Chapter 8. Cost Estimates and Recommendations

8.1. Introduction

North Dakota's aviation system must continually adapt to changing demand including addressing industry trends and advancements, evolving operational requirements, and an increasingly complex regulatory environment. Airports across the state, regardless of size or functional role, play a vital role in supporting economic development, emergency response, and statewide connectivity. Maintaining a safe, reliable, and resilient aviation system requires sustained and strategically targeted capital investment.

This chapter of the 2025 North Dakota State Aviation System Plan (NDSASP) provides a high-level assessment of the capital investments needed to support the statewide airport system over the 10-year planning horizon as well as summarizes other non-capital-related recommendations. The chapter also examines potential funding sources and amounts and compares the anticipated funding to the capital investment needs to identify shortfalls.

Project needs associated with the latest Capital Improvement Program (CIP) developed by the North Dakota Aeronautics Commission (NDAC) for all public-use airports are identified as well as additional project needs and associated planning-level cost estimates identified through the system performance analyses presented in **Chapter 6. System Performance**. For planning purposes, NDAC CIP costs represent projects that have been identified and programmed through existing planning and development processes, while the NDSASP costs reflect system needs that have not yet been programmed and represent unmet or future investment requirements.

Projected capital needs from the NDAC CIP are organized across the near term (Years 1–5), mid-term (Years 6–10), and the full 10-year planning horizon to illustrate the relative scale, timing, and phasing of anticipated investments. Recommendations for additional project needs associated with the system performance analysis are organized by NDSASP goal.

Funding availability is a key factor in maintaining uninterrupted airport operations and implementing recommended improvements. Within the system, 54 airports (61 percent) are eligible for funding through the Federal Aviation Administration (FAA) by virtue of inclusion in the National Plan of Integrated Airport Systems (NPIAS). FAA funding is a critical component of support for NPIAS airports; however, these airports also rely on funding from the State of North Dakota, local governments, and private sources to fully address their capital needs. The remaining 35 airports (39 percent), which are not included in the NPIAS, must rely on these same non-FAA funding sources to support airport development and maintenance activities.

The combined NDAC CIP and NDSASP needs are evaluated in relation to anticipated federal, state, and local funding levels to assess the overall funding outlook for the system and to identify the shortfall, or gap, between 10-year needs and anticipated 10-year funding.

This assessment supports informed decision-making and establishes a foundation for future discussions related to project prioritization, funding strategies, and the long-term sustainability and resiliency of North Dakota's aviation system.

In addition to evaluating 10-year capital needs and the projected funding shortfall, this chapter summarizes recommendations identified in previous chapters of the 2025 NDSASP. The focus is on recommendations related to airport classification considerations and on broader national aviation issues and trends that may impact North Dakota and its future aviation system needs and development.

8.2. Summary of Proposed Aviation Development Needs

The following subsections provide an overview of the anticipated financial needs required to support the maintenance, improvement, and optimization of North Dakota's aviation system over the 10-year planning horizon. A longer-term needs assessment (e.g., a 20-year estimate) was not developed due to the uncertainty of system needs beyond the 10-year NDAC CIP and the likelihood of significant cost changes.

For planning purposes, the NDSASP assumes that all identified system needs are captured within the 10-year planning horizon; therefore, no additional NDSASP needs are identified beyond 10-years. This assumption reflects how the analysis was structured and does not imply that all projects will be fully funded or delivered within a 10-year period. As demonstrated in the funding shortfall analysis later in the chapter, anticipated funding levels are insufficient to address all identified NDAC CIP and NDSASP needs within the 10-year horizon, and as a result, many projects are expected to be delayed beyond this period.

The 10-year system needs are categorized into two components: needs identified in the NDAC CIP, presented in **Section 8.2.1**, and additional needs associated with the NDSASP, presented in **Section 8.2.2**. The total 10-year needs estimate, representing the combined NDAC CIP and NDSASP needs, with duplication removed, is presented in **Section 8.2.3**.

8.2.1. NDAC's 10-Year NDAC CIP Needs

The 2026–2035 NDAC CIP provides a snapshot of identified airport infrastructure needs across North Dakota's 89 public-use airports. NDAC works with airport sponsors to identify facility deficiencies, confirm project scopes, and develop planning-level cost estimates, making the NDAC CIP a "bottom-up" representation of project and financial needs.

Because project needs continue to evolve as airports refine scopes, adjust priorities, and respond to changing operational and regulatory conditions, NDAC CIP data represents a

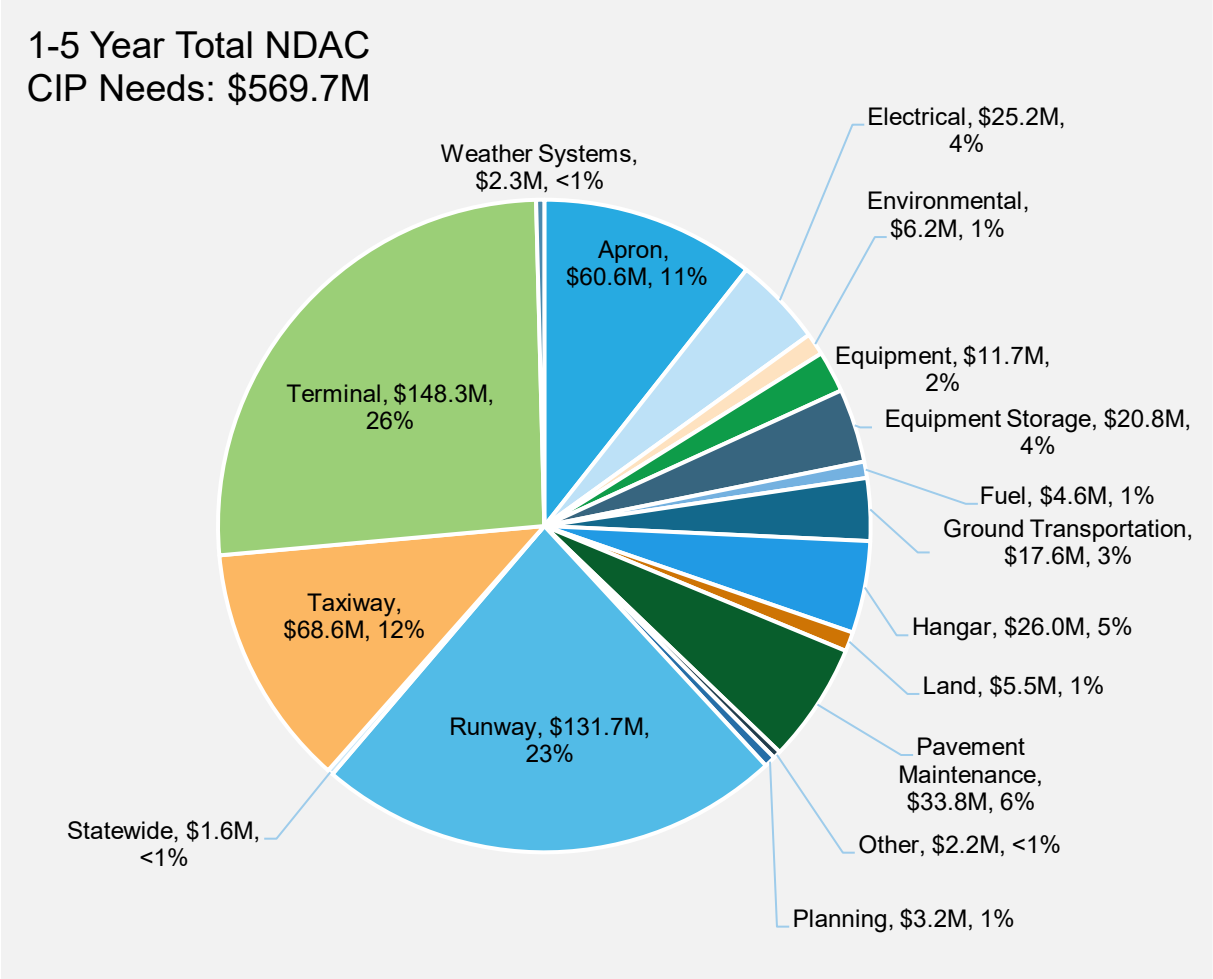
moment-in-time view that will continue to change as projects advance. While inclusion in the NDAC CIP is a necessary step toward securing funding, it does not guarantee that funding will be awarded, as available federal, state, and local resources can vary from year to year. This section summarizes NDAC CIP-identified costs anticipated over the next 10 years.

NDAC CIP cost information is presented in **Section 8.2.1.1** through **Section 8.2.1.3** and is organized into near-term (Years 1–5), mid-term (Years 6–10), and total 10-year planning horizons. Capital needs are further categorized by commercial service and general aviation (GA) airports, as well as by NPIAS and non-NPIAS facilities, to provide a comprehensive view of systemwide investment needs.

8.2.1.1. NDAC CIP Needs: Years 1–5

Throughout the five-year planning period from 2026–2030, the NDAC CIP identifies approximately $569.7 million in needs across North Dakota system airports. **Figure 8-1** presents the breakdown of these five-year costs by project category, illustrating where the highest demand for projects exists. As shown, terminal and runway projects account for the majority of financial need in the first five years, accounting for $148.3 million (26 percent), and $131.7 million (23 percent), respectively. This is followed by taxiway (12 percent), aprons (11 percent), and pavement maintenance (six percent) projects.

