

## **Executive Summary for Action**

Lower Minnesota River Watershed District Board of Managers Meeting Wednesday, February 19, 2025

#### Agenda Item

Item 6. C. – Interstate 35W (I-35W) SP 1981-140 Project Permit (LMRWD No. 2023-025)

#### **Prepared By**

Linda Loomis, Administrator

#### **Summary**

This project concerns Interstate 35W, spanning from TH 13 north to approximately 0.5 miles north of the Cliff Road entrance to northbound I-35W. Young Environmental Consulting Group, LLC, on behalf of the LMRWD, has reviewed the project for compliance with LMRWD rules and is recommending contingent approval. Detailed review and recommendations are provided in the attached Technical Memorandum – Interstate 35W (I-35W) SP 1981-140 Project Permit (LMRWD No. 2023-025) dated February 12, 2025.

#### **Attachments**

Technical Memorandum – Interstate 35W (I-35W) SP 1981-140 Project Permit (LMRWD No. 2023-025) dated February 12, 2025

#### **Recommended Action**

Motion to approve a permit for Interstate 35W (I-35W) SP 1981-140 Project Permit (LMRWD No. 2023-025) contingent upon receiving of a copy of the NPDES Notice of Coverage document, contact information for the contractor(s) undertaking land-disturbing activities and contact information for the individual(s) responsible for erosion control inspections and maintenance.



# **Technical Memorandum**

**To:** Linda Loomis, Administrator

Lower Minnesota River Watershed District (LMRWD)

From: Rachel Kapsch, Water Resources Scientist

Erica Bock, Water Resources Scientist

Gabrielle Campagnola, Water Resources Engineer (Barr Engineering)

**Date:** February 12, 2025

Re: Interstate 35W (I-35W) SP 1981-140 Project Permit (LMRWD No. 2023-025)

The Minnesota Department of Transportation (MnDOT) has applied for an individual project permit from the Lower Minnesota River Watershed District (LMRWD) to perform pavement resurfacing, including spot mobility improvements, EZ-Pass lanes, and unbonded overlay. Additionally, the project includes replacing the Interstate 35W (I-35W) bridge over Cliff Road and the Union Pacific Railroad, the State Highway 13 (TH 13) bridge over I-35W, and the Burnsville Parkway bridge over I-35W. These proposed activities are affiliated with the prior LMRWD No. 2024-004 I-35W SP 1981-150 Early Release Project.

The I-35W SP 1981-140 project is located within the I-35W corridor in Burnsville, Minnesota, extending from Southcross Drive West to the north of West 121st Street (Figure 1). Within the LMRWD, the project spans from 0.1 miles south of the I-35W and TH 13 interchange to approximately 0.5 miles north of the Cliff Road northeast entrance ramp (onto I-35W). A small portion of the project runs along Black Dog Road, which will be used for hauling materials. Therefore, the road's condition will deteriorate during the SP 1981-140 project. To account for this, Black Dog Road will be resurfaced following completion of construction activities. The applicant's engineer, TKDA, submitted the permit application, associated application exhibits, and site plans for the I-35W SP 1981-140 project. The project will disturb 32.67 acres of developed MnDOT right-of-way (ROW) and proposes a net increase of 3.35 acres of new and fully reconstructed impervious surfaces within the LMRWD.

To comply with Rule D—Stormwater Management requirements within the LMRWD, two infiltration basins and one wet pond will be constructed for permanent stormwater management. The applicant has submitted the necessary materials and hydrologic and hydraulic analyses to demonstrate the existing and proposed rates, volume control, and water quality benefits of the proposed permanent stormwater best management practices (BMPs).

The project is located within the High Value Resource Area (HVRA) and the Minnesota River floodplain. The applicant proposes to let the project in March 2025, with construction to occur from 2025 through 2026. The project triggers LMRWD Rule B—Erosion and Sediment Control, Rule C—Floodplain and Drainage Alteration, and Rule D—Stormwater Management.

The City of Burnsville has an LMWRD Municipal local governmental unit (LGU) permit. However,

because the city does not have authority to permit MnDOT projects, this project requires an LMRWD individual permit and is subject to LMRWD permitting review.

## **SUMMARY**

Interstate 35W (I-35W) SP 1981-140 **Project Name:** 

Perform pavement resurfacing, including spot mobility **Purpose:** 

improvements, EZ-Pass lanes, and unbonded overlay. Replace

existing bridges.

