion regarding the West bank by Winchell under new business.
- Mr. Kreuzer, supported by Ms. Alkema, moved approval of the August agenda as amended. With a voice vote, the motion carried unanimously.

III. EDITING AND APPROVAL OF MINUTES FROM JUNE 18 2020 MEETING.
- The following changes were requested: Page 2, 5th bullet from the bottom regarding the sign proposal, Kim's last name is Nelson.
- Mr. Strazdas, supported by Ms. Holmes, moved approval of the June Minutes as amended. With a voice vote, the motion carried unanimously.

IV. OLD BUSINESS.
   a. Buying Haji Tehrani's parcel C not ripe for update yet.
      - There were previous discussions through Mayor Anderson with regard to the possible purchase of Parcel C of the former Vermeulen property.
      - Mayor Anderson advised Mr. Hampton that this process is moving slowly. Mayor Anderson will provide an update if there is anything new to report.
   b. 30-minute presentation by Mark Kieser on water sampling results.
      - Mr. Kieser presented a map showing drainage areas near the U.S. 131 interchange, Stadium Dr., the BTR Park, along Drake Rd. and the former K-Mart parking lot, which are near the Asylum Lake Preserve.
      - Three contributing areas were monitored since the January presentation, along the west and east side of Drake Road down to a low point, and another area that is mostly undeveloped.
      - The green areas on the map are contributing flows from the MDOT/U.S. 131 property. The red/pink area on the former K-Mart property and to the northwest by the Trader Joes development are also contributing flows.
      - There were four critical collection areas for water quality and flow information near the wetland areas that come into Asylum Lake, including MDOT check dam #2. The runoff from the MDOT/U.S. 131 concentrates in a channel, overflows the rock check dam and overflows. The water comes into the existing pond, which flows east under Drake Rd. and into Asylum Lake.
      - There is also an Asylum Lake inlet, which is a major culvert that collects storm water from several areas, including the area to the north.
      - The storm water that flows down Drake Rd. works its way west, through the retention pond. The small culvert is a diversion that comes off the drainage from Drake Rd. There is not a lot of flow that comes under the road in that area but it is untreated.
      - The retention pond has filled in over the years but it provides effective treatment for filtering the storm water that comes through it.
      - The water coming from the north (former K-Mart area) and from down the road is totally untreated. Ninety-nine percent of the storm water flowing into Asylum Lake from these areas is consolidating in a manhole and then flows into the lake.
      - Samples were taken over a three-month period from the water coming out of the pond, which collects storm water from the MDOT/US 131/Drake Rd. areas.
      - A synopsis was presented showing data from samples taken from the first of March through the end of May. There were five, wet-weather events they looked at including a snow melt/run-off event and rainfall.
During an early March rainfall event, the storm water flow tripled once the rain started. A water quality sampling was done during the first flush of storm water. Dirt washes off the land and is washing into the lake.

The data shows there is not a lot of turbidity off the former K-Mart parking lot; there is more turbidity off the west side of Drake Rd.

The data affirms that the estimated concentrations of contaminants were accurate. The water quality sampling data shows conductivity, turbidity, total phosphorus, chlorides and TSS (total suspended solids) information. The current numbers for phosphorus are consistent with numbers from the past.

The data shows that more than 95% of the phosphorus is attached to the sediment. It is much easier to trap and treat phosphorus in the sediment than it is to treat the dissolved phosphorus. The phosphorous contributes to blue green algal blooms in the lake.

The chloride numbers are high, especially in the spring time after a winter with a lot of road salt. Sodium Chloride is one of the primary mixes in road salt and sanding operations. There are high concentrations of chloride in the culvert under Drake Rd.

It is difficult to remove chloride from storm water. Mr. Kieser suggested working with the local municipalities to use more sand than chloride for keeping the roads safe in the wintertime.

There is a 46-acre feed of water volume coming off Drake Rd. A one-acre foot would be a foot of water across an entire acre. Asylum Lake is approximately 46 acres in size. The volume of water coming down the drainage area on Drake Rd. adds a foot of water to Asylum Lake every year. About five feet of water depth would be added to Asylum Lake over a year, just from the drainage areas that were discussed.

