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## Appendix E. Implementation Plan

The 2022 Minnesota State Aviation System Plan (2022 MnSASP or MnSASP) was developed based on feedback obtained during a rigorous, two-year-long public engagement process conducted as Phase I of the MnSASP. The Minnesota Department of Transportation, Office of Aeronautics (MnDOT Aeronautics) gathered input via written, online, and in-person outreach methods with the explicit goal of the MnSASP being, “More relevant to more people more of the time.” Accordingly, Phase I of the MnSASP was used to develop the scope of Phase II.

The 2022 MnSASP work plans, in turn, identify future work plans and studies recommendations for implementation following the state system plan. Guidance is based on information gathered during the 2022 MnSASP to support its ongoing implementation, as well as the overall multimodal transportation system in the state. This provides offers a framework and process to engage in continuous system planning – bringing the 2022 MnSASP to life and offering MnDOT Aeronautics and Minnesota airports with the information they need to better meet the state’s ever-evolving aviation demands over the 20-year planning horizon.

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### E.1. Future Work Plans

The 2022 MnSASP identified five focused studies or projects to support MnDOT Aeronautics’ ability to achieve its vision of creating an air transportation system that enable safe, fast, and reliable air transportation for the citizens and businesses of Minnesota.

#### E.1.1. COMPREHENSIVE CAPITAL IMPROVEMENT PLAN (CIP) AND GRANT MANAGEMENT PROGRAM

As discussed in **Chapter 4. System Costs and Implementation Plan**, MnDOT Aeronautics’ existing Airport System Manager (ASM) is outdated and no longer meets the grant management needs of MnDOT Aeronautics nor airport sponsors. The 2022 MnSASP recommends that MnDOT Aeronautics procure an effective MnDOT grant management program that comprehensively administers the statewide CIP in conjunction with grant selection, contract execution, invoices, reimbursements/payments, inspection procedures, contract close-out, and other workflow tasks. The grant management program should serve as a “one stop shop” for MnDOT Airport Development staff to easily track and manage all phases of state-funded projects. Additionally, the software should provide robust functionality to analyze historic expenditures to guide future improvements and support the agency’s need for transparency.

#### E.1.2. MINNESOTA AIRPORT FUNDING MANUAL

**Chapter 4** discussed the need to revise the grant prioritization methodology used to award Airport Development Grants. The 2022 MnSASP revealed that the current methodology fails to reflect the priorities of MnDOT Aeronautics and system airport. The methodology is loosely based on the national prioritization formula used to award discretionary grants via the Airport Improvement Program (AIP), and it has not been comprehensively revised in many years. Additionally, the state maintains significant discretion in terms of how the formula is applied.

It is strongly recommended that MnDOT Aeronautics continue the work initiated during the 2022 MnSASP to develop and ultimately adopt a revised prioritization methodology that is:

- Reflective of the philosophy and priorities of the air traveling public
- Transparent to airport sponsors and Minnesota taxpayers
- Supportive of long-term system viability

The process should be data-driven and implementable by MnDOT Airport Development staff. Once the prioritization methodology is finalized, associated funding policies and procedures must be documented in a grants manual that has been formally approved and adopted by MnDOT. An adopted manual would be an important tool and ally for MnDOT Aeronautics to more effectively manage the statewide CIP and communicate requirements to airports sponsors and internal staff. A grants manual affords the opportunity to implement a more structured program with better defined eligibility and decision-making guidelines while making the agency more accountable for its funding decisions.

### **E.1.3. AIRPORT COMPATIBILITY MANUAL UPDATE**

Airport land use compatibility practices are designed to promote the safety of aircraft, their passengers, and the people and property on the ground, as well as mitigate the potential nuisance associated with overhead aircraft operations. MnDOT Aeronautics considers airport land use compatibility as one of its highest priorities, and the state has taken an active role in ensuring Minnesota’s airports are developed and operated in consideration of land use best practices.

