



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, September 18, 2024

Agenda Item

Item 6. B. - 2024 Minneapolis-St. Paul (MSP) International Airport Terminal 1 Concourse G Infill Pods 2-3 (LMRWD No.2024-012)

Prepared By

Linda Loomis, Administrator

Summary

Minneapolis-St. Paul International Airport plans to expand Concourse G at Terminal 1. Young Environmental Consulting Group has reviewed the permit application and applicable documents, on behalf of the LMRWD, and recommends conditional approval of a permit for the project upon receipt of the following:

- Contact information for the contractor(s) undertaking land-disturbing activities.
- Contact information for the person(s) responsible for erosion control inspections and maintenance.
- Designation of an individual liable to the LMRWD for performance under Rule B.
- Final construction plans signed by a professional engineer.

Review of the application is detailed in Technical Memorandum – 2024 Minneapolis – St. Paul International Airport Terminal 1 Concourse G Infill Pods 2-3 (LMRWD No. 2024-012) dated September 11, 2024.

Attachments

Technical Memorandum – 2024 Minneapolis – St. Paul International Airport Terminal 1 Concourse G Infill Pods 2-3 (LMRWD No. 2024-012) dated September 11, 2024

Recommended Action

Motion to conditionally approve a permit for 2024 Minneapolis – St. Paul International Airport Terminal 1 Concourse G Infill Pods 2-3 (LMRWD No. 2024-012) subject to receipt of contact information for the contractor(s) undertaking land-disturbing activities, contact information for the person(s) responsible for erosion control inspections and maintenance, designation of an individual liable to the LMRWD for performance under Rule B, and final construction plans signed by a professional engineer.

Technical Memorandum



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

From: Rachel Kapsch, Water Resources Scientist
Hannah LeClaire, PE, Water Resources Engineer

Date: September 11, 2024

Re: 2024 Minneapolis-Saint Paul (MSP) International Airport Terminal 1 Concourse G
Infill Pods 2-3 (LMRWD No. 2024-012)

The Metropolitan Airports Commission (MAC) has applied for an individual project permit (Permit) from the LMRWD to perform a building expansion and adjacent pavement replacement for Terminal 1, Concourse G (2024 MSP Terminal 1 Concourse G Infill Pods 2-3 Project). The applicant's engineers, TKDA, submitted the original permit application, associated application exhibits, construction plans for the project, and additional stormwater management information to allow a review of the project under Rule B – Erosion and Sediment Control and Rule D – Stormwater Management.

The 2024 MSP Terminal 1 Concourse G Infill Pods 2-3 Project (2024 Infill Pods Project) is located on the west-southwest side of the MSP International Airport Terminal 1 (Figure 1). The 2024 Infill Pods Project is a multi-year project that will result in the overall expansion of Terminal 1, Concourse G at the MSP International Airport. This project proposes expanding the Terminal 1 building; constructing passenger boarding bridges; and replacing pavement and utilities. The project proposes 3.08 acres of disturbance, all of which is reconstruction of 3.08 acres of impervious surface. The project proposes construction between November 2024 and December 2028. The project is not located within a High Value Resource Area, Steep Slopes Overlay District, or 100-year floodplain of the Minnesota River. Because MAC does not have their municipal permit, the project requires an LMRWD individual project permit.

SUMMARY

Project Name: 2024 MSP Terminal 1 Concourse G Infill Pods 2-3

Purpose: Pavement replacement, building expansion.

Project Size:

Area Disturbed	Existing Impervious Area	Proposed Impervious Area	Net Change in Impervious Area
3.08 acres	3.08 acres	3.08 acres	0 acres

Location: Terminal 1, MSP International Airport
4300 Glumack Drive, St. Paul, MN 55111

LMRWD Rules: Rule B – Erosion and Sediment Control
Rule D – Stormwater Management

Recommended Board Action: Conditional Approval

DISCUSSION

The LMRWD received the following documents for review:

