



Ecological & Water Resources
Region 4 (South Region)
21371 Highway 15 South
New Ulm, MN 56073

February 28, 2025

Freeborn County
411 S Broadway
PO Box 1147
Albert Lea, MN 56007

Re: Preliminary Engineer's Report for Repair & Improvement of FREEBORN County Ditch No. 32 (CD32)

Freeborn County Drainage Authority,

We appreciate the opportunity to evaluate the preliminary engineer's report (PER) for the proposed Repair & Improvement of Freeborn County Ditch No. 32 project. This Advisory Report, prepared on behalf of the Commissioner of the Minnesota Department of Natural Resources (DNR), aims to provide expert insights and recommendations in accordance with the guidelines outlined in Minnesota Statutes 103E.255. The comments in this advisory report are based on a review of the Repair & Improvement of Freeborn County Ditch No. 32 report dated September 30, 2024. We greatly appreciate your consideration.

Overview

The 896-acre project watershed drains into County Ditch No. 32 (CD 32), which serves a total drainage area of approximately 6,700 acres, including the City of Hayward and County Ditch No. J22. Established in 1918, CD 32 outlets into Peter Lund Creek. The proposed project will replace the existing CD 32 Branch 4, Lateral 4-13, and Lateral 4-25 tiles with a new, consolidated system serving as the watershed's single outlet. The project includes approximately 19,360 feet of subsurface tile, ranging from 10 to 30 inches in diameter, designed for a runoff coefficient of 0.50 inches per day. Existing private tiles in good condition will be integrated into the new system, and all open tile inlets will be replaced with alternative inlets to improve efficiency and reduce erosion. Additionally, up to 22 acre-feet of water storage may be achieved by constructing 2-foot-high berms in two low-lying areas near the system's outlet in the northwest corner of Section 9, optimizing water retention while preventing prolonged inundation.

Hydrologic Impacts and adequacy of the outlet

- The flow change increased by 27%, 18%, 14%, 1%, 0%, and 0% for storm events with 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year recurrence intervals, respectively. This increase could be attributed to changes in channel morphology, leading to increased sediment yield and the release of nitrogen (N) and phosphorus (P) into downstream public waters, potentially impacting water quality.

- The flow change shows a more significant increase for smaller storm events than larger ones. Why is the increase lower for more significant storm events? Could this be due to overtopping? Please provide the model file for review.
- There is no published volume data. We must evaluate this aspect, so please submit the relevant volume data for all events.
- How adequate is the outlet under current conditions? Have any observations or findings of bed or bank erosion at the outlet?
- The report states that private drainage tiles encountered during construction will be connected to the proposed tile system if clean and in good condition. How has this been incorporated into the model and flow analysis?
- Are there any water or sewer contributions to the downstream streamflow?
- The DNR prefers water storage due to its positive impacts on water quality and natural habitats. Please provide documentation of any agreements with landowners securing this option.

Environmental Considerations

Albert Lea Lake is a lake of biological significance. Lakes of biological significance exhibit the highest quality features within any of the four assessed biological communities (aquatic plants, fish, birds, and amphibians).

Compatibility of the project with local land use plans

Albert Lea Lake is a Tier 1 priority, and to be compatible with the Shell Rock River and Winnebago River Comprehensive Watershed management plan, the project should include potential conservation practices identified on Map 1 of the PER, particularly water storage and wetland restorations. This will help meet the measurable goals of 9 acres of wetland restorations (101 acre-feet of water storage) and TP (41lbs/yr), TSS (6 tons/yr), and TN (2,435 lbs/yr) reductions.

Public Waters Permit Requirements

To determine Public Water Work Permit requirements, please respond to the questions and concerns above and submit the requested data for evaluation. Area Hydrologist Erynn Jenzen (erynn.jenzen@state.mn.us) is available to ensure compliance with Public Waters Work Permit requirements.

Please send the response to this letter, the meeting minutes, the Finding of Fact, the Viewer's Report, and any Order issued by the Drainage Authority regarding this proposed improvement to the DNR when they become available. Please submit these documents to Region4Drainage.dnr@state.mn.us.
Regards,

Todd Kolander, EWR Northern District Manager

CC:
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