Area Disturbed

Existing **Project Size: Impervious Area** Impervious Area

32.67 acres 25.78 acres 3.35 acres

New/Reconstructed

Project Extent (All): I-35W (NB/SB) from Southcross Drive West Location:

to north of West 121st Street, Burnsville, MN 55337

Project Extent (within LMRWD): I-35W (NB/SB) from 0.1 miles south of I-35W and Highway 13 interchange to 0.5 miles north of

Cliff Road northeast entrance ramp, Black Dog Road

Rule B—Erosion and Sediment Control **LMRWD** Rules:

Rule C—Floodplain and Drainage Alteration

Rule D—Stormwater Management

Recommended **Board Action:** 

Conditional approval

#### DISCUSSION

The LMRWD received the following documents for review:

- LMRWD online permit application; received January 24, 2024.
- LMRWD application exhibits for Interstate 35W (I-35W) SP 1981-140 Project by TKDA; received January 24, 2024.
- SP 1981-150 Drainage Plans, and TKDA Response to Comments; received February 13, 2024.
- The following documents were received on October 4, 2024:
  - o Final Drainage Report
  - o 2023-025 Final TKDA Responses to LMRWD Comments
  - o 95% Plans
    - Inplace Drainage & Removal Plan
    - Drainage Plan
    - Drainage Tabulations and Profiles
    - Drainage Tabulations
    - Drainage Details
    - Staged & Temporary Drainage Plans
    - **SWPPP**
    - Erosion & Sediment Control Plan

- Turf Establishment Plan
- Contour Plan
- App A- Color Layout
- App B- Existing Drainage Area Map
- App C- SWPPP Location Map and Impaired Waters Map
- App D- Proposed Drainage Area Map
- App E- Drainage Overview Map
- App F- Regulatory Agency Correspondence and Matrix of Permit Requirements
- App G- Wetland Impact Summary Table and Figure
- App H- Soil Survey Map and Soil Boring Data
- App I- Impervious Surface Figures
- App J- Peak Discharge Summary and Water Quality Summary
- App K- Existing HydroCAD Model Output
- App L- Proposed HydroCAD Model Output
- App M- Storm Sewer Calculations
- App N- SP 1981-120 Storm Sewer Calculations
- App P- FEMA FIRM Map
- App Q- Floodplain Impact and Mitigation Calcs
- 100% Contour Plan, and Revised LMRWD Permit Application; received October 28, 2024.
- Authorization of Agent form, and MnDOT Metro District 2019 MS4 SWPPP; received October 29, 2024.
- Existing Contour Plans, and Historic Construction Plans; received November 5, 2024.
- Email from MnDOT to applicant; received November 19, 2024.
- The following documents were received on December 6, 2024:
  - o 2023-025 TKDA Responses to LMRWD November Comments
  - o App J1- Peak Discharge Summary\_TH35W\_2024-12-06
  - o App K- Existing HydroCAD Model Output\_2024-12-06
  - o App L- Proposed HydroCAD Model Output\_2024-12-06
  - o Sheet CN4 (Contour Plan)
  - o Sheet DD3 (Drainage Details)
  - o Sheet DR14 (Drainage Plan)
  - o Sheet EC12 (Erosion & Sediment Control Plan)
  - o Final Drainage Report\_2024-12-06
  - o Revised LMRWD Permit Application
  - Revised Existing HydroCAD Model
  - o Revied Proposed HydroCAD Model
- The following documents were received on January 8, 2025:
  - Revised Existing HydroCAD Model
  - Revied Proposed HydroCAD Model
  - o Revised Existing Drainage Area Map
  - Revised Proposed Drainage Area Map
  - Sheet DP19 (Drainage Tabs and Profiles)
  - o Sheet DR11 (Drainage Plan)
  - Sheet DR13 (Drainage Plan)
  - o SP 1981 Peak Discharge and Runoff Volume Summary

- The following conditional approval items were received on January 30, 2025:
  - Final Signed Title Sheet
  - o Final Construction Plans Signed by a Professional Engineer
  - Agreement 1058408 between Union Pacific Railroad Company and the State of Minnesota
  - o Wetland Conservation Act (WCA) Notice of Decision (NOD)

The application was deemed complete on January 8, 2025, and the documents received provide the minimum information necessary for permit review.

#### Rule B—Erosion and Sediment Control

The LMRWD regulates land-disturbing activities affecting one or more acres under Rule B. The proposed project will disturb approximately 32.67 acres within the LMRWD boundary. The applicant has provided an erosion and sediment control plan and a Stormwater Pollution Prevention Plan (SWPPP). Proposed temporary erosion and sediment control measures include filter berm type 1 (compost), storm drain inlet protection, culvert end controls, sediment control logs (compost), silt fencing, random riprap, and rapid stabilization methods 3 and 4. The contractors and the individual responsible for erosion and sediment control inspections and maintenance will be determined in early 2025 following bidding and will be required as a conditional approval item

The project complies with Rule B, but a copy of the National Pollutant Discharge Elimination System (NPDES) Notice of Coverage document and contact information for the contractor(s) performing land-disturbing activities are needed before the LMRWD can issue a permit.

