

Draft #4 2/4/11

Sawyer County, Wisconsin Round Lake Chain Taskforce Recommendation

This recommendation is presented for Zoning and Conservation Committee review. No committee approval is being sought at this point. It must be noted the recommendation has not been approved by the Zoning and Conservation Committee of the Sawyer County Board nor has it been approved by the full Sawyer County Board. It is subject to change

For the purpose of this recommendation, The Round Lake Chain is defined as Round Lake, Little Round Lake, Osprey Lake and Osprey Creek from the point it leaves Little Round Lake to the point it exits the County NN culverts.

For the purpose of this recommendation "natural" is used to define existing conditions. Although, Osprey Creek has been modified it is assumed these modifications were so long ago the current state is now "natural"

Factors Used in This Recommendation

1. The large amount of storage within Round Lake and Little Round Lake and the small change in elevation, 2.4 feet from the Carlson Road dam to County Road NN, about 1.8 miles, makes it very difficult, if not virtually impossible to effectively manage day to day the levels of these lakes. Consequently, these recommendations are intended to in a passive way decrease the drawdown time during the times of low water and increase the amount of water passed during times of high water.
2. These recommendations are for only those aspects that are under the jurisdiction of Sawyer County. The beaver dams downstream from Osprey Lake have a significant impact on the system but are outside the County's jurisdiction.
3. The presence or absence of the beaver dams is not reliable. Consequently, it is prudent to modify the Carlson Road dam and County NN culverts to retain water in the system at low level and increase the amount of water passed during times of high water in the absence of the beaver dams
4. The Carlson Road dam bridge will need major repair or need to be replaced within the next five years
5. The recommendations do not change the natural restrictions of Osprey Creek.
6. The facts contained in the 12/27/10 SEH letter report are consistent with prior SEH studies.

Recommendations

1. Replace the Carlson Road bridge, removing the existing dam. Replace the dam with a 12-foot span by 7-foot rise reinforced concrete box culvert whose elevation is set at 1343.8 feet. This elevation reflects the physical restrictions in Osprey Creek streambed downstream from the bridge. The new structure has increased capacity over the existing structure so more water can leave Round Lake and Little Round Lake during times of high water. (SHE is checking to see if a reinforced concrete box will be acceptable to the DNR)
2. Lower County Road NN culverts 1.2 feet with the first four inches buried, a net 0.8 feet lowering of the culverts. This will match the riffle downstream from the culverts. Lowering the culverts will let more water leave the system in times of high water in recognition that the new structure at Carlson Road will let more water pass during times of high water. The County will consult with the Tribe about the feasibility of improving the wild rice production in that portion of the creek near the culverts. Wild rice destroyed during the construction will be restored.
3. Petition the DNR to abandon the 1941 order. Alternatively if a legal review determines we need an order, petition the DNR to set the sill of the Little Round Lake bridge at 1343.8 feet.

Cost

Replace Carlson Road bridge, dam removal and related construction (Could be lower if county does work)	\$120,000
Replace NN culverts	\$4,000
Replant wild rice/habitat improvement	\$2,000
Recommended source of funds "Resource Development Fund"	

Next Steps

1. SEH summarizes the reason for the recommended sill level and quantify other data.
2. Review recommendations with attorney
3. Review recommendations with Round Lake Property Owners, the Tribe, DNR and Osprey Lake Association.
4. Develop a final recommendation for the Zoning and Conservation Committee based on input from the interested parties.