Only about five percent of the storm water running off these areas comes from the former K-Mart parking area.

Storm water from the area by MDOT/U.S. 131, Drake Rd. and the BTR Park comes to the lake from the culvert on the west side of Drake Rd. The largest volume of water comes off U.S. 131 and Drake Rd.

Over half of the phosphorus going into Asylum Lake is coming from the MDOT/U.S. 131 area. About 25 percent of the phosphorus is coming from the Drake Rd. area and another 25 percent is coming from the intersection and the former K-Mart area.

The wet retention pond on the west side of Drake Rd. is helping filter out about 75% of the phosphorus from the areas that drain into the pond. The K-Mart area is only about 5% of the flow but it is over 50% of the total contribution of phosphorus going into Asylum Lake, unfiltered, from the north.

Much of the sediment drops out in the retention pond with the attached phosphorus. The retention pond is about 85% efficient for treating storm water. That pond is protecting the lake from areas with the largest concentrations of phosphorus.

The area to the north is unchecked and untreated and it goes down Drake Rd. and into the lake. That is the largest load coming into the lake and there is currently no treatment for it.

The Barracuda sediment traps being used in Kalamazoo capture about 50% of the sediment but they have to be cleaned out or they will be overwhelmed. The traps are next to the roadway and accessible. Sediment from the traps would fill a couple of ten yard dump trucks; the water from the traps gets passed on.

Another sediment fore bay could be installed to deal with the fine sediment. As the sediment drops out, it goes through a small infiltration trench. A low berm would be created by digging out soil that is already on the property. This system would include a drainage pipe surrounded by a two-foot-square area of stone. The ground would be used as a final polishing treatment. This would treat 100% of the largest area of storm water run-off and phosphorus that has been going into the lake.

This system would capture about 420,000 gallons before it would overflow to the lake. That is a flow of about 2.5 cubic feet per second. The highest flow observed during the spring time was a little over one cubic foot per second. This system could be installed by the base of the hill on the north side of the Asylum Lake property.

The treatment footprint requires about 10% of the drainage area. For example, 60 acres of drainage area would require six acres of infiltration.

The Barracuda treatment systems are certified to remove 50% of sediment with normal maintenance. According to the map, the treatment trench would be at 870', which appears to be at the edge of the wetland, it wouldn't necessarily be built into the wetland.

The potential cost for the treatment system is estimated to be around $78,000 dollars. The hardest part is installing the Barracuda traps next to the road.

The pond on the west side of the road could be dredged to make it deeper, which would improve the treatment quality. There is only about a foot and a half of water there now.
• A new sediment fore bay could be created off the highway by the rock check dam, the high volume of storm water in that area entrains new sediment. This would require digging down three feet; the soil would be used to create a three-foot high berm below BTR2.

• This is a simple approach that would not require a pump. It would be gravity fed because it's on a down hill slope. Rock check dams could be installed to slow the velocity of the storm water that flows to the west from Drake Rd. back to the pond. The intention is to try to enhance what is already working. The current storm water treatment is 75% to 80% percent effective as it is.

• Sediment from the storm water flow has filled in a portion of the pond over the past 50 to 75 years. It could be another 50 years before the pond fills in entirely. As the pond continues to fill in with sediment it becomes less effective at treating the storm water.

• Mr. Kieser suggested removing five feet of wet sediment from the pond; those soils could be placed north of the pond and spread out.

• This proposed treatment system is more expensive, approximately $100,000 for dredging and $110,000 plus for the fore bay. There is currently good treatment for the pond, but it will eventually fill in.

• It was recommended that expenditure for storm water controls should be focused on the area by the former K-Mart parking lot. Storm water from that area is approximately 5% of the storm water volume coming into Asylum Lake but it is almost 60% of the untreated phosphorus coming into the lake.

• The soft berm and the small trench will vanish into the landscape within a couple of years and should require minimal maintenance.

• It was suggested that efforts should proceed with at least one of these options over the next five to ten years. Dredging the pond would buy some time. The sediment fore bay could extend the existing treatment.

• The final report from Kieser & Associates should be available in the next couple of weeks.

