



Higgins Lake Property Owners AssociationSM

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President: Charlene Cornell, **Vice Pres:** Greg Semack, **Secretary:** Herb Weatherly, **Treasurer:** Bruce Carleton
Directors: Wayne Brooks, Jack Cornell, Curt DeVoe, Becky Gibson, Bob McKellar, John Ogren, Fred Swinehart

Higgins Lake Property Owners Association
January 16, 2023, Board Meeting Minutes
ZOOM Virtual Meeting

The meeting was called to order by President Charlene Cornell at 9:02 A.M.

Board Members Present: Charlene Cornell, Greg Semack, Bruce Carleton, Herb Weatherly, Bob McKellar, John Ogren, Fred Swinehart, Becky Gibson, Curt DeVoe, and Jack Cornell. Wayne Brooks was absent.

Agenda: No changes.

President's Comments: Charlene thanked members Dave Hall and Phil Czech for answering her request for lake pictures for our winter newsletter.

December Minutes: The December 19, 2022, Minutes were accepted as written.

Committee Reports:

Secretary/Office: None.

Treasurer's Report: The preliminary direct financials through December 31, 2022, were presented. Bruce noted that expenses for the year exceeded income by \$2,300.00 and we posted a negative variance to the 2022 budget of \$4,450.00. The deficit was due largely to the unbudgeted \$7,500.00 excess spent for the lobbyist with an appropriate adjustment made in that category for the 2023 budget. Bruce then commented on several other notable items on the draft budget and asked for comments. A motion was made by John to accept the 2023 budget, seconded by Herb. Motion passed.

Membership & Communication: Becky stated that the winter newsletter is nearly completed and hopes that it will be sent to members next week. She will add a due date of May 1st for memberships to be included in the 2023 member directory.

Riparian Committee:

John reported that a meeting is scheduled with Jennifer Jermalowicz-Jones of RLS (Restorative Lake Sciences) on January 24th to review the preliminary 2022 report to understand findings and recommendations. HLPOA participants are Charlene, Greg, Fred, and John.

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Environmental Committee: Fred reported the following:

MDHHS Fish Consumption Advisory Published for Higgins Lake

Last year a study was conducted by the Muskegon River Watershed Assembly and showed a low level of dangerous PFAS chemicals in Higgins Lake. The results did not indicate an acute problem for human exposure, but there was concern for bioaccumulation in fishes. So, samples of Rainbow Smelt and other fishes' flesh were sent for PFAS analysis. The results for Rainbow Smelt have been completed, and the levels of PFAS was high enough for concern regarding human consumption. The Michigan Department of Health and Human Services has issued a recommendation that no more than four servings per month of Rainbow Smelt from Higgins Lake be consumed. Results or guidance for other fishes have not yet been announced.

An Important Environmental Study Posted on the HLPOA Website

The 2016 Final Report to the Muskegon River Watershed Assembly, entitled the "Ecohydrologic Evaluation of Removing the Higgins Lake-Level Control Structure", has just been posted in the **Water Level** sub section. The focus is on the effects of lake and Cut water levels on the local sport fishery. Conclusions from this very rigorous study by MSU and U of M researchers are summarized below:

"In the context of ongoing discussions of water level management in Higgins Lake, the impacts of changing water surface elevations on fish and the regions valuable fishery have been largely overlooked. This study provides MDNR with the first quantitative analysis of the relationships between managed lake elevation and fish habitat features, both in Higgins Lake proper and in the downstream Cut River channel. Based on responses of habitat suitability models to changes in water level and discharge to the Cut River, we draw the following conclusions:

1. The range in the water level targets currently being discussed for Higgins Lake are small enough that none of the scenario levels, including dam removal, are likely to substantially change habitat conditions for the lake fishery.
2. In contrast, the Cut River appears to be quite susceptible to low flow disturbance and discharge. The Cut is quite sensitive to variations in both outlet configuration and Higgins Lake water surface elevation.
3. Based on the RAS (U.S. Army Corps of Engineers River Analysis System) modeling for the study reach and subsequent WUA (Weighted Usable Area) analysis, a minimum 50 cfs (cubic feet per second) seems a reasonable target flow rate to protect downstream fishery values.
4. Flows of 100-150 cfs are likely necessary to provide optimal habitat for key species."

Please look at the "Water Level" section of the HLPOA website to read the report of this foundational work. It has important relevance for considerations of new dam designs.

Project to Monitor Water Flow Rates in the Cut River

The HLPOA Board discussed the purchase of a turbine flow meter to facilitate a monitoring project for the Cut River. Flow Data would be taken throughout the year from below the Dam at the lake outlet and at the CCC (Civilian Conservation Corps) Bridge where the MRWA (Muskegon River Watershed Assembly) project was conducted. The intent would be to establish a baseline data record for flow in the Cut for future considerations.

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Such a unit would cost approximately \$1200.00 - \$1500.00. Jack offered to purchase this instrument for the HLPOA, so we could gather this information ourselves. Data collection, via volunteers, will begin as soon as equipment is secured, and a measuring team is identified and trained.

Are Pharmaceuticals in Some Higgins Lake Residents' Drinking Water?

