

6 - Appendices

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APPENDIX L:

STATE ENVIRONMENTAL ASSESSMENT WORKSHEET

Environmental Assessment Worksheet

This most recent Environmental Assessment Worksheet (EAW) form and guidance documents are available at the Environmental Quality Board's website at: <https://www.eqb.state.mn.us/> The EAW form provides information about a project that may have the potential for significant environmental effects. Guidance documents provide additional detail and links to resources for completing the EAW form.

Cumulative potential effects can either be addressed under each applicable EAW Item or can be addressed collectively under EAW Item 21.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. Project title: [Airlake Airport \(LVN\) Runway Extension and Associated Improvements](#)

2. Proposer: [Metropolitan Airports Commission \(MAC\)](#)

3. RGU: [Metropolitan Airports Commission](#)

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4. Reason for EAW Preparation: (check one)

Required:

☐ EIS Scoping

☒ Mandatory EAW

Discretionary:

☐ Citizen petition

☐ RGU discretion

☐ Proposer initiated

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):

[The EAW is mandatory pursuant to Minnesota Statute §473.614, Subd.2.](#)

5. Project Location:

- County: [Dakota](#)
- City/Township: [City of Lakeville, Eureka Township](#)
- PLS Location (¼, ¼, Section, Township, Range): [Sections 3 & 4, Township 113N, Range 20W](#)
- Watershed (81 major watershed scale): [Mississippi River – Lake Pepin 38 \(USGS 07040001\)](#)
- GPS Coordinates: [44.6283774, -93.2287488](#)
- Tax Parcel Number: [22-00400-25-020, 22-00400-01-015, 22-00400-02-012, 13-00300-50-010, 13-00300-25-012](#)

At a minimum attach each of the following to the EAW:

- County map showing the general location of the project (Attached)
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable) (Attached)
- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan. (See Environmental Assessment Chapter 2, Alternatives)
- List of data sources, models, and other resources (from the Item-by-Item Guidance: *Climate Adaptation and Resilience* or other) used for information about current Minnesota climate trends and how climate change is anticipated to affect the general location of the project during the life of the project (as detailed below in item 7. Climate Adaptation and Resilience). (Attached)

6. Project Description:

- a. Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).

The project proposes to reconstruct the existing Runway 12/30 pavement, extend Runway 12/30 to 4,850 feet, minimize incompatible land uses, mitigate Runway 12/30 airspace penetrations, meet current FAA airport design standards, modify and/or replace visual navigational aids, expand the fixed base operator (FBO) apron, and relocate the existing stream to accommodate airport improvements.

- b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities

The proposed project at LVN includes reconstruction of the existing Runway 12/30 pavement, extension of Runway 12/30 to a total length of 4,850 feet, modification of visual navigational aids, expansion of the fixed base operator (FBO) apron, relocation of an existing stream, mitigation of airspace penetrations, and improvements necessary to meet current Federal Aviation Administration (FAA) airport design standards. The project is an expansion and improvement of the existing airport facility, which currently serves as a Metropolitan Airports Commission (MAC) Complementary Reliever Airport serving personal, recreational, business, charter, medical, educational, and aircraft management aviation activities.

Construction activities will involve grading, excavation, paving, stream relocation, installation and modification of airport infrastructure, and associated utility and stormwater improvements. These activities will physically alter existing developed airport property, agricultural land, wetlands, and stream resources within the project area. Construction will generate typical wastes associated with earthwork, demolition, pavement removal, and construction materials handling. Wetland and stream impacts resulting from the project will be mitigated in accordance with applicable regulatory requirements.

Modifications to existing airport facilities include reconstruction and extension of Runway 12/30, updates to navigational and lighting infrastructure, expansion of the FBO apron, and changes necessary to bring the airfield into conformance with current FAA design standards.

The project will also include relocation of an existing stream to accommodate the proposed airport improvements.

Development of the EA/EAW began in July 2022 and was paused in August 2023 pending completion of utility and FAA coordination. The environmental review process resumed in January 2026 after those coordination efforts progressed. Construction on the project is expected to begin summer of 2028.

c. Project magnitude:

Description	Number
Total Project Acreage	148 acres
Linear project length	N/A
Number and type of residential units	0
Residential building area (in square feet)	0
Commercial building area (in square feet)	0
Industrial building area (in square feet)	0
Institutional building area (in square feet)	0
Other uses – Airport Facilities and Airfield	6.45 million sf
Structure height(s)	~30' or less

For more information on project description and magnitude, see Environmental Assessment Chapter 2, Alternatives.

d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

For information on project purpose and need, refer to Environmental Assessment Chapter 1, Introduction and Purpose & Need, Sections 1.2 Project Purpose and 1.3 Project Need.

e. Are future stages of this development including development on any other property planned or likely to happen? ☐ Yes ☒ No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

f. Is this project a subsequent stage of an earlier project? ☐ Yes ☒ No

If yes, briefly describe the past development, timeline and any past environmental review.

Development of the EA/EAW began in July 2022 but was suspended in August 2023 awaiting completion of MAC negotiations with affected utility companies and the Federal Aviation Administration (FAA) regarding underground utilities on MAC property. In January 2026, negotiations reached a point at which the EA process could resume. No portion of the project has entered into construction.

7. Climate Adaptation and Resilience:

- a. Describe the climate trends in the general location of the project (see guidance: *Climate Adaptation and Resilience*) and how climate change is anticipated to affect that location during the life of the project.

Based on information from the Minnesota Climate Explorer and Climate Mapping for Resilience and Adaptation (CliMAT) tools, both winter and summer temperatures are projected to increase substantially over the life of the project. Future climate projections indicate warmer average conditions and higher maximum temperatures, particularly during the summer months. Depending on the emissions scenario evaluated, annual daily maximum temperatures are projected to increase by approximately 5 to 7 degrees Fahrenheit by late century. Warmer conditions may affect pavement performance, increase stress on infrastructure, and lengthen the growing season.

Climate projections also indicate that extreme precipitation events are likely to become more intense. While total precipitation patterns and the frequency of heavy precipitation events vary among climate models, projected increases in the maximum amount of precipitation occurring during a single day suggest a greater potential for localized flooding, erosion, and stormwater management challenges. In addition, some projections indicate that precipitation may occur in fewer but more intense events, resulting in longer intervals between rainfall events and periods of drier conditions.

For Airlake Airport, the climate trends most relevant during the life of the project are increasing temperatures, increasing precipitation intensity during extreme storm events, and greater variability in precipitation patterns. These trends have the potential to affect airfield pavements, drainage infrastructure, stream stability, culvert performance, stormwater management systems, and maintenance activities over time.

Data for this section is attached.

- b. For each Resource Category in the table below: Describe how the project's proposed activities and how the project's design will interact with those climate trends. Describe proposed adaptations to address the project effects identified.

The following discussion describes how projected climate trends identified in Item 7a could interact with the Proposed Action and summarizes design features and operational practices that improve the resilience of the project to future climate conditions.

