BOARD OF WATER AND SOIL RESOURCES

Protecting Del Clark Lake's water quality



Above: Del Clark Lake and the surrounding Stonehill Regional Park in Yellow Medicine County will benefit from three recently completed projects including two grade stabilization structures and a roadside retention embankment. **Photo Credit:** Yellow Medicine SWCD **Below:** A sign explains the improvements to park visitors. **Photo Credit:** Lac qui Parle Yellow Bank Watershed District

In Yellow Medicine County, Clean Water Funds support three agencies' work on four projects designed to protect the water quality of a popular recreation destination. Partners include the Lac qui Parle Yellow Bank Watershed District, Area II and the Yellow Medicine SWCD



CANBY – A partnership of local governments is working to protect Del Clark Lake in Yellow Medicine County with support from a \$300,000 Clean Water Fund grant from the Minnesota Board of Water and Soil Resources (BWSR).

Del Clark Lake is not yet impaired and is assessed by the Minnesota Pollution Control Agency as fully supporting aquatic recreation. The lake and the surrounding Stonehill Regional Park offer a handicapaccessible dock and fishing pier, plus opportunities for swimming, boating and camping. About 9,000 people visit the park each year.

The effort involves three completed projects at Del Clark Lake — two grade stabilization structures and a roadside retention embankment — and a pending dam restoration upstream along Canby Creek. The Madison-based Lac qui Parle Yellow Bank Watershed District (LQPYBWD), which received the grant from BWSR in 2019, took the lead on project implementation with support from Area II Minnesota River Basin Projects (Area II) and the Yellow Medicine Soil

& Water Conservation District (SWCD).

Mitch Enderson, coordinator



for the LQPYBWD, said the intent is to maintain the lake's health and water quality.

"Most of the time, we're looking at restoration, not protection – but Del Clark is an outlier," Enderson said. "When you think about how heavily recreated it is, it becomes more critical to maintain that water quality."

Del Clark Lake is one of three reservoirs built in 1985 to help alleviate frequent flooding in the city of Canby that damaged roads and private property. Tapping local, state and federal funds, contractors built a 55-foot-high dam with a 155-acre permanent pool with a maximum depth of 30 feet. The LQPYBWD owns the lake and Stonehill Regional Park.

Construction of the three Del Clark Lake water quality protection projects began last June and wrapped up by the end of July. The two grade stabilization structures share a single berm on the northwest portion of the lake. A roadside retention embankment near the south part of the lake was also built to help meter out water after heavy rains. Area II — a nine-county joint powers board based in Marshall — provided engineering design and technical assistance.

According to Area II Executive Director Kerry Netzke, the three projects combined will capture an estimated 667 tons of sediment a year. For 100year storm events (where 6.5 inches of rain falls over the watershed in a 24-hour period), the three projects offer a combined 42.1



Knutson



Enderson



Netzke

Two grade stabilization structures share a berm on the northwest side of Del Clark Lake. The two structures, plus a roadside retention embankment near the south area of the lake, are estimated to capture a combined 667 tons of sediment each year.

Photo Credit: Yellow Medicine SWCD

acre-feet of water storage. For more frequent 10-year storm events (where 3.99 inches of rain falls over the watershed in a 24hour period), the projects are designed to provide a combined 19.1 acre-feet of water storage.

"We targeted these projects so Del Clark is going to see the benefit," Netzke said. "The primary goal was to keep sediment out (of the lake)."

Initially, project partners considered using the remaining grant funds upstream to implement several best management practices such as cover crops and grassed waterways. Yellow Medicine SWCD contacted landowners and generated a list of shovelready projects.

"We want to make sure that while we're working on the lake, we're having a positive impact upstream," said Tyler Knutson, Yellow Medicine SWCD director.

Ultimately, the partners decided to use remaining funds on a single dam restoration along Canby Creek a few miles southwest of Del Clark Lake in Fortier Township. Construction is planned for this summer.

"It's a better investment for the public dollar," Netzke said.

A 2019 Minnesota Department of Natural Resources (DNR) dam safety inspection revealed that a corrugated metal pipe within the 28-foot-high dam was deteriorating. Area II, the LQPYBWD and the Yellow Medicine SWCD are working with the landowner to replace it with a concrete pipe, which is anticipated to last 100 years.

The project, estimated to cost \$50,000, will leverage the remaining Clean Water Fund grant dollars with matching funds from the landowner and the LQPYBWD. Area II is applying for permits and expects to solicit bids for the project in partnership with LQPYBWD this month after the DNR dam safety permit amendment is received. Construction is planned for this summer; work on this project must be completed by Aug. 31. All grant-related work must be completed by Dec. 31.

Although partners decided to pursue the dam restoration, Knutson said the list of shovel-ready projects could be funded later through BWSR's One Watershed, One Plan program. The Lac qui Parle – Yellow Bank Comprehensive Watershed Management Plan will be considered for approval in 2023.

"We'll have a backlog of projects to work on once we receive that implementation funding, so it will put us in a good spot," Knutson said.

Knutson attributes the success of the Del Clark Lake projects to strong partnerships and collaboration.

"There's a lot of trust between our agencies," Knutson said. "We each have different strengths and different relationships we can bring together."