

ES 8. STAKEHOLDER AND PUBLIC ENGAGEMENT PROCESS

One of the goals established at the onset of the LTP was to include meaningful stakeholder engagement throughout the planning process. To fulfill this goal, a series of meetings, events and outreach activities have been conducted throughout the LTP development.

Engagement involved meeting with the public and stakeholder groups during the development of the draft LTP in order to present updates about the planning process and to discuss and consider public concerns and aspirations during the development of the LTP.

The meetings and events held during the development of the draft LTP are listed in Table **ES-8**.

Table ES-8: Meetings and Events Conducted During Draft LTP Development (1 of 2)

Audience	Materials Covered	Date	Location
MSP Noise Oversight Committee (NOC)	LTP Introduction, Goals, Process, Engagement Program and Schedule	3/20/2019	MAC
MSP NOC	LTP Engagement and Schedule	5/15/2019	MAC
MAC Planning, Development and Environment (PD&E) Committee	LTP Introduction, Goals, Process, Engagement Program and Schedule	6/3/2019	MSP
MSP Long-Term Plan Stakeholder Advisory Panel	LTP Introduction, Goals, Process, Engagement Program and Schedule	6/10/2019	Crowne Plaza, Bloomington
MSP NOC	LTP Engagement and Schedule	7/17/2019	MAC
MSP Long-Term Plan Stakeholder Advisory Panel	Aviation Activity Forecast Overview, Capacity Study, Review Stakeholder and Public Input	8/27/2019	InterContinental MSP Airport
MAC PD&E Committee	Aviation Activity Forecasts	9/3/2019	MSP
Minneapolis Intergovernmental Relations Committee	LTP Introduction, Goals, Process, Engagement Program, Existing Conditions, Aviation Activity Forecasts and Capacity Study	9/25/2019	Minneapolis City Hall
Public Experience MSP Event #1	LTP Introduction, Goals, Process, Engagement Program, Existing Conditions and Aviation Activity Forecasts	10/2/2019	Mall of America Executive Center
Minneapolis City Council and Staff Meeting	Aviation Activity Forecasts and Capacity Study	10/18/2019	Minneapolis City Hall
MSP Long-Term Plan Stakeholder Advisory Panel	Aviation Activity Forecasts, Capacity Study, Review Stakeholder and Public Input	1/30/2020	Crowne Plaza, Bloomington
Pause in the LTP process due to the COVID-19 pandemic			

Source: Metropolitan Airports Commission (MAC)

Table ES-8: Meetings and Events Conducted During Draft LTP Development (2 of 2)

Audience	Materials Covered	Date	Location
<i>Pause in the LTP process due to the COVID-19 pandemic</i>			
MSP NOC	Aviation Activity Forecast Update and LTP Schedule	11/10/2021	Virtual
MAC PD&E Committee	Aviation Activity Forecast Update and LTP Schedule	12/6/2021	MSP
MSP Long-Term Plan Stakeholder Advisory Panel	COVID-19 Airport Impacts, Aviation Activity Forecast Update and LTP Schedule	12/10/2021	Virtual
MSP NOC	LTP Process, Engagement Program and Schedule	3/16/2022	Virtual
Public Experience MSP Event #2	LTP Goals, Process, Existing Conditions, Aviation Activity Forecast Update and Capacity Study	4/12/2022	Virtual
MSP Long-Term Plan Stakeholder Advisory Panel	LTP Process, Engagement Program, Facility Requirements Overview and Preliminary Alternatives Review	8/4/2022	Bloomington CVB and Virtual
Public Experience MSP Event #3	Facility Requirements and Alternatives Review	8/23/2022	MAC
MAC PD&E Committee	LTP Process, Engagement Program, Facility Requirements, Alternatives Review and Preferred Alternative	2/6/2023	MSP
MSP NOC	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Aircraft Noise Analysis	3/15/2023	MAC
City of Minneapolis Airport Working Group	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Aircraft Noise Analysis	4/12/2023	Virtual
MSP Long-Term Plan Stakeholder Advisory Panel	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Aircraft Noise Analysis	4/13/2023	Crowne Plaza, Bloomington and Virtual
Metropolitan Council Technical Advisory Committee	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Preliminary Findings	5/3/2023	Metropolitan Council
Metropolitan Council TAC Planning Sub-Committee	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Preliminary Findings	5/11/2023	Virtual
Metropolitan Council Transportation Advisory Board	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Preliminary Findings	5/17/2023	Metropolitan Council
MAC PD&E Committee	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Preliminary Findings	6/6/2023	MSP
Public Experience MSP Event #4	LTP Process, Engagement Program, Facility Requirements, Preferred Alternative and Preliminary Findings	7/11/23	Sabathani Community Center

Source: Metropolitan Airports Commission (MAC)

A 60-day public comment period began on June 21, 2023 and ended on August 21, 2023. In total, 139 public comments were received and ranged in a variety of topics, of which the pronounced areas of public comments included noise, terminal, landside, and MAC communications.

The noise comments were largely comprised of complaints regarding existing aircraft noise, as well as the concern for aircraft noise for future aircraft operations. As the primary focus of the MSP 2040 LTP remains with terminal function and footprint, the MAC will continue its long history of collaborating with stakeholders, including neighboring communities, to reduce noise. There are existing noise abatement procedures air traffic control will continue to utilize in reducing noise over residential areas when feasible, as well as continue to implement eligible homes with sound insulation mitigation. To-date, the sound insulation program has invested over \$500 million in communities that surround the airport.

The terminal comments focused on passenger connectivity and the promotion of connecting passengers between T1 and T2 from the secure-side of the airport. Other topics included the notion of an undersized Federal Inspection Service (FIS) facility in T1, passenger connection times for connecting passengers in T1, and the request to add moving walkways in the terminals where they do not exist today.

Landside public comments focused on the need for curbside improvements required in front of both T1 and T2 and acknowledged the need to reduce vehicle congestion. There were a couple of comments regarding the existing Metro Transit Light Rail (LRT) connection between both terminals and the need for increased safety, however the MAC has been partnering with LRT police and the City of Bloomington police department in an effort to improve LRT safety concerns. Electrical vehicles (Evs) were commented on, though the LTP acknowledges the emerging nature of this topic and MAC’s desire to continue evolving landside services available. **Table ES-9** summarizes the number of comments by each category.

Table ES-9: Public Comments: Summary of Topics

Comment Category	Number of Comments	Percent of Total
Airline Relations	2	1%
Airside	6	4%
Environmental	9	6%
Indiscernible	6	4%
Landside	15	11%
MAC Communications	11	8%
Noise	69	50%
Terminal	21	15%
TOTAL	139	100%

Source: Metropolitan Airports Commission (MAC)

Appendix G: Public Comments and Responses

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MSP Airport 2040 Long-Term Plan Public Comments and Responses

Introduction

A 60-day public comment period began on June 21, 2023 and ended on August 21, 2023. Three weeks into the comment period, the fourth and final public Experience MSP event was held to present the draft LTP findings and preferred development alternative to the public. A total of 90 people attended the event.

A total of 139 public comments were received during the public comment period and ranged in a variety of topics, of which the pronounced areas of public comments included noise, terminal, landside, and MAC communications. Of the comments, 137 were from members of the public and two from municipality/agency representatives.

Metropolitan Council submitted a letter on August 18, 2023, with technical comments and considerations about the surrounding roadway network, transit, environmental, regional parks and trails, wastewater, forecasts and general considerations.

The City of Minneapolis submitted a letter on August 21, 2023, with comments about the growth in flight operations, aircraft fleet mix, noise impacts, environmental and health impacts and facility needs.

Municipality and agency written responses and comment letters are provided after the general responses to public comments.

Responses to Public Comments

General responses were developed to address questions and concerns that were consistent among the comments received. Specific responses to comments received from municipalities and agencies are provided in the next section.

The following topics are covered by the suite of general responses:

1. Purpose of the MSP 2040 Long-Term Plan
2. Roles and responsibilities in airport planning and operations
3. Roadway congestion on the arrival/departure curbs
4. Safety on the light rail between the terminals
5. General concerns about aircraft noise
6. Aircraft noise mitigation program eligibility
7. Noise abatement measures
8. Limiting airport operations to reduce noise
9. Airline incentives for using quieter aircraft
10. Altitudes of aircraft

11. Runway use
12. Relocating the airport
13. Sustainability efforts

All written comments received from members of the public are reproduced in their entirety at the end of this appendix.

General responses #1 through #13 follow.