Resource Category	Climate Considerations (example text provided below is to be replaced with project-specific information)	Project Information	Adaptations
Project Design	Higher average temperatures and more frequent extreme heat events may increase pavement deterioration and maintenance requirements. Increased frequency and intensity of heavy precipitation events may increase flooding, erosion, and stormwater management challenges.	Climate change risks and vulnerabilities identified include: Increased runoff during heavy rainfall events, localized flooding, increased wear on airfield pavement and infrastructure due to higher temperatures.	The existing infiltration basin will be expanded to accommodate increased runoff and localized flooding. Airport infrastructure will be designed in accordance with current FAA and applicable engineering standards, and ongoing maintenance and inspection of pavement, stormwater, and stream infrastructure will help maintain long-term resilience to future climate conditions.
Land Use	Climate change may increase the likelihood of localized flooding, erosion, and changes in vegetation management requirements that could affect airport operations. For information on the project's compatibility with nearby land uses, plans, and zoning, as well as measures incorporated into the project to mitigate potential incompatibility, See Environmental Assessment Chapter 3 Section 9 – Land Use.	The project is located within an existing airport environment and is consistent with adopted airport planning documents and surrounding land use patterns. The Proposed Action does not induce new development in areas vulnerable to flooding or other climate-related hazards.	Stormwater management, drainage improvements, and stream relocation elements have been incorporated into the project design to reduce vulnerability to flooding and erosion. Additional information is provided in EA Chapter 3, Section 9 (Land Use) and Section 14 (Water Resources).
Water Resources	Increased precipitation intensity may increase runoff, erosion, sediment transport, stream instability, and localized flooding. Periods of wetter and drier conditions may also affect stream function and stormwater management performance. For information on existing water resources, including both surface water and	The project includes relocation of approximately 1,164 linear feet of an intermittent stream, culvert modifications, wetland impacts, and expansion of stormwater management infrastructure.	Stream relocation, culvert design, and stormwater management facilities have been designed to maintain hydraulic function and downstream connectivity while reducing existing ponding and drainage inefficiencies. Existing infiltration BMPs will be

	groundwater, and measures to minimize or mitigate effects, see Environmental Assessment Chapter 3 Section 14 – Water Resources.		expanded or modified as necessary to accommodate increased runoff volumes. Additional information is provided in EA Chapter 3, Section 14 (Water Resources).
Contamination/ Hazardous Materials/Wastes	For information on pre-project site conditions and project-related generation/storage of solid wastes and hazardous materials, see Environmental Assessment Chapter 3 Section 7 – Hazardous Materials, Solid Waste, and Pollution.	The project area is located within an active airport environment where fuels, lubricants, and maintenance materials are routinely managed in accordance with applicable regulations. No active contamination sources were identified within the project area.	Spill prevention procedures, proper material storage practices, and construction BMPs will continue to be implemented to minimize release risks during both routine operations and extreme weather events. Additional information is provided in EA Chapter 3, Section 7 (Hazardous Materials, Solid Waste, and Pollution Prevention)

Resource Category	Climate Considerations (example text provided below is to be replaced with project-specific information)	Project Information	Adaptations
Fish, wildlife, plant communities, and sensitive ecological resources (rare features)	Changing temperature and precipitation patterns may alter habitat conditions, species distributions, vegetation communities, and hydrologic conditions over time. For information on existing biotic communities and rare features on and near the site, including information on effects to biotic communities and rare features, and associated measures that will be taken to avoid, minimize, or mitigate adverse effects, see Environmental Assessment Chapter 3 Section 4 – Biological Resources	The project area consists largely of maintained airport lands with limited wildlife habitat. Biological resources potentially affected by the project include wetlands, stream corridors, and associated vegetation communities.	Stream relocation, vegetation management, wetland replacement, and stormwater measures have been designed to maintain ecological function while avoiding creation of wildlife attractants that could increase aviation safety risks. Additional information is provided in EA Chapter 3, Section 4 (Biological Resources).

8. **Cover types:** Estimate the acreage of the site with each of the following cover types before and after development:

Cover Types	Before (acres)	After (acres)
Wetlands and shallow lakes (<2 meters deep)	3.61	3.17
Deep lakes (>2 meters deep)	0	0
Wooded/forest	0.48	0.42
Rivers/streams	0.93	1.00
Brush/Grassland	0	0
Cropland	43.1	0
Livestock rangeland/pastureland	0	0
Lawn/landscaping	77.96	115.99
Green infrastructure TOTAL (from table below*)	0	0
Impervious surface	19.59	24.62
Stormwater Pond (wet sedimentation basin)	0	0.47
Other (describe)	0	0
TOTAL	145.67	145.67

Green Infrastructure*	Before (acreage)	After (acreage)
Constructed infiltration systems (infiltration basins/infiltration trenches/ rainwater gardens/bioretention areas without underdrains/swales with impermeable check dams)	0	0
Constructed tree trenches and tree boxes	0	0
Constructed wetlands	0	0
Constructed green roofs	0	0
Constructed permeable pavements	0	0
Other (describe)	0	0
TOTAL*	0	0

<u>Trees</u>	<u>Percent</u>	<u>Number</u>
Percent tree canopy removed or number of mature trees removed during development		30
Number of new trees planted		To be determined in design

9. Permits and approvals required: List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. *All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.*

Unit of Government	Type of Application	Status
MnDNR	Public Waters Work Permit	To be applied for
USACE	Section 404 Permit	To be applied for
BWSR/USACE	Wetland Mitigation Banking approval	To be applied for
FAA	Airport Layout Plan Approval	Received
FAA	NEPA Review	EA in progress
FAA	Airport Improvement Program Funding	In progress
MPCA	National Pollutant Discharge Elimination System / Section 401	To be applied for
USFWS	No effect/not likely to adversely affect determination for endangered species	Received
NRCS/USDA	Farmland Conversion review	Received
City of Lakeville	Shoreland Ordinance compliance approval Wetland Replacement Plan Approval (LGU)	To be applied for, if needed
Vermillion River Watershed Joint Powers Organization (VRWJPO)	VRWJPO Stormwater Standards compliance approval	To be applied for

10. Land use:

For discussion of the project's compatibility with nearby land uses, plans, and zoning, as well as measures incorporated into the project to mitigate potential incompatibility, see Environmental Assessment Chapter 3 Section 9 – Land Use.

11. Geology, soils and topography/land forms:

- a. Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

The project area is underlain by bedrock of the Prairie du Chien Group, consisting primarily of the Shakopee Formation and Oneota Dolomite. These formations are dominated by dolostone with interbedded sandy dolostone and sandstone units. The Prairie du Chien Group is a carbonate bedrock unit that can exhibit karst characteristics in portions of southeastern Minnesota where bedrock is exposed or shallow.

A review of the MnDNR Karst Feature Inventory indicates that the project area is not located within an area of known sinkholes or documented karst features. Because the project is not located within an area of known karst features and excavation depths are anticipated to be limited to approximately 8 feet or less, project activities are not expected to affect carbonate bedrock resources or karst features. Ground disturbance associated with the project would primarily affect unconsolidated surficial materials and existing developed airport property. Project activities are not anticipated to adversely affect underlying bedrock geologic resources.

- b. Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 12.b.ii.

The project area is underlain by a variety of NRCS-mapped soil units. The predominant soil units are Waukegan silt loam, 0 to 1 percent slopes (87.9 acres, 59.3 percent of the AOI) and Waukegan silt loam, 1 to 6 percent slopes (19.4 acres, 13.1 percent of the AOI). According to the NRCS Web Soil Survey (WSS), these Waukegan soils are well-drained silt loams formed in glaciofluvial sediments over outwash. They have no seasonal water table within 80 inches of the surface, and contain silt loam surface horizons underlain by gravelly sand and gravelly coarse sand, indicating relatively permeable subsurface materials. Other mapped soil units include Marshan silty clay loam, Ostrander loam, Wadena loam, Estherville sandy loam, Kennebec silt loam, Mayer silt loam, Mayer loam swales, Kanaranzi loam, Urban land-Waukegan complex, and Anthroportic Udorthents.