- LMRWD online permit application and project narrative; received May 28, 2024.
- The following exhibits were submitted by TKDA on May 31, 2024:
 - 90% Review Set; dated April 1, 2024.
 - Existing and Proposed Drainage Maps.
 - 2001 Runway 17-35 Trunk Storm Sewer Phase III: Water Quality Ponds Plan Set; dated April 2, 2001.
 - Pond 2 Piping Detail Figure; dated September 2021.
 - Pond Sediment Inspection Results and Notes.
 - Proposed and Existing XPSWMM Models.
 - P8 Model.
 - MSP Hydrologic/Hydraulic/Water Quality Models- 2024 Status Update; dated May 2, 2024.
- The following exhibits were submitted by TKDA on July 23, 2024:
 - TKDA Response to Comments; dated July 23, 2024.
 - Signed Authorization of Agent Form; dated July 18, 2024.
 - Revised Project Narrative; dated July 23, 2024.
 - Rule D Compliance Narrative; dated July 23, 2024.
 - Revised Stormwater Pollution Prevention Plan (SWPPP) Notes (Sheet ca0.11); dated June 26, 2024.
 - Revised Erosion Control Plan (Sheet ca0.13); dated June 26, 2024.
 - Revised Grading Plan (Sheet ca4.01); date June 26, 2024.
 - Existing and Proposed Rate Figures.
 - Existing and Proposed Water Surface Elevation (WSE) Figures.
 - Existing and Proposed Flow Routing Map.
 - MSP Hydrologic/Hydraulic/Water Quality Model Report, dated July 23, 2024.

- MSP Stormwater Pond Maintenance Standard Operating Procedures; received August 15, 2024.

The application was deemed complete on August 15, 2024, and the documents received provide the minimum information necessary for Rule B and Rule D permit reviews.

Rule B – Erosion and Sediment Control

The LMRWD regulates land-disturbing activities that affect one or more acres under Rule B. The proposed project would disturb approximately 3.08 acres within the LMRWD boundary. The applicant has provided a SWPPP. Temporary erosion and sediment control measures include below-ground storm drain inlet protection. Disturbed areas are part of pavement reconstruction and therefore, no seeding or vegetation is anticipated as part of the project. Because the MSP International Airport has an individual National Pollutant Discharge Elimination System (NPDES) permit with total suspended solids (TSS) effluent limits, a construction stormwater permit is not required for this project.

The project generally complies with Rule B; however, before a permit can be issued, the LMRWD requires contact information for the contractor(s) performing land-disturbing activities, contact information for the person(s) responsible for erosion control inspections and maintenance, designation of an individual liable to the LMRWD for performance under Rule B, and final construction plans signed by a professional engineer.

Rule D – Stormwater Management

The project proposes a total of 3.08 acres of reconstructed impervious area. There is no net change in overall impervious surfaces proposed as part of the project. An existing stormwater pond (MSP Pond 2) will be used for stormwater management of the project. Stormwater for the project site drains to storm sewer that discharges to MSP Pond 2, and ultimately discharges to the Minnesota River. The applicant submitted an XPSWMM 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 existing MSP Pond 2. The existing and proposed discharge rates are provided in Table 1.

Table 1. 2024 Infill Pods Project MSP Pond 2 Discharge Rates Summary

Rainfall Event (24-hour depth)	Existing (Cubic Feet per Second [CFS])	Proposed (CFS)	Difference (CFS)
2-year – 2.83”	190	190	0
10-year – 4.24”	230	230	0
100-year – 7.50”	293	293	0

The modeled runoff rates show no change from existing conditions for the 2-, 10-, and 100-year rainfall events, meeting the rate control requirements of Rule D.

There was no change in the runoff rates from the pond because the project does not affect the amount of impervious surface draining to the pond.

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 3.08 acres of reconstructed impervious area. Therefore, the project must provide 11,180 cubic feet of volume retention to meet Rule D requirements. Additionally, section 5.4.3 of Rule D requires no net increase in total phosphorus (TP) or TSS to receiving waterbodies when compared to existing conditions.

The applicant is proposing to treat the volume of runoff using existing MSP Pond 2. The applicant provided as-built grading information, pond maintenance and sediment removal information, and LiDAR data showing the existing conditions of MSP Pond 2. Currently, MSP is authorized to discharge stormwater under the airport's NPDES Permit MN0002101. This permit requires monitoring and effluent limits for TSS and TP, including monitoring discharge from the MSP stormwater ponds to the Minnesota River. The effluent limits for TSS and TP are stricter than LMRWD rules. The charts in Attachment 1 show that the airport has remained under the effluent limits for both TSS and TP since their permit was issued in 2013.

As presented, MSP Pond 2 has been properly maintained throughout the years and reduces pollutant loading for both TSS and TP, meeting the requirements of Rule D.

Recommendations

Based on our review, we recommend conditional approval of the 2024 Infill Pods Project contingent on receipt of the following:

- Contact information for the contractor(s) undertaking land-disturbing activities.
- Contact information for the person(s) responsible for erosion control inspections and maintenance.
- Designation of an individual liable to the LMRWD for performance under Rule B.
- Final construction plans signed by a professional engineer.