1. Purpose of the MSP 2040 Long-Term Plan

The Metropolitan Council (Met Council) is the regional planning authority and provider of essential services in the Twin Cities metro area. The Met Council adopted guidelines that require regular updates to the MSP Airport Long-Term Plan (LTP) to integrate pertinent information regarding the planning, development and operation of the region's airports for compatibility with the surrounding areas. There are three primary objectives of the MSP 2040 LTP:

- **Objective 1:** Plan for future facilities that will meet forecast Planning Activity Levels (PALs) in a manner that maintains and enhances customer service, while facilitating a seamless "one-journey" experience.
- **Objective 2:** Produce a development plan that positions the MAC to meet future demand levels, enhances financial strength, leverages environmental stewardship and infuses sustainable thinking.
- **Objective 3:** Conduct the planning process in a manner that includes meaningful stakeholder engagement processes.

The 2040 LTP is a forward-looking planning tool that studies on-airport facility and infrastructure needs based on projected 20-year passenger demand and aircraft operations. The LTP is a conceptual plan to establish when facility improvements are needed to accommodate projected demand. The LTP does not authorize construction, nor does it serve as an environmental review or a basis for determining noise mitigation. Following the adoption of this LTP, the MAC will study off-airport environmental impacts in the appropriate state- and federal-level environmental review, in accordance with the National Environmental Policy Act (NEPA) and Minnesota Environmental Policy Act (MEPA). Subsequently, design-level planning will be developed as potential project(s) in the LTP become an identified need.

2. Roles and responsibilities in airport management and operations

Numerous organizations have a role to play in the safe, efficient operation and planning for the MSP Airport. The MAC owns and maintains seven airports in the area: MSP and six general aviation reliever airports. The purpose of the general aviation reliever airports is to relieve general aviation activity from MSP, which primarily services air carrier operations.

The MAC can be viewed as the landlord of the airport with airlines, air cargo companies, airport restaurants and stores and car rental companies as tenants to the MAC. The MAC is

responsible for the long-term planning, environmental review and design and maintenance of airport facilities. As a public corporation of the state, the MAC generates the revenues it needs to operate through rents and user fees, not general tax appropriations.

The Federal Aviation Administration (FAA), a branch of the U.S. Department of Transportation, is responsible for the safe, efficient movement of aircraft through the MSP Airport and National Airspace System. The FAA has broad legislative authority to create and enforce federal regulations for airports, pilots and airlines. The top priority for the FAA Air Traffic Control (ATC) is the safe and efficient movement of aircraft. Controllers adhere to a set of separation standards that define the minimum distance allowed between aircraft.

Decisions about which runways aircraft use at MSP are made by FAA officials. Airport authorities like the MAC do not have authority to dictate where or how airplanes fly.

Airlines and air cargo companies schedule flights and maintain aircraft. Many of the decisions made by airlines and cargo companies are based on passenger and/or customer demand, including: which destinations will be served; which type of aircraft will operate at an airport; what time of day a flight will occur; and how frequently a flight will occur.

3. Roadway congestion on the arrival/departure curbs

The 2040 LTP has evaluated and considered curbside congestion issues in front of both Terminals 1 and 2. As passenger demand grows at MSP, existing facilities may not meet future demand or an acceptable level of service. Specifically, curbside congestion is a key concern that was discussed throughout the LTP. The LTP recommends further study be conducted to provide a preliminary design-level concept to address the congestion, as both are directly tied to long-range planning needs such as reconstructing the Terminal 1 Green and Gold parking ramps. As the landside projects become closer to construction, holistic improvements to landside accessibility will be considered.

4. Safety on the light rail between terminals

There has been an increase in police throughout 2023. MAC will continue partnering with Metro Transit officials to increase the safety and security on their Light Rail Vehicles to reduce crime and improve cleanliness for the passengers and employees traveling between terminals.

5. General concerns about aircraft noise

There are no additional runways proposed in the LTP. However, the LTP does indicate a forecasted increase in the number of flights at MSP in the future based on market demands and an associated increase in the noise environment around MSP.

To address the noise associated with the airport, the MAC has implemented a robust noise mitigation program. The MAC has a long history of collaborating with stakeholders, including neighboring communities, to reduce noise. These efforts date back to before 1970 and include operational noise abatement and land use measures.

The MAC has established noise abatement efforts that air traffic control utilizes to reduce aircraft overflying residential areas when feasible. More information about noise abatement practices is available at: metroairports.org/msp-noise-abatement-efforts. Additionally, the MAC's Airport Noise Mitigation Program is the most unique and expansive airport sound insulation program in the country. This program provides eligible homes with sound insulation mitigation and has invested over \$500 million in communities around the airport. Furthermore, aircraft technology continues to result in quieter operations and the fleet of aircraft operating in and out of MSP continue to be updated.

The FAA controls the airspace around MSP and all operations that arrive in to, and depart from, the airport. The MAC, with assistance from the MSP Noise Oversight Committee (NOC), remains committed to working with the FAA to address airport noise concerns from an operational perspective when feasible. Requests for analyses and reports on current airport activity are best made through the NOC for inclusion in a future work plan. More information about the NOC is available at <https://metroairports.org/noc>.

Although the NOC and the MAC continue to explore new and innovative ways to reduce noise impacts around MSP, there remain many circumstances when the impacts from the airport simply cannot be abated. Federal grant dollar provisions require that the airport be operated in a manner that is neither discriminatory nor poses an undue burden on interstate commerce.

More information on the MAC's noise programs, including initiatives to reduce noise and participating in the NOC process, are available at <https://metroairports.org/community-connection/aircraft-noise>.

6. Aircraft noise mitigation program eligibility

The 2040 Forecast scenarios noise contours and analysis contained in the LTP do not qualify homes for MAC's noise mitigation program. Eligibility for noise relief provided by the MAC is determined annually, based upon actual MSP noise contours developed for the preceding calendar year.

In 1992 the MAC began its first residential noise mitigation program. The MAC's work in this area is the most expansive in the country and represents the most direct form of tangible relief to neighbors most affected by aircraft noise from MSP air traffic. Between 1992 through January 2023, the MAC's noise mitigation program has provided noise relief to almost 20,000 single- and multi-family homes and 19 schools around MSP at a total cost of over \$513 million.

In 2021, the MAC committed to continue providing noise mitigation relief to qualifying homes through 2032. This commitment effectively extends one of the most robust and encompassing sound insulation efforts around any U.S. airport. For a home to qualify, it must be located, for a period of three consecutive years in the actual 60 DNL aircraft noise contour published in an annual noise contour report, and, be located within a higher noise impact area when compared to the home's status under a previous phase of the program. More information is available at: metroairports.org/noise-mitigation-program.

Eligibility for the MAC's Airport Noise Mitigation Program is based on a home's location within a calculated annual aircraft noise exposure area of 60 dB DNL or greater and "block-intersect" inclusion. When the qualifying noise contour intersects any parcel on any city block, the entire city block is included in the noise contour. The annual MSP noise contour analysis is published every year by March 1st and considers the number and types of aircraft that arrived and departed on each runway during the year, as well as the time of day those flights occurred. To participate in the program, a residence must be located, for a period of three consecutive years in the actual 60 DNL aircraft noise contour published in an annual noise contour report, and, be located within a higher noise impact area when compared to the home's status under a previous phase of the program.

The assessment process, calculation tool, and data inputs for annual noise contours are prescribed by the FAA. The FAA requires the use of the Aviation Environmental Design Tool (AEDT) to determine and analyze aircraft noise exposure around U.S. airports. Additionally, the MAC collects actual noise measurements at 39 locations around MSP airport and reports this information as a component to the annual contour reports. However, these data are not used to determine mitigation eligibility per FAA requirements.

Due to federal regulations, the MAC is not able to provide noise mitigation products, services or reimbursements for ineligible residences. Additionally, the MAC is not able to address aging mitigation products.

7. Noise abatement measures

The MAC has a long history of working with community stakeholders, airport users, the FAA, and other government entities to address aircraft noise issues. These efforts date back to before 1970 and include flight procedures aimed at reducing noise impacts. These are called noise abatement measures.

Noise abatement measures are those that affect the shape and size of the noise contours. A voluntary Noise Abatement Plan is in place to promote aircraft operating procedures that help reduce aircraft noise and overflights for residents living near MSP. There are a total of 12 voluntary noise abatement procedures in place at MSP. A description of these efforts is available at metroairports.org/msp-noise-abatement-efforts.

One measure is the use of an established preferential Runway Use System (RUS). The RUS prioritizes the order in which air traffic controllers assign runways for arrivals and departures during times of the day when safety and air traffic demand allow flexibility to promote flight activity over less-populated residential areas.

The Eagan-Mendota Heights Departure Corridor is another noise abatement measure that has been used for decades to direct aircraft, as much as possible, over noise-compatible industrial land use areas in Eagan and Mendota Heights, southeast of MSP. This corridor is utilized when conditions allow ATC to direct departing jet aircraft to use Runways 12L and 12R so that they will overfly the corridor and climb as much as possible within the corridor boundaries. The corridor extends about three miles from the departure ends of Runways 12L and 12R. At the

end of the three miles, ATC directs aircraft to turn toward the route that will lead them out of the local airspace and eventually on course to their final destination.