Figure 8-1. Distribution of 1–5 Year NDAC CIP Project Costs by Category



Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026

As summarized in **Table 8-1**, of the total five-year need identified in the NDAC CIP, $410.6 million, representing 72 percent, is associated with commercial service airports, while $157.5 million, accounting for 28 percent, is needed for GA facilities, which includes non-NPIAS airports. The remaining portion (less than one percent) of the 1–5-year needs is associated with statewide planning, which represents $1.6 million in needs.

Table 8-1. Commercial Service and GA NDAC CIP Totals (1–5 Year Period)

Category	1-5 Year Need	Percent of 1-5 Year Need
Commercial Service	$410,600,000	72%
GA	$157,520,000	28%
Statewide Planning	$1,600,000	<1%
Total	**$569,720,000**	**100%**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

Table 8-2 breaks down the 1–5-year NDAC CIP needs by NPIAS status, showing that approximately $553.5 million (97 percent) of needs are associated with NPIAS airports, with an additional $1.6 million in statewide planning needs. In comparison, roughly $14.7 million, representing three percent, is attributed to non-NPIAS facilities.

Table 8-2. NPIAS and Non-NPIAS NDAC CIP Totals (1–5 Year Period)

Category	1-5 Year Need	Percent of 1-5 Year Need
NPIAS	$553,470,000	97%
Non-NPIAS	$14,650,000	3%
Statewide Planning	$1,600,000	<1%
Total	**$569,720,000**	**100%**

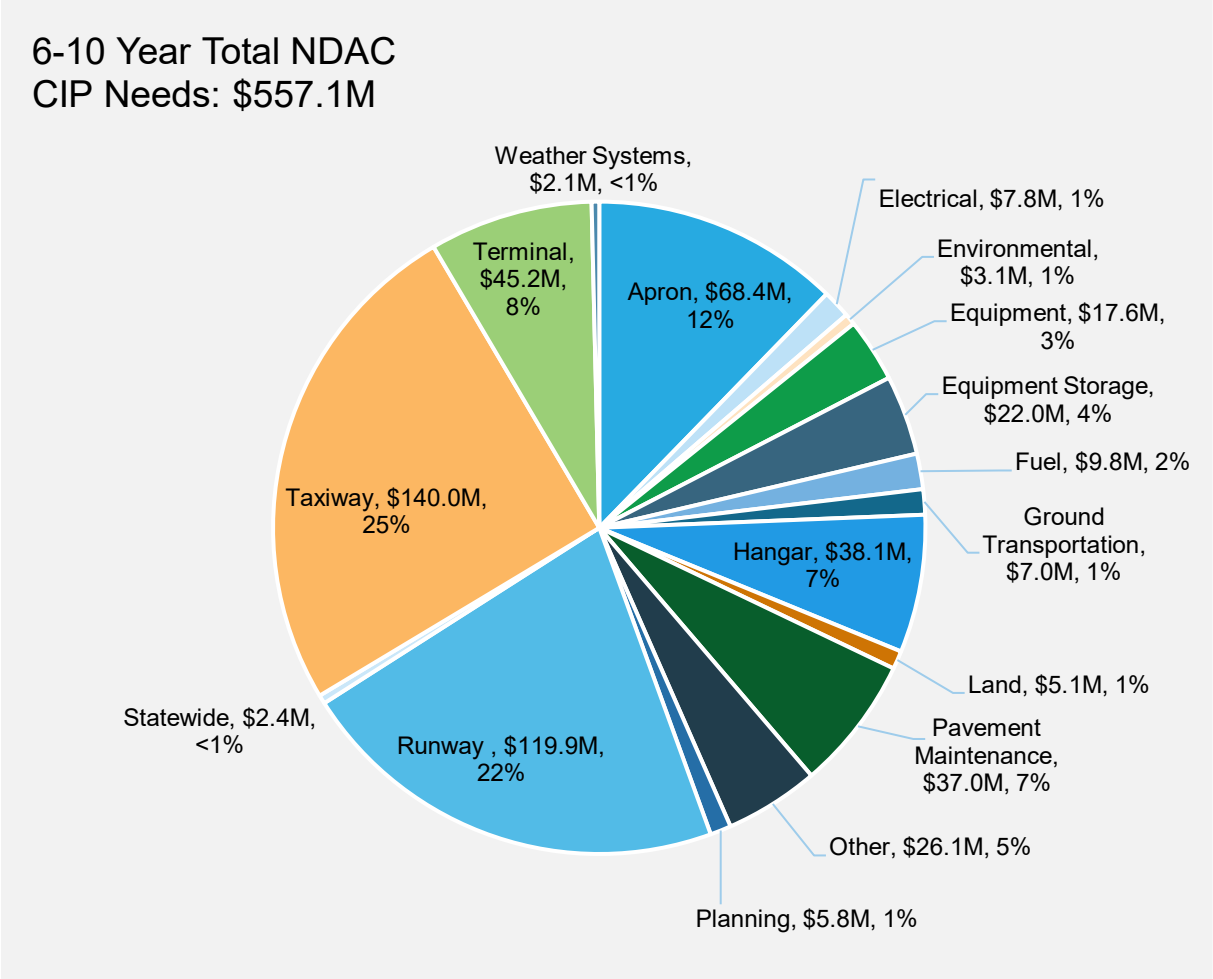
Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

8.2.1.2. NDAC CIP Needs: Years 6–10

The 6–10-year horizon of the 2026-2035 NDAC CIP reflects the system's longer-term development outlook, capturing projects that extend beyond immediate operational needs. These future improvements often relate to major reinvestment cycles, facility modernization, and projects that require additional planning, coordination, or funding alignment before they can advance. Because these needs are farther out on the timeline, they represent a blend of anticipated priorities and preliminary concepts that will continue to evolve as airports refine their plans.

Figure 8-2 presents the 6–10-year needs by project category, offering insight into the types of infrastructure investments expected later in the planning period. As shown, taxiway projects contribute the most to the 6–10-year needs, accounting for 25 percent, followed by runway projects at 22 percent. With significant terminal investment in the first five years, that project category decreased from 26 percent to only eight percent of the total need in the 6–10-year period. Apron (12 percent), hangar (seven percent), and pavement maintenance (seven percent) projects remain some of the higher categories of need in the 6–10-year period as well.

Figure 8-2. Distribution of 6–10 Year NDAC CIP Project Costs by Category



Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

As shown in **Table 8-3** the split in needs between commercial service and GA airports is more even, 51 percent and 48 percent respectively, in the 6–10-year period than 1–5 years. In addition to the airport needs, there is $2.4 million estimated for statewide planning needs, accounting for less than one percent.

Table 8-3. Commercial Service and GA NDAC CIP Totals (6–10 Years)

Category	6-10 Year Need	Percent of 6-10 Year Need
Commercial Service	$286,400,000	51%
General Aviation	$268,260,000	48%
Statewide Planning	$2,400,000	<1%
Total	**$557,060,000**	**100%**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

As shown in **Table 8-4**, NPIAS airports continue to account for the majority of longer-range capital needs, representing approximately $539.7 million, or 97 percent, of total identified costs in the 6–10-year period. The $2.4 million in statewide planning would also be associated with federal funding needs, which account for less than one percent. Non-NPIAS airports account for $15.0 million, at three percent.

Table 8-4. NPIAS and Non-NPIAS NDAC CIP Totals (6–10 Years)

Category	6-10 Year Need	Percent of 6-10 Year Need
NPIAS	$539,660,000	97%
Non-NPIAS	$15,000,000	3%
Statewide Planning	$2,400,000	<1%
Total	**$557,060,000**	**100%**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