The project area is generally level to gently sloping. Most mapped soils occur on slopes ranging from 0 to 6 percent, with only a small area of Ostrander loam mapped on 6 to 12 percent slopes and Anthroportic Udorthents mapped on 2 to 9 percent slopes. Topography

across much of the site consists of relatively flat outwash plains and stream terrace landforms. The Proposed Action would require approximately 41 acres of temporary and permanent ground disturbance associated with runway reconstruction, runway extension, taxiway and apron improvements, stream relocation, utility work, and roadway modifications. Preliminary design estimates indicate that approximately 104,570 cubic yards of excavation and fill may be required. Maximum excavation depths are anticipated to be approximately 3 feet within runway reconstruction areas and up to 6 to 8 feet in areas associated with stream relocation and drainage improvements. These values are preliminary and will continue to be refined during final design.

Erosion susceptibility within the project area is generally low to moderate. Whole-soil erosion factor (K) values, a soil erosion factor that indicates the susceptibility of a soil to sheet and rill erosion by water, was reviewed for the project area. Values of K are based primarily on the percentage of silt, sand, and organic material in the soil profile, and can range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Values of K within the project area range from 0.20 to 0.37, with the highest values occurring in Kennebec silt loam and Anthropotic Udorthents. The dominant Waukegan soils have K values of approximately 0.32. Because most of the project area consists of relatively level terrain, significant erosion is not expected under existing conditions. BMPs will be implemented to prevent temporary erosion that may occur during project construction.

Construction-related impacts to soils would include excavation, grading, soil compaction, soil disturbance, and temporary exposure of soils to erosion. The greatest soil disturbance is anticipated within runway reconstruction areas, proposed runway extensions, and stream relocation areas. Temporary increases in erosion potential may occur where soils are exposed during construction. Operational impacts would be limited to permanent grade modifications, soil compaction beneath infrastructure, and long-term conversion of disturbed soils to stabilized vegetation, pavement, or other developed surfaces. Following construction, disturbed areas not converted to pavement or other developed surfaces would be stabilized through establishment of vegetation or other appropriate surface treatments consistent with final design and permit requirements.

Geotechnical investigations are currently being coordinated to further evaluate subsurface soil conditions, groundwater conditions, and the presence of unsuitable materials. Based on preliminary engineering assumptions, portions of the existing pavement subgrade may require removal and replacement to support reconstruction activities. Results of the geotechnical investigation will be incorporated into final project design and construction specifications, as appropriate.

12. Water resources:

Discussion of water resources, including wastewater, stormwater, and surface water, is included in Environmental Assessment Chapter 3 Section 14 – Water Resources.

13. Contamination/Hazardous Materials/Wastes:

Discussion of contamination, hazardous materials, and wastes, is included in Environmental Assessment Chapter 3 Section 7 – Hazardous Materials, Solid Waste, and Pollution Prevention.

14. Fish, wildlife, plant communities, and sensitive ecological resources (rare features):

Discussion of fish, wildlife, plant communities, and sensitive ecological resources (rare features) is included in Environmental Assessment Chapter 3 Section 4 – Biological Resources.

15. Historic properties:

Discussion of historic properties, including any historic structures, archeological sites, and/or traditional cultural properties on or near the site, is included in Environmental Assessment Chapter 3 Section 8 – Historical, Architectural, Archeological, and Cultural Resources.

16. Visual:

Discussions of visual effect, including any scenic views or vistas on or near the project site, is included in Environmental Assessment Chapter 3 Section 13 – Visual Effects.

17. Air:

Discussion of air quality, including type, sources, quantities and compositions of any emissions from stationary sources, and any sensitive receptors, human health or applicable regulatory criteria, is included in Environmental Assessment Chapter 3 Section 3 – Aviation Emissions and Air Quality.

18. Greenhouse Gas (GHG) Emissions/Carbon Footprint

Methodology

For this analysis, emissions associated with the Proposed Action were prepared for CO₂, CH₄, and N₂O and presented as CO₂e in metric tons per year relevant to their global warming potential (GWP). The CO₂ equivalent is estimated by taking the mass equivalent of each pollutant (tons per year), multiplying by the GWP equivalent of each pollutant, and then adding them together. For example, CO₂ is 1 GWP, CH₄ is 29.8 GWP, and N₂O is 273 GWP, according to the IPCC Sixth Assessment Report.¹

The methodology and assumptions for the analysis are consistent with the air quality analysis discussed Section 3.2 of the *Air Quality Technical Analysis Report* found in EA Appendix D for the construction emissions. Aircraft operations methodology is discussed in the following section of Appendix D.

The FAA Aviation Environmental Design Tool (AEDT), version 4a, was used to estimate emissions from auxiliary power units (APUs), ground support equipment (GSE), and aviation activities, including aircraft takeoffs, landings, and ground emissions from aircraft taxiing and idling. AEDT is the required tool for the environmental review of infrastructure projects and other federal actions affecting airports and airspace in the United States. The analysis includes an assessment of criteria and CO₂, CH₄, and N₂O air pollutants from these sources for the opening and five-year forecast Proposed Action and No Action Alternatives. The AEDT model estimated emissions for each condition using the same set of model inputs and forecast operations that were used for the noise calculations, as documented in the *Noise Technical Analysis Report* for the proposed project. In addition, the aircraft operational emission estimates include emissions from GSE and APUs.

The AEDT default taxi times and AEDT default GSE equipment were assumed for the Proposed Action and No Action Alternatives. Aircraft operations emissions were estimated from full flight tracks (below 10,000 ft for departures; below 6,000 ft for arrivals) and include:

- Start up
- Taxi out
- Climb below the mixing height
- Descent below the mixing height
- Taxi in
- GSE
- Landing and takeoff (LTO)

The aircraft engine emission factors are included in AEDT and are based on the most recent version of the International Civil Aviation Organization (ICAO) Engine Emissions Databank. Therefore, through AEDT, the ICAO emission factors are used to estimate emissions from aircraft engines.

Ground Support Equipment (GSE)

GSE at airports such as LVN include baggage tractors, aircraft pushback tractors, diesel and gasoline ground power units that provide services to aircraft while they are on the ground being loaded with passengers and cargo. GSE emissions were estimated using emission factors from FAA's AEDT model.

Auxiliary Power Units (APU)

APUs are small utility engines incorporated into the airframe of an aircraft that operate on jet fuel and are used to provide power for lights and navigational equipment and heated/cooled air to the passenger

¹ <https://erce.energy/erceipccsixthassessment/>

areas of the aircraft while it is parked on the ground. Emissions of criteria pollutants and CO₂, CH₄, and N₂O from APUs were estimated using the FAA's recommended APU time for each aircraft operation being modeled for the Proposed Action and No Action Alternatives. For this analysis, aircraft ground operations were modeled using AEDT's 26-minute default APU time, or 13 minutes per arrival and 13 minutes per departure.

Proposed Action GHG Emission Summary

Table 1 presents the annual CO₂, CH₄, and N₂O emissions for construction activities associated with the Proposed Action construction for 2028 as well as the operational emissions for the Proposed Action and No Action Alternatives for the future 2033 Operational Year.

Increases in construction emissions of the Proposed Action Alternative compared to the No Action Alternative would be temporary. Increases in operational emissions of the Proposed Action Alternative compared to the No Action Alternative would be slightly higher.

