



# LOWER MINNESOTA RIVER WATERSHED DISTRICT

## Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting  
Wednesday, June 20, 2024

### Agenda Item

#### Item 6. C– Merriam Junction Trail (LMRWD No. 2023-013)

#### Prepared By

Linda Loomis, Administrator

#### Summary

Scott County is planning to construct a trail along the south bank of the MN River across the river from the City of Carver to the Louisville Swamp Trailhead. This project requires coordination with many other partners, some of which have their own requirements and approvals. Young Environmental Consulting Group has reviewed projects documents on behalf of the LMRWD and is recommending the LMRWD issue a permit for this. Technical Memorandum – Merriam Junction Trail Project (LMRWD No. 2023-103), dated June 12, 2024, recommends approval contingent upon the receipt of the following:

- A Copy of the NPDES construction stormwater permit
- Contact information for contractor(s) undertaking any land disturbing activities
- Contact information for the person(s) responsible for inspection and maintenance of erosion and sediment control
- Documentation of approval under the Wetland Conservation Act (WCA)
- Documentation of approval from the US Army Corps of Engineers (USACE)
- Documentation of approval from the Minnesota Pollution Control Agency (MPCA), including Section 401 Individual Water Quality Certification
- Documentation of approval from Minnesota Department of Natural Resources (MN DNR) including final signed cooperative agreement
- Documentation of approval from Scott County Water Management Organization (Scott WMO)
- Documentation of approval from the City of Carver
- Final plans signed by a profession engineer
- Documentation that properties impacted by temporary increases greater than 0.1 foot to the 100-year floodplain have been notified

Additional stipulation will be required for the final approved project permit:

The project engineer will review the contractor’s hydraulic models and provide a memorandum of findings demonstrating that construction impacts are within the proposed 0.22-foot temporary stage increase of the Minnesota River 100-year floodplain. The memorandum must be received before temporary impacts are constructed to avoid a lapse in permit coverage.

### **Attachments**

Technical Memorandum - Merriam Junction Trail Project (LMRWD No. 2023-013) dated June 12, 2024

### **Recommended Action**

Motion to conditionally approve a permit for the Merriam Junction Trail project for temporary and permanent impacts contingent upon the receipt of the following:

- A Copy of the NPDES construction stormwater permit
- Contact information for contractor(s) undertaking any land disturbing activities
- Contact information for the person(s) responsible for inspection and maintenance of erosion and sediment control
- Documentation of approval under the Wetland Conservation Act (WCA)
- Documentation of approval from the US Army Corps of Engineers (USACE)
- Documentation of approval from the Minnesota Pollution Control Agency (MPCA), including Section 401 Individual Water Quality Certification
- Documentation of approval from Minnesota Department of Natural Resources (MN DNR) including final signed cooperative agreement
- Documentation of approval from Scott County Water Management Organization (Scott WMO)
- Documentation of approval from the City of Carver
- Final plans signed by a profession engineer
- Documentation that properties impacted by temporary increases greater than 0.1 foot to the 100-year floodplain have been notified

The final approved project permit will have the following stipulation:

- **The project engineer will review the contractor's hydraulic models and provide a memorandum of findings demonstrating that construction impacts are within the proposed 0.22-foot temporary stage increase of the Minnesota River 100-year floodplain. The memorandum must be received before temporary impacts are constructed to avoid a lapse in permit coverage.**

# Technical Memorandum



**To:** Linda Loomis, Administrator  
Lower Minnesota River Watershed District (LMRWD)

**From:** Erica Bock, Water Resources Scientist  
Hannah LeClaire, PE, Water Resources Engineer

**Date:** June 12, 2024

**Re:** Merriam Junction Trail Project (LMRWD No. 2023-013)

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Scott County has applied for an individual project permit from the Lower Minnesota River Watershed District (LMRWD) to construct a 2.25-mile-long multi-use trail between the Minnesota River Bluffs Regional Trail in the City of Carver, and the Louisville Swamp Trailhead main parking areas in Louisville Township (Figure 1). The applicant's engineer, SRF Consulting, submitted the permit application, associated application exhibits, and construction plans for the Merriam Junction Trail Project.

