



# LOWER MINNESOTA RIVER WATERSHED DISTRICT

## Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting  
Wednesday, May 15, 2024

### **Agenda Item**

**Item 6. D. - Safety and Security Center Phase 2 Project – Rule D Amendment (LMRWD No. 2023-022)**

### **Prepared By**

Linda Loomis, Administrator

### **Summary**

At the April 17, 2024, Board of Managers meeting a permit was approved for the Metropolitan Airport Commission's (MAC) Safety and Security Center Phase 2 Project for LMRWD Rule B only to allow for site preparation to begin. MAC is ready to begin construction of stormwater management facility and impervious surfaces. Young Environmental Consulting Group has reviewed the application and documentation submitted by the applicant on behalf of the LMRWD. Conditional approval of the permit amendment is recommended upon review of the application, contingent upon receipt of an executed maintenance agreement.

### **Attachments**

Technical Memorandum – Safety and Security Center Phase 2 Project – Rule D Amendment (LMRWD No. 2023-022)

### **Recommended Action**

Motion to conditionally approve an amendment to the SSC Phase 2 Project permit to authorize construction of impervious surfaces and stormwater management facilities in compliance with LMRWD Rule D, contingent on the receipt of an executed maintenance agreement

# 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:** May 8, 2024

**Re:** Safety and Security Center Phase 2 Project—Rule D Amendment (LMRWD  
No. 2023-022)

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The Metropolitan Airports Commission (MAC or applicant) is seeking an amendment to the individual project permit (Permit) for the Safety and Security Center (SSC) Phase 2 Project (SSC Phase 2 Project or Project), approved by the LMRWD Board of Managers at the April 17, 2024, board meeting. The Permit allowed site preparation and mass grading activities under Rule B – Erosion and Sediment Control. The Applicant’s engineer, Kimley-Horn and Associates, Inc. (Kimley-Horn), submitted the original Permit application, associated application exhibits, and construction plans for the Project. Kimley-Horn submitted additional stormwater management information to allow a complete review of the Project under Rule D – Stormwater Management. The Permit amendment will authorize impervious surface and stormwater management facility construction proposed to begin in late May 2024. Because MAC does not have a municipal permit, the project requires an LMRWD individual project permit.

The Project site is located on the north end of the Minneapolis-Saint Paul International Airport (Figure 1). An earlier phase of the project began in 2022 and was permitted under a separate LMRWD individual project permit (LMRWD Permit No. 2021-022). The SSC Phase 2 Project includes building demolition and construction, roadway realignment, utility construction, parking lot construction, and construction of an infiltration basin for on-site stormwater management. The Project proposes 9 acres of new and fully reconstructed impervious surfaces. The Project is not located within a High-Value Resource Area, Steep Slopes Overlay District, or the 100-year floodplain of the Minnesota River.

## SUMMARY

**Project Name:**

SSC Phase 2 Project

**Purpose:**

Building, roadway, utility, parking lot, and stormwater management facility construction

**Project Size:**

Area Disturbed	Existing Impervious Area	New and Reconstructed Impervious Area
14.3 acres	4.7 acres	9 acres

**Location:**

6320 34th Avenue South  
Saint Paul, MN 55111

**LMRWD Rules:**

Rule B – Erosion and Sediment Control  
Rule D – Stormwater Management

**Recommended Board Action:**

Conditional approval of Permit amendment for Rule D

## DISCUSSION

The LMRWD received the following documents for review:

- LMRWD online permit application; received October 2, 2023.
- LMRWD application narrative and exhibits for SSC Phase 2 by Kimley-Horn, dated September 15, 2023; received October 2, 2023.
- SSC Phase 2 drainage plans and exhibits by Kimley-Horn, revised November 13, 2023; received April 3, 2024.
- Draft maintenance agreement; received March 7, 2024.
- XPSWMM model by Kimley-Horn; received November 20, 2023; revised and received February 1, 2024.
- Stormwater management narrative by Kimley-Horn, revised April 3, 2024; received April 3, 2024.
- Existing and proposed conditions MIDS model, by Kimley-Horn; received April 26, 2024.
- SSC Phase 2 construction plans by Kimley-Horn, dated November 13, 2023; received March 7, 2024.
- Drainage area maps and drainage calculation summary by TKDA; received April 24, 2024.
- SSC Phase 2 HydroCAD model by TKDA; received April 24, 2024.
- Revised Stormwater Pollution Prevention Plan (SWPPP) by Kimley-Horn; received March 25, 2024.