For Runway 17, there is a 2.5 Nautical Mile Turn Point Departure procedure, reported to the NOC and in monthly reports as the Runway 17 Departure Procedure. Using this procedure, air traffic control direct westbound aircraft departing from Runway 17 to fly runway heading (heading 170) until reaching 2.5 nautical miles (NM) from the start of take-off roll. Compliance with this procedure is typically at or above 99% most months.

Noise abatement measures are voluntary and applied by air traffic personnel, as appropriate, using federal standards. There may be times when air traffic controllers are not able to use noise abatement measures due to safety factors or operational conditions. These practices do not restrict air traffic control from utilizing any flight procedures at MSP that they deem appropriate.

8. Limiting airport operations to reduce noise

Federal regulations dictate that the MAC cannot impose airport use restrictions during any time of the day or night. The 1990 Airport Noise and Capacity Act (ANCA) limits the ability of airports to impose access or use restrictions based on aircraft noise. ANCA establishes a process for airports to propose any noise or operational access restriction at an airport, such as a nighttime curfew. Airports must conduct a comprehensive technical and legal analysis, called a Federal Aviation Regulation (FAR) Part 161 Study. FAR Part 161 broadly defines “noise or access restriction” to include any restriction – including airport lease provisions, like differential landing fees – that affects the operation of aircraft for the purposes of noise reduction.

The result is that it is extremely difficult to restrict aircraft operations at an airport to control noise. The final authority to approve or deny the findings of a Part 161 study rests with the FAA. To date, the FAA has not approved any access restriction requests by and airport. The access or use restrictions designed for noise control that currently exist at some U.S. airports pre-date the 1990 ANCA and were grandfathered by an act of Congress. Additionally, federal grant dollar provisions require that the airport be operated in a manner that is neither discriminatory nor poses an undue burden on interstate commerce.

Therefore, MSP is open and available for use 24-hours a day, similar to a highway or any other transportation resource and the MAC is not able to restrict use of the airport based on time of day or type of operation, including cargo and military operations.

MSP is a joint civil-military airport and is home to the 934th Airlift Wing of the US Air Force Reserve and the 133rd Airlift Wing of the Minnesota Air National Guard. These facilities follow Department of Defense regulations and are not subject to FAA regulations. They complete missions, operations, and training for national defense purposes and are required to train 24/7 to be ready at a moment’s notice. However, efforts are underway to reduce engine noise from the aircraft operated by these facilities, the C-130 Hercules. The C-130 propellers are in the process of being replaced with quieter, more efficient units.

While the MAC is not able to restrict nighttime operations, the activity is monitored and reported annually as part of the NOC Work Plan.

9. Airline incentives for using quieter aircraft

Due to the 1990 ANCA (described above), the MAC does not have unilateral authority to offer financial incentives to airlines in an effort to reduce noise. Likewise, financial and/or operational penalties for operating certain types of aircraft or at certain times to reduce noise are also prohibited.

The NOC has recommended the FAA accelerate technology advancements designed to reduce the noise level emitted by aircraft to benefit residents, airports and operators. Fortunately, over the course of the next 20 years, the MAC's forecast shows the use of quieter ("Stage 5") aircraft. Aircraft operating with Stage 5 noise certification is anticipated to increase by 663 daily operations on an average day. Stage 5 noise certification standards are 17 decibels Effective Perceived Noise Level (EPNL) from Stage 3 aircraft, which are the loudest types operating today. Currently, the FAA requires newly manufactured jet aircraft to meet Stage 5 noise standards.

Airlines will increasingly include these newer and quieter aircraft types into their fleets. Examples of these quieter aircraft types include: Airbus New Engine Options (NEOs), Airbus A220s and Boeing 737 MAX. According to Airbus, the Airbus NEO aircraft family are 15 decibels quieter Stage 4 noise standards and the A220 aircraft have a 50% noise reduction compared to previous generation aircraft. Boeing reports that the 737 MAX aircraft are 40% quieter than the B737-800. All of these aircraft types are narrowbody aircraft and yet are measured to be quieter than previous generation narrowbodies and, in some cases, regional jet aircraft.

10. Altitude of aircraft

Several factors contribute to the altitude at which an aircraft operates as well as the altitude at which aircraft are perceived to operate.

Aircraft departing in warmer weather do so at lower rates of climb than during periods of cooler weather. During heat waves, the air has lower density which increases the runway length aircraft need during take-off, and decreases climb rates and therefore how much altitude an aircraft can gain departing the airport. This can result in aircraft operating at lower altitudes than during cool weather. As weather conditions continue to warm with longer and hotter heat waves, lower departure altitudes could occur more frequently and be noticeable to residents on the ground.

Aircraft arriving to MSP use precision instruments and guidance tools to navigate to the runway threshold. The standard vertical descent guidance is set at a 3-degree glideslope, which helps each arriving aircraft have a safe and stable approach. There are no plans to change the glideslope and therefore change the altitude at which aircraft approach the airport.

Additionally, there has been a shift in the types of aircraft that airlines are flying in and out of MSP. Airlines are using aircraft with more seats per flight across their route networks, resulting in more passengers flying with fewer operations. Replacing older, smaller aircraft with newer

and larger planes is more fuel efficient and equates to less overall aircraft noise and carbon emissions due to quieter and newer engine technology and fewer operations. However, these larger aircraft could appear to be at lower altitudes from the ground than their smaller counterparts.

11. Runway use

Runway use at an airport describes how many times aircraft use each runway for arrivals and departures. There are variables that affect runway selection. The primary factor is the prevailing wind. FAA air traffic controllers assign runways that provide the greatest amount of headwind for aircraft takeoffs and landings, especially when wind speeds exceed 10 miles per hour. Additional factors contributing to runway selection include weather conditions, aircraft type, performance capabilities, aircraft origination and destination and aircraft weight.

At MSP, air traffic control assigns a heading to all departing aircraft. A heading is the direction an aircraft is pointed and is expressed in degrees from North. Pilots do not navigate using landmarks on the ground, such as roads or rivers. Air traffic control provides a first heading and then continues to direct aircraft on course to their final destination using additional headings and navigational waypoints.

Like runway selection, the first departure heading assigned by air traffic control is based on many factors, some of which include the flight destination, navigational waypoints and airspace considerations such as altitude, spacing, and speed of other aircraft, restricted airspaces, as well as weather conditions such as severe weather avoidance. This results in dispersion, also known as fanning, of aircraft departing from these runways. As aircraft leave the area, they follow point-to-point navigation for a safe and expeditious flight into the arrival airport environment.

12. Relocating the airport

The possibility of moving the airport to an alternate location was assessed in the 1990s. The Minnesota legislature passed the Metropolitan Airport Planning Act in 1989, establishing the Dual Track Airport Planning Process. Conducted by the MAC and the Metropolitan Council, the seven-year planning process explored options for providing needed air service capacity and facilities for the region at the current location as well as at other locations around the metro.

Ultimately, the Minnesota Legislature determined the airport should remain in its historic location and prohibited the MAC from constructing, equipping, or acquiring land for a major new airport to replace the existing Minneapolis-St. Paul International Airport. (Minnesota Statutes 1996, 473.608). Following that decision, the legislature directed the MAC to implement the MSP 2010 Long-Term Comprehensive Plan. Given this determination and subsequent investment, there are no plans to move the airport.

13. Sustainability efforts

In early 2020 the MAC adopted 2030 sustainability goals and pledged to reduce its emissions and water use, divert more of its waste stream by either consuming less or reusing, recycling or

composting what is used, and increase employee engagement and understanding of sustainability.

One of these sustainability goals is to reduce emissions by 80% by 2030. As an invested member of the global community, the MAC recognizes the importance of both reducing and managing the environmental impacts of its operations. Responsible carbon management strategies that target energy efficiency, renewable energy and ultimately reductions in carbon emissions, are a critical component of these efforts.

In 2016, the MAC joined the Airport Carbon Accreditation (ACA) program, a multi-level certification program that encourages and supports airports in developing management plans to reduce their carbon footprint. To date, the MAC has achieved Level 1 certification by mapping emissions from sources that it owns and controls at Minneapolis-St. Paul International Airport (MSP), and Level 2 by showing evidence of effective carbon management procedures. The MAC is committed to achieving ACA Level 3 by 2025 through expanded mapping of emissions beyond MAC ownership and control, such as passenger travel to/from the airport and aircraft landing and take-off cycles. Level 3 will also involve engaging airport stakeholders to reduce emissions.

