# 2023 MN Watersheds Project & Program of the Year Detailed Award Information Form

1) Award Category (check one)

Project X Program

2) MAWD Region (check one):

One Two X Three

3) Watershed District: Shell Rock River

4) **Project/program name:** Fountain Lake Restoration

5) Nominator (if different from above watershed district)

#### 6) Project/Program Summary (Limit 150 words)

Fountain Lake is a recreation lake located in the heart of Albert Lea. Added to Minnesota's Impaired Waters list in 2008, sediment and associated phosphorus reduced the clarity of the lake and affected the water quality, aquatic habitat, and recreational opportunities. The SRRWD partnered with multiple state and local agencies to reduce sediment loading from the upstream watershed by installing filter strips, grassed waterways, rock inlets, and fish barriers. Streambanks were stabilized, wetlands were restored and, lake were reclaimed. Furthermore, septic systems were inspected and best management practice efforts increased including street sweeping, rain gardens, and rain barrels. While these measures helped, overall phosphorus levels still needed to be reduced. Success was found with hydraulic dredging. The phased dredging project removed approximately 1.2 million cubic yards of accumulated sediment to date. The 3<sup>rd</sup> and final phase will complete the project and remove an additional 600,000 cubic yards of accumulated sediment.

#### 7) Define need:

The need for the project is to improve the water quality for the aquatic life and residents who rely on clean water. Diminished water quality conditions and lake volume create less hospitable environments for aquatic life. Furthermore, as the city of Albert Lea continues to revitalize the downtown area, a healthy lake adds value, opportunity, and recreation.

#### 8) Goal/purpose of the project/program:

Our goal for this project was to remove nutrient-laden sediment to improve water quality and clarity. Internal phosphorus loading can be challenging to control; however, success has been proven with hydraulic dredging.

#### 9) Describe project/program:

Hydraulic dredging removes the active layer of concentrated phosphorus and exposes sediment with a lower potential for internal loading. The dredge does this with a submersible cutterhead and pump that digs in to the lake bottom and sucks up the sediment. Once excavated, the sediment and water travel through a 14" pipe to the Confined Disposal Facility (CDF), a dewatering site. The sediment then settles and the clean water

is treated and returned by gravity via Bancroft Creek. Three adjacent cells spanning over 100 acres are used for this project. These engineered cells are located 1.5 miles north of Fountain Lake and can hold over 1.2 million cubic yards of sediment. A floating weir riser system within the CDF facilitates overall efficient filling and water management.

#### 10) Describe public benefit:

The community of Albert Lea desires improvements to Fountain Lake and have overwhelmingly supported a local option sales tax exclusively for water improvement projects. Fountain Lake and its three bays: Bancroft, Dane's, and Edgewater are central to Albert Lea's identity and tourism industry. The lake is located in the heart of Albert Lea and is a crucial component to the financial, physical, and social fabric of southern Minnesota. Fountain Lake affects not only the quality of life for over 20,000 local residents, but also has regional economic implications. As the city of Albert Lea continues to revitalize the downtown area, a healthy lake adds value, opportunity, and recreation.

#### 11) Watershed plan reference

The Fountain Lake Restoration Project can be found in numerous locations in the comprehensive water management plan. Most notably it is located in section 4.0 Geographical Management Zones and Implementation. Dredging is listed specifically in Table 4-3: Fountain Lake Management Zone for A2, Surface Water Quality and D1, Improve Degraded Aquatic Habitat. By completing the Fountain Lake Restoration Project, the District was able to meet the objectives and goals of the plan by implementing those action items.

#### 12) Was project goal achieved? If so, how was the success measured?

Yes, the Fountain Lake Restoration Project was a success. Success was measured by cubic yards removed. The first and second phases removed approximately 1.2 million cubic yards of accumulated sediment from Fountain Lake. The third and final phase is expected to remove an additional 600,000 cubic yards of sediment. Increased lake depths have successfully accounted for healthier fisheries, aquatic life, and habitat. Success has been proven visually with an increase in healthy vegetation including Lemna and a decrease in algae, specifically blue-green algae. Success has been seen with an increase in recreational use including fishing, ice fishing, boating, canoeing, and kayaking. Number of people on the water has increased significantly via the Community Education Boathouse too. These measures make the lake another step closer to being delisted from the Minnesota's Impaired Waters List.

13) Watershed or water body name to be protected or improved by project or program (if applicable) Fountain Lake and the Shell Rock River Watershed District. This watershed drains to the Shell Rock River at the outlet of Albert Lea Lake, and is the headwaters for the Cedar, Upper Iowa, and ultimately the Mississippi River. Being a headwaters watershed, water quality is reflected by local practices.