Table 1. CO₂, CH₄, and N₂O Emissions Associated with Construction and Operations for the Proposed Action and No Action Alternative

Year	Pollutant (metric tons/year)			CO ₂ e (metric tons/year) ^{Notes 2}
	CO ₂	CH ₄	N ₂ O	
Construction ^{Note 1}				
2028	12,458	0.10	0.06	12,478
Operational ^{Notes 3,4,5}				
2033 No Action	1,402	0.0001	--	1,402
2033 Proposed Action	1,776	0.0001	--	1,776
2033 Change (Proposed Action-No Action)	374	0	--	374
Source: HMMH, 2026				
Notes:				
1. Construction emissions are derived from ACEIT and MOVES.				
2. Emissions in the table include the GWP for each pollutant.				
3. Aircraft CO ₂ emissions were derived from AEDT full fuel burn consistent with FAA AQ Handbook Version 4 and includes all aircraft modes, including GSE and APUs.				
4. Based on the nature of operations at LVN, no aircraft that use APU's operate at LVN. Therefore, APU emissions were not reported.				
5. AEDT does not report CH ₄ and N ₂ O emissions for aircraft. Therefore, CH ₄ and N ₂ O emissions were not included in the table.				
6. GSE CO ₂ and CH ₄ emissions were calculated externally using MOVES NONROAD emission factors and were added to the aircraft totals.				
7. MOVES NONROAD does not output N ₂ O emission factors for GSE. Therefore, N ₂ O emissions were not included.				
8. GWP values for aircraft derived from IPC 6 th Assessment Report were used in the calculation of CO ₂ e.				

Describe any mitigation considered to reduce the project's GHG emissions.

The Proposed Action largely accommodates existing aviation demand within the MAC reliever airport system, planning for a redistribution of some operations from other regional airports. As a result, the project is not expected to induce substantial new aviation activity or GHG emissions within the metropolitan area. During construction, contractors would be encouraged to minimize unnecessary equipment idling, maintain equipment in good working order, and reuse or recycle construction materials where practicable. Operationally, the project would continue to support implementation of broader aviation industry initiatives intended to reduce GHG emissions, including improvements in aircraft and engine efficiency and operational efficiency measures.

Describe and quantify reductions from selected mitigation, if proposed to reduce the project's GHG emissions. Explain why the selected mitigation was preferred.

No specific measures are proposed.

Quantify the proposed projects predicted net lifetime GHG emissions (total tons/#of years) and how those predicted emissions may affect achievement of the Minnesota Next Generation Energy Act goals and/or other more stringent state or local GHG reduction goals.

The HMMH greenhouse gas analysis estimated construction emissions of approximately 12,478 metric tons CO₂e associated with implementation of the Proposed Action. Operational emissions in the 2033 analysis year are estimated at approximately 1,776 metric tons CO₂e per year, compared to 1,402 metric tons CO₂e per year under the No Action Alternative, resulting in a net increase of approximately 374 metric tons CO₂e per year.

If the annual operational difference of 374 metric tons CO₂e were assumed to remain constant over a 20-year operational period, the Proposed Action would result in approximately 7,480 metric tons CO₂e of additional operational emissions relative to the No Action Alternative, plus the one-time construction emissions of 12,478 metric tons CO₂e, for a total net lifecycle increase of approximately 19,958 metric tons CO₂e. These values are planning-level estimates and do not account for future changes in aircraft technology, fleet turnover, or operational efficiency improvements.

Relative to statewide GHG inventories and reduction targets, these emissions represent a small contribution. In addition, a portion of the forecasted increase in aircraft activity at Airlake reflects redistribution of aviation activity within the MAC reliever airport system rather than new aviation demand. As a result, some aircraft owners, operators, and aviation-related businesses may be able to conduct operations from an airport located closer to their homes, aircraft storage locations, or places of business. While these potential changes in travel patterns were not quantified as part of the GHG analysis, they could partially offset a portion of project-related emissions by reducing ground transportation travel associated with airport access.

Accordingly, while the Proposed Action would result in a modest increase in project-level GHG emissions compared to the No Action Alternative, it is not expected to substantially affect achievement of Minnesota's Next Generation Energy Act goals or other state and local greenhouse gas reduction goals.

19. Noise

Discussion of noise, including sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation, is included in Environmental Assessment Chapter 3 Section 11 – Noise and Noise Compatible Land Use

20. Transportation

- a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

The proposed action would include a minor realignment of a segment of 225th Street West to enhance airfield safety and route the road around the runway protection zone. This realignment would result in localized changes in roadway configuration and access patterns for nearby properties, including rural residences and adjacent community and commercial uses along Cedar Avenue. Access to these properties would be maintained, though travel routes may be slightly altered. These changes would be limited and would not result in displacement of residents, businesses, or community facilities, nor would they substantially affect regional access or circulation. No additional congestion is anticipated, no additional parking spaces added, no existing parking spaces will be affected, and no new traffic will be generated. Existing rights-of-way and/or easements for roads may need to be vacated or extinguished, and new rights-of-way and/or easements established. The relocation of 225th Street West on the west side of Cedar Avenue was cleared under Minnesota Environmental Assessment Worksheet Finding dated April 2026.

- b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. *If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW.* Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: <http://www.dot.state.mn.us/accessmanagement/resources.html>) or a similar local guidance

The preferred alternative is not expected to generate substantial additional vehicle traffic when compared to the no-action alternative. Temporary increases to local traffic may be expected during construction. The EQB EAW Guidelines for Preparing Environmental Assessment Worksheets published October 2013 indicate that for projects with only minor traffic impacts, generation of a maximum peak hour traffic estimate is not necessary. Therefore, such an estimate is not required and was not developed for this EA/EAW.

The EQB EAW Guidelines also state that when there is no reason to expect new or worsened traffic congestion, or if the parking capacity of the site is fewer than 2,000 parking spaces, a detailed air quality analysis for vehicle emissions is not required. The guidelines note that "if the peak hour traffic generated by the project exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW." The proposed action will not result in traffic in excess of these numbers, therefore a traffic impact study is not required and was not developed for this EA/EAW.

- c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

No transportation effects are anticipated.

21. Cumulative potential effects: (Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

- a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

The geographic area for evaluating cumulative potential effects generally includes Airlake Airport and adjacent properties that could be affected by changes in airport infrastructure, transportation facilities, water resources, noise, air quality, land use, and ecological resources. Depending on the resource evaluated, the geographic scale ranges from the immediate project area to the surrounding watershed and airport environs. The relevant timeframe includes project construction and the long-term operational period associated with the proposed runway, taxiway, apron, stream, roadway, and stormwater improvements.

- b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

Recent and reasonably foreseeable projects within the vicinity of the Airport include roadway improvements associated with 225th Street, portions of which have already been completed. Future transportation improvements within the Airport vicinity may occur as identified through local transportation planning efforts. In addition, future airport development projects identified in the Airlake Airport Long-Term Comprehensive Plan may be implemented over time as funding, operational needs, and regulatory approvals allow. Any future projects would be subject to applicable environmental review, permitting, and regulatory requirements, as appropriate.

- c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

The Proposed Action would occur within an area that has historically been influenced by transportation, airport, agricultural, and commercial land uses. Potential cumulative effects could include incremental changes to land use, transportation infrastructure, stormwater management systems, wetlands, surface waters, noise, air quality, and biological resources. However, the project has been designed to minimize impacts through avoidance, minimization, stormwater management, wetland replacement, stream design, wildlife hazard considerations, and compliance with applicable federal, state, and local regulations.

The roadway improvements previously completed for 225th Street and other reasonably foreseeable transportation or airport-related projects are not expected to combine with the Proposed Action in a manner that would result in significant cumulative environmental effects. Future projects within the Airport vicinity would be reviewed independently and would be required to comply with applicable environmental regulations and permitting requirements. Therefore, significant cumulative potential effects are not anticipated.