The project is proposing a 10-foot-wide bituminous trail that will utilize portions of the existing abandoned gravel-surfaced Scott County Regional Rail Authority railroad alignment. The project will construct one new pedestrian bridge across the Minnesota River and three pedestrian bridges crossing portions of the floodplain. The bridge across the Minnesota River and one of the floodplain bridges are located within the LMRWD, Figure 2. Because the trail is 10 feet wide with vegetated buffers on either side, the trail is exempt from LMRWD Rule D—Stormwater Management. Trail and bridge construction will involve cut and fill and temporary fill is needed to facilitate construction of temporary causeways. The project will disturb 9.2 acres and includes 663 cubic yards of cut and 80,324 cubic yards of fill in the Minnesota River 100-year floodplain (within the LMRWD boundary). The applicant proposes to begin construction in the fall of 2024. The project is not located within a High Value Resource Area or Steep Slopes Overlay District. The project is in Louisville Township and triggers LMRWD Rule B—Erosion and Sediment Control and Rule C—Floodplain and Drainage Alteration, requiring a LMRWD individual permit review.

## SUMMARY

**Project Name:** Merriam Junction Trail

**Purpose:** New multi-use trail between the Minnesota River Bluffs Regional Trail and the Louisville Swamp Trailhead

**Project Size:**

	Area Disturbed	Cut	Fill	Net Change
Proposed	9.2 acres	663 cubic yards	80,324 cubic yards	79,661 cubic yards of fill
Temporary Conditions		70 cubic yards	24,908 cubic yards	24,838 cubic yards of fill

**Location:** 2.2-mile segment of the Minnesota River Valley between the City of Carver and the Louisville Swamp Trailhead, in Scott County.

**LMRWD Rules:** Rule B – Erosion and Sediment Control  
Rule C – Floodplain and Drainage Alteration

**Recommended Board Action:** Conditional approval

## DISCUSSION

The LMRWD received the following documents for review:

- LMRWD online permit application; received March 26, 2024.
- Wetland Assessment by SRF Consulting, dated February 2024; received March 8, 2024.
- 60% Project Plans, by SRF Consulting, no date; received March 8, 2024.
- LMRWD HEC-RAS model, revised May 29, 2024; received May 29, 2024.
- Floodplain Fill Graphic by SRF Consulting; received April 30, 2024.
- LMRWD Permit Narrative and Hydraulic Analysis by SRF Consulting, revised May 21, 2024; received May 21, 2024.
- LMRWD Temporary Staging Memo and Hydraulic Analysis by SRF Consulting, revised May 21, 2024; received May 21, 2024.
- 90% Project Construction Plans, by SRF Consulting, no date; received May 21, 2024.
- 90% Bridge Construction Plans, by SRF Consulting, no date; received April 30, 2024.
- Draft Joint Powers Agreement (JPA) between the Minnesota Department of Transportation (MnDOT) and Scott County, no date; received April 30, 2024.
- Draft Landowner Public Notice Letter, no date; received May 21, 2024.
- Bathymetry of the Minnesota River in project location, no date; received May 21, 2024.
- Access Facility Study by SRF Consulting, dated April 22, 2024; received May 21, 2024.
- HEC-RAS Model Upstream of the LMRWD; received May 29, 2024.
- Temporary Staging Impacts Meeting Minutes by SRF Consulting, dated May 6, 2024; received May 29, 2024.

The application was deemed complete on May 30, 2024, and the documents received provide the minimum information necessary for permit review.