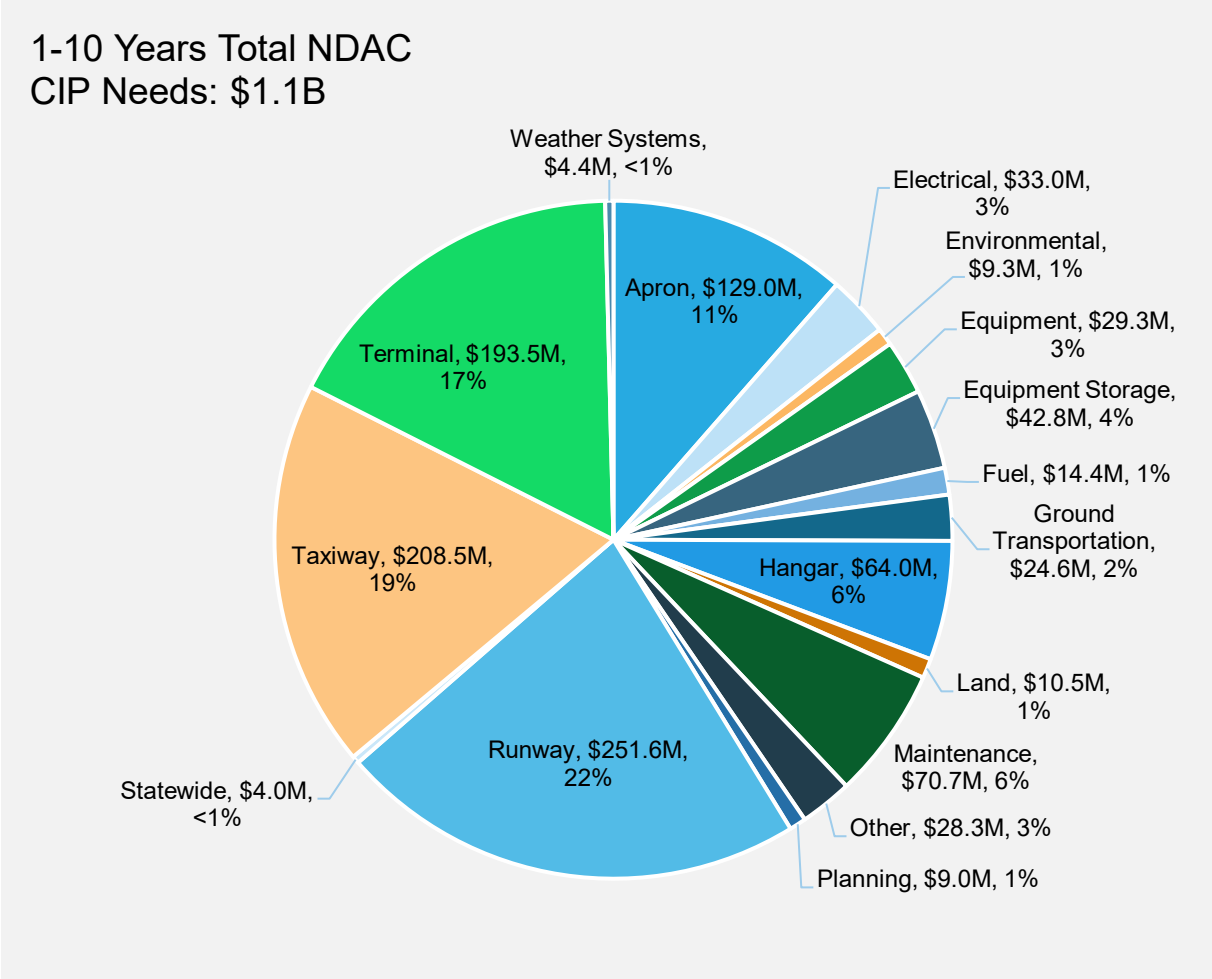
8.2.1.3. NDAC CIP Needs: Years 1–10

The combined 1–10-year outlook provides a comprehensive view of the total aviation system needs identified in the 2026-2035 NDAC CIP. By merging both near-term priorities and longer-range improvements, this summary helps illustrate the full scale of development needs across North Dakota's system of airports through the next decade. The consolidated dataset captures routine reinvestment needs, major capital upgrades, and strategic system enhancements that support long-term operational capacity and infrastructure resilience.

Figure 8-3 displays the distribution of the 1–10-year NDAC CIP costs by project category, offering a systemwide perspective on where funding needs are concentrated over the 10-year planning horizon. As shown, of the approximately $1.1 billion in needs, runway costs account for the most over the 10-year planning horizon, at 22 percent, followed by taxiway projects at 19 percent, terminal projects at 17 percent, and apron projects at 11 percent.

This holistic view enables agencies, policymakers, and stakeholders to better understand cumulative investment requirements and evaluate how they align with available funding programs and long-term system goals.

Figure 8-3. Distribution of 1–10 Year NDAC CIP Project Costs by Category



Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

The combined 10-year outlook presented in **Table 8-5** shows the $1.1 billion in need separated by commercial service and GA airports, as well as statewide planning needs. Over the full planning horizon, commercial service airports account for about $697.0 million, equivalent to 62 percent of total costs, while GA airports represent roughly $425.8 million, at 38 percent, highlighting the scale of long-term investment needed across all airport roles. Less than one percent is identified for statewide planning over the 10 years.

Table 8-5. Commercial Service and General Aviation NDAC CIP Totals (1–10 Years)

Category	1-10 Year Need	Percent of 1-10 Year Need
Commercial Service	$697,000,000	62%
GA	$425,780,000	38%
Statewide Planning	$4,000,000	<1%
Total	**$1,126,780,000**	**100%**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

As summarized in **Table 8-6**, the vast majority of capital investment identified over the 10-year period is associated with NPIAS airports, totaling approximately $1.1 billion, or 97 percent of the total. Non-NPIAS airports account for about $29.7 million, or three percent of total systemwide needs, reflecting more limited but still important investment requirements for select facilities.

Table 8-6. NPIAS and Non-NPIAS NDAC CIP Totals (1–10 Years)

Category	1-10 Year Need	Percent of 1-10 Year Need
NPIAS	$1,093,130,000	97%
Non-NPIAS	$29,650,000	3%
Statewide Planning	$4,000,000	<1%
Total	**$1,126,780,000**	**100%**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

8.2.2. 2025 NDSASP Project Recommendations and Needs

The project recommendations and cost estimates presented in this section represent the culmination of analyses completed as part of the 2025 NDSASP. These recommendations are intended to address identified system needs, support achievement of the NDSASP goals, and guide strategic investment decisions over the planning horizon.

In addition to the capital needs identified by NDAC through development of the 2026-2035 NDAC CIPs, the 2025 NDSASP establishes future performance targets, associated project recommendations, and cost estimates for applicable performance measures (PMs) within each system goal, recognizing only three of the six system goals include PMs. While only some goals include PMs, all system goals include performance indicators (PIs). However, future performance targets, project recommendations, and associated cost estimates are not developed for PIs because they are intended solely as informational objectives. PIs provide broader context on system performance and may support decision-making or policy guidance, but they are not tied to cost estimates or specific project recommendations.

The future performance targets, associated with the PMs, were established in coordination with NDAC through a review of existing system performance and airport-by-airport deficiencies to evaluate where improvements may be appropriate, feasible, and reasonable within the planning

horizon to meet NDSASP goals. The future performance targets help NDAC identify areas where investment may be needed and provide a consistent framework for tracking progress toward achievement of NDSASP goals.

All cost estimates presented in this section are intended for planning purposes only and should not be used for project bidding, grant applications, or interpreted as a guarantee of funding.

8.2.2.1. Maintain a Safe Aviation System

The Maintain a Safe Aviation System goal is supported by three PMs that focus on protecting critical airspace and land use areas around airport runways. These measures address the extent to which airports maintain clear approaches, control Runway Protection Zones (RPZs), and avoid incompatible land uses, such as public gatherings, within RPZs. Future performance targets and associated costs for each PM are presented in the following subsections.

PM: Percent of Airports with Clear Approaches to all Runway Ends

As shown in **Table 8-7**, existing conditions indicate that 75 percent of primary runway ends have clear approaches, compared to a future performance target of 84 percent systemwide. This gap identifies the need for additional improvements and is addressed through project recommendations to mitigate obstructions at 16 runway ends.

Table 8-7. Existing Performance and Future Targets – Clear Approaches on Primary Runway Ends

Classification	No. of Primary Runway Ends Meeting PM	Percent of Primary Runway Ends Meeting PM	Future Performance Target	Additional Primary Runway Ends Needed to Achieve Future Performance Target
Systemwide Primary Runway Ends (178)	**134**	**75%**	**84%**	**16**
Commercial Service Primary Runway Ends (16)	14	88%	88%	0
Local Primary Runway Ends (52)	45	87%	92%	3
Basic Primary Runway Ends (38)	34	89%	97%	3
Community Paved Primary Runway Ends (38)	22	58%	71%	5
Community Turf Primary Runway Ends (34)	19	56%	71%	5

Sources: NDAC, 2025; Kimley-Horn, 2026.

As presented in **Table 8-8**, the estimated cost to achieve the future performance target is approximately $2.4 million. Of this total, $1.1 million reflects obstruction mitigation projects already identified in the NDAC CIP, while the remaining $1.3 million represents new needs not previously identified in the NDAC CIP. These NDSASP planning-level cost estimates are derived from comparable NDAC CIP projects and in coordination with NDAC.

Table 8-8. Costs Associated with Future Targets – Clear Approaches on Primary Runway Ends

Cost Category	Total Cost
NDSASP-related NDAC CIP Costs	$1,120,000
NDSASP Costs	$1,300,000
Total	**$2,420,000**

Sources: NDAC, 2025; Kimley-Horn, 2026.

As shown in **Table 8-9**, existing conditions indicate that 91 percent of non-primary runway ends have clear approaches. Achieving the future performance target of 93 percent requires only one additional obstruction-clearing project at a Local airport.

Table 8-9. Existing Performance and Future Targets – Clear Approaches on Non-primary Runway Ends

Classification	No. of Non-Primary Runway Ends Meeting PM	Percent of Non-Primary Runway Ends Meeting PM	Future Performance Target	Additional Non-Primary Runway Ends Needed to Achieve Future Performance Target
Systemwide Non-Primary Runway Ends (70)	**64**	**91%**	**93%**	**1**
Commercial Service Non-Primary Runway Ends (22)	22	100%	100%	0
Local Non-Primary Runway Ends (28)	25	89%	93%	1
Basic Non-Primary Runway Ends (12)	12	100%	100%	0
Community Paved Non-Primary Runway Ends (2)	2	100%	100%	0
Community Turf Non-Primary Runway Ends (6)	3	50%	50%	0

Sources: NDAC, 2025; Kimley-Horn, 2026.