22. Other potential environmental effects: If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

NA

RGU CERTIFICATION. *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

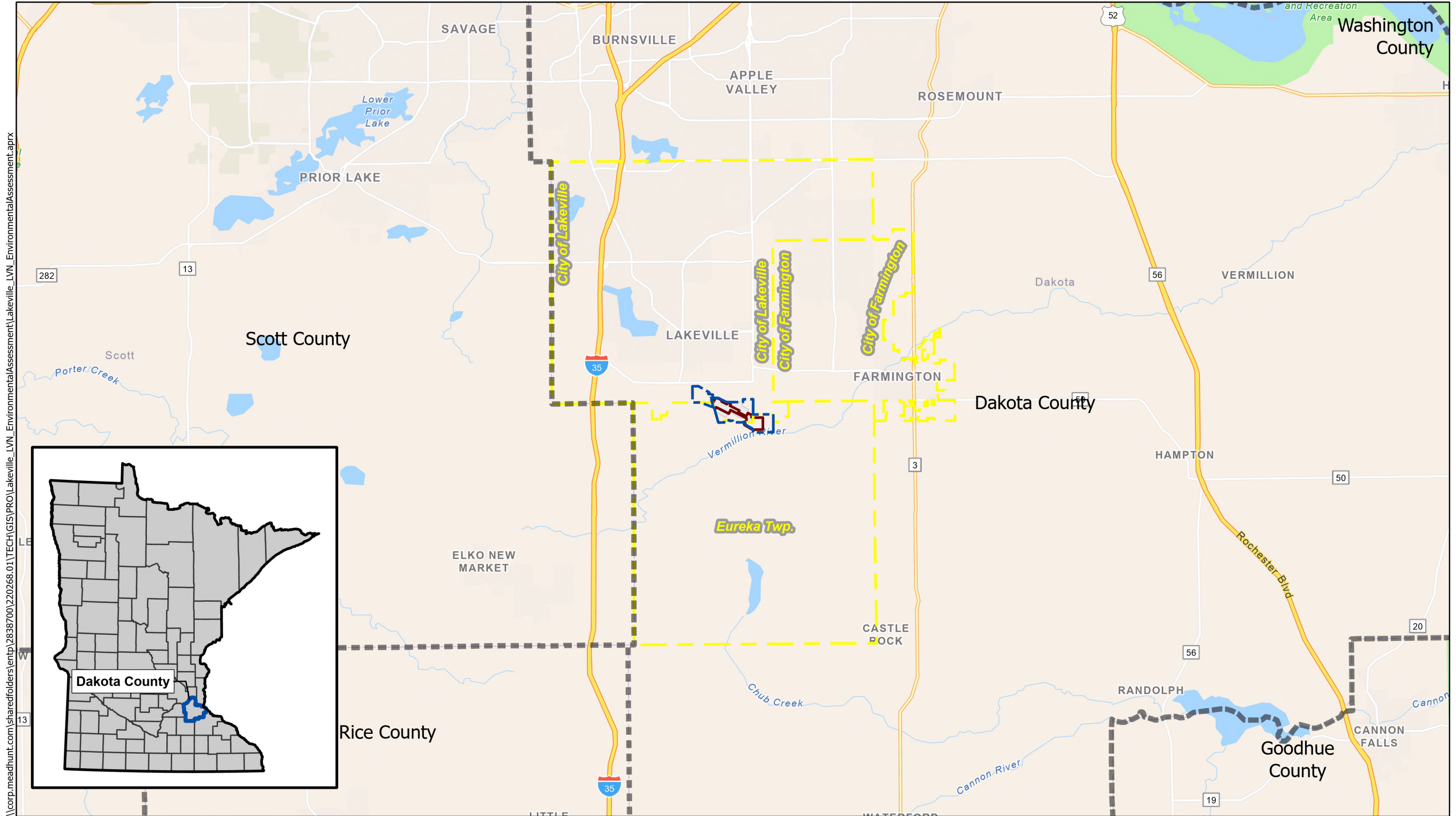
I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature Bridget Rief

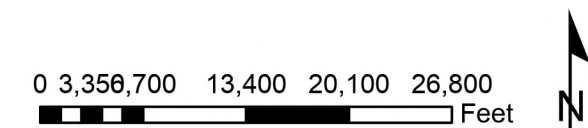
Date September 22, 2026

Title Vice President – Planning and Development



PROJECT LOCATION MAP

AIRLAKE AIRPORT



Legend

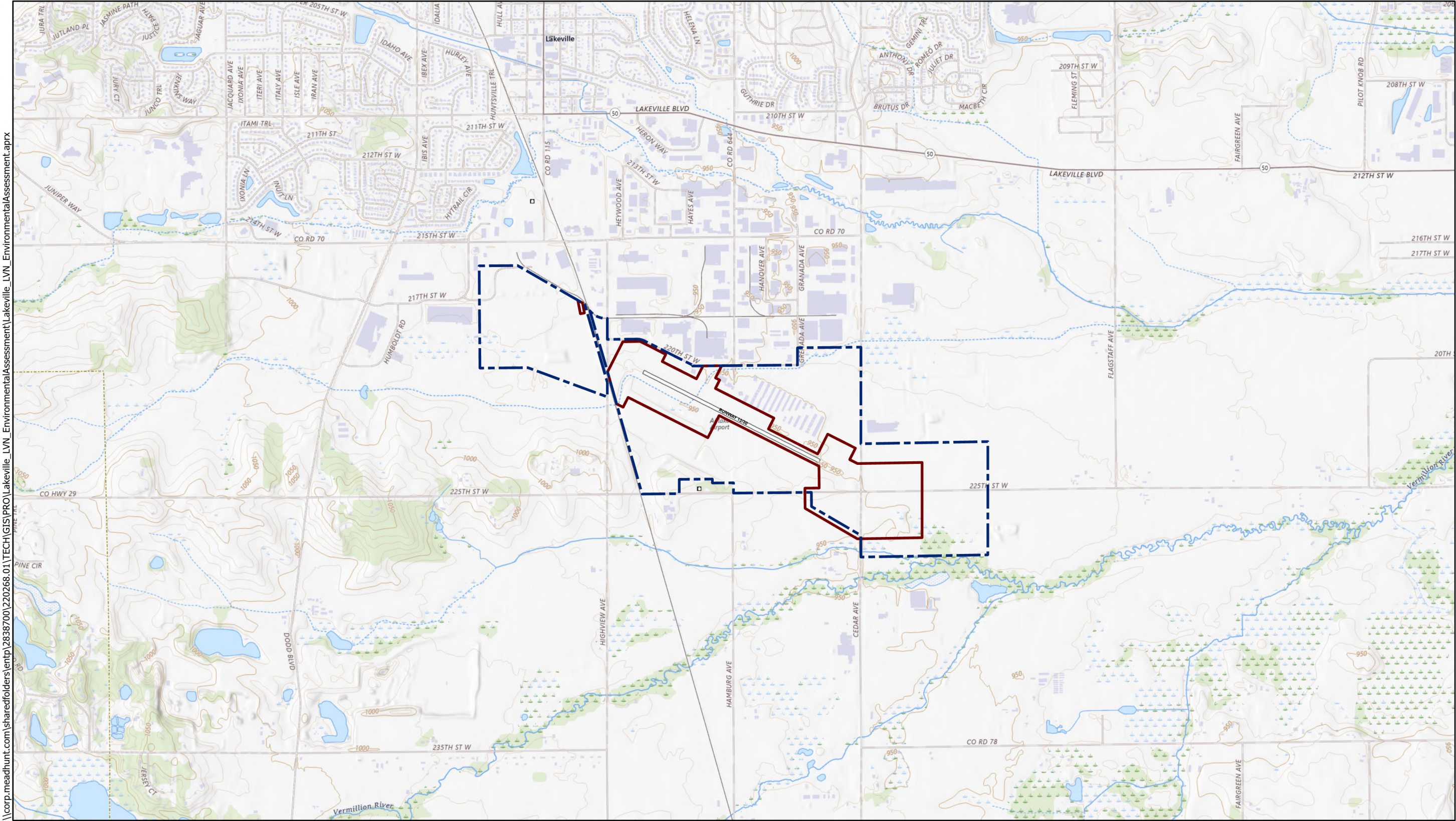
- | | |
|--|--|
|  Airport Property Boundary |  Corporate Boundary |
|  Project Area of Interest (AOI) |  USA_County |