In 2022, the MAC began optimizing indoor air temperatures to reduce energy usage at MSP Airport during different times of the day and throughout the year. The building automation system is now programmed to automatically promote sustainable and efficient facility management - a change that is anticipated to deliver 5% of the reduction needed to meet the MAC's emissions goal.

To accelerate achieving its emissions reduction goal, in 2022 the MAC also invested in replacing old lighting units with energy-saving LED bulbs. Since 2014, the MAC has been updating lighting on roadways and other exterior areas with LEDs. The new LEDs are 40% more efficient than older bulbs. LED lighting also provides better light quality, which can have the bonus of enhancing people's airport experience. In 2023, the MAC will begin replacing MSP Airport's indoor terminal lights.

Recognizing the importance of renewable energy, the MAC installed a 3-megawatt solar energy facility in 2016 – hailed as the first major expansion of solar in Minnesota – atop MSP Terminal 1 parking ramps. The next year, it added another 1.3-megawatt installation atop Terminal 2 parking ramps. In 2022, the MSP solar arrays generated enough electricity to power 550 homes for one year.

Going forward, the focus is on Sustainable Aviation Fuel (SAF). In 2023, a new, first-of-its-kind SAF Hub has been established by Greater MSP in partnership with Delta, Ecolab, Excel Energy, Bank of America and others. SAF is a safe, fully certified jet fuel that can reduce the lifecycle carbon emissions of flying by more than 80%. The mission of this multi-industry coalition is to accelerate and scale-up the production of SAF in Minnesota to meet the ambitious goal to reach net zero carbon emissions in commercial aviation by 2050.

Responses to Municipal/Agency Comments

This section contains responses to comments received from municipalities and agencies about the Draft MSP 2040 LTP.

Commenter	ID	Subject	Response
Metropolitan Council, Letter dated August 18, 2023	1	The Plan includes many complicated acronyms and other technical terminology. In order for the Plan to be more accessible to the general public, the Council staff recommend adding a glossary of terms used in the Plan to aid in general understanding.	A glossary of terms and acronyms has been added as Appendix H to the final draft document.
Metropolitan Council, Letter dated August 18, 2023	2	Please include more details on engagement activities including a list of panel members on the Stakeholder Advisory Panel, persons engaged through the planning process, takeaways from public events, and a summary of how input was received and incorporated.	Greater detail on engagement activities has been added to Chapter 8 of the final draft document. Additionally, Appendix G was added to document the engagement materials, summaries and input.
Metropolitan Council, Letter dated August 18, 2023	3	Council staff agree that EVs should see a rapid uptake through the life of the Plan and appreciate MAC's commitment to aiding the state in reaching its ambitious goals for EV adoption by planning EV compatible facilities for both employees and airport users.	Comment noted.
Metropolitan Council, Letter dated August 18, 2023	4	Council staff appreciate MAC's commitment to sustainability efforts and to the sustainability goals set for the MSP Airport. In the most recent legislative session, the MAC's MSP sustainability goals have been codified into state law. Council staff recommend including and acknowledging that in the Plan.	Comment noted.
Metropolitan Council, Letter dated August 18, 2023	5	Exhibit 1-12: Support Facilities only displays a blank base map. The map needs to show the intended information.	This has been corrected in the final draft document.
Metropolitan Council, Letter dated August 18, 2023	6	Exhibit 3-10: Airfield Standards Review cuts off the aerial image where the runway protection zone extends south into Bloomington. Please update the imagery to include the full background image.	This has been corrected in the final draft document.

Commenter	ID	Subject	Response
Metropolitan Council, Letter dated August 18, 2023	7	Table 3-67: Theoretical Capacity for Legacy Carriers contains an error with the UPS estimated throughput column, which appears to combine both FedEx and UPS amounts.	This has been corrected in the final draft document.
Metropolitan Council, Letter dated August 18, 2023	8	Exhibit 4-75: Long-Term Preferred Development Alternative 3.1A misidentifies Project 3-8, shown as 34th/70th intersection reconstruction which is described as Project 1-9 on page 114. Please confirm that all maps match labels and project lists consistently.	This has been corrected in the final draft document.
Metropolitan Council, Letter dated August 18, 2023	9	East 77th Street has recently been constructed and now connects the City of Richfield to 24th Avenue South. This new connection also connects to Airport Lane, then to 34th Avenue South and, finally to Terminal 2. It is possible that this new connection can be utilized by Terminal 2 users as an alternative route when I-494 experiences congestion delays, which could impact operations at the 34th Avenue/Airport Lane intersection. This project also included ramp improvements at the TH-77 / I-494 interchange. Council staff recommend the MAC to acknowledge this project and consider this new connection in assessing future traffic impacts.	Comment noted. Holistic review of accessibility to Terminal 2 is a recommendation from this plan to be considered beyond this LTP effort, as we bring conceptual plans closer to preliminary design efforts. There are some coordination efforts required between MnDOT and the MAC as we get closer to reconstructing some of the airport intersections.
Metropolitan Council, Letter dated August 18, 2023	10	Project 2-12 describes the reconstruction of the TH-5 and Post Road interchange. This project presents numerous opportunities to improve multimodal circulation to and from MSP. If Post Road is elected to serve as the new primary entrance for Terminal 2 as is considered in the Plan, this will require additional analysis and review for impacts on the regional highway system by the Council.	Comment noted. MAC understands there will be additional coordination required with MnDOT in order to enable this project. Further study will be required of Project 3-8 as well as they are connected and aim to improve T2 connectivity.
Metropolitan Council, Letter dated August 18, 2023	11	The Plan references the Metropolitan Council Transportation Improvement Program (TIP). This reference is out of date and related to a project completed in 2015. Therefore, it should be updated or removed. In the '23-'26 TIP, there is an I-494 project that will construct an EZPass lane on I-494 from the Mississippi River west to TH-169 and include bridge preservation work within Bloomington. Council staff advise the MAC to acknowledge this project and	This reference was removed in the final draft document.

Commenter	ID	Subject	Response
		consider any future traffic impacts from the construction of this project and the additional capacity on I-494.	
Metropolitan Council, Letter dated August 18, 2023	12	Project 2-6 describes the relocation of the fixed-base operator facility from the existing location to a new location on the north end of the airport. This facility will be accessed via 28th Avenue and TH-62 and could present a potentially significant increase in traffic on 28th Avenue and the interchange with TH-62. Council staff recommend that prior to more advanced planning of this new facility, a traffic impact study be performed to understand any traffic impacts and mitigation needed from this project.	Comment noted. This was discussed during the Long-Term Plan process and concluded there is not a significant amount of traffic to the FBO as it exists today. The MAC will monitor traffic output for future consideration and growth of the FBO if it were to be relocated. The assumption of the FBO relocation effort is in-kind replacement of facilities that exist today based on the site constraints of Project 2-6
Metropolitan Council, Letter dated August 18, 2023	13	The Council supports efforts to better integrate the MSP airport into the non-motorized transportation system. Currently, Post Road/70th Street is identified as a Regional Bicycle Transportation Network (RBTN) alignment (https://metro council.maps.arcgis.com/apps/webappviewer/index.html?id=0b0735b3407f49ceb347fc30c9b83bda). The Plan identifies improvements for Post Road/70th Street and the Post Road interchange, which present an opportunity to implement non-motorized connections to both Terminals 1 and 2 as studied by Hennepin County. Council staff recommend further coordination between MAC, Hennepin County, and the Council to better support safe and adequate non-motorized access to both Terminals and other support facilities at the MSP.	The MAC continues to consider mobility to and from both Terminals 1 and 2 at MSP. As the proposed landside projects move from this LTP conceptual layout into more focus in design-level planning, non-motorized transportation connections will continue to be considered.
Metropolitan Council, Letter dated August 18, 2023	14	In light of the forecasted parking needs documented in this Plan, and regional and statewide climate goals regarding VMT reduction. Council staff advise the MAC to initiate a Transportation Demand Management Plan for the MSP Airport.	Comment noted. The MAC is open to continued conversations about transportation accessibility improvements in the future.