The application was deemed complete on April 26, 2024, and the documents received provide the minimum information necessary for Rule D – Stormwater Management permit review.

### *Rule D – Stormwater Management*

The project proposes a total of 9 acres of new and fully reconstructed impervious surfaces. A new infiltration basin will be used for stormwater management of the SSC Phase 2 Project site.

Stormwater in the project area drains to the infiltration basin, which is designed for a 0.8 inch/hour infiltration rate and 48-hour drawdown time. When the basin reaches a depth of 3.2 feet, stormwater will overflow from the infiltration basin into the existing MAC storm sewer system, through MAC's Pond 2, and ultimately discharge to the Minnesota River. The applicant submitted a HydroCAD model of the existing and proposed site conditions.

Section 5.4.1 of Rule D requires applicants to demonstrate no increase in a project's proposed runoff rates compared to existing conditions. The applicant proposes to meet the rate control requirement by routing stormwater from the site through the proposed infiltration basin. The existing and proposed runoff rates are provided in Table 1.

*Table 1. SSC Phase 2 Project Runoff Rate Summary*

Rainfall Event (24-hour depth)	Existing (Cubic Feet per Second [CFS])	Proposed (CFS)	Difference (CFS)
2-year – 2.83"	55.7	31.6	-24.1
10-year – 4.24"	102.9	56.0	-46.9
100-year – 7.50"	217.4	127.1	-90.3

The modeled runoff rates show a decrease from existing conditions for the 2-, 10-, and 100-year rainfall events, meeting the rate control requirements of Rule D.

Section 5.4.2 of Rule D requires projects to retain 1 inch of runoff from the new and fully reconstructed impervious areas. The Project proposes 9 acres of new and fully reconstructed impervious area. Therefore, the project must provide 32,670 cubic feet of volume retention to meet Rule D requirements. The applicant provided soil borings showing silty sand at the proposed infiltration basin location. The applicant also provided a specification describing excavation to increase or decrease the infiltration rate as directed by the engineer to achieve the 0.8 inch/hour infiltration rate. With a drawdown requirement of 48 hours, a storage depth of 3.2 feet is required for the infiltration basin.

*Table 2. SSC Phase 2 Project Volume Control Summary*

BMP	Volume (Cubic Feet [CF])
Required treatment	32,670
Infiltration Basin Storage	72,220

The Project's volume control requirement has been achieved through storage in the proposed infiltration basin. The Project complies with 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 to use the infiltration basin to meet the Rule D water quality requirements. The applicant submitted a MIDS model and supporting documentation to demonstrate compliance with LMRWD water quality requirements.

Table 3. SSC Phase 2 Project Water Quality Summary

	TP (Pound per year [lb/yr])	TSS (lb/yr)
Existing	39.6	11,492
Proposed	27.5	7,973
Difference	-12.1	-3,519
% Reduction	31%	31%

As presented, the pollutant load would be reduced for both TP and TSS, meeting the water quality requirements of Rule D.

### *Recommendations*

Based on review of the Project, we recommend conditional approval of an amendment to the SSC Phase 2 Project permit to authorize construction of impervious surfaces and stormwater management facilities in compliance with LMRWD Rule D, contingent on the receipt of the following:

