



# WASP

Washington Aviation System Plan

## Executive Summary

December 2025



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*Prepared for*



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# Executive Summary

The Washington Aviation System Plan (WASP) is WSDOT Aviation Division's statewide framework for evaluating how Washington's public-use airport system performs today and what it will need over the next 20 years. The 2025 update examines airport roles, existing facilities, aviation activity, forecasts, capacity, access, emerging technologies, system performance, policy direction, and implementation costs. The plan is intended to guide informed investment, preserve aviation access, support economic vitality, and position the state aviation system for both traditional and emerging aviation demand.

**The WASP was prepared for the Washington State Department of Transportation Aviation Division and financed in part through an FAA planning grant, with a local match from WSDOT. The technical report notes that WSDOT is responsible for the facts and accuracy of the report content, and that FAA acceptance does not commit the United States to participate in development or imply environmental acceptability.**

## At a Glance

Plan horizon	System scale	Primary purpose
2021-2041 planning horizon, with some long-range capacity considerations extending to 2050.	133 airports in the 2025 WASP system, including NPIAS and non-NPIAS airports.	Evaluate system performance, identify needs, and guide statewide aviation policies and investments.

The WASP framework is organized around eight goals: aeronautical and airport safety; economic development and vitality; education, outreach, and community engagement; infrastructure improvement, preservation, and capacity; aviation innovation; modal mobility, capacity, and accessibility; stewardship; and sustainability.

## Contents

1. System role and airport classifications
2. Forecasts and capacity needs
3. Access, emerging trends, and system performance
4. Policy direction
5. Implementation and funding outlook

# 1. System Role and Airport Classifications

Washington's aviation system is broad and varied, ranging from major commercial service airports to local, recreational, medical, firefighting, agricultural, seaplane, and emergency-use facilities. Because the FAA National Plan of Integrated Airport Systems (NPIAS) classifies less than half of the airports included in the WASP, WSDOT uses a state-specific classification methodology to describe each airport's role in the statewide system.

The 2025 update refines the 2017 approach by using a more formulaic methodology, expanding General Use subcategories to better capture specialized airport roles, and adding a Supplemental category for airports that remain in the system primarily for emergency landing value but do not meet, and are not pursuing, WSDOT Airport Minimum Standards.

## 2025 WASP Airport Classification Summary

Classification	Airports	System role
Major	10	Commercial service and system-level access functions.
Regional	24	High-activity general aviation and regional service role.
Community	27	Community-level aviation access, services, and local economic support.
Local	30	Local aviation access and smaller-scale airport functions.
General Use	40	Specialized roles including agricultural, firefighting, medical, recreational, and seaplane base functions.
Supplemental	2	Emergency landing value; excluded from several performance and cost analyses.
Total	133	Statewide WASP airport system.

The classification structure is important because it determines how performance is measured. Not every airport needs the same facilities or services. The WASP uses classification-based metrics to evaluate airports in context, rather than applying a single statewide standard to all facilities.

## 2. Forecasts and Capacity Needs

The WASP forecasts commercial passenger activity, air cargo, general aviation operations, and based aircraft to assess whether the airport system can accommodate future demand. The forecasts indicate substantial growth across key activity categories by 2041.

### Selected Statewide Activity Forecasts

Activity measure	2021	2041	Planning implication
Commercial service operations	464,852	855,733	Higher airfield, terminal, landside, and staffing demands.
Commercial enplanements	28.4 million	47.6 million	Continued pressure on commercial-service capacity, especially in Puget Sound.
Air cargo freighter operations	42,906	68,296	Growing need for cargo facilities and freight connectivity.
Air cargo tonnage	683,164	1,184,598	Cargo demand grows with Washington's logistics and trade economy.
General aviation operations	2,564,464	3,136,000	Preservation of GA capacity remains a statewide need.
Based aircraft	7,323	8,679	Increased demand for aircraft storage and supporting services.

**Puget Sound commercial aviation capacity remains one of the most significant long-range issues. The WASP identifies unconstrained passenger demand in the Puget Sound region reaching approximately 107 million annual passengers by 2050, while SEA and PAE together are estimated to be able to serve approximately 67 million annual passengers if planned improvements are implemented.**

After accounting for demand that could be redirected to other journey options, the analysis identifies approximately 27 million annual passengers still needing accommodation in the region.

## Capacity Needs Continued

Aircraft storage is also a systemwide issue. Storage demand is forecast to increase by 19 percent between 2021 and 2041, creating demand for approximately 1,338 additional aircraft storage spaces. By 2041, statewide storage demand is forecast to reach roughly 90 percent of existing 2021 storage capacity.