### ***Rule B – Erosion and Sediment Control***

The LMRWD regulates land-disturbing activities that affect one acre or more under Rule B. The proposed project would disturb approximately 9.2 acres within the LMRWD boundary. The applicant has provided an erosion and sediment control plan and a Stormwater Pollution Prevention Plan (SWPPP). Temporary erosion and sediment control measures include redundant perimeter control (silt fence and sediment control log) along the Minnesota River, environmentally sensitive areas, and wetlands; floating silt curtain; rock berms; and erosion control blanket.

The project generally complies with Rule B, but a copy of the National Pollutant Discharge Elimination System (NPDES) construction stormwater permit and contact information for the contractor and person(s) responsible for inspection and maintenance of all sediment and erosion control features will be required before an LMRWD permit can be issued.

### ***Rule C – Floodplain and Drainage Alteration***

The LMRWD requires the applicant to provide documentation that the proposed floodplain fill 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) Panels below:

- Carver County FIRM 27019C038D, effective December 21, 2018.
- Carver County FIRM 27019C0332D, effective December 21, 2018.
- Scott County FIRM 27139C0130E, effective February 12, 2021.
- Scott County FIRM 27139C0110E, effective February 11, 2021.

### **Proposed Conditions**

The project proposes 663 cubic yards of cut and 80,324 cubic yards of fill within the floodplain and no compensatory storage. The project requires excavation and filling to create safe elevation changes, clear trees, and stabilize the riverbanks. There are two bridges proposed within the LMRWD (Figure 3 and Figure 4). Bridge R0910 is a continuous steel girder bridge crossing the Minnesota River. There is an additional floodplain relief bridge within the LMRWD (Bridge R0909) that will consist of prestressed concrete beam crossings. The proposed conditions are modeled showing the excavation and fill required for the trail construction. SRF Consulting has provided cut and fill maps, construction plans, and bridge plans to accompany the HEC-RAS model. The proposed model shows no change in the 100-year water surface elevation, meeting the minimum requirements of Rule C.

### **Temporary Conditions**

The submitted HEC-RAS model also shows the changes in the floodplain between the existing and temporary conditions of the project below the 100-year water surface elevation. Due to the required construction of temporary causeways, SRF Consulting has modeled a worst case-scenario encroachment for the construction of the causeways. This includes 70 cubic yards of temporary cut and 24,908 cubic yards of temporary fill. SRF Consulting provided temporary causeways plans to identify the encroachment areas at an elevation of 709.0. The model included these causeways.

Fill for the causeways will remain in place during a flood event, but all temporary bridges will be removed once flood levels reach 709.0 elevation.

As a result of the temporary fill, the HEC-RAS model shows there will be up to a 0.22-foot rise in the 100-year water surface elevation of the Minnesota River. The project team has provided a draft of a letter that will notify landowners that would be affected by a rise between the 0.1 and 0.22 feet. The 0.1-foot threshold to notify landowners was discussed and approved by the City of Carver, the Minnesota Department of Natural Resources (MnDNR), Scott County, and Carver County. Notification to the landowners will be required as a conditional approval item before the permit can be issued.

The temporary fill is modeled as occurring all at once, but during construction the additional temporary fill within the floodplain will occur sequentially with bridge construction, potentially creating less temporary impact, and therefore less stage increase, that cannot be modeled with a steady state HEC-RAS model. While SRF Consulting has provided worst-case-scenario encroachment models, the contractor may provide a different construction approach. The contractor will be required to model the temporary impacts to the Minnesota River's 100-year floodplain that will occur due to their proposed construction staging and sequencing. The LMRWD will include a stipulation in the final approved permit that requires SRF Consulting to review the contractor's hydraulic models and provide a memorandum of findings demonstrating that the construction impacts are within the 0.22-foot modeled stage increase. Permit coverage will not lapse if SRF Consulting provides a memorandum before construction of the causeways begins.

#### ***Rule D – Stormwater Management***

The project creates 1.03 acres of new and reconstructed impervious surfaces within the LMRWD, including 10-foot-wide paved surfaces with vegetated buffers on either side. Because the trail is 10 feet wide with vegetative buffers on either side, it is exempt from Rule D.