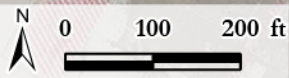
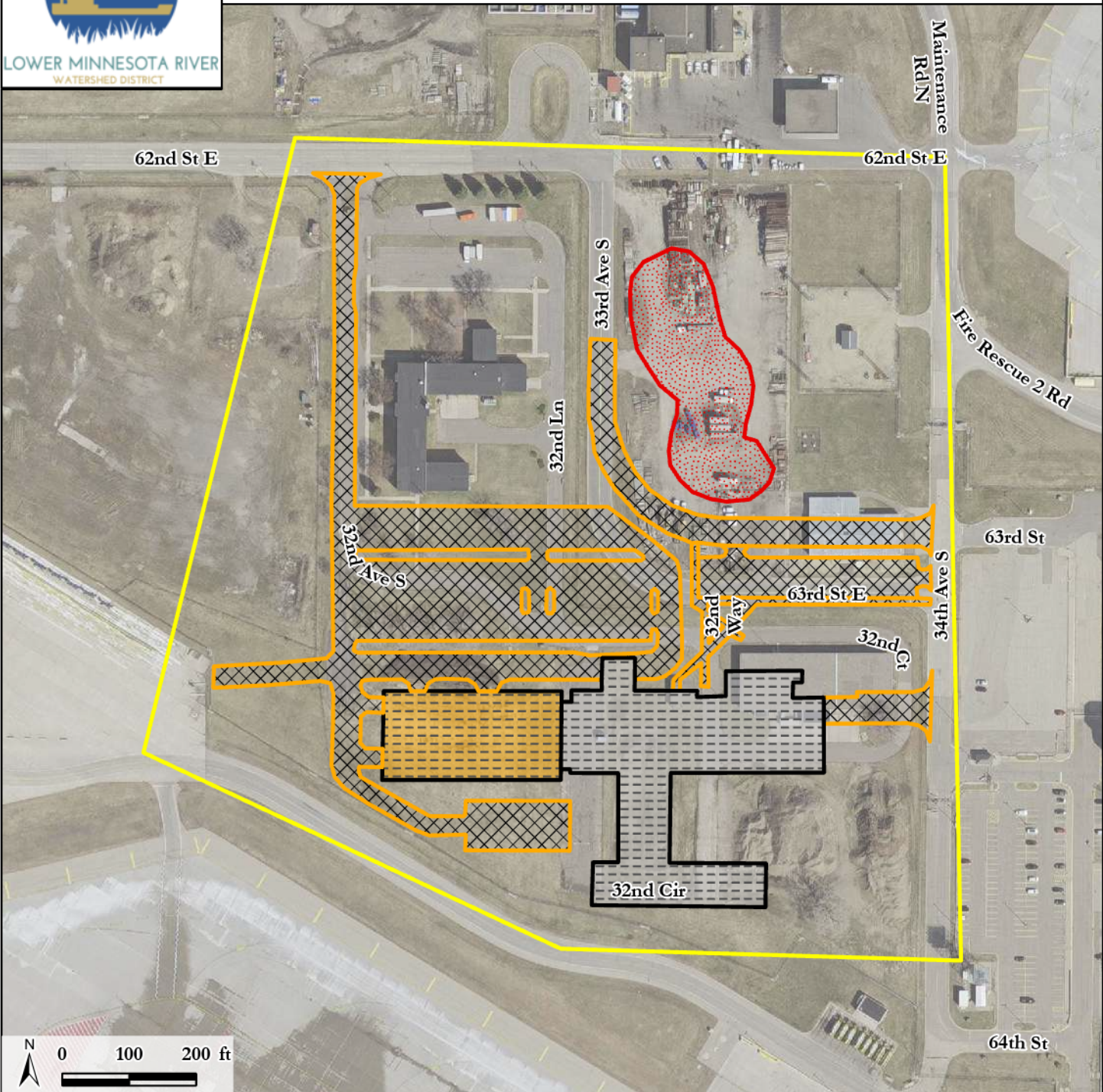
- Executed maintenance agreement.

### *Attachments*






- Figure 1—SSC Phase 2 Project Location Map



Figure I: Safety and Security Center Phase II Project Location  
LMRWD No. 2023-022



**Legend**

-  Project Location
-  Proposed Covered Parking
-  Proposed Impervious
-  Proposed Infiltration Basin
-  Proposed Safety and Security Center

**LMRWD Watershed Location Map**