Commenter	ID	Subject	Response
Metropolitan Council, Letter dated August 18, 2023	15	Project 1-7 describes an expansion of the Orange Ramp to the north and east of the existing Blue Line Terminal 2 LRT station. This project will need to be coordinated with Metro Transit and consider potential impacts or improvements to the LRT station.	Comment noted. We agree with this and will coordinate appropriately with Metro Transit as this project becomes closer to being initiated.
Metropolitan Council, Letter dated August 18, 2023	16	Project 3-5 describes an automated people mover connection between the secure section of the two terminals. This project is justified when considering increased passenger movements planned between the two terminals for connection purposes. The project will affect the Metro Transit LRT service between the airport terminals, necessitating coordination with Metro Transit in the planning stages.	Comment noted. We agree with this and will coordinate appropriately with Metro Transit as this project becomes closer to being initiated.
Metropolitan Council, Letter dated August 18, 2023	17	Currently, the Riverview Corridor is being planned as a modern streetcar which will interline with the Blue Line at Fort Snelling and will utilize existing Blue Line LRT stations. If an Arterial BRT option is chosen for this corridor, the upgraded route will materially replace the 54 and include improved stations. Council staff recommend that the LTCP acknowledge planned transit improvements to the MSP. If an Arterial BRT is chosen for the Riverview Corridor, it is anticipated that the new airport Transit Center will require only minimal facility changes for the Arterial BRT operations.	Comment noted. The intent of the LTP is to focus on facility planning needs. The MAC will continue to coordinate appropriately with other agencies for continued focus on the airport's concurrent use of terminal connectivity as it relates to the Blue Line. The MSP 2040 LTP does not focus on ridership of the Blue Line LRT in terms of passenger connectivity because we do not have a major operational use for it yet (airline transfers between T1 and T2 are not common, so the only minor use right now is for parking connectivity when T1 fills up parking spaces).
Metropolitan Council, Letter dated August 18, 2023	18	Proposed projects appear to increase impervious surfaces, support additional passenger activity, and generate additional traffic. While most forecasts do not envision more activity than previous documents, Council staff request additional clarification that subsequent studies for proposed projects will further examine environmental impacts from outlined projects in the Plan.	The intent of the LTP is to focus on facility planning needs. The MAC follows all state and federal environmental regulations and project review processes according to the Clean Air Act, National Environmental Policy Act and Minnesota Environmental Policy Act. The anticipated 2025 state- and federal-level environmental review will further examine environmental impacts from proposed projects.

Commenter	ID	Subject	Response
Metropolitan Council, Letter dated August 18, 2023	19	Table 5-5 does not appear to account for many multi-family units in the City of Bloomington. Bloomington numbers will likely be significantly higher than 157 multi-family units within the 60 Day Night Average Sound Level (DNL) contour line. At least 300 units are new in the South Loop area since 2018, in addition to the existing Reflections condo towers, 5 Apple Tree Square condos, and the multi-family units south of the Mall of America. It is also likely that the South Loop area will continue to grow and significantly add to this total. It appears that the Minneapolis and Richfield numbers appropriately account for future multi-family growth expected for those cities. Forecasted multi-family units within noise contours need to be re-examined.	This has been corrected in the final draft document.
Metropolitan Council, Letter dated August 18, 2023	20	It should be noted that the Federal Aviation Administration (FAA) is currently reviewing noise policy guidelines and may update them with additional metrics. If any changes are made, it will require an update of noise contours and a reconsideration of noise impacts depending on new metrics from the FAA.	Comment noted. The contours provided in this LTP effort are for planning purposes only. The MAC will continue to produce annual noise contours aside from this LTP effort and will be used for ongoing noise mitigation efforts.
Metropolitan Council, Letter dated August 18, 2023	21	Council staff appreciate the MAC's acknowledgment of Fort Snelling State Park, Minnesota Valley Wildlife Refuge, and many other parks in the area in the draft Plan (1.6.1 Environment Around the Airport), as well as in the 2020 Improvements EA/EAW that has been integrated into the draft Plan (Chapter 4: Affected Environment). Though regional parks are referenced generally, no regional parks are specifically called out. Council staff encourage the MAC to specifically acknowledge the regional parks and trails that are proximate to, or potentially impacted by, the airport, lower elevation flight paths, the noise generated as a result of the airport, and other airport-related influences, including Crosby Farm, Hidden Falls, Minnehaha, Mississippi Gorge, and Nokomis-Hiawatha regional parks, and Big Rivers, Minnehaha Parkway, Minnesota River Greenway, Nine Mile	Comment noted. The intent of the LTP is to focus on facility planning needs. The MAC follows all state and federal environmental regulations and project review processes according to the Clean Air Act, National Environmental Policy Act and Minnesota Environmental Policy Act. The anticipated 2025 state- and federal-level environmental review will further examine environmental impacts to regional parks and trails from proposed projects.

Commenter	ID	Subject	Response
		Creek, and the Nokomis-Minnesota River regional trails.	
Metropolitan Council, Letter dated August 18, 2023	22	Given the airport's proximity to Fort Snelling State Park, Pike Island, the confluence of the Mississippi and Minnesota Rivers, and Bdote, Council staff encourage the MAC to consider how plans for the airport may specifically impact the lands and waters considered sacred to tribal nations. The 2020 Improvements EA/EAW references inviting the Lower Sioux, Mendota Mdewakanton Dakota, and Shakopee Mdewakanton Sioux Tribes to become consulting parties, along with the State of Minnesota Indian Affairs Council. Council staff encourage acknowledgement of the indigenous people who still consider spaces proximate to the airport as sacred and part of both their ancestral and contemporary homelands, and continued or renewed consultation opportunities with these same parties, now and into the future.	Comment noted. The intent of the LTP is to focus on facility planning needs. The MAC follows all state and federal environmental regulations and project review processes according to the Clean Air Act, National Environmental Policy Act and Minnesota Environmental Policy Act. The anticipated 2025 state- and federal-level environmental review will further examine environmental impacts from proposed projects. The MAC will develop a robust engagement program to include tribes, communities, stakeholders, and appropriate agencies in future environmental review efforts.
Metropolitan Council, Letter dated August 18, 2023	23	The construction of any new or updating of existing runways or any other construction projects may have an impact on multiple Metropolitan Council Interceptors in multiple locations. To assess the potential impacts to our interceptor system, prior to initiating any projects, preliminary plans should be sent to Tim Wedin, Interceptor Engineering Assistant Manager (651-602-4571) at the Metropolitan Council Environmental Services.	Comment noted. Proposed future projects in the LTP will remain at the conceptual layout until warranted by demand. As the MAC progresses closer to a demand-based approach in programming elements of the preferred alternative layout, the MAC will review proposed projects from a design-level perspective and will coordinate with appropriate agencies regarding wastewater or other potential off-airport impacts.
Metropolitan Council, Letter dated August 18, 2023	24	Please include updated actual wastewater flows for 2020 and projected wastewater flows for 2030 and 2040, if available.	The original intent of the LTP was to focus on long-range planning and high-level concepts. As the MAC approaches demand for a particular project in the preferred alternative, wastewater will come into focus during

Commenter	ID	Subject	Response
			<p>the appropriate level of state and federal environmental review according to National Environmental Policy Act and Minnesota Environmental Policy Act.</p>
<p>Metropolitan Council, Letter dated August 18, 2023</p>	<p>25</p>	<p>Tables 2-3: Comparative Socioeconomic Projections (20-Year CAGR), and 2-16: Comparison of Socioeconomic Forecast Inputs are represented as regional economic projections for 2020-2040. The source note references Metropolitan Council forecasts from 2017 and 2021. The Council revises the macroeconomic forecast biannually, most recently in 2023. Council staff advise against using the outdated economic analyses, for the reasons discussed in the Plan. The Council's 2023 forecast is substantially revised (https://metro council.org/Data-and-Maps/Research-and-Data/Thrive-2040-Forecasts.aspx).</p>	<p>Comment noted. For planning purposes of an airport LTP, data captured at the onset of the study is used and considered as a baseline. The MAC will continue to monitor updates in economic and statistical information as projects move up from planning/conceptual level and closer to the design and implementation phase.</p>
<p>City of Minneapolis, Letter dated August 21, 2023</p>	<p>26</p>	<p>Forecasts prepared for the 2040 Long-Term Plan (LTP) show growth in the number of operations at MSP with a baseline estimate of 517,000 annual operations. While this is fewer than peak operations in 2004, it's much higher than recent years. In 2018, the number of operations was 407,000. MAC's website lists annual operations back to 2009 and the highest number of operations was 437,000 in 2010. If 517,000 annual operations did manifest, we would expect a substantial impact on the city, the environment, and our residents.</p>	<p>The 2040 LTP forecast was revised to reflect COVID-related impacts, where the 2040 total operations are forecasted to be 509,000 annually (Exhibit 2-39). For the FAA to determine an acceptable forecasting analysis, and to determine consistency with the FAA's Terminal Area Forecast (TAF), Large-Hub forecasts must differ by less than 15% in the 10-20 year forecast timeframe. The current FAA TAF shows a 2040 forecast of 491,820 and equates to a 3.4% deviation, which is within the 15% tolerance required by the FAA.</p> <p>The 2020 Improvements Environmental Assessment/Environmental Assessment Worksheet (EA/EAW) forecasted aviation activity in 2025 to be 526,040 operations, and used the 2010 baseline of 437,075 annual operations. This environmental document was approved by the FAA on January 7, 2013 with a Finding of No Significant Impact (FONSI)/Record of Decision for this plan. Based on this environmental clearance, the 2040 LTP forecast estimates lower activity levels than what was depicted in the</p>