In consultation with the Central Michigan District Health Department, in early January, a letter was sent by them to a small number of residents whose wells have been tested previously and found to have high levels of nitrates in their water. If these individuals would be interested in having their wells re-tested at no cost to themselves for pharmaceutical or personal care product contamination, they were asked to correspond with Fred Swinehart of the HLPOA for further information. Quoting from the body of their letter:

"On September 22, 2022, Higgins Lake Property Owners' Association in collaboration with Michigan State University collected and analyzed numerous water samples from nearshore areas on Higgins Lake. These samples were analyzed for the presence of 30 different Pharmaceuticals and Personal Care Products (PPCPs). A total of 19 of these products were detected in the water samples including antibiotics, seizure medications and caffeine derivatives (visit <http://hlpoa.org/higgins-lake/environmental-lake-level/water-quality/http://hlpoa.org/higgins-lake/environmental-lake-level/water-quality/> for more information).

Although the quantities of the products that were detected are not believed to be a concern to human health, bioaccumulation of these products can be toxic to other organisms so further research is important to implement proper control methods for the source of these contaminants. Since Higgins Lake is primarily fed by groundwater, it is likely that these same products can be found in the groundwater. To verify this, the next logical step is to test water wells in the area for the presence of PPCPs. "

We are currently awaiting responses from the recipients of this correspondence.

Are Human Sourced Endocrine Disrupters Present in Our Ground Waters?

Low levels of the synthetic estrogen (EE2) that is used in human birth control drugs show a serious negative impact on male fertility and lowered resistance to fungal and bacterial illness in some fishes, including rainbow trout. About 90% of this chemical, once ingested by humans, is excreted into their waste streams. In the Higgins Lake watershed, it then goes into septic drain fields. EE2 is very resistant to biological degradation, and so likely passes unaltered into the near shore waters of our lake just as pharmaceuticals do. (cf. Rehberger, Wernicke, Bailey, Bregy et al. 2020.)

We are currently working with the Grayling office of the US Geological Survey to do a study similar to the general pharmaceutical study just completed, but to focus on the presence and the extent of EE2 contamination in Higgins Lake. The USGS water science center in Colorado has the analytical capability to do this work. Funding support to do this study will be required.

2023 Student Environmental Monitoring Program for Higgins Lake: This project is planned to feature the Roscommon Area Public High School's STEM (Science, Technology, Engineering and Math) program once again. John Blizzard and members of the High School's staff are meeting this month to organize the sixth year of the program. Funding to support continuation of this valuable program will be sought from several area benevolent organizations and interested individuals.

PAC: Greg reported the following:

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We will be meeting on January 27th to discuss local politics and our potential involvement for the year. Such things as the sewer project, the new Lyon Township board, the potential recall election in Gerrish Township, the new Board of County Commissioners, will be discussed. We will also discuss the lobbying that has been done and what may be looked for from the lobbyist in the future. Looking for some discussion here among our HLPOA Board about the AIS situation and potential lobbying on its behalf. Sam Boumis represents the Michigan Aquatics Management Association and is very familiar with AIS issues.

We are planning to have an update meeting with Sam and Dave Udy soon just to bring Sam up to date in case he should be asked to be more involved again.

For now, Sam says that the legislature had a ceremonial session last Tuesday and things are now starting to be determined as to committee structures.

HLSIO: Greg reported the following:

We will be meeting with Barb Avers on Friday, Jan 20th and will be discussing any potential restrictions there might be for trapping and relocating ducks this coming season. Also, will be discussion about removing Canada geese. I expect from earlier communications with Barb that we may be facing a situation similar to last year as she told me earlier that the avian flu is still apparent.

Plans are going forward to continue the water study and we may want to ask our members if any want to participate as the season gets closer.

Soon we will have a published paper detailing the trapping and relocating success at Higgins Lake and Crystal Lake that not only should be of interest to other affected lakes in northern Michigan (and other states) but should also strengthen our position with the DNR to be able to continue the program. I will provide a copy of the report when it is available to the HLPOA board. We will also be considering two new research projects. One about the gestation period of the parasite in the duck and two, the possibility of using Praziquantel treatment of the ducks for control purposes in the future.

We are continuing to set up PayPal as a donation method for HLSIO and should have something operational before the season starts.

Ongoing Business: Regarding the sewer project, Curt stated that he had spoken to Dave Udy, who said he is asking the DNR (Department of Natural Resources) to reconsider their rejection of the site for the wastewater plant. Greg added that the GLUA (Gerrish-Lyon Utility Authority) is looking at other areas to determine residents' typical sewer cost, along with how undeveloped properties may be assessed.

Charlene informed us that there will be a Camp Grayling expansion meeting at the Gerrish Township Hall on January 19th at 7:00 P.M.

New Business: Fred suggested to offer HLPOA members the "Higgins Lake Vintage 1930's Map" to sell again this year. Charlene will research cost and quantities.

Adjournment: Herb moved to adjourn the meeting, seconded by Bruce. The meeting adjourned at 10:33 A.M.

The next meeting will be February 20, 2023, at 9:00 A.M.

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