## Rule C—Floodplain and Drainage Alteration

The LMRWD requires the applicant to provide documentation that proposed floodplain alterations will not cause an increase in 100-year water surface elevations. The project is located within the Minnesota River 100-year floodplain, as shown on the Flood Insurance Rate Map (FIRM) Panel 27037C0070E, effective December 2, 2011 (see Figure 1). The project proposes 901.6 cubic yards of cut and 863.7 cubic yards of fill, resulting in 37.9 cubic yards of net cut. The applicant submitted cut and fill calculations and cross sections showing the proposed changes. The project will occur in the ineffective area of the floodplain. An ineffective area of the floodplain is used to describe areas of a cross section where flow is not being conveyed, therefore, development within ineffective areas has little to no effect on conveyance and water surface elevations.

The northernmost portion of the project is located along Black Dog Road within the Minnesota River floodway. Black Dog Road will be used to haul construction materials and equipment, leading to excess wear and tear and increased surface repair needs. Following construction, the applicant proposes resurfacing parts of Black Dog Road used for hauling and access. Because resurfacing does not constitute cut and fill, Rule C requirements do not apply.

The proposed modifications for the I-35W SP 1981-140 project will not affect conveyance or the 100-year water surface elevations, meeting the minimum requirements of Rule C.

## Rule D—Stormwater Management

The project proposes 3.35 acres of new and fully reconstructed impervious surface, including 5,838 square feet within the HVRA. Stormwater management will be provided by existing MnDOT

stormwater ponds and infiltration basins, along with two proposed infiltration basins and one wet pond within the LMRWD. Runoff from areas upstream of the LMRWD drains to Earley Lake, while stormwater from the portion of the project within the LMRWD ultimately discharges into the Minnesota River.

Section 5.4.1 of Rule D requires applicants to demonstrate no increase in the proposed runoff rates compared to existing conditions. The applicant submitted drainage area maps (existing and proposed) and HydroCAD modeling (existing and proposed) to review the runoff rates discharging from the project site. The project plans to use the proposed infiltration basins and wet pond for rate control. Additionally, a filter berm is proposed before any discharge to the HVRA. Six discharge sites within the LMRWD were reviewed using the project area data and the HydroCAD model.

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Discharge		2-year		10-year		100-year	
Point	Location	Existing Rate (cfs)	Proposed Rate (cfs)	Existing Rate (cfs)	Proposed Rate (cfs)	Existing Rate (cfs)	Proposed Rate (cfs)
7	City Storm Sewer	2.8	2.8	5.0	5.0	11.1	11.0
8	In-Place Beacon Pond	24.8	22.0	46.5	40.2	111.5	89.2
9	Unnamed Stream	44.6	44.6	111.5	109.5	259.9	295.4
10	Embassy Road Culverts	10.4	10.0	16.6	16.2	32.5	32.1
11	Existing Wetland (HVRA)	1.7	1.7	5.2	5.2	16.9	16.9
12	Existing Dry Pond	27.3	26.2	46.0	44.3	93.3	90.0

The reported runoff rates<sup>1</sup> show a decrease or no change compared to existing conditions for the 2-, 10-, and 100-year events, meeting the rate control requirements of Rule D.

Section 5.4.2 of Rule D requires projects to retain one inch of runoff from the new and fully reconstructed impervious areas. The project proposes 3.35 acres of new and fully reconstructed area within the LMRWD. Therefore, the project must provide 12,161 cubic feet of volume retention to meet Rule D requirements. The applicant proposes two infiltration basins within the LMRWD to meet the volume control requirements.

Table 2. I-35W Volume Control Summary

BMP	Volume (CF) – Live Storage
Proposed Burnsville Parkway Infiltration Basin	5,576
Proposed TH13 Infiltration Basin	9,975

<sup>&</sup>lt;sup>1</sup> The reported runoff rates are strictly a comparison between the existing and proposed project-site conditions and do not include off-site drainage areas.

BMP	Volume (CF) – Live Storage
Total	17,467

The project's volume control requirement has been met through the proposed infiltration basins, and the project complies with the Rule D volume requirements.

Section 5.4.3 of Rule D requires no net increase in total phosphorus (TP) or total suspended solids (TSS) to receiving waterbodies when compared to existing conditions. The applicant proposes using the same infiltration basins and a wet pond to meet LMRWD water quality requirements. The applicant also proposes infiltrating 15,551 cubic feet of stormwater runoff, which exceeds Rule D volume reduction requirements, thereby meeting the LMRWD water quality requirement. As presented, the pollutant load for both TP and TSS would be reduced, confirming compliance with the water quality requirements established under Rule D.

#### Recommendations

Based on the review of the project, we recommend conditional approval contingent on receipt of the following:

- Copy of the NPDES Notice of Coverage document
- Contact information for the contractor(s) undertaking land-disturbing activities
- Contact information for the individual(s) responsible for erosion control inspections and maintenance

#### **Attachments**

• Figure 1– I-35W SP1981-140 Project Location