Commenter	ID	Subject	Response
			<p>last environmental document.</p> <p>The MAC follows all state and federal environmental regulations and project review processes according to the National Environmental Policy Act and Minnesota Environmental Policy Act. The anticipated 2025 state- and federal-level environmental review will further examine environmental impacts from proposed projects. The MAC will continue to partner with surrounding communities and appropriate agencies in the environmental review process as part of its stakeholder and public engagement process.</p>
<p>City of Minneapolis, Letter dated August 21, 2023</p>	<p>27</p>	<p>We recognize that MAC cannot restrict the number of planes, but it will be critical for MAC to use all tools that are available to it, to prevent, manage and mitigate impacts. This includes utilization of the Runway Use System and other noise abatement techniques in collaboration with the FAA. While the LTP does reference existing noise abatement procedures, we would like to see MAC go further for planning purposes and address whether existing procedures are expected to be available, adequate, or appropriate to address projected conditions.</p>	<p>The MAC will continue working on aircraft noise reduction opportunities with the MSP Noise Oversight Committee (NOC), the advisory board appointed to address aircraft noise issues. The NOC's mission includes identifying and studying airport noise issues and solutions and providing policy recommendations to the MAC Planning, Development and Environment Committee. This framework, along with close collaboration with the Federal Aviation Administration, has proven to be successful in developing a robust and thoughtful noise reduction strategy around MSP Airport and has become an industry model for airports. The continued collaboration, innovation and good-faith efforts from the NOC, MAC and FAA will assist in the identification and evaluation of new noise reduction strategies over the duration of this plan.</p>
<p>City of Minneapolis, Letter dated August 21, 2023</p>	<p>28</p>	<p>Airplanes in the fleet at MSP are getting larger and that trend is expected to continue. The top two aircraft types in 2018 were regional jets (Bombardier CRJ-200 and CRJ-900) and the top two aircraft types in 2040 are projected to be narrow body (Airbus A220-100 and Airbus A319-NEO). The noise signatures of narrow body aircraft are generally larger than regional jets. For this reason, the LTP anticipates that larger planes will contribute to an expansion of noise contours. The</p>	<p>In 2021, the MAC committed to continue providing noise mitigation relief to qualifying homes through 2032. This commitment effectively extends one of the most robust and encompassing sound insulation efforts around any U.S. airport. For a home to qualify, it must be located, for a period of three consecutive years in the actual 60 DNL aircraft noise contour published in an annual noise contour report, and, be located within a higher noise impact area when compared to</p>

Commenter	ID	Subject	Response
		forecast also expects an increase in departures with longer stage-lengths. The implication is that planes carrying more fuel are slower to climb and have greater noise impact.	<p>the home's status under a previous phase of the program.</p> <p>To-date, the MAC's noise mitigation program has provided noise relief to almost 20,000 homes and 19 schools around the airport at a total cost of over \$513 million.</p>
City of Minneapolis, Letter dated August 21, 2023	29	According to the LTP, the acreage affected by noise at 60 dB DNL or more is predicted to increase by 39.3% and will encompass a total of 15,775 single-family homes. This is the baseline estimate. A vast majority of these homes are in Minneapolis. In addition to a higher number of operations and larger planes, a key contributor to bigger noise contours is an expected increase in nighttime flights. The city is very concerned about the health and livability impacts of nighttime noise. While airports do not have the authority to restrict when planes can fly, airports can seek to prevent and mitigate impacts with tools such as providing effective noise mitigation to homes and maintaining strong support for policies to avoid flying over the most populated areas at night.	<p>In 2021, the MAC committed to continue providing noise mitigation relief to qualifying homes through 2032. This commitment effectively extends one of the most robust and encompassing sound insulation efforts around any U.S. airport. For a home to qualify, it must be located, for a period of three consecutive years in the actual 60 DNL aircraft noise contour published in an annual noise contour report, and, be located within a higher noise impact area when compared to the home's status under a previous phase of the program.</p> <p>To-date, the MAC's noise mitigation program has provided noise relief to almost 20,000 homes and 19 schools around the airport at a total cost of over \$513 million.</p>
City of Minneapolis, Letter dated August 21, 2023	30	While research is underway to improve airplane efficiency and advance fuel alternatives, aviation continues to be dominated by carbon combustion with impacts for the environment and human health. Health impacts include asthma, heart disease, and premature death. According to a recent study from the University of Washington, particulate matter from aviation is different from other transportation sources due to a higher concentration of ultra-fine particulates (UFP). UFPs are considered particularly toxic due to their small size and ability to enter deep into the lungs and penetrate the blood stream.	<p>One of the MAC's sustainability goals is to reduce emissions by 80% by 2030. The MAC continues to invest in assets and activities that reduce emissions and UFPs. Accomplishments toward reducing emissions include: solar panels installed at both terminals that generate enough electricity to power 550 homes for one year; transitioning to electric ground support equipment for aircraft; participation in the Airport Carbon Accreditation program; arrival procedures incorporating Optimized Profile Descent (OPD) calculated to reduce carbon emissions by 28,465 metric tons each year. Going forward, the focus is on Sustainable Aviation Fuel (SAF). In 2023, a new, first-of-its-kind SAF Hub has been established by Greater MSP in partnership with Delta,</p>

Commenter	ID	Subject	Response
			<p>Ecolab, Excel Energy, Bank of America and others. SAF is a safe, fully certified jet fuel that can reduce the lifecycle carbon emissions of flying by more than 80%. The mission of this multi-industry coalition is to accelerate and scale-up the production of SAF in Minnesota to meet the ambitious goal to reach net zero carbon emissions in commercial aviation by 2050.</p>
<p>City of Minneapolis, Letter dated August 21, 2023</p>	<p>31</p>	<p>The LTP refers to an air quality study prepared more than 10 years ago based on data that is even older. Those data did not include a quantitative analysis of ozone, particulate matter, nitrogen dioxide, or sulfur dioxide. Being in attainment as a region with federal air quality standards is not informative about airport-specific impacts. MAC should quantify the specific impacts of aircraft emissions and airport operations.</p>	<p>The intent of the LTP is to focus on facility planning needs. The MAC follows all state and federal environmental regulations and project review processes according to the Clean Air Act, National Environmental Policy Act and Minnesota Environmental Policy Act. This includes compliance with mandatory air quality permits and reporting, as well as voluntary air emissions reduction efforts through participation in the Airport Carbon Accreditation (ACA) program. The anticipated 2025 state- and federal-level environmental review will consider on- and off-airport environmental impacts, including National Ambient Air Quality Standards as prescribed by federal and state requirements.</p>
<p>City of Minneapolis, Letter dated August 21, 2023</p>	<p>32</p>	<p>We recognize that MAC alone cannot change the aviation industry, however there are steps that can be taken with minimizing local impacts in mind. We urge MSP to continue its work in the Airport Carbon Accreditation program and to reduce emissions from buildings and ground- transportation, actively encourage biking and transit access to the airport, work with industry to bring the most fuel-efficient planes into the fleet, encourage the use of sustainable aviation fuels, and participate in research that advances knowledge about the health impacts of aviation if given the opportunity.</p>	<p>Comment noted. See response to comment 30 above.</p>

Commenter	ID	Subject	Response
City of Minneapolis, Letter dated August 21, 2023	33	Regarding the facility needs that are anticipated in 2040, we will engage as projects are considered for MAC's capital program and will be keenly interested in information about projects that have potential to impact noise, health, or the environment. We will be interested in new or expanded taxiways, for example, to ensure they will not increase noise or vibration. Also, while we understand that some projects have appeared in prior planning documents and have undergone environmental review, there may be circumstances where a new analysis is warranted. Some projects were last reviewed more than 10 years ago.	The MAC will continue to include surrounding communities, stakeholders, and appropriate agencies in future environmental projects. The MAC will follow all state and federal environmental regulations and project review processes according to the National Environmental Policy Act and Minnesota Environmental Policy Act.



August 18, 2023

Eric Gilles, Senior Airport Planner
Metropolitan Airports Commission
6040 28th Avenue South
Minneapolis, MN 55450

RE: Metropolitan Airports Commission – Draft Minneapolis-St. Paul International Airport 2040 Long Term Comprehensive Plan
Metropolitan Council Review File No. 22883-1
Metropolitan Council District 5

Dear Mr. Gilles:

The Metropolitan Council received the draft Minneapolis-St. Paul (MSP) International Airport 2040 Long Term Comprehensive Plan (Plan) on July 6, 2023. The Council reviews and comments on Airport Long Term Comprehensive Plans for conformance to regional systems, including the *Transportation Policy Plan*, and consistency with *Thrive MSP 2040* and other Council policies. This Plan updates the airport's long term investment plan to 2040 from the previous 2030 planning horizon. This review will serve as the preliminary review of the Plan, but this Plan will still be required to undergo a formal consistency review and approval by the Council at a later date.