DATA SOURCES

1. Image Source: MnGeo WMS Image Service, NAIP 2021, accessed at <https://imageserver.gisdata.mn.gov/cgi-bin/wms?>
2. Township, Range, and Section (TRS) Boundaries from MN Geospatial Commons accessed at <https://gisdata.mn.gov/dataset/plan-mngeo-trs>
3. Corporate boundaries from Counties and Cities and Townships 2020, Twin Cities Metropolitan Area accessed at <https://gisdata.mn.gov/dataset/us-mn-state-metc-bdry-census2020counties-ctus>

PROJECT LOCATION

Sections 32 and 33, T114, R20W
Sections 3 and 4, T113, R20W
City of Lakeville
Dakota County, MN



USGS TOPOGRAPHIC MAPPING

AIRLAKE AIRPORT

0 500 1,000 2,000 3,000 4,000 Feet



Legend

-  Airport Property Boundary
-  Project Area of Interest (AOI)

- DATA SOURCES**
- Image Source: MnGeo WMS Image Service, NAIP 2021, accessed at <https://imageserver.gisdata.mn.gov/cgi-bin/wms?>
 - USGS TNM Topo Base Map, ESRI, Inc. Base Map

PROJECT LOCATION
Sections 32 and 33, T114, R20W
Sections 3 and 4, T113, R20W
City of Lakeville
Dakota County, MN

Airlake Airport EAW - Climate Data Source Figures

Source index for figures used to support EAW Item 7a (Climate Adaptation and Resilience)

Figure	Tool / source	Variable	Time period / scenario	Displayed result	How it supports Item 7a	Source note
1	Minnesota Climate Explorer	January precipitation	1980-1999 modeled present; 2040-2059 RCP 4.5; 2080-2099 RCP 4.5 and RCP 8.5	Average January temperatures are projected to increase across nearly all climate models and emissions scenarios. The modeled average January temperature increases from approximately 15°F under modeled present conditions (1980-1999) to approximately 19-23°F by mid-century and approximately 21-31°F by late century, depending on the climate model and emissions scenario.	Supports discussion of uncertainty and variability in future precipitation projections.	Graph states it was generated by Minnesota DNR using University of Minnesota climate modeling data.
2	Minnesota Climate Explorer	July average temperature	1980-1999 modeled present; 2040-2059 RCP 4.5; 2080-2099 RCP 4.5 and RCP 8.5	Average July temperatures increase across nearly all models under future climate scenarios.	Supports the conclusion that both average temperatures and extreme heat conditions are expected to increase during the summer season, which is particularly relevant to airport pavement performance, infrastructure maintenance, and operational conditions.	Graph states it was generated by Minnesota DNR using University of Minnesota climate modeling data.
3	Minnesota Climate Explorer	July precipitation	1980-1999 modeled present; 2040-2059 RCP 4.5; 2080-2099 RCP 4.5 and RCP 8.5	Model means and inter-model ranges generally increase under future climate scenarios, with substantial variability among models.	Supports the conclusion that summer precipitation patterns may become more variable and that some climate models project greater precipitation totals during the summer season.	Graph states it was generated by Minnesota DNR using University of Minnesota climate modeling data.
4	Minnesota Climate Explorer	January average temperature	1980-1999 modeled present; 2040-2059 RCP 4.5; 2080-2099 RCP 4.5 and RCP 8.5	Model means rise from modeled-present values to higher mid- and late-century values.	Supports the conclusion that winter temperatures are projected to increase.	Graph states it was generated by Minnesota DNR using University of Minnesota climate modeling data.
5	CliMAT	Annual days with precipitation >2 inches	Late century 2060-2079, SSP245	Projected watershed average change: +0.1 day relative to 1995-2014.	Indicates little change in the frequency of >2-inch days under this scenario; does not, by itself, support a strong frequency increase claim.	Model: ensemble; climate.umn.edu v1.1.
6	CliMAT	Annual days with precipitation >2 inches	Late century 2060-2079, SSP370	Projected watershed average change: -0.1 day relative to 1995-2014.	Shows scenario uncertainty and supports using “greater intensity” rather than broadly claiming more frequent >2-inch events.	Model: ensemble; climate.umn.edu v1.1.
7	CliMAT	Annual days with precipitation >0.01 inch	Late century 2060-2079, SSP370	Projected watershed average change: -11.6 days relative to 1995-2014.	Supports a cautious statement that measurable precipitation may occur on fewer days under the higher-emissions scenario.	Model: ensemble; climate.umn.edu v1.1.

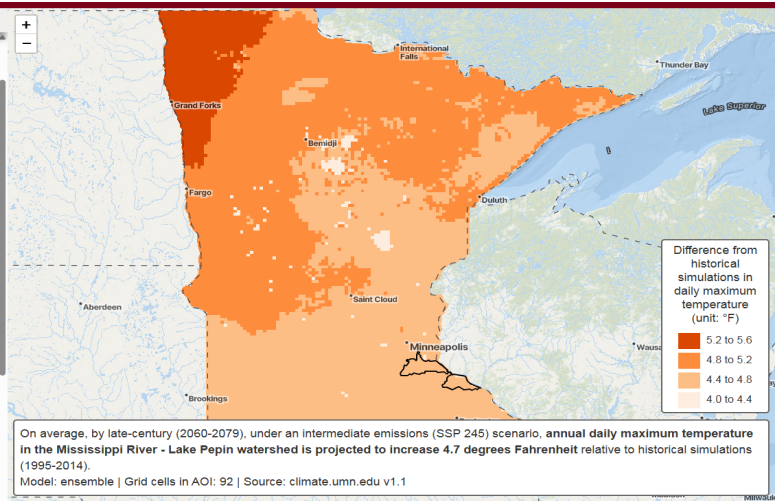
8	CliMAT	Annual days with precipitation >0.01 inch	Late century 2060-2079, SSP245	Projected watershed average change: -3.5 days relative to 1995-2014.	Supports a cautious statement that measurable precipitation may occur on fewer days under the intermediate scenario.	Model: ensemble; climate.umn.edu v1.1.
9	CliMAT	Annual maximum precipitation amount in 1 day	Late century 2060-2079, SSP245	Projected watershed average change: +0.5 inch relative to 1995-2014.	Supports the conclusion that extreme single-day precipitation may become more intense.	Model: ensemble; climate.umn.edu v1.1.
10	CliMAT	Annual maximum precipitation amount in 1 day	Late century 2060-2079, SSP370	Projected watershed average change: +0.3 inch relative to 1995-2014.	Supports the conclusion that extreme single-day precipitation may become more intense.	Model: ensemble; climate.umn.edu v1.1.
11	CliMAT	Annual daily maximum temperature	Late century 2060-2079, SSP370	Projected watershed average change: +6.6°F relative to 1995-2014.	Supports the conclusion that maximum temperatures are projected to increase substantially.	Model: ensemble; climate.umn.edu v1.1.
12	CliMAT	Annual daily maximum temperature	Late century 2060-2079, SSP245	Projected watershed average change: +4.7°F relative to 1995-2014.	Supports the conclusion that maximum temperatures are projected to increase substantially.	Model: ensemble; climate.umn.edu v1.1.