#### ***Recommendations***

The project requires many types of intergovernmental coordination and approvals. Most of these approvals will be required as conditional approval items. The LMRWD has reviewed the applicable LMRWD rules triggered by the project and determined compliance. Based on review of the project, we recommend conditional approval of the Merriam Junction Trail project for temporary and permanent impacts contingent on the receipt of the following:

- Copy of the NPDES construction stormwater permit.
- Contact information for the contractor(s) undertaking land disturbing activities.
- Contact information for the person(s) responsible for inspection and maintenance of erosion and sediment control.
- Documentation of approval under the Wetland Conservation Act (WCA).
- Documentation of approval from the US Army Corps of Engineers (USACE).
- Documentation of approval from the Minnesota Pollution Control Agency (MPCA), including Section 401 Individual Water Quality Certification.
- Documentation of approval from the MnDNR, including final signed cooperative agreement.
- Documentation of approval from Scott County Water Management Organization (WMO).
- Documentation of approval from the City of Carver.
- Final plans signed by a professional engineer.

- Documentation that properties impacted by temporary increases greater than 0.1 foot to the 100-year floodplain have been notified.

The final approved project permit will have the following stipulation:

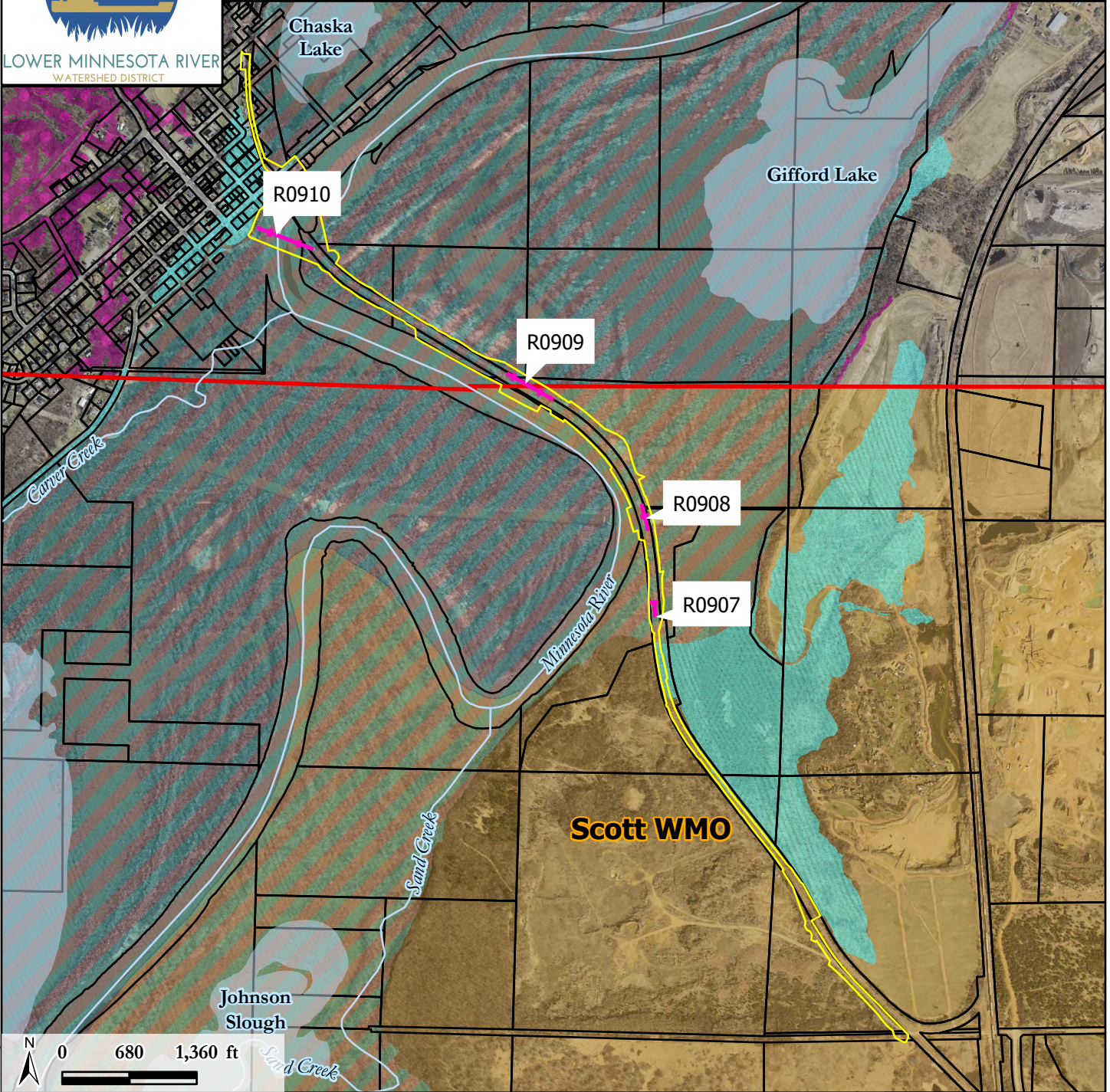
- **The project engineer will review the contractor's hydraulic models and provide a memorandum of findings demonstrating that construction impacts are within the proposed 0.22-foot temporary stage increase of the Minnesota River 100-year floodplain. The memorandum must be received before temporary impacts are constructed to avoid a lapse in permit coverage.**