The Plan's preferred alternative does not change the classification of the airport. Long term aviation forecasts indicate that passenger and aircraft activity will increase, from 2018 to 2040, but aircraft operations will remain well below previous peaks seen at MSP and are lower than forecasts from the 2030 Plan. As operations are not anticipated to eclipse previous peaks during the planning horizon, the preferred alternative indicates that minimal projects will be needed on the airside, limited to new and expanded auxiliary taxiways, expanded de-icing pads, expanded cargo terminals and remain overnight aircraft storage space to increase operation efficiency of the airport. There are no new or expanded runways planned. The preferred alternative plans various improvements to both terminals including a major expansion of Terminal 2 and reworking of gate-space at Terminal 1. The preferred alternative plans to increase the parking capacity at the terminals significantly, with new and expanded parking ramps at both terminals, and will reconstruct and redesign landside terminal access for both terminals.

Additionally, the Plan calls for expansion of cargo facilities, relocation of the fixed base operator facility, reconstruction of the Post Road and Trunk Highway 5 interchange, and the construction of a sterile connection between terminals. It is anticipated that some of these projects will have an impact on the regional transportation system and should be coordinated further with regional partners as planning and project development on these proposed projects advance.

Council staff offer the following technical comments for your consideration:



Office of Mayor Jacob Frey
350 S. Fifth St. - Room 331
Minneapolis, MN 55415
TEL 612.673.2100

www.minneapolismn.gov

August 21, 2023

Brian Ryks
Executive Director/CEO
Metropolitan Airports Commission
6040 28th Avenue South
Minneapolis, MN 55450

Dear Mr. Ryks,

Please accept the attached comments regarding the 2040 Long-Term Plan for Minneapolis-St. Paul International Airport. Our comments focus on the importance of managing airport impacts. We believe this is essential to having a successful airport in 2040 and that the city brings unique perspective to these issues.

The airport and surrounding communities are in a symbiotic relationship and the key to success is thriving together. The city and our residents highly value what the airport brings to our city and state. We appreciate the communication and collaboration between our agencies and look forward to continuing to work in partnership.

Yours Truly,



Mayor Jacob Frey
City of Minneapolis

Cc: Rick King, Chair, Metropolitan Airports Commission
Leili Fatehi, Commissioner, Metropolitan Airports Commission
Naomi Pesky, VP Strategy & Stakeholder Engagement, Metropolitan Airports Commission
Dana Nelson, Director, Stakeholder Engagement, Metropolitan Airports Commission
Eric Giles, Airport Planner, Planning and Development, Metropolitan Airports Commission
Joseph Widing, Senior Transportation Planner, Metropolitan Council

City of Minneapolis Comment on 2040 Long-Term Plan for Minneapolis-St. Paul International Airport

Minneapolis-St. Paul International Airport (MSP) is a critical asset to the state and region; it supports a successful business climate, is essential to leisure travel and the movement of goods and is a significant provider of jobs. Surrounding communities benefit tremendously from MSP. Likewise, the airport benefits when surrounding communities are a desirable place to live, visit, and do business. Ensuring that both the airport *and* adjacent communities can thrive is the key to success for both.

When the Metropolitan Airports Commission (MAC) was established, the Legislature recognized the importance of developing and operating the system of airports “in such a manner as to assure the residents of the metropolitan area of the minimum environmental impact...” is “essential to the development of air navigation and transportation in and through this state...” Minn. Stat. § 473.655.

The Legislature required that development of the system be consistent with the transportation chapter of the Metropolitan Council’s Development Guide which says that “planning, development and operation of the region’s aviation facilities should be conducted to minimize impacts upon the cultural and natural environment, regional systems and airport communities.” Thus, airport plans are required to include elements including a “description of recommended air, water and noise control plans...” Our comments focus on these issues.

Growth in Operations

Forecasts prepared for the 2040 Long-Term Plan (LTP) show growth in the number of operations at MSP with a baseline estimate of 517,000 annual operations. While this is fewer than peak operations in 2004, it’s much higher than recent years. In 2018, the number of operations was 407,000. MAC’s website lists annual operations back to 2009 and the highest number of operations was 437,000 in 2010. If 517,000 annual operations did manifest, we would expect a substantial impact on the city, the environment, and our residents.

We recognize that MAC cannot restrict the number of planes, but it will be critical for MAC to use all tools that *are* available to it, to prevent, manage and mitigate impacts. This includes utilization of the Runway Use System and other noise abatement techniques in collaboration with the FAA. While the LTP does reference existing noise abatement procedures, we would like to see MAC go further for planning purposes and address whether existing procedures are expected to be available, adequate, or appropriate to address projected conditions.

Fleet Mix

Airplanes in the fleet at MSP are getting larger and that trend is expected to continue. The top two aircraft types in 2018 were regional jets (Bombardier CRJ-200 and CRJ-900) and the top two aircraft types in 2040 are projected to be narrow body (Airbus A220-100 and Airbus A319-NEO). The noise signatures of narrow body aircraft are generally larger than regional jets. For this reason, the LTP anticipates that larger planes will contribute to an expansion of noise contours. The forecast also expects an increase in departures with longer stage-lengths. The implication is that planes carrying more fuel are slower to climb and have greater noise impact.

Noise Impacts

According to the LTP, the acreage affected by noise at 60 dB DNL or more is predicted to increase by 39.3% and will encompass a total of 15,775 single-family homes. This is the baseline estimate. A vast majority of these homes are in Minneapolis. In addition to a higher number of operations and larger planes, a key contributor to bigger noise contours is an expected increase in nighttime flights. The city is very concerned about the health and livability impacts of nighttime noise. While airports do not have the authority to restrict when planes can fly, airports can seek to prevent and mitigate impacts with tools such as providing effective noise mitigation to homes and maintaining strong support for policies to avoid flying over the most populated areas at night.

Environmental and Health Impacts

While research is underway to improve airplane efficiency and advance fuel alternatives, aviation continues to be dominated by carbon combustion with impacts for the environment and human health. Health impacts include asthma, heart disease, and premature death. According to a recent study from the University of Washington, particulate matter from aviation is different from other transportation sources due to a higher concentration of ultra-fine particulates (UFP). UFPs are considered particularly toxic due to their small size and ability to enter deep into the lungs and penetrate the blood stream.

The LTP refers to an air quality study prepared more than 10 years ago based on data that is even older. Those data did not include a quantitative analysis of ozone, particulate matter, nitrogen dioxide, or sulfur dioxide. Being in attainment as a region with federal air quality standards is not informative about airport-specific impacts. MAC should quantify the specific impacts of aircraft emissions and airport operations.

We recognize that MAC alone cannot change the aviation industry, however there are steps that can be taken with minimizing local impacts in mind. We urge MSP to continue its work in the Airport Carbon Accreditation program and to reduce emissions from buildings and ground- transportation, actively encourage biking and transit access to the airport, work with industry to bring the most fuel-efficient planes into the fleet, encourage the use of sustainable aviation fuels, and participate in research that advances knowledge about the health impacts of aviation if given the opportunity.

Facility Needs

Regarding the facility needs that are anticipated in 2040, we will engage as projects are considered for MAC's capital program and will be keenly interested in information about projects that have potential to impact noise, health, or the environment. We will be interested in new or expanded taxiways, for example, to ensure they will not increase noise or vibration. Also, while we understand that some projects have appeared in prior planning documents and have undergone environmental review, there may be circumstances where a new analysis is warranted. Some projects were last reviewed more than 10 years ago.

We look forward to continuing to work in partnership to ensure the airport and adjacent communities will thrive together.

