

Energy City Insights – Lake Orono Restoration and Enhancement

You may have noticed the water level of Lake Orono was lower for the past several months, or have witnessed the trucks and machinery working within the lakebed this winter. The Lake Orono Restoration and Enhancement (LORE) project is quickly wrapping up, but some may still be curious as to what exactly was going on out in the lake over the last several months?

Dredging: Removing Accumulated Sediment

Lake Orono is a shallow, 300-acre water body fed by the Elk River which pools by way of a dam, thus creating the lake. Upstream is a large 611 square mile watershed that captures runoff and sediment as it flows down the Elk River. Once that water and sediment gets to Lake Orono, much of it settles and accumulates on the bottom. Over time, this sediment builds up which can result in the aquatic and recreational health of the lake to become threatened, making dredging a good solution to help restore its natural bottom.

Lake Orono was also dredged in 1998. At the time, it was estimated that the lake would refill with sediment in approximately 20 years. During the 2021 dredging currently wrapping up, approximately 125,000 cubic yards of sediment was removed which will increase water depth in many areas. The LORE project will create a deeper catch basin near the inlet of the Elk River (northwest portion of the lake) to catch sediment and hopefully extend the lifespan of this project for decades to come.

Habitat Improvement and Shoreline Restoration

Another major component of the LORE project is the addition of fish and wildlife habitat and shoreline restoration, which will improve the overall health of the lake. There are approximately 900 linear feet of shoreline restoration located in a few different areas around its perimeter. Large tree roots, called root wads, were submerged under water at the shoreline to stabilize the toe of the slope and provide long-term stabilization. These areas will provide great habitat for fish as well, especially juvenile fish.

The city's contractor, New Look Construction also utilized local businesses for some of the materials needed for the shoreline work. Plaisted Companies of Elk River provided approximately 1,200 tons of 2"- 4" river rock, a key part of the shoreline restoration structure.

Looking Ahead

As the dredging work ends, the lake levels will return to normal soon. City staff will again dam the river and refill Lake Orono in early April. Because of the inflow of water from upstream, we expect this process to only take a few days. Some shoreline work will be finished later this spring, including adding live stakes. These are dormant woody plants that will be planted at the transitional areas between the lake and upland, providing solid root structures to further stabilize the restoration areas and create natural shorelines.

Learn more on the project website at ElkRiverMN.gov/LORE.