• Mr. Hampton inquired as to the affect of chloride and phosphorus on the ground water near Asylum Lake. Mr. Kieser advised that there are concentrations of chloride in the ground water near roads that are maintained with road salt in the winter. The chloride moves with the ground water, nothing in the sediment holds the chloride.

• The culvert that extends down the hill from Drake Rd. breaks off and goes under the road to the lake and that area has some of the highest sodium chloride concentrations. Most of the road salt is in the surface water, which eventually goes into the lake.

• Long-term, ground water monitoring was done in Portage, which revealed that sodium chloride was in the ground water near retention ponds at major intersections. They shifted to more sand mixes at the major intersections to help mitigate this issue.

• Mr. Micklin inquired if someone could ask the store owners at the former K-Mart area to put in retention ponds to slow the amount of flow coming off the parking lot. Mr. Kieser stated that question has been posed to them before. There is a push with State and Federal agencies for source control, which typically only comes with new development or redevelopment.

• Where WMU had capital improvement projects or a parking lot is being totally redone, they have put in the infrastructure that helps reduce the surface run-off, but they have full control of the land.

• Mr. Strazdas commented that, given the current economic conditions, this project is probably toward the bottom of the list of things to be addressed by any of the property owners that are involved. He suggested that the data should be shared with local leaders, MDOT, the City and County of Kalamazoo, and property owners around Asylum Lake. Education is the next step. We need to get in the queue with the data and for future planning and grants.

• Ms. Holmes referred to the recommendations for area one to the north of Asylum Lake. It appears that project would be on Asylum Lake property and, therefore would be paid from the ALPMC funds. Should other entities contribute to that project?

• Mr. Strazdas stated that some of the run-off to the Asylum Lake Preserve might be coming from properties owned by other entities. This might create legal issues that would need to be sorted out, depending on who takes the leadership role, who spends the money, who collects the material on WMU property, etc. The Council might not be in a position to spend money now but they can share information with others. Maybe the roadway owners will contribute to the project or maybe the Council will take care of it.

• It was suggested that someone should determine how much the cost will be for having the City clean out the Barracuda boxes. Mr. Kieser advised that cleaning out the Barracuda boxes is an inexpensive part of the routine maintenance for the municipality which maintains the storm water cleanouts.

• Mr. Kieser confirmed that storm water has been considered non-point pollution. From a regulatory definition, most storm water is starting to be included in the point source category.
• Ms. Alkema suggested that Kieser & Associates could assist with the education that is provided to other entities. Mr. Kieser was agreeable with providing that assistance. It is important to have good information to act on.

c. **Overuse/abuse of the Asylum Lake Preserve, including lack of social distancing, picnicking, trash, parking on Parkview, joyriding resulting in replacing railing by culvert that connects the lakes, use of rubber bungees on entry gates, and exposure of landscape services personnel.**

- Joy riding resulting in damage to the railing and bench where the culvert links Asylum Lake with the creek that flows into Little Asylum Lake. The railing has been replaced. Mr. Sauber suggested using rubber bungees to close the gates at the Parkview and Drake parking lots. The bungees would be easy to remove if an emergency vehicle needs to access the Preserve.
- Use of the Preserve has been lighter and there has not been as much damage recently. Bags with dog poop have been observed in the weeds next to the trail. It might be helpful to have additional trash cans so people have a better place to put the bags.
- Erosion of the trail by Parkview is significant. The erosion flows into the lake by the lily pads. This matter was referred to the Trails Committee for further discussion. This has been an ongoing situation and the Trails Committee is concerned about it.
- Mr. MacNellis will look into the erosion issue and provide feedback to the Council. The Trails Committee is scheduled to meet with a representative from O'Boyle, Cowell, Blalock & Associates to discuss designs he has for another area where erosion is an issue.

d. **PMac updated the map for the Herpetologic study. If someone can manipulate the PDF, it could be posted on our website.**

- Mr. MacNellis removed information regarding the locations of threatened/endangered species in the Preserve. He needs someone to update the PDF with the current information so it can be posted on the website. If the old map can be removed from the PDF, the new map could be posted on the website as a separate document.
- The updated information was provided to Mr. Frever and Mr. Deleonabreau. Mr. Deleonabreau graduated and is no longer with WMU. Mr. Frever advised that IT personnel are available to assist with the updates until another administrative person or a student can be found to help with the website.
- Mr. Hampton offered to assist with the updates as soon as he is allowed to return to his office which will, hopefully, be in September.

e. **The proposed sign design was approved by everyone who voted, which represented a majority of the Council.**

- Mr. Hampton reported that a majority of Council members voted to approve the proposed signs for the Preserve that were submitted by the Sign Subcommittee. The signs have not been installed yet.