Transportation/Aviation (Joe Widing, 651-602-1822)

General Considerations

- The Plan includes many complicated acronyms and other technical terminology. In order for the Plan to be more accessible to the general public, the Council staff recommend adding a glossary of terms used in the Plan to aid in general understanding.
- Please include more details on engagement activities including a list of panel members on the Stakeholder Advisory Panel, persons engaged through the planning process, takeaways from public events, and a summary of how input was received and incorporated.
- Council staff agree that EVs should see a rapid uptake through the life of the Plan and appreciate MAC's commitment to aiding the state in reaching its ambitious goals for EV adoption by planning EV compatible facilities for both employees and airport users.
- Council staff appreciate MAC's commitment to sustainability efforts and to the sustainability goals set for the MSP Airport. In the most recent legislative session, the MAC's MSP sustainability goals have been codified into state law. Council staff recommend including and acknowledging that in the Plan.
- Exhibit 1-12: Support Facilities only displays a blank basemap. The map needs to show the intended information.
- Exhibit 3-10: Airfield Standards Review cuts off the aerial image where the runway protection zone extends south into Bloomington. Please update the imagery to include the full background image.
- Table 3-67: Theoretical Capacity for Legacy Carriers contains an error with the UPS estimated throughput column, which appears to combine both FedEx and UPS amounts.
- Exhibit 4-75: Long-Term Preferred Development Alternative 3.1A misidentifies Project 3-8, shown as 34th/70th intersection reconstruction which is described as Project 1-9 on page 114. Please confirm that all maps match labels and project lists consistently.

Surrounding Roadway Network Considerations

- East 77th Street has recently been constructed and now connects the City of Richfield to 24th Avenue South. This new connection also connects to Airport Lane, then to 34th Avenue South and, finally to Terminal 2. It is possible that this new connection can be utilized by Terminal 2 users as an alternative route when I-494 experiences congestion delays, which could impact operations at the 34th Avenue/Airport Lane intersection. This project also included ramp improvements at the TH-77 / I-494 interchange. Council staff recommend the MAC to acknowledge this project and consider this new connection in assessing future traffic impacts.
- Project 2-12 describes the reconstruction of the TH-5 and Post Road interchange. This project presents numerous opportunities to improve multimodal circulation to and from MSP. If Post Road is elected to serve as the new primary entrance for Terminal 2 as is considered in the Plan, this will require additional analysis and review for impacts on the regional highway system by the Council.
- The Plan references the Metropolitan Council Transportation Improvement Program (TIP). This reference is out of date and related to a project completed in 2015. Therefore, it should be updated or removed. In the '23-'26 TIP, there is an I-494 project that will construct an EZPass lane on I-494 from the Mississippi River west to TH-169 and include bridge preservation work within Bloomington. Council staff advise the MAC to acknowledge this project and consider any future traffic impacts from the construction of this project and the additional capacity on I-494.

- Project 2-6 describes the relocation of the fixed-base operator facility from the existing location to a new location on the north end of the airport. This facility will be accessed via 28th Avenue and TH-62 and could present a potentially significant increase in traffic on 28th Avenue and the interchange with TH-62. Council staff recommend that prior to more advanced planning of this new facility, a traffic impact study be performed to understand any traffic impacts and mitigation needed from this project.

Transit And Other Transportation Considerations

- The Council supports efforts to better integrate the MSP airport into the non-motorized transportation system. Currently, Post Road/70th Street is identified as a Regional Bicycle Transportation Network (RBTN) alignment (<https://metro council.maps.arcgis.com/apps/webappviewer/index.html?id=0b0735b3407f49ceb347fc30c9b83bda>). The Plan identifies improvements for Post Road/70th Street and the Post Road interchange, which present an opportunity to implement non-motorized connections to both Terminals 1 and 2 as studied by Hennepin County. Council staff recommend further coordination between MAC, Hennepin County, and the Council to better support safe and adequate non-motorized access to both Terminals and other support facilities at the MSP.
- In light of the forecasted parking needs documented in this Plan, and regional and statewide climate goals regarding VMT reduction. Council staff advise the MAC to initiate a Transportation Demand Management Plan for the MSP Airport.
- Project 1-7 describes an expansion of the Orange Ramp to the north and east of the existing Blue Line Terminal 2 LRT station. This project will need to be coordinated with Metro Transit and consider potential impacts or improvements to the LRT station.
- Project 3-5 describes an automated people mover connection between the secure section of the two terminals. This project is justified when considering increased passenger movements planned between the two terminals for connection purposes. The project will affect the Metro Transit LRT service between the airport terminals, necessitating coordination with Metro Transit in the planning stages.
- Currently, the Riverview Corridor is being planned as a modern streetcar which will interline with the Blue Line at Fort Snelling and will utilize existing Blue Line LRT stations. If an Arterial BRT option is chosen for this corridor, the upgraded route will materially replace the 54 and include improved stations. Council staff recommend that the LTCP acknowledge planned transit improvements to the MSP. If an Arterial BRT is chosen for the Riverview Corridor, it is anticipated that the new airport Transit Center will require only minimal facility changes for the Arterial BRT operations.

Environmental Considerations

- Proposed projects appear to increase impervious surfaces, support additional passenger activity, and generate additional traffic. While most forecasts do not envision more activity than previous documents, Council staff request additional clarification that subsequent studies for proposed projects will further examine environmental impacts from outlined projects in the Plan.
- Table 5-5 does not appear to account for many multi-family units in the City of Bloomington. Bloomington numbers will likely be significantly higher than 157 multi-family units within the 60 Day Night Average Sound Level (DNL) contour line. At least 300 units are new in the South Loop area since 2018, in addition to the existing Reflections condo towers, 5 Apple Tree Square condos, and the multi-family units south of the Mall of America. It is also likely that the South Loop area will continue to grow and significantly add to this total. It appears that the

Minneapolis and Richfield numbers appropriately account for future multi-family growth expected for those cities. Forecasted multi-family units within noise contours need to be re-examined.

- It should be noted that the Federal Aviation Administration (FAA) is currently reviewing noise policy guidelines and may update them with additional metrics. If any changes are made, it will require an update of noise contours and a reconsideration of noise impacts depending on new metrics from the FAA.

Regional Parks and Trails (Colin Kelly, 651-602-1361)

- Council staff appreciate the MAC's acknowledgment of Fort Snelling State Park, Minnesota Valley Wildlife Refuge, and many other parks in the area in the draft Plan (1.6.1 Environment Around the Airport), as well as in the 2020 Improvements EA/EAW that has been integrated into the draft Plan (Chapter 4: Affected Environment). Though regional parks are referenced generally, no regional parks are specifically called out. Council staff encourage the MAC to specifically acknowledge the regional parks and trails that are proximate to, or potentially impacted by, the airport, lower elevation flight paths, the noise generated as a result of the airport, and other airport-related influences, including Crosby Farm, Hidden Falls, Minnehaha, Mississippi Gorge, and Nokomis-Hiawatha regional parks, and Big Rivers, Minnehaha Parkway, Minnesota River Greenway, Nine Mile Creek, and the Nokomis-Minnesota River regional trails.
- Given the airport's proximity to Fort Snelling State Park, Pike Island, the confluence of the Mississippi and Minnesota Rivers, and Bdote, Council staff encourage the MAC to consider how plans for the airport may specifically impact the lands and waters considered sacred to tribal nations. The 2020 Improvements EA/EAW references inviting the Lower Sioux, Mendota Mdewakanton Dakota, and Shakopee Mdewakanton Sioux Tribes to become consulting parties, along with the State of Minnesota Indian Affairs Council. Council staff encourage acknowledgement of the indigenous people who still consider spaces proximate to the airport as sacred and part of both their ancestral and contemporary homelands, and continued or renewed consultation opportunities with these same parties, now and into the future.

Wastewater (Roger Janzig, roger.janzig@metc.state.mn.us)

- The construction of any new or updating of existing runways or any other construction projects may have an impact on multiple Metropolitan Council Interceptors in multiple locations. To assess the potential impacts to our interceptor system, prior to initiating any projects, preliminary plans should be sent to Tim Wedin, Interceptor Engineering Assistant Manager (651-602-4571) at the Metropolitan Council Environmental Services.
- Please include updated actual wastewater flows for 2020 and projected wastewater flows for 2030 and 2040, if available.

Forecasts (Todd Graham, 651-602-1322)

Tables 2-3: Comparative Socioeconomic Projections (20-Year CAGR), and 2-16: Comparison of Socioeconomic Forecast Inputs are represented as regional economic projections for 2020-2040. The source note references Metropolitan Council forecasts from 2017 and 2021. The Council revises the macroeconomic forecast biannually, most recently in 2023. Council staff advise against using the outdated economic analyses, for the reasons discussed in the Plan. The Council's 2023 forecast is substantially revised (<https://metro council.org/Data-and-Maps/Research-and-Data/Thrive-2040-Forecasts.aspx>).

This will conclude the Council's preliminary review of the draft MSP 2040 LTCP. The Council will not take formal action on the Plan at this time. If you have any questions or need further information, please contact Joe Widing, Principal Reviewer, at 651-602-1822 or via email at joseph.widing@metc.state.mn.us.

Sincerely,

 Raja Esmaeili for:

Angela Torres, AICP, Senior Manager
Local Planning Assistance

CC: John Pacheco Jr., Metropolitan Council District 5
Michael Larson, Sector Representative
Joseph Widing, Principal Reviewer
Reviews Coordinator

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