Notably, Minnesota Administrative Rules 8800.2400, *Airport Zoning Standards*, contain minimum standards for the zoning of public airports addressing issues of airspace, land use safety, and noise sensitivity. State rules are based on federal airspace requirements established by Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace* (49 United States Code [U.S.C.] 106[g]). Additionally, the MnDOT Aeronautics clear zone guidance indicates that airport sponsors must own or otherwise demonstrate adequate control over 100 percent of land off each runway end configuration based on maximum build-out conditions to be eligible for state funding.<sup>1</sup>

To help airport sponsors understand airport land use compatibility as well as navigate the various applicable federal, state, and local requirements, MnDOT Aeronautics published the *Airport Compatibility Manual* in 2005. This report is now significantly outdated. Since the document was first released, more Minnesota airports are facing issues of land use compatibility due to urban encroachment. Additionally, the FAA’s Draft Advisory Circular (AC) 150/5190-4B, *Airport Land Use Compatibility Planning*, may be published in the near future. The 2005 *Airport Compatibility Manual* does not include any information about clear zones. MnDOT Aeronautics clarified and updated its position and requirements associated with clear zones during the 2022 MnSASP.

The Airport Cooperative Research Program (ACRP) has also published several applicable reports since 2005. For example, ACRP Synthesis 117: *Agricultural Operations on Airport Grounds* was published in March 2022. This report contains valuable information regarding how to manage agricultural operations

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<sup>1</sup> See **Attachment 6. Clear Zone Guidance Statement** of the 2022 MnSASP Technical Report for details regarding state clear zone requirements.

on and near airport property in consideration of land use best practices (e.g., acceptable crop height, machinery placement, etc.). ACRP Report 27: *Enhancing Airport Land Use Compatibility, Volume 1: Land Use Fundamentals and Implementation Resources* and *Volume 2: Land Use Survey and Case Study Summaries* were published in 2010.

For these and other reasons, the 2022 MnSASP recommends MnDOT Aeronautics fully update the *Airport Compatibility Manual* to reflect current laws, regulations, and other requirements and best practices. Such a document will help airport sponsors, land use planners, and aviation users understand the importance of airport compatibility land use planning and its potential impacts on aircraft operations and local communities. The updated manual could also provide state recommendations identifying airport compatible land use development tools that could be implemented by Minnesota airports.

#### **E.1.4. MINNESOTA GENERAL AVIATION AIRPORT BUSINESS PLANNING GUIDEBOOK**

**Chapter 4. System Costs and Implementation Plan** reports that Minnesota airports have a total investment need of approximately \$4.1 billion through 2030. During that same period, federal and state sources can offer an estimated \$1.0 billion in aid – leaving a funding gap of \$3.0 billion. In order for all needs to be met, local airport sponsors and private entities will need to significantly invest into the state’s aviation assets. At a minimum, local sponsors are responsible for matching state and/or federal grants awarded through the State Airports Fund and/or AIP (respectively). Local sponsors can invest into their airports using tax dollars; however, such sources are almost always highly constrained and must be prioritized against other municipal functions such as local roads, schools, public healthcare institutions, and other public benefits.

Nearly all airports can engage in on-airport commercial activities to enhance their abilities to be financially self-sufficient to meet their own development and maintenance needs. Financial self-sufficiency offers airports independence, resiliency against unexpected decreases in public funding, and a level of self-determination unavailable to facilities wholly reliant on external funding sources. Airports can generate revenues through fuel sales; charging rent for hangars, business and advertising space, agricultural production, and other airport-compatible commercial activities; fees for landing and transient storage; and other strategies. Airport-generated income can be used to support hangar development and other types of revenue-producing projects generally ineligible for federal or state support. In that way, airports that produce revenue can further invest in their facilities to optimally meet the needs of their users, making them an attractive place to base aircraft and do business. Additionally, revenue earned by an airport must be invested back into aviation. There is no risk in airport-generated revenues being swept for other municipal needs.

