
Bear Lake - Oneida County 2024 Consultation Report

On July 8, 2024, Cason Land & Water Management, LLC biologist Brandon met with Rick Klein and Mic Austin at Bear Lake in Oneida County to discuss lake issues and observe the lake in person, to better give recommendations.

Issues that were discussed during the consultation

- Lake Management Plan
- Aquatic plants
 - Invasive species
 - Navigation issues
 - Mechanical removal
 - Chemical removal
- Sediment build-up
 - Dredging
- Nutrients
- The dam
- Fish
- Natural cycles of lakes

Mic, Rick, and Brandon discussed the aquatic plant issues the lake residents have been bringing up to the board over the last few years. Some residents find the plant growth to be increasing at abnormal rates and causing them distress when trying to use their boats for recreation. Brandon explained that the apparent increase in plant growth is something that varies between years based on length of growing season and temperatures that year. Another cause for increased plant growth is the change in lake use and number of homes around the lake. Homes have septic systems which release nutrient rich water into the watershed and will increase growth of plants and algae in the lake, this along with increased boat use stirring up lake sediments makes a perfect scenario for plants to have new available nutrients and increase growth. The natural aging of the lake also contributes to some of these changes. Every year leaves fall into the lake, aquatic plants die back, animals die in the water, animals live and excrete waste, this all adds to available lake nutrients and lake sediments.

Brandon's observation while on Bear Lake was that there were very few areas that would be considered a "navigation issue". Most of the plants that are to the surface in the center of the lake are native pondweeds and the portion that's above the surface is the flower which is a temporary phenomenon. The plants growing along the shoreline are doing exactly what they evolved to do and are creating habitat for fish and wildlife as well as protecting the shoreline from erosion. If plants were to be removed it would open up areas for invasives to take hold as well as additional nutrients for algae. There are many lakes that have far worse plant problems, many of which were caused by over manipulation of the lake to meet unrealistic resident desires.

It is most likely that WI DNR will not allow much chemical treatment of aquatic plants on Bear Lake as there are so few areas that are causing major navigational problems. They do not allow treatment of aquatic plants for aesthetic reasons. Mechanical harvesting is not recommended for a few reasons.

1. It will be very expensive.
2. It may not be plausible because the “problem areas” are too shallow for a harvester.
3. It may not be permitted.
4. Extremely high risk of bringing in invasive species from another lake. There is almost no possible way to remove all the fragments of Eurasian watermilfoil from a machine that size with that many moving parts. EWM propagates via fragmentation.
5. It is temporary relief if it can be done at all.

There is concern that the dam is causing sediment to slow and build up on the West side of the lake near the mouth of Bear Creek. It is a possibility that the dam could be contributing to the sediment build up but as was said earlier sediment build up is a natural part of a lakes aging, it's more likely that increased lake use is contributing to the increased “muck” in the bays. Having a trained Limnologist or Hydrologist come and measure flow in the lake and near the dam to determine if it is a cause would be a good step to take.

Fish stocking was briefly discussed with Brandon during the consultation. Rick asked the question “If they should keep stocking Walleyes?” Brandon’s response was “If stocking the Walleyes is continually successful and the residents are happy with them, then there is no reason to stop stocking.” It is true that it is very unlikely Walleye will be successful at natural reproduction in Bear Lake so regular stocking will be necessary to continue to have a Walleye fishery.

Summary of Recommendations

- Explain to residents that this is a beautiful and natural lake and trying to manipulate it to meet your desires will open a can of worms and likely make the lake unhealthy.
- Water testing and determine where excess nutrients are entering the lake i.e. outdated septic systems.
- Discuss with DNR if plant removal would be allowed and the costs.
- Find a limnologist or hydrologist to inspect the dam and the lake flow.
- Ask if White Water associates would add an amendment to the LMP to include details as to why they don't believe anything should be done to manipulate aquatic vegetation.

Thank you for your business and for allowing us to perform this service for your district. If you have any questions, please contact me at 920-420-9601 or email BrandonOberleitner@CasonLandWater.com.

Sincerely,
Brandon Oberleitner