#### *Attachments*

- Figure 1—Merriam Junction Trail Project Location Map
- Figure 2—Merriam Junction Trail Project Location within the LMRWD
- Figure 3—Bridge R0910 Crossing the Minnesota River
- Figure 4—Bridge R0909 Floodplain Relief Bridge



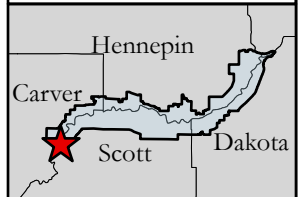
Figure I: Merriam Junction Trail Project Location  
LMRWD No. 2023-013



**Legend**

- Construction Limits
- Bridges
- LMRWD Boundary
- Public Waters
- Public Waterbodies
- Parcels
- Steep Slope Overlay District
- 100-yr Floodplain
- Floodway
- Scott WMO

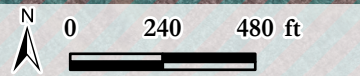
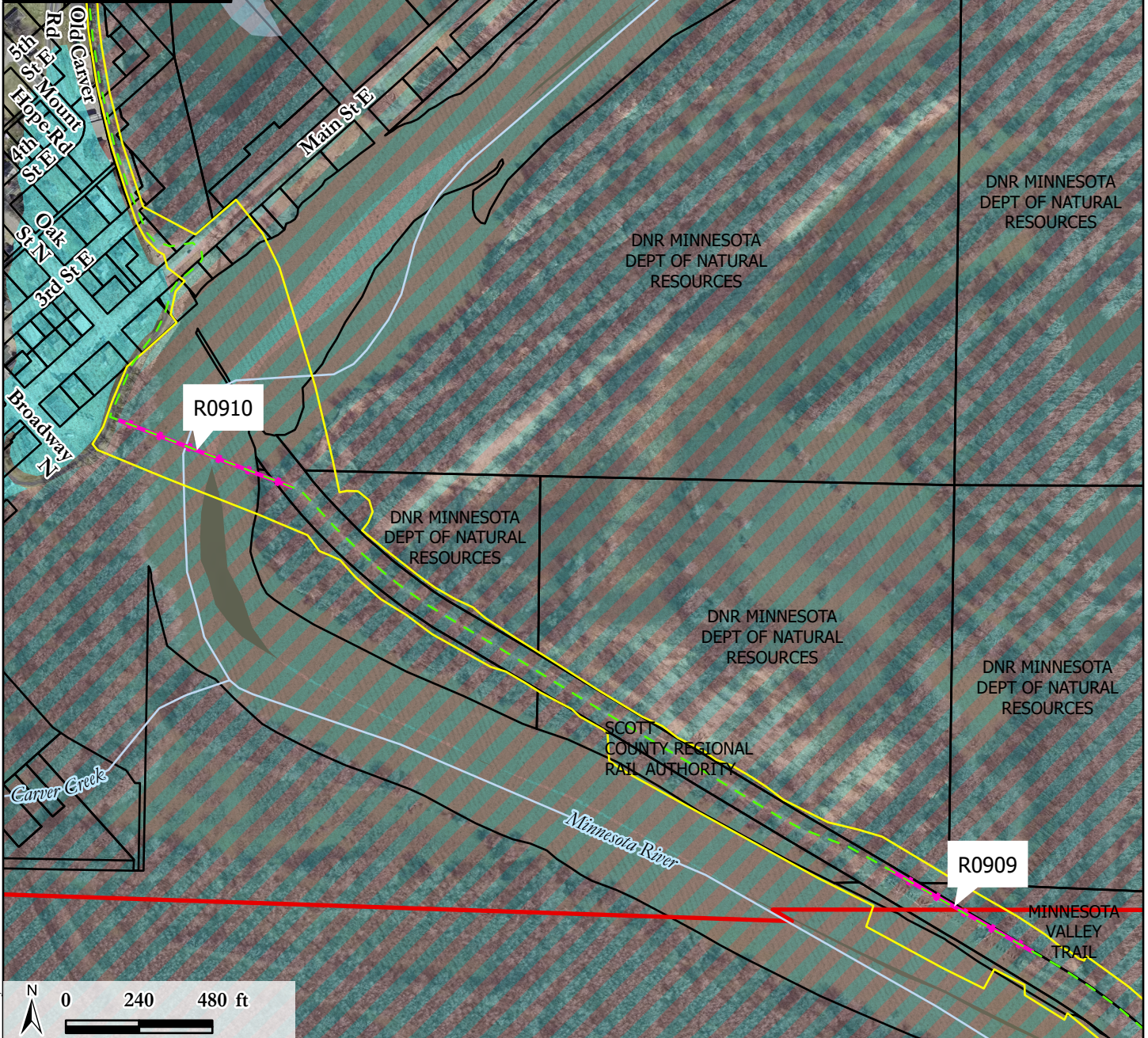
**LMRWD Watershed Location Map**



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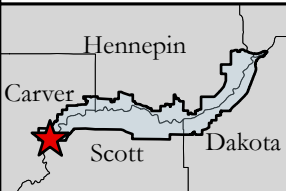
Figure 2: Bridge R0909 & R0910  
LMRWD No. 2023-013



**Legend**

- Construction Limits
- Bridges
- Public Waters
- LMRWD Boundary
- Public Waterbodies
- Parcels
- 100-yr Floodplain
- Floodway
- Proposed Trail Alignment