Note: Climate figures and data were exported from the Minnesota Climate Explorer and the Climate Mapping and Analysis Tool (CliMAT). The Mississippi River - Lake Pepin watershed is used to denote the project location. Figure-specific variables, scenarios, time periods, and displayed results are listed in the Figure Source Index.

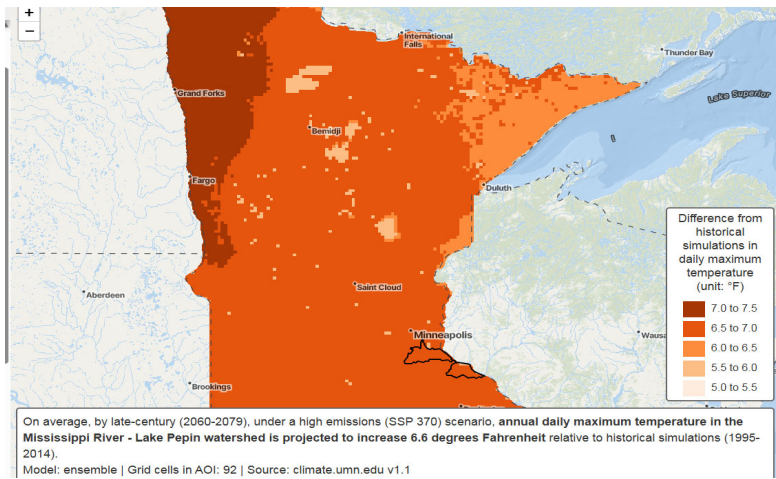
Interpretation note: The figures support projected warming and increased maximum one-day precipitation. The >2-inch-day maps show little change in event frequency across the displayed scenarios, while the >0.01-inch-day maps show fewer measurable-precipitation days. Accordingly, the EAW narrative describes greater precipitation intensity and variability rather than states categorically that heavy precipitation events will become more frequent.

Climate Data Figures

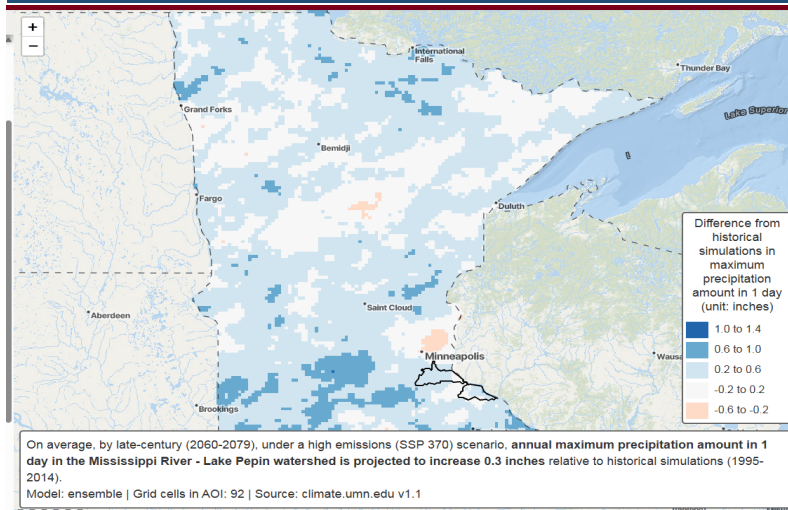
CliMAT Figure - Annual Daily Maximum Temperature, SSP245



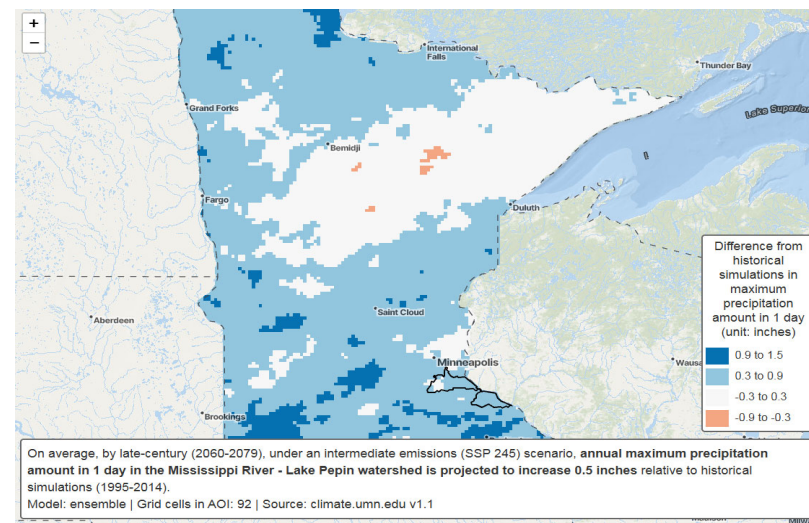
CliMAT Figure - Annual Daily Maximum Temperature, SSP370



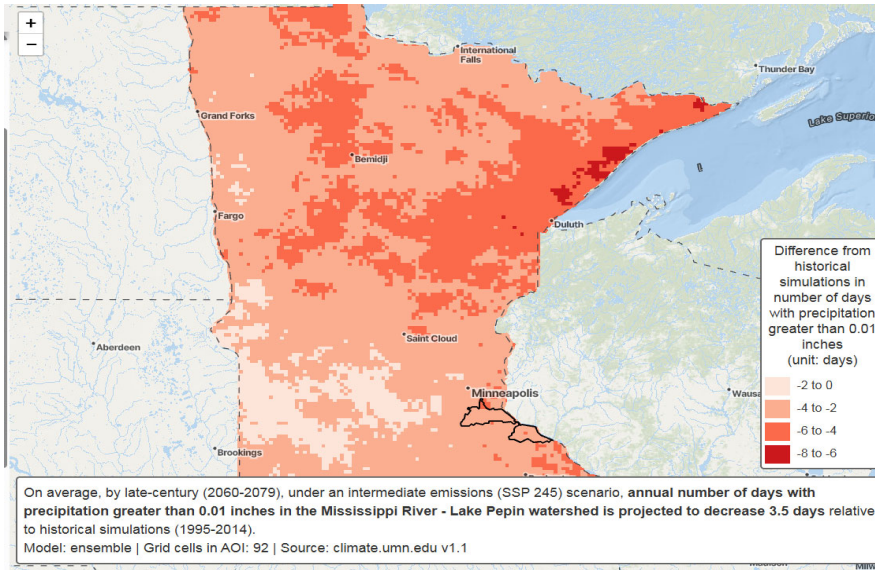
CLIMAT Figure - Annual Maximum Precipitation Amount in 1 Day SSP370