As presented**, Table 8-10**, the estimated cost to achieve the future performance target is approximately $100,000. This cost represents NDSASP planning-level needs not previously identified in the NDAC CIP.

Table 8-10. Cost Associated with Future Targets – Clear Approaches on Non-primary Runway Ends

Cost Category	Total Cost
NDSASP-related NDAC CIP Costs	$0
NDSASP Costs	$100,000
Total	**$100,000**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

PM: Percent of Airports that Control RPZs through Fee Simple Ownership or Easement for all Runway Ends

In addition to clear approaches, control of RPZs was evaluated by type of runway and for each end. **Table 8-11** shows that existing RPZ control on primary runway ends is at 83 percent systemwide, narrowly short of the 84 percent future performance target, with only one Basic airport runway requiring additional action on one runway end. Airports may address remaining RPZ control needs through coordination with adjacent landowners, including the implementation of avigation easements or other land control agreements, therefore there are no NDAC CIP or NDSASP costs associated with this PM.

Table 8-11. Existing Performance and Future Targets – Control of RPZs on Primary Runway Ends

Classification	No. of Primary Runway Ends Meeting PM	Percent of Primary Runway Ends Meeting PM	Future Performance Target	Additional Primary Runway Ends Needed to Achieve Future Performance Target
Systemwide Primary Runway Ends (178)	**149**	**83%**	**84%**	**1**
Commercial Service Primary Runway Ends (16)	16	100%	100%	0
Local Primary Runway Ends (52)	52	100%	100%	0
Basic Primary Runway Ends (38)	37	98%	100%	1
Community Paved Primary Runway Ends (38)	27	71%	71%	0
Community Turf Primary Runway Ends (34)	16	47%	47%	0

Note: Runway ends were considered as "meeting" this PM if there is full or partial control. Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

As shown in **Table 8-12**, existing RPZ control on non-primary runway ends is currently at 97 percent. The future performance target of 99 percent represents a marginal increase over

current conditions and would require action at only one Basic airport runway end, where a land acquisition project has already been included in the 2026-2035 NDAC CIP.

Table 8-12. Existing Performance and Future Targets – Control of RPZs on Non-primary Runway Ends

Classification	No. of Non-Primary Runway Ends Meeting PM	Percent of Non-Primary Runway Ends Meeting PM	Future Performance Target	Additional Non-Primary Runway Ends Needed to Achieve Future Performance Target
Systemwide Non-Primary Runway Ends (70)	**68**	**97%**	**99%**	**1**
Commercial Service Non-Primary Runway Ends (22)	22	100%	100%	0
Local Non-Primary Runway Ends (28)	28	100%	100%	0
Basic Non-Primary Runway Ends (12)	11	92%	100%	1
Community Paved Non-Primary Runway Ends (2)	2	100%	100%	0
Community Turf Non-Primary Runway Ends (6)	5	83%	83%	0

Note: Runway ends were considered as "meeting" this PM if there is full or partial control. Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

As shown in **Table 8-13**, the need to meet this PM was already identified in the NDAC CIP and accounts for approximately $400,000. No additional NDSASP needs were identified related to this PM.

Table 8-13. Cost Associated with Future Targets – Control of RPZs on Non-primary Runway Ends

Cost Category	Total Cost
NDSASP-related NDAC CIP Costs	$400,000
NDSASP Costs	$0
Total	**$400,000**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

PM: Percent of Airports with Public Gathering in the RPZs

As shown in **Table 8-14**, the future performance target is already achieved under existing conditions for instances of public gatherings in RPZs for primary runway ends; therefore, no project recommendations or associated costs are identified. It was determined that it would be unreasonable to resolve the instances of existing public gathering uses for the five primary

runway ends where these uses exist. RPZ requirements and guidance changed over time, becoming stricter, after many airports already had public gathering uses within their RPZs and it is nearly impossible to mitigate those uses now. Rather, airports can focus on establishing and enforcing land use controls to prevent further instances.

Table 8-14. Existing Performance and Future Targets – Public Gatherings in the RPZs of Primary Runway Ends

Classification	No. of Primary Runway Ends Meeting PM	Percent of Primary Runway Ends Meeting PM	Future Performance Target	Additional Primary Runway Ends Needed to Achieve Future Performance Target
Systemwide Primary Runway Ends (178)	**173**	**97%**	**97%**	**0**
Commercial Service Primary Runway Ends (16)	14	88%	88%	0
Local Primary Runway Ends (52)	51	98%	98%	0
Basic Primary Runway Ends (38)	38	100%	100%	0
Community Paved Primary Runway Ends (38)	37	97%	97%	0
Community Turf Primary Runway Ends (34)	33	97%	97%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

As shown in **Table 8-15**, existing conditions also already achieve the future performance target for public gatherings in the RPZs of non-primary runway ends, with system performance at 94 percent. Because current performance meets the established target, no additional needs, project recommendations, or associated costs are identified.

Table 8-15. Existing Performance and Future Targets – Public Gatherings in the RPZs of Non-Primary Runway Ends

Classification	No. of Non-Primary Runway Ends Meeting PM	Percent of Non-Primary Runway Ends Meeting PM	Future Performance Target	Additional Non-Primary Runway Ends Needed to Achieve Future Performance Target
Systemwide Non-Primary Runway Ends (70)	**66**	**94%**	**94%**	**0**
Commercial Service Non-Primary Runway Ends (22)	20	91%	83%	0
Local Non-Primary Runway Ends (28)	27	96%	100%	0
Basic Non-Primary Runway Ends (12)	12	100%	100%	0
Community Paved Non-Primary Runway Ends (2)	2	100%	96%	0
Community Turf Non-Primary Runway Ends (6)	5	83%	91%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

8.2.2.2. Provide Air Access to Airports

The Provide Air Access to Airports goal is supported by five PMs that evaluate the availability and quality of air access across the statewide airport system. These measures focus on population and geographic coverage within 30 nautical miles of airports offering key navigational capabilities, such as on-site weather reporting and instrument approach procedures, as well as the adequacy of terminal facilities and the availability of covered aircraft storage.

The following subsections present future performance targets and associated planning-level costs for each PM, identifying areas where additional investment may be needed to maintain or improve air access throughout North Dakota.

PM: Percent of Area and Population within 30 Nautical Miles of an Airport with On-Site Weather Reporting

Table 8-16 shows existing on-site weather reporting coverage adequately serves the statewide aviation system and already meets the established future performance target of 39 percent.

Although only 39 percent of airports have on site weather reporting, **Chapter 6. System Performance** shows that approximately 98 percent of the state's population and 90 percent of the land area are within 30 nautical miles of an airport with weather reporting. As a result, existing system performance provides adequate state coverage, and no additional improvements or costs are identified for this PM.

Table 8-16. Existing Performance and Future Targets – On-Site Weather Reporting

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
Systemwide (89)	**35**	**39%**	**39%**	**0**
Commercial Service (8)	8	100%	100%	0
Local (26)	17	65%	65%	0
Basic (19)	9	47%	47%	0
Community Paved (19)	1	5%	5%	0
Community Turf (17)	0	0%	0%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

PM: Percent of Area and Population within 30 Nautical Miles of an Airport with a Non-Precision Approach

As shown in **Table 8-17**, existing system performance for the non-precision approach PM is 55 percent, compared to a future performance target of 61 percent. Achieving this target would require improvements at five additional airports, including one Local airport and four Basic airports.

Table 8-17. Existing Performance and Future Targets – Non-Precision Approach

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
Systemwide (89)	**49**	**55%**	**61%**	**5**
Commercial Service (8)	8	100%	100%	0
Local (26)	25	96%	100%	1
Basic (19)	14	74%	95%	4
Community Paved (19)	2	11%	11%	0
Community Turf (17)	0	0%	0%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

Chapter 6. System Performance demonstrates the 55 percent of system airports with non-precision approaches corresponds with approximately 99 percent of the state's population and 95 percent of the land area are within 30 nautical miles of an airport with this capability. While the 30-nautical-mile buffer around airports with non-precision approaches already covers most

of the population and land area within the state, the five additional airports recommended for this PM will provide some added coverage and important system redundancy.

As shown in **Table 8-18**, the estimated costs to achieve this PM is $920,000. This includes $120,000 in NDAC CIP-identified improvements and $800,000 in planning-level costs developed through the NDSASP. The NDSASP cost estimates are based on the average unit costs identified for similar projects in the NDAC CIP.

Table 8-18. Associated Costs with Future Targets – Non-Precision Approach

Cost Category	Total Cost
NDSASP-related NDAC CIP Costs	$120,000
NDSASP Costs	$800,000
Total	**$920,000**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

PM: Percent of Area and Population within 30 Nautical Miles of an Airport with a Vertically Guided Approach

As shown in **Table 8-19**, vertically guided approach existing performance already meets the future target of 42 percent, indicating that current coverage is adequate. Vertically guided approaches are present at 42 percent of system airports; however, **Chapter 6. System Performance** shows that these airports serve approximately 98 percent of the state's population and 88 percent of the land area within 30 nautical miles. This distribution demonstrates that the system is functioning effectively, resulting in no NDAC CIP or NDSASP investment right now.