Attachments

- Figure 1—2024 MSP Terminal 1 Concourse G Infill Pods 2-3 (LMRWD 2024-012)
- Attachment 1—TSS and TP Effluent Limits Charts

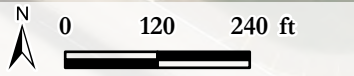


LOWER MINNESOTA RIVER
WATERSHED DISTRICT


Figure I: 2024 MSP Concourse G Infill Pods 2-3 Project Location
LMRWD No. 2024-012



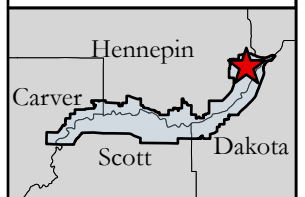
3.08 Acres



Legend

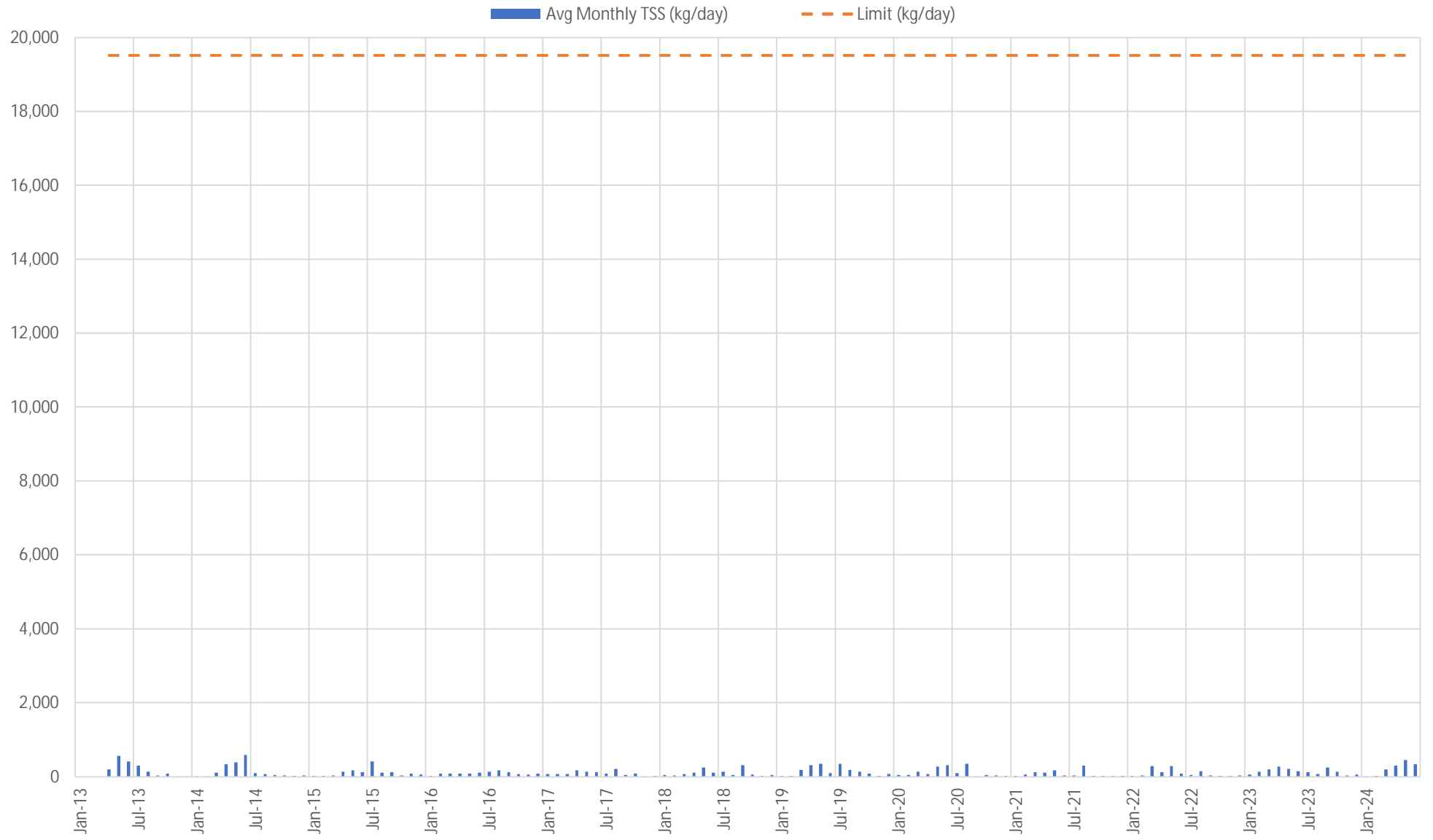
-  Impervious Inside Project Limits

