Fountain Lake Restoration Project

Fountain Lake and its three bays: Bancroft, Dane’s, and Edgewater are central to Albert Lea’s identity and tourism industry. Unfortunately, Fountain Lake has suffered from poor water quality for years, added to the MPCA’s list of impaired waters in 2008, the lake suffers from excessive internal phosphorus loading, overabundant algae, and low clarity. The Shell Rock River Watershed District (SRRWD) and its partners have been proactive in their efforts to improve water quality in Fountain Lake by implementing upstream projects including managing rough fish populations, installing fish barriers, lake reclamations, streambank restorations, and agricultural Best Management Practices (BMPs). While these recent measures have helped improve water quality, overall phosphorus levels remain high.

Internal phosphorus loading can be challenging to control; however, success has been seen with hydraulic dredging. The Watershed District began active dredging in 2018, utilizing $7.5 million in state funds and local option sales tax funds of $9.5 million. This provides for dredging and disposal of the first two phases of the project through 2021 and the removal of approximately 1.2 million cubic yards of accumulated sediment.

The restoration of Fountain Lake is a multi-phased project. The first phase includes removing 617,000 cubic yards of material from Edgewater Bay. After completion in the fall of 2019, the second phase of dredging will commence and include the Main Bay and Dane’s Bay. The third and final phase will complete the project and include Main Bay (East Basin), Bancroft Channel and parts of Bancroft Bay.

Edgewater Bay Dredging Progress To Date
The Shell Rock River Watershed District will be asking the Minnesota Legislature for an additional $7.5 million in 2020 to complete the project, Phase 3 - Main Bay (East Basin), Bancroft Creek and parts of Bancroft Bay.

Additional funds are needed for a successful project. Original estimates of dredge material to be removed was 1 million cubic yards. After final engineering and modeling were completed, it was estimated that the biggest impact to reduce the internal phosphorus load was closer to 1.7 million cubic yards. The SRRWD also added built-in BMPs to increase the longevity of the project and engineered sediment basins at all major outlets. It was hard to estimate the actual cost of a unique project like dredging until it was bid. Original estimates of $5.00 per cubic yard of sediment removed was actually bid between $7.00-$8.00 dollars per cubic yard.

The SRRWD also experienced delays in funding and permitting the project (DNR) and increased acquisition costs for CDF sites and construction. The delay in permitting and increase engineering also contributed to increasing the price of the whole project.

Hydraulic dredging removes the active layer of concentrated phosphorus and exposes sediment with a lower potential for internal loading.

The dredged material from Fountain Lake is then pumped through a 14” pipe to the Confined Disposal Facility (CDF), a dewatering site, and water is ultimately returned via Bancroft Creek.

Three adjacent cells spanning over 100 acres are used for the project. These engineered cells are located north of Interstate 90 and 1.5 miles north of Fountain Lake and can hold over 1.2 million cubic yards of sediment.

Albert Lea’s Local Option Sales Tax, supported by our citizens, has been and continues to be a great tool to assist funding of the Fountain Lake Restoration Project and provide an important local contribution to support the State’s contribution to this significant project.

Confined Disposal Facility

Bonding Request

Local Support