Table 8-19. Existing Performance and Future Targets – Vertically Guided Approach

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
Systemwide (89)	**37**	**42%**	**42%**	**0**
Commercial Service (8)	8	100%	100%	0
Local (26)	19	73%	73%	0
Basic (19)	10	53%	53%	0
Community Paved (19)	0	0%	0%	0
Community Turf (17)	0	0%	0%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

PM: Percent of Airports with Adequate Terminal Facilities to Support Passenger Demand

As shown in **Table 8-20**, 70 percent of GA airports currently have terminal facilities adequate to support passenger demand, which meets the established future performance target. This indicates that system performance already aligns with desired conditions. As a result, no additional recommendations or investment needs are identified for this PM.

Table 8-20. Existing Performance and Future Targets – Adequate GA Terminal Facilities

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
Systemwide (89)	**62**	**70%**	70%	**0**
Commercial Service (8)	8	100%	100%	0
Local (26)	25	96%	96%	0
Basic (19)	15	79%	79%	0
Community Paved (19)	11	58%	58%	0
Community Turf (17)	3	18%	18%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

Table 8-21 presents existing performance and future targets for terminal facilities at Commercial Service airports. Current system performance is at 88 percent, with a future target of 100 percent. The remaining gap reflects one Commercial Service airport that does not yet meet the target.

Table 8-21. Existing Performance and Future Targets – Adequate Terminal Facilities (CS Only)

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
Commercial Service (8)	**7**	**88%**	**100%**	**1**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

Table 8-22 summarizes the capital cost associated with addressing terminal facility needs at the one Commercial Service airport to meet the future performance target. Approximately $150 million in improvements is already programmed within the NDAC CIP for the Commercial Service terminal that is considered inadequate as a part of this PM.

Table 8-22. Associated Cost with Future Targets – Adequate Terminal Facilities (CS Only)

Cost Category	Total Cost
NDSASP-related NDAC CIP Costs	$150,000,000
NDSASP Costs	$0
Total	**$150,000,000**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

PM: Percent of Airports with Available Covered Aircraft Storage

As shown in **Table 8-23**, approximately 34 percent of airports statewide currently provide adequate covered aircraft storage, compared to a future performance target of 37 percent. This indicates that systemwide performance is generally aligned with desired conditions, with only a small gap remaining. Three Commercial Service airports would need to provide additional covered storage to achieve the future target.

Table 8-23. Existing Performance and Future Targets – Covered Aircraft Storage

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
Systemwide (89)	**30**	**34%**	**37%**	**3**
Commercial Service (8)	5	63%	100%	3
Local (26)	5	19%	19%	0
Basic (19)	9	47%	47%	0
Community Paved (19)	8	42%	42%	0
Community Turf (17)	3	18%	18%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

Table 8-24 summarizes the estimated future costs associated with achieving the covered aircraft storage target. Of the total $11.3 million in identified needs, approximately $8.3 million is already reflected in the NDAC CIP, while the remaining $3.0 million represents additional planning-level costs identified through the NDSASP. Together, these costs reflect the systemwide investment needed to address remaining gaps in covered aircraft storage capacity and support long-term air access objectives.

Table 8-24. Associated Costs with Future Targets – Covered Aircraft Storage

Cost Category	Total Cost
NDSASP-related NDAC CIP Costs	$8,300,000
NDSASP Costs	$3,000,000
Total	**$11,300,000**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

8.2.2.3. Preserve Airport Infrastructure

The Preserve Airport Infrastructure goal includes two PMs addressing airport pavement conditions and the adequacy of Airport Layout Plans (ALPs) at NPIAS airports. Future performance targets and associated costs for each measure are presented in the following subsections

PM: Percent of Airports Meeting State Pavement Condition Index (PCI) Thresholds on Primary Runways

Table 8-25 shows existing performance and future performance targets for primary runway pavement conditions across the statewide airport system. Currently, 72 percent of PCI-applicable airports meet the state PCI thresholds, compared to a future performance target of 97 percent. An applicable airport is defined as having pavement; therefore, all Community Turf airports are excluded from the PM analysis. This performance gap represents 18 airports statewide that do not currently meet the PCI standard, including three Commercial Service airports, five Local airports, seven Basic airports, and three Community Paved airports.

Table 8-25. Existing Performance and Future Targets – PCI for Primary Runways

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
PCI Applicable Airports (72)	**52**	**72%**	**97%**	**18**
Commercial Service (8)	5	63%	100%	3
Local (26)	21	81%	100%	5
Basic (19)	12	63%	100%	7
Community Paved (19)	14	74%	89%*	3

*Note: *Y27 and 8J7 completed pavement maintenance or reconstruction after the system performance evaluation. The existing and future performance reflect Y27 and 8J7 as not meeting and needing improvement to meet the future performance target given the timing of the completed projects on their primary runways, but no costs are assigned since the projects have since been finished.*
Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

Table 8-26 presents the planning-level costs associated with achieving the future performance targets for primary runway pavement conditions, showing that meeting the target is fully

addressed through NDAC CIP projects. A total of approximately $17.6 million in NDAC CIP-identified needs is associated with this performance measure, with no additional NDSASP costs identified.

Table 8-26. Associated Costs with Future Targets – PCI for Primary Runways

Cost Category	Total Cost
NDSASP-related NDAC CIP Costs	$17,550,000
NDSASP Costs	$0
Total	**$17,550,000**

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

PM: Percent of NPIAS Airports with an Adequate Airport Layout Plan (ALP)

Table 8-27 shows existing and future targets for adequate ALPs which only relates to the 54 NPIAS airports. The existing performance already meets the future target, with 100 percent of NPIAS airports having adequate ALPs. Due to full compliance with this PM, there are no NDAC CIP or NDSASP costs identified.

Table 8-27. Existing Performance and Future Targets – Adequate ALP

Classification	No. of Airports Meeting PM	Percent of Airports Meeting PM	Future Performance Target	Additional Airports Needed to Achieve Future Performance Target
NPIAS Airports (54)	**53**	**100%**	**100%**	**0**
Commercial Service (8)	8	100%	100%	0
Local (26)	26	100%	100%	0
Basic (19)	19	100%	100%	0
Community Paved (1)	1	100%	100%	0

Sources: NDAC, 2025; FAA, 2025; Kimley-Horn, 2026.

8.2.2.4. Summary of 2025 NDSASP Project Recommendations

Table 8-28 shows that the total estimated financial need to meet all future performance targets associated with the applicable NDSASP goals is approximately $183.0 million. Of this $183.0 million, 89 percent is attributable to meeting PMs associated with the Provide Air Access to Airports goal, which is primarily due to the large terminal project already identified as a need in the NDAC CIP. Only three percent of the financial need estimated to achieve all applicable system PMs is considered new need from the NDSASP and beyond the existing NDAC CIP needs.

Table 8-28. Summary of Estimated NDSASP Needs

Goal	Cost Category	Total Cost	Percent of Total
Maintain a Safe Aviation System	NDSASP-related NDAC CIP Costs	$1,520,000	1%
	NDSASP Cost	$1,200,000	<1%
	Goal Total	***$2,720,000***	***1%***
Provide Air Access to Airports	NDSASP-related NDAC CIP Costs	$158,420,000	87%
	NDSASP Cost	$4,300,000	2%
	Goal Total	***$162,720,000***	***89%***
Preserve Airport Infrastructure	NDSASP-related NDAC CIP Costs	$17,550,000	10%
	NDSASP Cost	$0	0%
	Goal Total	***$17,550,000***	***10%***
Combined NDSASP Goals	NDSASP-related NDAC CIP Costs	$177,490,000	97%
	NDSASP Cost	$5,500,000	3%
	All Goals Total	***$182,990,000***	***100%***

Sources: NDAC, 2025; FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; Kimley-Horn, 2026.

8.2.3. Total 10-Year System Needs

The final component of estimating the total system needs over the 10-year planning horizon is to sum the NDAC CIP costs, presented throughout **Section 8.2.1**, with the NDSASP costs presented throughout **Section 8.2.2**. It is important to note that since the NDAC CIP costs presented in **Section 8.2.2** are considered duplicative of the costs presented in **Section 8.2.1**, they are only included once in the summary of total needs, reflected in the NDSASP-related NDAC CIP cost.

Table 8-29 presents a summary of total needs for the 1–5-, 6–10-, and 1–10-year periods. As shown, it is anticipated that total project needs over 10 years amounts to approximately $1.13 billion. It was assumed that NDSASP costs associated with the Maintain a Safe Aviation System goal should be in programmed in the 1–5-year period considering they are safety related, while non-primary NDSASP costs are programmed to occur in the 6–10-year period. This phasing is reflected in the costs presented in **Table 8-29**.

Table 8-29. Summary of Total 10-Year System Needs

Period	Cost Category	Total Cost	Percent of Total
1–5 Years	NDSASP-related NDAC CIP Costs	$569,720,000	100%
	NDSASP Costs	$1,200,000	<1%
	1–5-Year Total	***$570,920,000***	***100%***
6–10 Years	NDSASP-related NDAC CIP Costs	$557,060,000	99%
	NDSASP Costs	$4,300,000	1%
	6–10-Year Total	***$561,360,000***	***100%***
1–10 Years	NDSASP-related NDAC CIP Costs	$1,126,780,000	100%
	NDSASP Costs	$5,500,000	<1%
	1–10-Year Total	***$1,132,280,000***	***100%***

Note: "Percent of Total" values are calculated within each period (1–5 years, 6–10 years, and 1–10 years). Sources: NDAC, 2025; FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; Kimley-Horn, 2026.