LMRWD Watershed Location Map



Young Environmental
Consulting Group, LLC

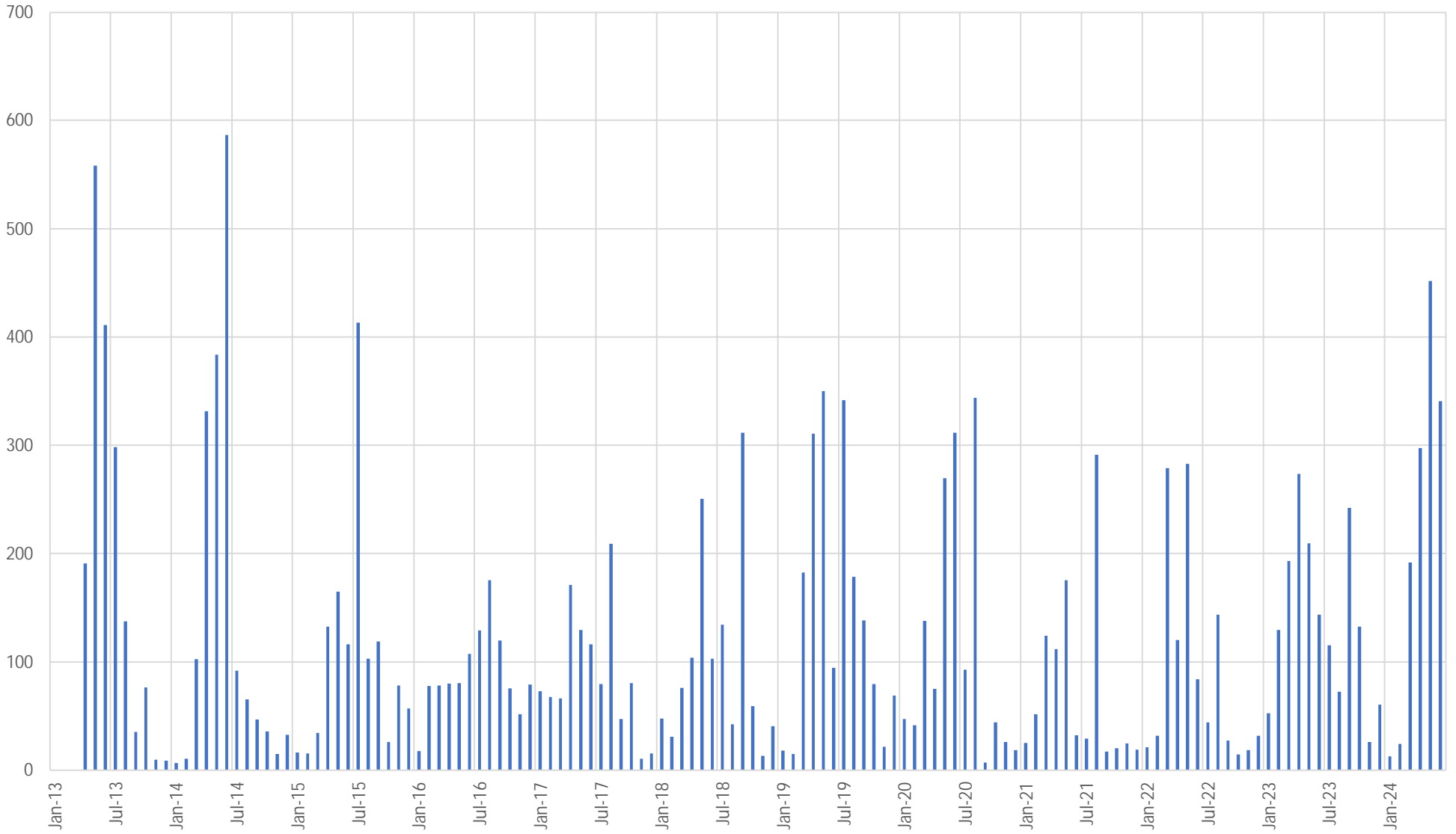
MSP - TSS Compliance Summary (19,520 kg/day calendar month average limit)



MSP - TSS Compliance Summary

(19,520 kg/day calendar month average limit)

■ Avg Monthly TSS (kg/day)



MSP - Total Phosphorus Compliance Summary

(1,134 kg/yr 12-month rolling sum limit)

12- Month Rolling Total Phosphorus (kg/yr) Limit (kg/yr)