**LMRWD Watershed Location Map**

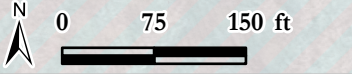
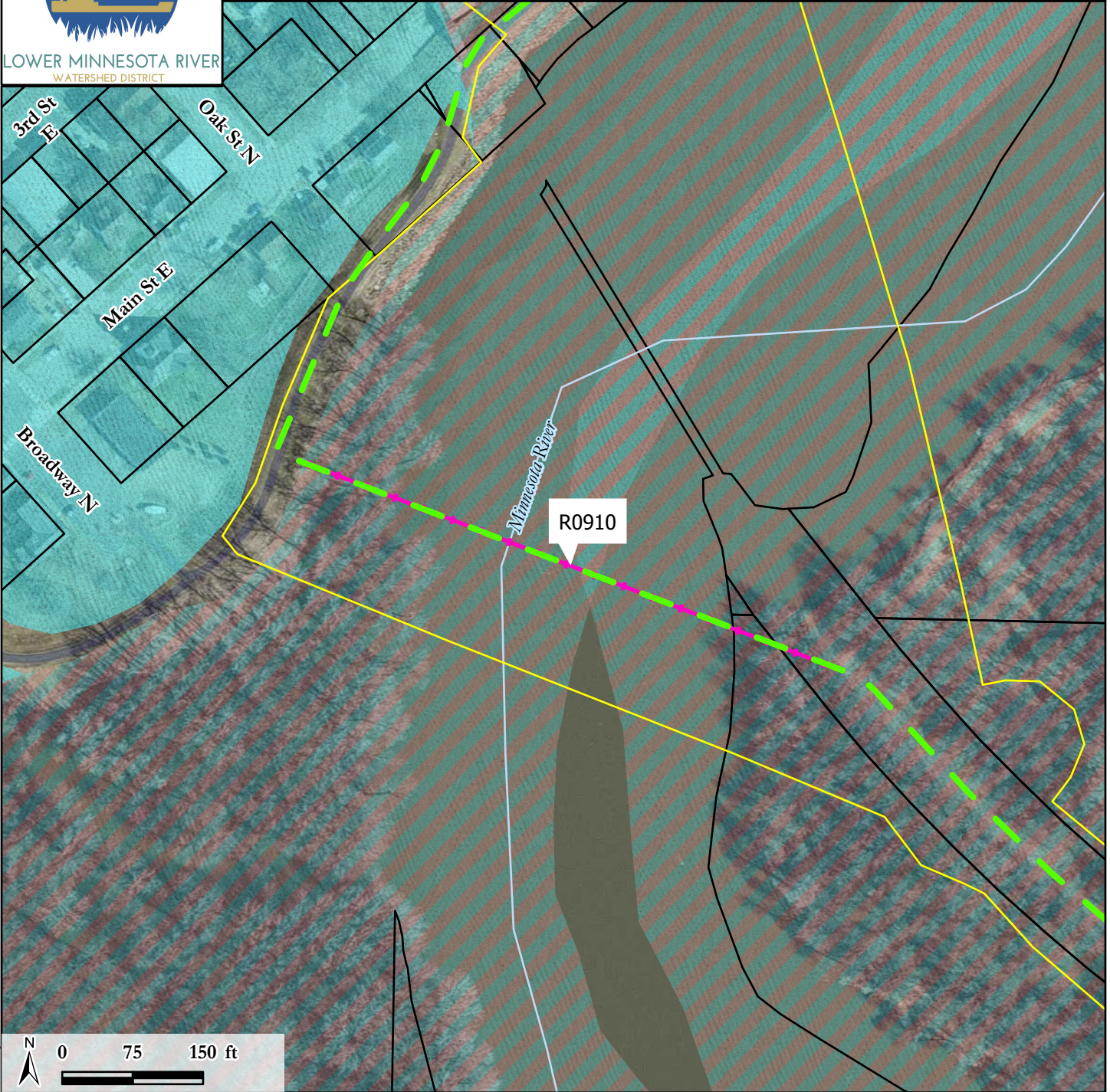


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LOWER MINNESOTA RIVER  
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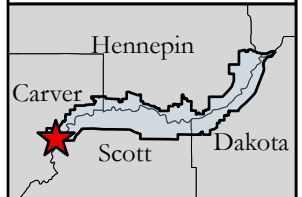
Figure 3: Bridge R0910  
LMRWD No. 2023-013