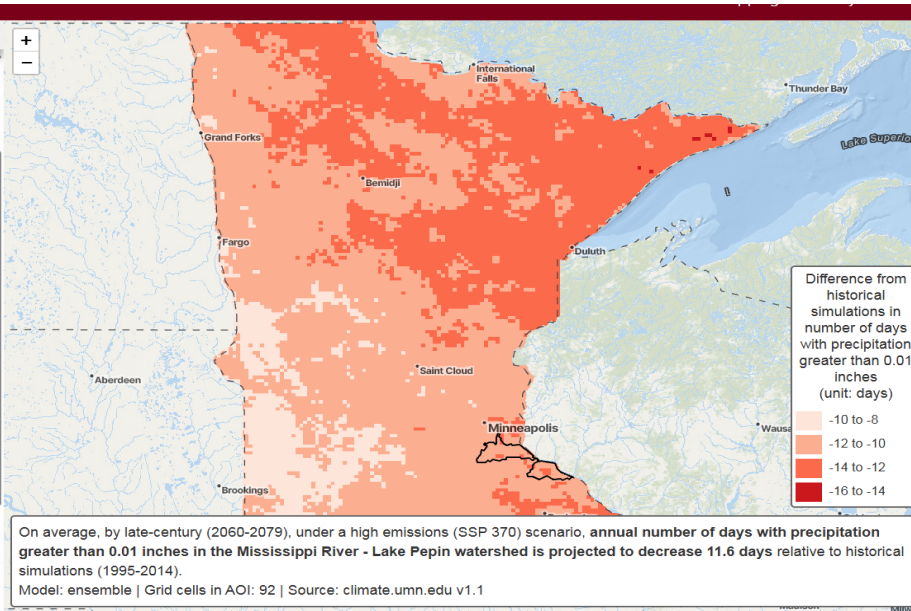
CLIMAT Figure - Annual Maximum Precipitation Amount in 1 Day SSP245



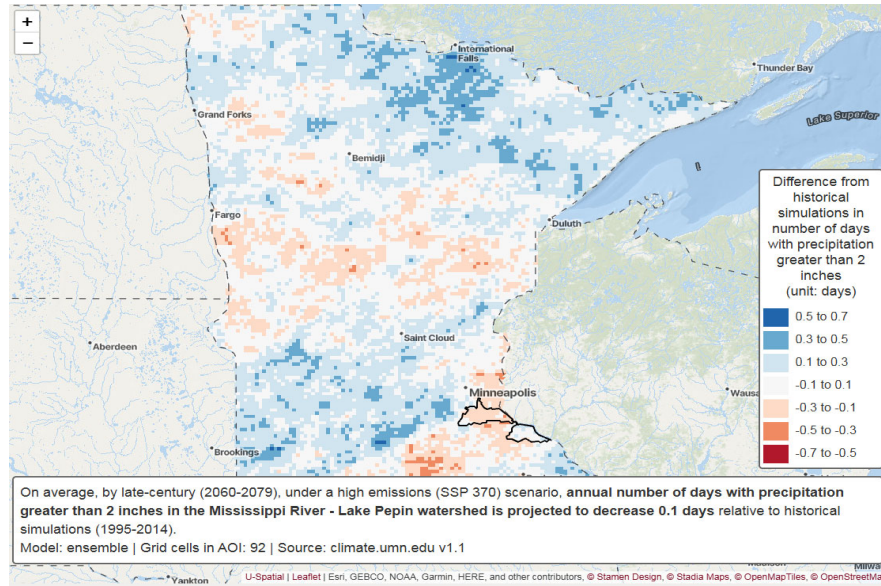
CliMAT Figure - Annual Number of Days with Precipitation Greater than 0.01 Inches SSP245



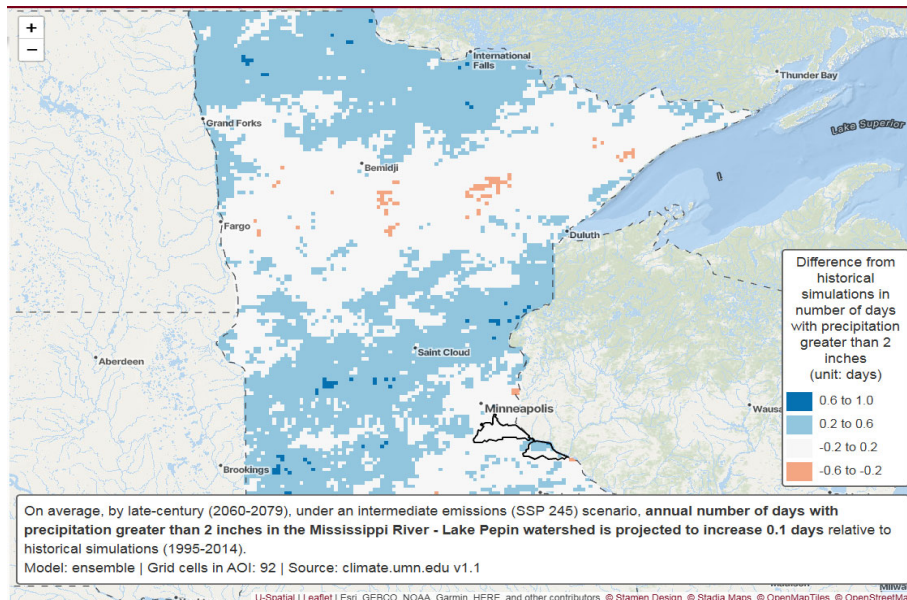
CliMAT Figure - Annual Number of Days with Precipitation Greater than 0.01 Inches SSP370



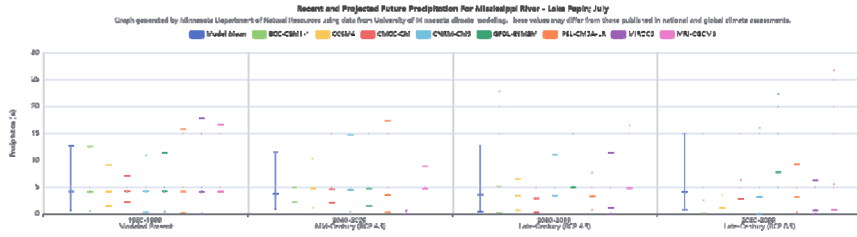
ClimAT Figure - Annual Number of Days with Precipitation Greater than 2 Inches SSP370



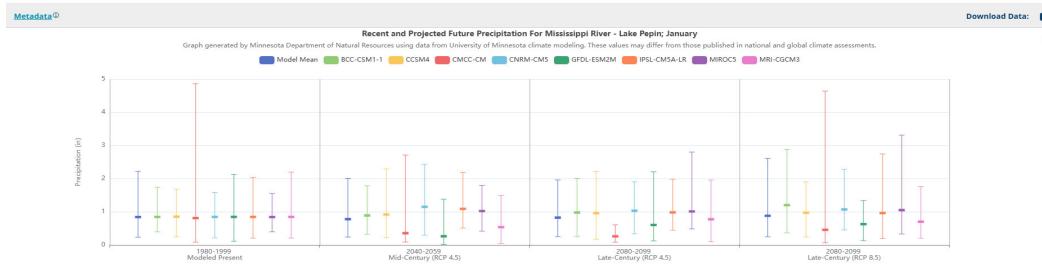
ClimAT Figure - Annual Number of Days with Precipitation Greater than 2 Inches SSP245



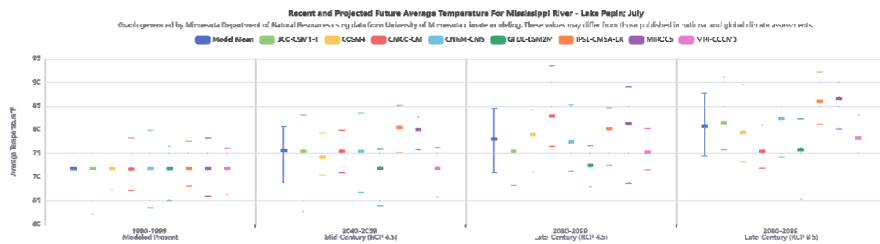
Mn Climate Explorer Figure - Recent and Projected Future Precipitation: July



Mn Climate Explorer Figure - Recent and Projected Future Precipitation: January



Mn Climate Explorer Figure - Recent and Projected Future Average Temperature: July



Mn Climate Explorer Figure - Recent and Projected Future Average Temperature: January