#### 14) Watershed or water body information

Fountain Lake is 521 acres in size and is located in the City of Albert Lea. Fountain Lake collects water from 51,200 upland acres and its shoreline is predominantly developed. The max depth for Fountain Lake is 14 feet while the mean lake depth is 6 feet. The discharge of Fountain Lake flows over the dam, into a channel and then flows to Albert Lea Lake. Fountain Lake is rather odd in shape and has many bays. The northern most bay is called Bancroft Bay. This bay is relatively shallow with depths around 2 feet. Near Bancroft Bay is Bancroft Bay Park and Tall Grass Disc Golf Course. A channel connects the main lake and Bancroft Bay and a public boat landing, community boat house and Brookside Park are located here. The western most bay, Edgewater Bay, connects to the main bay under the Hatch Bridge. A second public boat landing is located here. Edgewater Bay is home to South Edgewater Park, Lakeview Park and is where the Albert Lea Ski Club performs. The southern bay, Danes Bay, connects Shoff Park to Fountain Lake. The main bay has many features including two islands:

atherine Island and Dress Island, and many parks including Fountain Lake Park, Pioneer Park, New Denmark Park, Fountain Lake Park, and the City Beach Park. The Fountain Lake main waterbody also boasts the iconic fountains and mermaid. Like Albert Lea Lake, Fountain Lake has also had a winter aeration system in place since the early 1980's to prevent the lake from fish kills.

## **15) Project partners** (financial or inkind support)

Agency or organization	<u>% Participation</u>	
MN Department of Revenue	60	%
Albert Lea Local Option Sales Tax	40	%

**16)** Start date: 2018

### 17) Project status:

On-going

**18)** Project cost (this can be provided as total cash cost or a breakdown can be provided to show the cost of various project elements and partners): \$26 million

























October 18, 2023

MN Watersheds 1005 Mainstreet Hopkins, MN 55343

On behalf of the community of Albert Lea, we, the undersigned, are writing to encourage you to award the Fountain Lake Restoration Project as the 2023 MN Watersheds Project of the Year. The project is the result of decades of community work to restore and enhance water quality in Fountain Lake.

Fountain Lake is in the heart of our community. Our historic downtown showcases the lake and it is the center of many community events.

For years, Fountain Lake has been hampered by large amounts of sediment from land use upstream and stream bank erosion. The Shell Rock River Watershed District and partners have been aggressively addressing this issue with systematic, multi-faceted efforts. The restoration project is a multi-phased project. Active dredging began in 2018, utilizing a previous bonding appropriation of \$7.5 million and local option sales tax funds of \$9.5 million. We are excited that the Shell Rock River Watershed District's bonding request was including in the state's capital investment bill and we look forward to the completion of the third and final phase of the project.

We support this project because our lakes are important to our tourism economy, our quality of life and for employee recruitment and retention. Other communities seek bonding dollars to build civic centers and arenas as an economic development strategy. In Albert Lea, our civic center is our lakes.

Tourism is a vitally important economic engine for Albert Lea and Freeborn County. As the "Land Between the Lakes," the city of Albert Lea draws visitors from all across southern Minnesota and northern lowa for fishing and boating. We have made great efforts in improving our water quality, which has resulted in Albert Lea hosting events such as the Governor's Fishing Opener in 2019.

Our lakes contribute greatly to our businesses being able to recruit and retain quality employees. Cities in Greater Minnesota do not have all the resources available to them that many larger cities possess. However, our lakes are a significant point of difference but can only remain so if the lakes are the showcase items they should be. Thank you for your consideration.

Sincerely,

Freeborn County
Freeborn County Chamber of Commerce
Albert Lea Convention & Visitors Bureau
Albert Lea Lakes Foundation
The City of Albert Lea
Albert Lea Economic Development Agency Albert
Lea Albert Lea Area Community Education Albert
Lea Anglers

MN Watersheds 1005 Mainstreet Hopkins, MN 55343

Lakes Foundation of Albert Lea 132 N. Broadway Ave Albert Lea, MN 56007

Dear Karen Kill,

I am writing in support of the Fountain Lake Restoration Project. The goal of the Fountain Lake Restoration Project is to improve water quality in Fountain Lake and have fishable, swimmable, and cleaner water for all.

After Fountain Lake was added to Minnesota's Impaired Waters List in 2008, the watershed district and its partners focused our efforts to improve water quality in Fountain Lake. The pinnacle to this community effort has been dredging to remove the excess internal phosphorus loading, thus improving water quality and habitat. Utilizing \$7.5 million in state funds and \$9.5 million in local option sales tax, active dredging began in 2018. This money provided dredging and disposal of the first two phases of the project through 2021 and the removal of approximately 1.2 million cubic yards of sediment. Phase 3 is the final phase of the project and will take us one step closer to being delisted from the Impaired Waters List and achieving state and local watershed goals.

Fountain Lake is located in the heart of Albert Lea and is a crucial component to the economic, physical, and social fabric of southern Minnesota. The lake not only affects quality of life for over 20,000 residents but also has regional economic implications, and a healthy lake adds value, opportunity, and recreation. Additionally, Fountain Lake hosted the 2019 Governor's Fishing Opener to showcase the great work that has been done with state investment. We had a great time fishing alongside you and other legislators. This lake can be a Minnesota destination if we can remove and work to prevent phosphorous loading into the future.

The Lakes Foundation continues to receive community feedback that this project tops the list of priorities. Southern Minnesota prairie lakes have their own unique identity and can most certainly shine for their beautiful attributes. Albert Lea is counting on being a recreation and economic gem, clean waters and lakes make that a reality for our community.

Sincerely,

Laura Cunningham

Lakes Foundation of Albert Lea

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President