### Legend

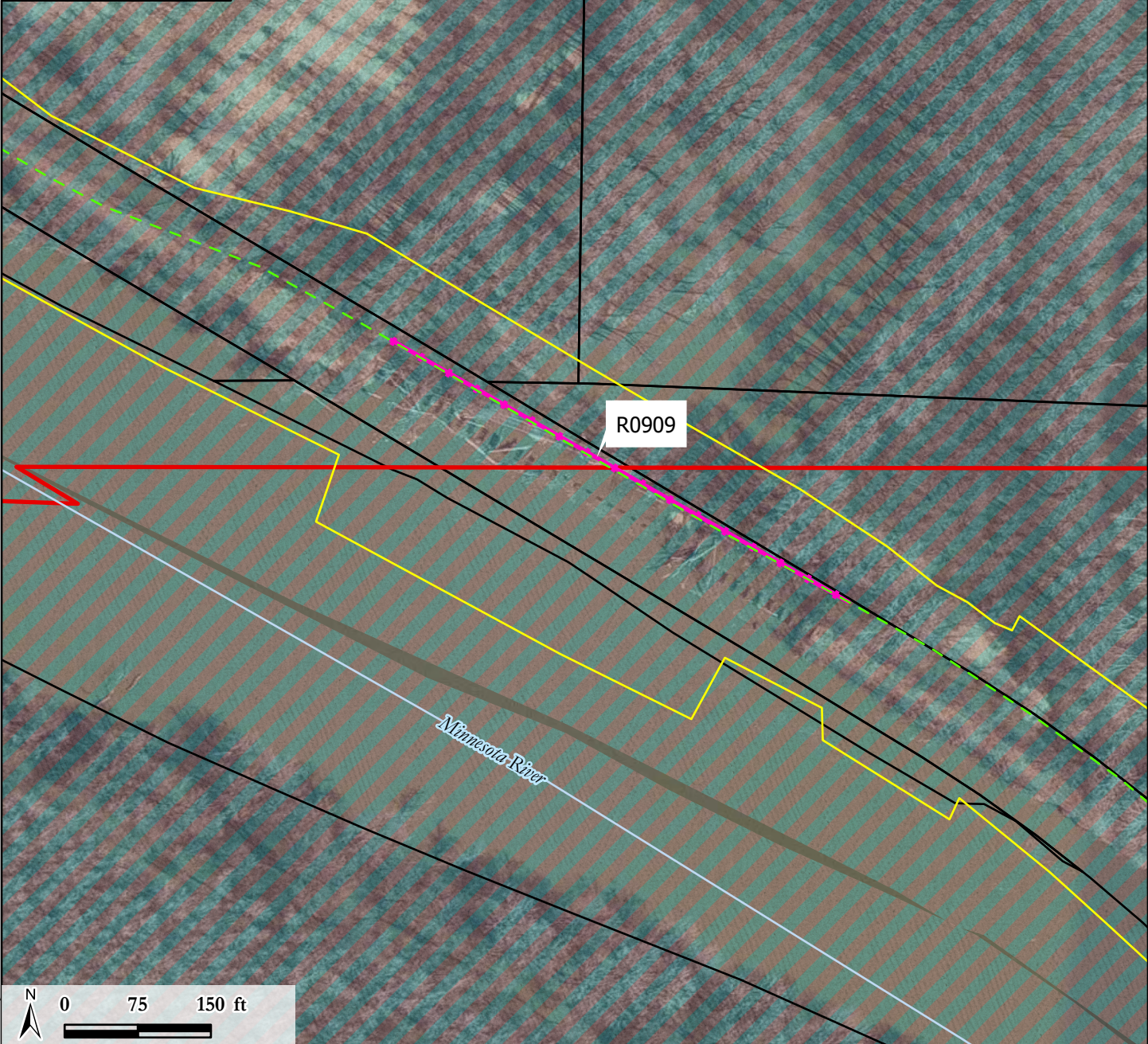
- Construction Limits
- Bridges
- Public Waters
- Parcels
- 100-yr Floodplain
- Floodway
- Proposed Trail Alignment

### LMRWD Watershed Location Map



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Figure 4: Bridge R0909  
LMRWD No. 2023-013



### Legend

- Construction Limits
- Bridges
- Public Waters
- LMRWD Boundary
- Parcels
- Floodway
- Proposed Trail Alignment

### LMRWD Watershed Location Map