8.3. Projected Funding

The following subsections summarize potential federal, state, and local funding sources and document assumptions made to estimate funding from these sources over the 10-year planning horizon.

8.3.1. Projected Federal Funding

The primary source of aviation funding at the federal level comes from the FAA's Airport Improvement Program (AIP), which is funded by aviation user fees and taxes. AIP funds are distributed to eligible North Dakota airports for projects that enhance safety, security, capacity, preservation, and environmental compliance. Only airports included in the NPIAS are eligible to receive AIP funding, and project eligibility is determined on a project-by-project basis in coordination with the FAA.

Table 8-30 provides a summary of projects that are typically eligible and ineligible to receive AIP funding.

Table 8-30. Commonly AIP Eligible and Ineligible Projects

Eligible Projects	Ineligible Projects
Runway construction/rehabilitation	Maintenance equipment and vehicles
Taxiway construction/rehabilitation	Office and office equipment
Apron construction/rehabilitation	Fuel farms*
Airfield lighting and signage	Landscaping
Airfield drainage	Aircraft hangars*
AWOS	Industrial park development
Navigational Aids (NAVAIDs)	Training
Planning and environmental studies (including ALPs)	Maintenance or repairs of buildings
Safety area improvements	Improvements of commercial enterprises
Snow Removal Equipment (SRE) and SRE Buildings	

*Note: *May be conditionally eligible at nonprimary airports if the airport has already satisfactorily addressed all airside needs and the improvement will increase revenue for the airport. Sources: FAA "Overview: What is AIP?" https://www.faa.gov/airports/aip/overview/, accessed 2026.*

AIP funds are distributed through **entitlement** and **discretionary** programs. **Entitlement** funding includes primary airport entitlements, non-primary entitlements, cargo entitlements, and state apportionment funds. Primary airports receive annual entitlement funding based on passenger enplanements. Nonprimary airports included in the NPIAS are eligible for up to $150,000 per year in FAA AIP nonprimary entitlement funding, as established in federal statute and FAA AIP guidance. Cargo entitlement funding supports airports with significant freight activity, and state apportionment funds are allocated to states for use at non-primary airports and for statewide planning efforts.

After entitlement and apportionment funds are distributed, remaining AIP funds are awarded competitively as **discretionary** grants are based on national priorities.

The projected FAA AIP funding levels are based on a combination of historic FAA AIP grant awards to North Dakota airports and anticipated future grants programmed in the NDAC CIP. Historic AIP funding provides the basis for long-term projections, while the NDAC CIP informs near-term expectations.

Anticipated AIP grant awards for the 2026–2028 period identified in the NDAC CIP exclude discretionary funding, as discretionary awards are difficult to predict and depend on project eligibility, national priorities, and annual funding availability. To account for discretionary funding during this period, an estimate was developed using the historic share of discretionary funds

awarded to North Dakota system airports. This estimated discretionary amount is applied to the NDAC CIP-programmed funding levels.

Table 8-31 summarizes the methodology used to estimate FAA AIP funding levels over the 10-year planning period (2026–2035). As shown in **Table 8-31**, total FAA AIP funding over the 10-year period is projected to be approximately $544.1 million. Funding for the first three years (2026–2028) consists of $80.1 million in NDAC CIP-identified AIP funding (Row C) and $76.9 million in estimated discretionary funding (Row D), resulting in a combined total of $157.0 million (Row E) for those three years.

Funding for the remaining seven years (2029–2035) is projected using the annualized average of historic FAA AIP grants received between 2016 and 2025 (Row B). This annualized value is applied to the seven-year period and combined with the 2026–2028 estimate to derive the total 10-year projection shown in Row F.

Table 8-31. Methodology of Projecting FAA AIP Funding (2026-2035)

Row	Data Source	Period	Funding	Notes:
A	Historic FAA AIP Data	2016-2025	$553,100,000	49% of total funding was discretionary
B	Historic FAA AIP Data	Annualized	$55,310,000	Calculated as Row A divided by 10 years
C	NDAC CIP AIP Data	2026-2028	$80,059,000	Estimated AIP funding excluding discretionary
D	Estimated Discretionary Data	2026-2028	$76,919,000	Estimated using historic discretionary share (49%)
E	Estimated NDAC CIP AIP Data	2026-2028	$156,978,000	Sums of Rows C and D
F	**Projected FAA AIP Grants**	**2026-2035**	**$544,148,000**	**Calculated as (Row B × 7 years) + Row E**

Sources: NDAC, 2025; FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; Kimley-Horn, 2026.

In addition to FAA AIP funds, the 10-year projection of federal funding levels accounts for funding anticipated from remaining committed Infrastructure Investment and Jobs Act (IIJA) funds. Under IIJA, $25 billion is allocated to NPIAS airports over five years (FY 2022–2026), consisting of $15 billion for Airport Infrastructure Grants (AIG), $5 billion for the Airport Terminal Program (ATP), and $5 billion for air traffic facilities. ATP funding is distributed to both primary and nonprimary airports, with large hub airports receiving 55 percent of terminal funds, medium hubs 15 percent, small hubs 20 percent, and the remaining 10 percent shared by non-hub and nonprimary airports, with federal cost shares ranging from 80 to 95 percent depending on airport size. AIG funding is also distributed to both primary and nonprimary airports, with the majority

allocated by formula and a small portion awarded competitively, while air traffic facility funding supports improvements to air traffic control towers nationwide.

While the funding for the program ended in 2026, there are NPIAS airports in North Dakota that have not yet spent their awarded funds and are expected to spend those over the next three years (2026-2028). These unspent IIJA funds are approximately $31.5 million and should be included in the projection for federal funding over the 10-year planning horizon. It is possible that airports may have remaining IIJA funds to spend beyond 2028, however, these amounts are expected to be minor, if any, and are inconsequential to the total projections developed for the 10-year planning horizon.

Table 8-32 sums the FAA AIP and IIJA projections, for a total of $575.6 million of federal funding anticipated over the next 10 years.

Table 8-32. Summary of Federal Funding Projections (2026-2035)

Source	Funding
FAA AIP Projections	$544,148,000
IIJA Projections	$31,495,000
Total Projections	**$575,643,000**

Sources: NDAC, 2025; FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; Kimley-Horn, 2026.

It is important to note that additional federal funding sources, such as Congressionally Directed Spending (CDS) and other competitive or discretionary grant programs, may be available to support airport development projects. However, because these funding sources are highly variable, dependent on annual federal appropriations, legislative priorities, and competitive selection processes, their availability and applicability to North Dakota's airports cannot be reliably projected. As a result, these programs are not included in the funding projections presented in this plan, but they represent potential supplemental resources that could be pursued in the future to help reduce the funding gap identified in **Section 8.3.2**.

8.3.2. Projected State Funding

In addition to federal funding, state-level funding is available to North Dakota's public-use airports and is administered by NDAC. The core state funding sources include aviation fuel taxes, aircraft excise taxes, and aircraft registration fees, which together form the backbone of the state's Airport Grant Funding Program. Beyond this program, NDAC may also seek and receive one-time appropriations from the North Dakota Legislature. These funds are routinely requested to address major capital needs at specific airports and are often justified on the basis that state dollars leverage federal investment. While FAA AIP and other federal airport grants do not require a state match, federally assisted airport projects typically require a nonfederal sponsor match. In North Dakota, NDAC state grants may be used to support a portion of the

sponsor share, consistent with NDAC policy, with participation levels varying by airport classification and project type (including whether the project is federally assisted). For projects funded solely with state and local funds, NDAC grant participation levels also vary by airport classification and project type, with higher state participation generally provided at non-NPIAS airports.

Additional funding may also be available to airports through Operation Prairie Dog, established in 2019, which directs oil and gas gross production tax revenues into several infrastructure funding buckets, including a dedicated Airport Infrastructure Fund. Because Operation Prairie Dog relies on oil and gas tax revenues, funding availability is inconsistent and subject to market conditions. Moreover, revenues must first be allocated to several higher-priority funding buckets before any remaining dollars are deposited into the Airport Infrastructure Fund. As a result, Operation Prairie Dog airport funds, like legislatively appropriated funds, are not guaranteed and may fluctuate significantly if and when available.

Historical state aviation grant award amounts were reviewed and, in coordination with NDAC, future state funding levels were projected. Based on this review, NDAC anticipates having approximately $39 million available for allocation to aviation projects statewide in 2026. Beyond 2026, it is anticipated that approximately $15 million per year will be available to support statewide aviation priorities through 2035. Collectively, these projected annual funding levels equate to an estimated $174 million in state aviation funding over the next 10 years.

These projected funds are expected to support state matching shares for federal airport projects, as well as provide state funding for both NPIAS and non-NPIAS airport needs. The estimated funding levels were used to develop the state funding projections applied in the analysis of 1–5-, 6–10-, and total 1–10-year funding shortfalls presented in **Section 8.4**.