V. **PROJECT/SPECIAL COMMITTEE REPORTS.**

a. **Any applications for using the Preserve?**

- Postponed to next meeting.

b. **Signage Committee photos of sign locations & other ideas to discuss. Optical code for sign, website.**

- Ms. Huxmann stated that Sign Subcommittee is proposing to install the new sign at the current location of the shadow box, near the tree by the Drake Rd. entrance. The shadow box would be reinstalled in a new location. A couple of the other signs by Drake Rd. would be lowered and other minor changes would be made.
- The sign contractor will install/relocate the signs. The intention is for the cost of that work to be included in the quote.
- The new sign by the Parkview entrance should be installed to the left beyond the fence. That is best line of site and would not be obstructing other elements in that location.
- To emphasize the shadow box in the back, the color would be changed to something brighter such as WMU yellow other another color if the Council has a suggestion. The intention is to spruce up the shadow boxes and use them for announcements. The area around the rock would also be cleaned up.
- Mr. Kreuzer suggested that the original, white welcome sign by the Parkview entrance could be located to the Gibbs Street entrance.
Mr. MacNellis mentioned that the shadow boxes are made of recycled plastic and they don't take paint well. They would have to be painted every year. Mr. Kreuzer stated that the shadow boxes are hard to see because they are in dense shade.

- The Council paid for the Falk memorial tree which is screened by grasses and weeds. That area could be opened up to be more presentable. The bike rack is not cemented down.
- There was a discussion at the ALPA meeting about the possibility of having a community effort to clean up the weeds at the Parkview entrance and around the Falk memorial tree. The ALPA would be willing to take care of that. Ms. Holmes suggested scheduling the work day on September 21st.
- Mr. MacNellis offered to deliver wood mulch to be placed around the tree. The tree needs to be trimmed but he will wait until late fall to help prevent Oak wilt.
- Ms. Holmes, supported by Mr. Strazdas, moved to proceed with installation of the new signs for the Preserve with locations as proposed. With a voice vote, the motion carried unanimously.
- Ms. Huxmann stated that the subcommittee also discussed additional signs they would like to have installed, such as the diamonds for the trail and the please-pick-up-the-dog-poop signs. They would also like to have signs to mark the cottages and the outbuildings that have remnants, the mother oaks in the woodlands, the blackberries, and signs on the north shore to warn of the nesting area. Further discussion was deferred to a future meeting.

c. Clean dead spider out of Winchell shadow box.
- Ms. Holmes stated that the ALPA members would be happy to monitor the shadow box, clean it up and put up current information for better presentation. They need a key to get into the box.
- Mr. Hampton suggested doing the updates to the shadow box on the same day as the September clean-up. Someone could be there with a key that day. Mr. MacNellis has a key; the shadow boxes are all keyed the same.
- Mr. Strazdas stated that there is no need to vote on items people are volunteering for. There are keys for the shadow boxes at the physical plant also.

d. Trails Committee will meet to go over OCBA suggestions.
- Postponed to next meeting.

VI. NEW BUSINESS.
a. Updated management plan.
- Postponed to next meeting.

b. We need garlic mustard removal plan for 2021.
- Postponed to next meeting.

VII. NEXT ONLINE MEETING – SEPTEMBER 10TH OR OCTOBER 8TH?
- Mr. Hampton will reach out to Mayor Anderson to find out if he has any updates regarding Parcel C of the former Vermeulen property. If there are updates, the Council can meet in September. If there are no updates on Parcel C, the Council can meet in October.
- Ms. Alkema commented that there are many things to talk about; she suggested that the Council meet in September.

VIII. COUNCIL/STAFF COMMENTS.
- None

IX. PUBLIC COMMENTS.
- None

IX. ADJOURNMENT.
- The meeting adjourned at 9:07 p.m.