To assist Minnesota airport sponsors understand the benefits and opportunities associated with on-airport revenue generation, identify strategies most applicable to their facilities, and navigate potentially complex legal processes, the 2022 MnSASP recommends that MnDOT Aeronautics develop a Minnesota-specific airport business planning guidebook. It is recommended that the guidebook focus specifically on Minnesota’s general aviation (GA) airports. Commercial service airports are significantly different in terms of operating requirements and ability to generate on-airport revenue. The guidebook should limit its target audience to ensure recommendations are germane and available to a large percentage of readers.

In addition to revenue generation, the Minnesota airport business planning guidebook could address airport management and operations more broadly. That could encompass state licensure, reporting, and regulatory requirements, as well as a general overview of airport management best practices. The guidebook would serve as a helpful resource for new airport managers and staff. Notably, many small GA airports in Minnesota do not have dedicated staff members and the manager may have little to no experience in aviation. In fact, several airport managers reported that they were unfamiliar with MnDOT Aeronautics processes and had no experience managing an airport during the MnSASP data collection effort.

The Minnesota airport business planning guidebook could build-off existing work on this topic including ACRP Report 77: *Guidebook for Developing GA Airport Business Plans*; Report 16: *Guidebook for Managing Small Airports*; and Report 121: *Innovative Revenue Strategies – An Airport Guide*. The Florida Department of Transportation also produced a state-specific business planning guidebook in 2014.

### **E.1.5. MNDOT AERONAUTICS STAFF TRAINING MANUAL**

MnDOT Aeronautics is composed of over 40 staff members performing diverse roles associated with regulatory compliance and enforcement; aviation workforce development; system maintenance, operations, and development; administrative functions; and air transportation. The state aviation system is also complex – encompassing 124 GA and nine commercial service airports ranging from small, rural turf airstrips to one of the busiest commercial service airports in the United States.

In consideration of the intricacy of functions within the agency and the airport system it administers, the 2022 MnSASP recommends that MnDOT Aeronautics develop a comprehensive staff training manual for existing and new staff members. This manual would help ensure all staff members are familiar with the responsibilities of MnDOT Aeronautics and their coworkers. This may be particularly helpful to staff members participating in MnDOT's Employee Resource Group Rotation Program. These staff members hold temporary positions at MnDOT for various periods lasting from a few weeks to 12 months. A comprehensive staff training manual would help participants quickly learn about the roles and functions of MnDOT Aeronautics to expediate training periods.

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## **E.2. Summary of MnSASP Recommendations**

In addition to the five specific projects discussed in the section above, the 2022 MnSASP identified additional issue-specific recommendations for MnDOT Aeronautics, airport sponsors, and other airport stakeholders. Each of these topics is comprehensively discussed in various sections of the 2022 MnSASP Technical Report, with cross-references provided in each subsection to learn more.

## E.2.1. PRIORITIZATION OF STATE AIRPORTS FUNDS

The distribution of the State Airports Fund in support of Minnesota system airports and meet other aviation-related needs is one of the primary tasks of MnDOT Aeronautics, and arguably the most impactful in terms of guiding future aviation development. **Chapter 4. System Costs and Implementation Plan** addresses system investment needs and identifies key recommendations to improve MnDOT Aeronautics' ability to award funding in a transparent, data-driven, and uniform manner. The following section summarizes the 2022 MnSASP recommendations associated with state aviation funding.

- Apply the findings of the Airport Pavement Management System (APMS) in the prioritization of state funding in a manner that maximizes the value of each dollar spend by:
  - Supporting pavements most in-need of maintenance or rehabilitation/reconstruction
  - Focusing on pavement preservation to minimize pavement lifecycle costs

This issue is discussed in **Section 4.3**.

- Revise the Airport Development Grant prioritization methodology to align with the current needs of Minnesota's aviation stakeholders, enhance agency transparency, and improve the ability to conduct internal analyses of historic funding decisions and procedures.

This issue is discussed at length in **Section 4.5.2**.