8.3.3. Projected Local Funding

Local funding for airport development in North Dakota is provided by local airport sponsors, other local government entities, and, in some cases, private funding sources. Local funding is a critical component of aviation development, as federally funded projects require at least a five percent local match, and state-only funded projects require a local match of 10 percent. Predicting local funding levels can be challenging, as most communities do not maintain dedicated funding sources for airport development, and contributions from airport sponsors may fluctuate significantly from year to year.

For the 2025 NDSASP, local funding projections were based solely on the anticipated five percent local match for federally funded projects. It was assumed that the projected federal funding total of $575.6 million (see **Table 8-32**) represents 90 percent of the total cost of federally funded airport projects over the 10-year planning period. Applying the five percent local match to this yields an estimated $32.0 million in local funding needs over the 10-year period just to match anticipated federal funding. Local funding associated with state-funded airport

projects, including NDAC grant awards at non-NPIAS airports, is not explicitly estimated in this analysis. This is due to uncertainty in how future state funding will be distributed between NPIAS and non-NPIAS airports, variability in state participation levels, and the unpredictability of discretionary funding awards. In addition, local airport sponsors may independently fund airport improvements that do not receive federal or state assistance; these locally funded projects are not captured in the projected funding levels presented in this chapter. These estimated local funding levels were used to develop the funding projections applied in the analysis of 1–5-, 6–10-, and total 1–10-year funding shortfalls presented in **Section 8.4**.

8.3.4. Summary of Projected Funding from All Sources

Table 8-33 presents the summary of projected funding levels from federal, state, and Local funding sources for the next 10 years. These projected funding levels amount to a total of $781.6 million and are used in **Section 8.4** to estimate funding shortfalls.

Table 8-33. Summary of Projected Funding Levels (2026-2035)

Funding Source	Projected Funding Level (2026-2035)
Federal	$575,643,000
State	$174,000,000
Local	$31,980,000
Total	**$781,623,000**

Sources: FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; NDAC, 2025; Kimley-Horn, 2026.

8.4. Anticipated Shortfall

As previously noted, the capital needs identified in earlier sections of this chapter are expected to exceed the funding projected to be available over the 10-year planning horizon. By comparing anticipated federal, state, and local funding levels with identified system needs, this analysis provides insight into the extent to which planned investments can be supported under current funding assumptions. The anticipated shortfall reflects the differences between total system needs, as presented in **Section 8.2**, and projected funding levels summarized in **Section 8.3**. This comparison is presented for the 1–5-, 6–10-, and the full 10-year planning horizon to illustrate how funding constraints may vary over time. The results are intended to inform future planning related to project phasing, prioritization, and funding strategies.

8.4.1. Years 1-5 Needs & Shortfall

As presented in **Table 8-34**, over the near-term planning period (Years 1–5), total identified system needs are estimated at approximately $570.9 million. Of this total, $553.5 million is associated with NPIAS airport NDAC CIP projects, accounting for 97 percent of near-term needs. An additional $14.7 million (three percent) is attributed to non-NPIAS airport NDAC CIP projects, while $1.6 million reflects statewide planning needs identified in the NDAC CIP. The

remaining $1.2 million (less than one percent) represents additional needs identified through the NDSASP.

Anticipated funding during this period totals approximately $414.1 million, consisting of $299.1 million in federal funds accounting for 72 percent, $99.0 million in state funds (24 percent), and $16.0 million in local funds (four percent). When compared with total identified system needs, projected funding falls short by approximately $156.8 million, indicating that approximately 27 percent of system need costs are not supported by projected funding based on current anticipated funding assumptions.

Table 8-34. Anticipated Years 1–5 Needs & Shortfall

Category	Cost	Percent
Anticipated Need		
NPIAS NDAC CIP	$553,470,000	97%
Non-NPIAS NDAC CIP	$14,650,000	3%
Statewide Planning NDAC CIP	$1,600,000	<1%
NDSASP Needs	$1,200,000	<1%
Total Cost	**$570,920,000**	**100%**
Anticipated Funding		
Federal Funds	$299,093,000	72%
State Funds	$99,000,000	24%
Local Funds	$15,990,000	4%
Total Anticipated Funding	**$414,083,000**	**100%**
Shortfall	**$156,837,000**	**27%**

Sources: NDAC, 2025; FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; Kimley-Horn, 2026.

8.4.2. Years 6-10 Needs & Shortfall

Table 8-35 presents total identified system needs over the years 6–10 planning period, estimated at approximately $561.4 million. Of this total, $539.7 million is associated with NPIAS airport NDAC CIP projects, accounting for approximately 96 percent of 6–10-year term needs. An additional $15.0 million (about three percent) is attributed to non-NPIAS airport NDAC CIP projects, while $2.4 million (less than one percent) reflects statewide planning needs from the NDAC CIP. The remaining $4.3 million (less than 1 percent) represents additional needs identified through the NDSASP.

Projected funding available during the 6–10-year planning period totals approximately $367.5 million, including approximately $276.6 million in federal funds constituting 75 percent, $75.0 million in state funds (20 percent), and $16.0 million in Local funds (four percent).

When compared with total identified system needs of approximately $561.4 million, this results in an estimated funding shortfall of approximately $193.8 million, representing about 53 percent of the system's needs based on current anticipated funding assumptions.

Table 8-35. Anticipated Years 6–10 Needs & Shortfall

Category	Cost	Percent
Anticipated Need		
NPIAS NDAC CIP	$539,660,000	96%
Non-NPIAS NDAC CIP	$15,000,000	3%
Statewide Planning NDAC CIP	$2,400,000	<1%
NDSASP Needs	$4,300,000	<1%
Total Cost	**$561,360,000**	**100%**
Anticipated Funding		
Federal Funds	$276,550,000	75%
State Funds	$75,000,000	20%
Local Funds	$15,990,000	4%
Total Anticipated Funding	**$367,540,000**	**100%**
Shortfall	**$193,820,000**	**35%**

Sources: NDAC, 2025; FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; Kimley-Horn, 2026.

8.4.3. Years 1–10 Needs & Shortfall

Shown in **Table 8-36**, over the full 10-year planning horizon (Years 1–10), total identified system needs are estimated at approximately $1.13 billion. Of this total, approximately $1.1 billion is associated with NPIAS airport NDAC CIP projects, accounting for about 97 percent of total system needs. An additional $29.7 million (approximately three percent) is attributed to non-NPIAS airport NDAC CIP projects, while $4.0 million (less than one percent) reflects statewide planning needs from the NDAC CIP. The remaining $5.5 million (less than one percent) represents additional needs identified through the NDSASP.

Projected funding available over the full 10year planning horizon (Years 1–10) is approximately $781.6 million, consisting of approximately $575.6 million in federal funds approximating 74 percent, $174.0 million in state funds (22 percent), and $32.0 million in local funds (four percent). When compared with total identified system needs of approximately $1.13 billion, this results in an estimated long term funding shortfall of approximately $350.7 million (31 percent of the total system needs). This shortfall highlights the level of investment needed from federal, state, and local funding sources to support the continued development and optimization of North Dakota's aviation system over the 10year planning horizon.

Table 8-36. Anticipated Years 1–10 Needs & Shortfall

Category	Cost	Percent
Anticipated Need		
NPIAS NDAC CIP	$1,093,130,000	97%
Non-NPIAS NDAC CIP	$29,650,000	3%
Statewide Planning NDAC CIP	$4,000,000	<1%
NDSASP Needs	$5,500,000	<1%
Total Cost	**$1,132,280,000**	**100%**
Anticipated Funding		
Federal Funds	$575,643,000	74%
State Funds	$174,000,000	22%
Local Funds	$31,980,000	4%
Total Anticipated Funding	**$781,623,000**	**100%**
Shortfall	**$350,657,000**	**31%**

Sources: NDAC, 2025; FAA "AIP Grant Histories" https://www.faa.gov/airports/aip/grant_histories, accessed 2026; Kimley-Horn, 2026.

While the estimated long-term funding shortfall is based on a planning-level comparison of identified needs to anticipated funding, it demonstrates that not all identified projects are likely to be funded within the 10-year planning period, meaning many projects may be delayed beyond the planning period. Sustained funding constraints create real-world implications for how airports may be able to address safety, regulatory compliance, asset preservation, and meeting service level demand, particularly when needs continue to accumulate and compound over time.

NDAC's state grant decision making is informed by a project priority framework that assigns higher priority to projects addressing needs such as obstruction removal and mitigation, pavement rehabilitation and maintenance, and airfield lighting replacement, while comparatively lower priority is assigned to projects such as general aviation terminal improvements, fuel facilities, community hangars, and certain landside improvements. This framework helps distribute limited resources to the projects most directly tied to safety, regulatory compliance, and asset preservation outcomes. However, when a funding gap exists, the practical implication is that lower-priority projects are more likely to be deferred in order to preserve funding capacity for higher-priority needs.

Over time, repeated deferral can translate into measurable system impacts. From an asset condition and cost perspective, postponing pavement maintenance in order to prioritize more urgent rehabilitation or reconstruction can extend the period during which facilities operate below desired condition standards and may accelerate deterioration, resulting in more costly and time-sensitive rehabilitation needs in the future. For example, the system performance

assessment shows that 72 percent of PCI-applicable airports currently meet the state PCI thresholds, compared to a future target of 97 percent, with 18 airports identified as not meeting the PCI standard on primary runways at the time of evaluation. Although the plan identifies projects intended to address these gaps, a persistent funding shortfall increases the likelihood that some preservation projects may be delayed, potentially prolonging conditions below state thresholds and shifting needs later into the horizon or beyond it.