Discussion Points

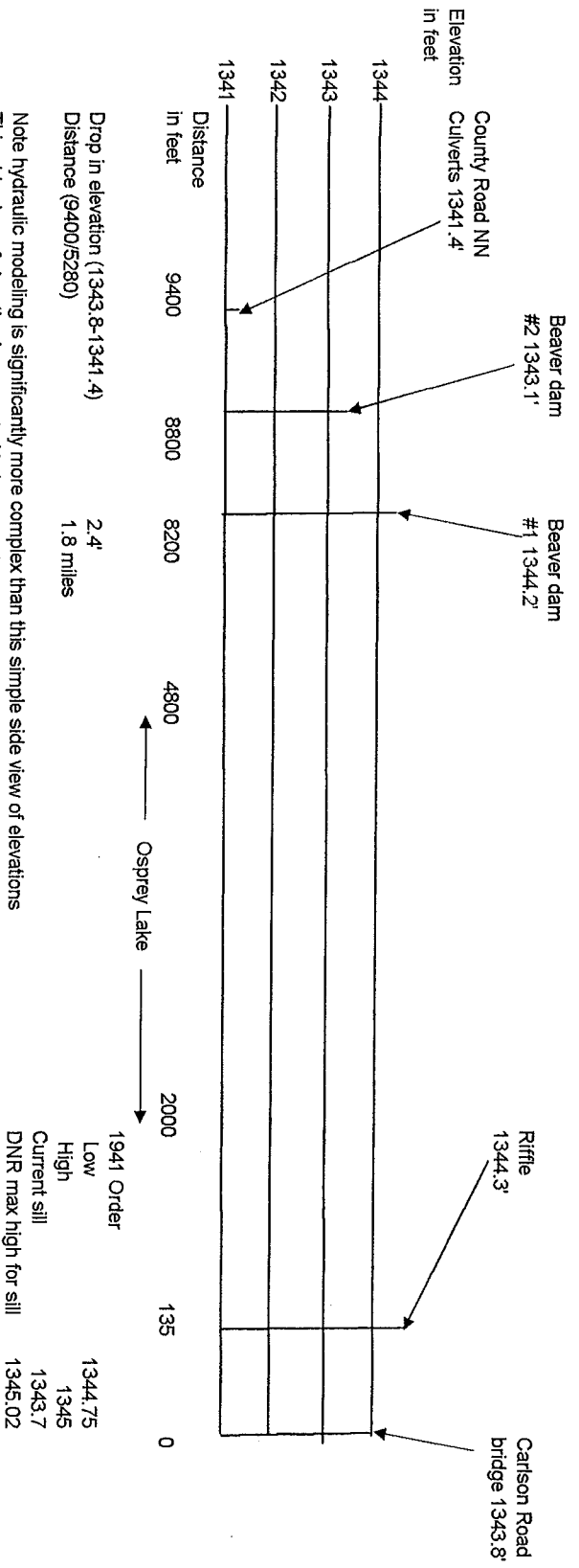
1. In a document prepared by the Round Lake Property Owners one of their recommendations was to lower the riffle just below the Carlson Road bridge. In SEH's opinion the beaver dams would cause the riffle to silt back in. I think (Dale would need to confirm) we could lower the riffle without a lot of cost. If this is an issue for Round Lake, how would the committee feel about lowering the riffle?
2. As can be seen from the "proposed elevations" side view, the beaver dams can contribute to the level of Osprey Lake. One option discussed by the taskforce but not pursued was to construct a dam or rework the County Road NN culverts to act as a dam in the event the beaver dams were no longer in place. The reasons the option was not pursued included:

- It would be another dam that the county would need to manage
- The cost of permitting, engineering and constructing the dam
- The cost of obtaining easements from property owners that would be affected by the new dam.

If it is the committee's wish the taskforce could review the option, develop the pros and cons and develop a cost estimate. If this option was pursued the taskforce would continue to recommend the Carlson Road dam be replaced with a bridge. If this option was pursued, SEH would incur additional fees.

3. There was discussion that the Carlson Road bridge be engineered to carry a 10 ton load assuming that loggers or others may want to take advantage of the increased bearing capacity. What is the committee's opinion?
4. Others may want to discuss SEH's work with them. Does the committee agree? If so, who should bear any additional cost incurred by SEH?

Not to Scale



Note hydraulic modeling is significantly more complex than this simple side view of elevations. This side view of elevation is presented in layman's terms as a simplistic picture of the elevations. Caution should be used when in making any assumptions about the hydrology of the Round Lake chain.