In addition to the guidance identified by the 2022 MnSASP directly, the Airport Funding Focus Area Working Group offered valuable guidance as MnDOT Aeronautics reevaluates its funding-related policies and procedures. The primary feedback offered by the Airport Funding Working Group is summarized as follows:

- The three primary airport assistance programs (i.e., Airport Development Grants, Maintenance & Operations [M&O] Grant Program, State Navigational Aids [NAVAIDs] Program) should be retained as-is, and funding allocations between programs should not be a major focus area for revision in the future.
- The prioritization of capital improvement projects requested via the Airport Development Program no longer meets stakeholder needs. Updating the project prioritization methodology should be of top precedence for MnDOT Aeronautics.
- Participants indicated a preference for establishing pots of funding to prioritize peer projects or airports relative to one another instead of evaluating all projects at the statewide level.
  - Project needs by classification are inherently different. The recommended funding amounts by classification do not significantly differ relative to historic funding values.
  - If MnDOT Aeronautics adopts a methodology that establishes pots of funding by classification, airports would retain the total amount of funds they are accustomed to receiving. However, they may be more likely to receive funds for the projects of highest value to them by aligning project priority scores by airport classification.
- Top criteria for project prioritization include preservation versus expansion, airport classification, regional economic impact, and a project's ability to fill an airport or system measure gap as identified by the 2022 MnSASP.
- MnDOT Aeronautics should reevaluate its existing process of matching all federal grants first, potentially instituting a percent total investment cap for federal projects.

A comprehensive discussion of feedback obtained from the Airport Funding Focus Area Working Group is provided in **Section 4.5.1**.

## E.2.2. HANGAR AVAILABILITY AND STATE FUNDING RECOMMENDATIONS

**Attachment 2** of the 2022 MnSASP include the Hangar Availability Evaluation and State Funding Recommendations. Key recommendations associated with hangar development and funding are as follows:

- MnDOT Aeronautics should:
  - Include provision in the terms of the Hangar Revolving Loan Program requiring all existing publicly owned hangars be used for aeronautical purposes prior to offering state loans for the development of new hangar facilities
  - Require that airport sponsors justify need for additional aircraft storage in conjunction with state funding requests for the development of new hangar facilities
  - Establish a formal prioritization structure for the award of Hangar Revolving Loans in lieu of the existing process of distributing loans on a “first-come, first-serve” basis
- Airport sponsors should:
  - Establish minimum standards that address airport-owned hangars, the enforcement of which should be a requirement to receive a Hangar Revolving Loan
  - Establish appropriate hangar lease rates per the guidance provided by the ACRP Report 213: *Estimating Market Value and Establishing Market Rent at Small Airports*, the assessment of which should be a requirement to receive a Hangar Revolving Loan

## E.2.3. LAST-MILE CONNECTIVITY AND COURTESY CARS

**Attachment 7** of the 2022 MnSASP Technical Report provides the Last-mile Connectivity and Courtesy Car Evaluation. The key recommendations identified by this task are provided below.

- MnDOT Aeronautics should:
  - Add courtesy car maintenance as an eligible expense for M&O Grant funding
  - Require that airport sponsors establish trip agreements prior to offering state assistance for the acquisition and maintenance of courtesy cars
- Airport sponsors should:
  - Acquire vehicles through MnDOT’s used fleet equipment program or the Minnesota Department of Administration Fleet and Surplus Services
  - Partner with local businesses to sponsor courtesy cars vehicles to cover operating expenses
  - Leverage the insurance offerings provided by governmental trusts in Minnesota
  - Require airport users to hold their own auto coverage to serve as the primary policy during use
  - Establish a trip agreement with courtesy car users for detailing the terms of use and documenting driver information
  - Promote and educate community partners about the economic activity generated by courtesy car users (e.g., allowing transient GA pilots and passengers to visit local businesses)
  - Request that courtesy car users complete a trip tracker to document the business(es) supported during their visits