From a service level and capacity perspective, underinvestment due to funding constraints may also affect facilities that support passenger experience, operational efficiency, and air-service development, all of which are categories that may fall below the higher priority categories. As one example, commercial service terminal adequacy is shown at 88 percent against a future target of 100 percent, with major terminal investment already identified in the NDAC CIP for the remaining gap airport. If future projects of this nature are deferred due to constrained funding, airports may face longer-term limitations in accommodating passenger demand and supporting air service objectives, even if core airfield safety needs are being addressed first.

Finally, sustained funding gaps can affect system resiliency, particularly where improvements are intended to provide important redundancy across the airport network. While population coverage within 30 nautical miles of airports equipped with on-site certified weather reporting is currently sufficient at the system level, only 39 of the system's 89 airports have this capability. Where future needs are identified to equip additional airports with on-site weather equipment to support expanded coverage and improve redundancy, existing funding levels and project prioritization may delay implementation beyond an appropriate timeframe. If these enhancements are deferred, the resiliency benefits of increased operational flexibility during adverse weather, maintenance closures, or other disruptions may not be fully realized within the planning horizon.

Overall, the projected funding shortfall is not only a statement of unmet capital need, but also a signal that NDAC and airport sponsors may be forced into prioritization decisions that protect the highest-priority safety and preservation projects while increasing the likelihood that lower-priority capacity, service, economic development, and revenue-supporting projects are delayed.

8.5. System Plan Recommendations

The 2025 NDSASP produced several project recommendations, presented in **Section 8.2.2**, that relate to the PMs associated with three of the six system plan goals. These recommendations were identified based on gaps between existing performance and future performance targets and, together with the 10-year NDAC CIP, form the foundation of the plan's capital project recommendations over the planning horizon.

In addition to these capital project recommendations, other analyses within the NDSASP, particularly those in **Chapter 3. Airport Classifications**, and **Chapter 7. Issues and Industry**

Advancements, identify potential policy-oriented recommendations and considerations for NDAC to evaluate and potentially implement over the 10-year horizon. Cost estimates are not developed for these items, as they are not tied to specific capital projects, but instead reflect operational actions or policy changes that could be undertaken by NDAC to enhance the North Dakota system.

8.5.1. Airport Classification Recommendations

As identified in **Section 3.4** of **Chapter 3. Airport Classifications**, the 35 non-NPIAS GA airports included within the 2025 NDSASP were evaluated using current data and the minimum entry criteria to identify if any of these airports may be eligible for future NPIAS inclusion. Following the analysis, only Dunn-County Weydahl Field (9Y1) was identified for possible inclusion in a future NPIAS publication. The airport meets all inclusion criteria and is expected to exceed 10 based aircraft by the next NPIAS planning cycle (data will likely be for the period October 2025 and April 2026, for the NPIAS publication for Fiscal Years 2027-2031). Since 2014, the airport has seen substantial public and private investment, underscoring its growing regional significance and importance within the state aviation system. The FAA is aware of the airport's growth and investment trends and has been coordinating with NDAC regarding its future role.

In addition to the recommendation of including 9Y1 into the NPIAS in future planning cycles, NDAC will continue monitoring La Moure Rott Municipal Airport (4F9). 4F9 has long been classified as Unclassified in the NPIAS due to low based aircraft counts and because the City of La Moure does not own the airport property, instead operating under a long-term lease from a private landowner. NDAC and the City of La Moure are working collaboratively to acquire the airport property and attract additional based aircraft, with the goal of achieving at least a Basic airport classification.

And finally, as recommended in Chapter 3, NDAC will continue evaluating other non-NPIAS airports' operations, growth, regional significance, and interest in joining the NPIAS to determine if future inclusion of other airports may be warranted.

8.5.2. Issues and Industry Advancement Recommendations

The following recommendations are derived from the analyses presented in **Chapter 7. Issues and Industry Advancements**. These recommendations are provided for NDAC's consideration and may be implemented at its discretion over the planning horizon or beyond. Some recommendations focus on potential policy changes, while others address operational actions.

Table 8-37 summarizes the recommendations identified in Chapter 7 and organizes them by the eight topic areas discussed in the chapter.

Table 8-37. Recommendations from Chapter 7. Issues and Industry Advancements

Topic	Recommendation
Advanced Air Mobility (AAM)	Develop a statewide AAM blueprint to articulate shared goals for economic development, workforce, rural connectivity, and public-good missions, and provide consistent guidance to local governments and airports on siting, zoning, noise, and community considerations.
	Continue to coordinate closely with the FAA on procedures, approvals, design requirements, and airspace protections for low-altitude AAM integration.
	Identify opportunities to pursue federal grants and public-private partnerships (P3s) to support early AAM infrastructure and planning.
Emerging Aviation Fuel Sources	Support fuel diversity at airports so rural and urban communities retain operational options as fuel technologies evolve.
	Align aviation fuel initiatives with state energy and economic development policies to leverage North Dakota's role in energy production.
Air Traffic Control Modernization	Support system airports through coordination and planning to facilitate integration with the FAA's Brand New Air Traffic Control System (BNATCS), enhancing operational reliability and supporting rural and emerging aviation operations.
Aging Fleet and Pilot Population	Continue to support or expand partnerships with universities, technical colleges, and high schools to strengthen early-career aviation pathways.
	Encourage or support enhanced maintenance programs that go beyond minimum compliance for aging aircraft.
Aviation Professional Shortage	Build on existing aviation education initiatives by expanding funding and geographic reach, particularly in rural areas.
	Continue supporting aviation career exposure beginning at the middle and high school level, including curriculum, internships, and sponsorships.
Commercial Service Access	Assist communities in air service development planning, including marketing, revenue guarantees, and regional coordination. *Most actions associated with commercial service access may occur at the federal level, but NDAC may provide advocacy, coordination, and technical support.*

Topic	Recommendation
Economic Conditions & Impacts on Buying Power	Consider updates to project prioritization, such as emphasizing safety-critical and asset-preservation projects in funding decisions when buying power is constrained.
	Continue close coordination with the FAA to ensure efficient and effective grant cycles.
Revenue-Producing Projects	Reconsider how hangars, fuel facilities, and other revenue-producing projects are prioritized within NDAC funding programs.
	Promote use of P3s or other non-traditional funding sources for hangars and fuel systems.

Sources: Marr Arnold Planning, 2025; Kimley-Horn, 2025.

These recommendations are intended to offer guidance to NDAC on certain actions, whether through coordination with airports or the FAA, or updates to policies and programs.

8.6. Conclusion

North Dakota's aviation system is a vital component of the state's transportation network, supporting economic activity, emergency services, agricultural operations, and statewide connectivity across a diverse range of airport roles and facility types. Sustaining this system in a safe, reliable, and resilient condition requires continuous evaluation of airport-specific needs and targeted investment aligned with statewide aviation system goals.

This chapter serves as the conclusion of the analyses presented throughout the 2025 NDSASP, translating system performance findings into identified development needs and planning -level cost estimates. While Chapter 8 represents the conclusion of the NDSASP, it is followed by **Chapter 9. North Dakota Aviation Economic Impact Study (NDAEIS)**. Distinct from the NDSASP, the NDAEIS was conducted concurrently and provides important context related to the economic impact associated with North Dakota's system airports and the state's aviation industry.

The combined recommendations of the NDSASP and the 20-year CIP indicate a long-term system investment need of approximately $1.13 billion over the planning horizon. An estimate of anticipated funding available during the same 10-year period compared to the needs demonstrates an estimated funding shortfall of approximately $350.7 million.

This gap is not merely a financial constraint—it represents deferred infrastructure improvements, delayed system enhancements, and an increased risk of long-term cost escalation. Without strategic prioritization and continued coordination among NDAC, airport sponsors, and funding partners, portions of the system will face difficult tradeoffs between

maintaining existing assets and advancing improvements that support future demand and economic opportunity.

While many elements of the system currently meet baseline performance targets, these measures reflect minimum thresholds rather than optimal conditions. The long-term sustainability of North Dakota's aviation system will depend on continued investment in asset preservation, targeted capacity improvements, and the ability to respond to evolving industry trends and operational requirements.

The recommendations presented in this chapter provide a framework to guide decision-making over the planning horizon. Moving forward, emphasis should be placed on prioritizing safety-critical and asset preservation projects, maximizing the leverage of federal funding opportunities, and exploring additional state, local, and private funding mechanisms to address the identified gap.

As system needs continue to evolve, ongoing coordination between NDAC, airport sponsors, federal partners, and industry stakeholders will be essential. This collaboration will ensure that North Dakota is well-positioned to adapt to changing conditions, maintain system performance, and support the continued growth and vitality of the state's aviation network.

While this chapter concludes the analytical components of the 2025 NDSASP, it also establishes a forward-looking framework for action. The decisions made over the next decade—particularly regarding funding priorities and project implementation—will shape the performance, resilience, and accessibility of North Dakota's aviation system for years to come.