**Major and Community airports are expected to face collective aircraft storage shortfalls by 2041, including an estimated 61-space shortfall at Major airports and a 423-space shortfall at Community airports.**

The capacity findings demonstrate that statewide adequacy can mask local and regional constraints. Even where the system appears to have aggregate capacity, capacity may not be located where users need it, particularly for aircraft storage and commercial passenger demand. For that reason, the WASP emphasizes both statewide system performance and airport-specific project needs.

### Capacity Planning Implications

- Continue airport master planning and airport layout plan updates to validate project-level needs.
- Prioritize pavement, airfield, landside, aircraft storage, and terminal projects that preserve current capacity while preparing for growth.
- Treat Puget Sound commercial capacity as a long-term, multimodal, statewide issue that requires coordinated planning beyond a single airport solution.
- Use WASP classifications and performance measures to support context-sensitive investment decisions.

### 3. Access, Emerging Trends, and System Performance

The WASP finds that Washington's airport system provides broad geographic access. Approximately 95 percent of the state population is within a 30-minute drive of a general aviation airport, and approximately 84 percent of the state population is within the combined 60- or 90-minute drive-time service areas for Major commercial service airports.

Airport access and multimodal integration are increasingly important as airports function not only as aviation facilities, but also as transportation nodes linked to roadways, transit, active transportation, freight corridors, ports, and regional economic systems. The plan evaluates roadway connectivity, multimodal services, public transit, rental and courtesy car options, ride-hailing, active transportation, and freight access.

#### Emerging Aviation and Transportation Trends

The plan identifies several emerging trends that could alter airport needs and statewide aviation policy over the planning period, including electric aircraft and alternate propulsion, UAS, eVTOL and STOL aircraft, low-level airspace management, microgrids and electric vehicles, multimodal transportation hubs, spacecraft launch and recovery, and supersonic commercial aviation.

**The WASP emphasizes that cost is a primary obstacle to emerging technology integration. Airports, industry, federal agencies, state agencies, utilities, and local governments will need to coordinate on infrastructure, energy supply, charging or fueling systems, airspace management, and implementation policy.**

#### System Performance

System performance is evaluated through classification-based metrics. Supplemental airports are excluded from system performance scoring because their role differs from other public-use airports. The performance framework is intended to show where airports are meeting role-based expectations and where projects, policies, coordination, or funding are needed to improve system outcomes.

## 4. Policy Direction

The WASP policy recommendations provide a roadmap for strengthening Washington's aviation system. They align project-level needs with statewide goals and are intended to support safety, preservation, capacity, innovation, sustainability, intermodal integration, and community value.

### Policy Emphases by Goal Area

Goal area	Executive summary emphasis
Safety	Maintain applicable FAA design standards, improve weather reporting, protect approaches, and address airfield geometry and safety needs.
Economic development	Support airports as community and regional economic assets, including air cargo, business aviation, and local development opportunities.
Education and outreach	Strengthen aviation workforce pathways, community relationships, airport awareness, and stakeholder communication.
Infrastructure, preservation, and capacity	Prioritize pavement, airfield, landside, storage, terminal, and capacity improvements needed to preserve system function.
Innovation	Prepare for SAF, electric and hydrogen aircraft, AAM, UAS, STOL/eVTOL operations, and associated infrastructure.
Mobility and accessibility	Improve surface access, multimodal connectivity, freight integration, and airport access planning.
Stewardship	Protect airports through planning, compatible land use, emergency and hazard planning, wildlife planning, and long-term airport preservation.
Sustainability	Advance financial, environmental, and social sustainability through revenue strategies, resiliency, resource conservation, environmental justice awareness, and planning.

## 5. Implementation and Funding Outlook

The implementation chapter translates the WASP findings into a long-term financial picture. It combines costs associated with system performance measure improvements, recurring needs such as pavement maintenance and planning, and airport capital improvement plan projects. Supplemental airports are excluded from the cost estimates because they do not meet and are not pursuing minimum design or administrative standards.

**The WASP identifies approximately \$5.2 billion in 20-year aviation system needs. This includes recommended system performance improvements, recurring costs, and 5-year capital improvement plan projects, with duplicates removed where projects overlap.**

### 20-Year Funding Outlook

Category	Amount	Meaning
20-year anticipated need	\$5.203 billion	Total estimated cost of identified system needs over the planning horizon.
20-year projected federal + state funding	\$1.932 billion	Estimated future funding based on historical federal and state funding levels.
Potential federal shortfall	\$558.746 million	Gap between anticipated federally eligible need and projected federal funding.
Potential state shortfall	\$1.602 billion	Gap between anticipated state-level need and projected state funding.
Local need / assumed shortfall	\$1.110 billion	Local funding estimates were unavailable, so local shortfall equals anticipated local need.
Total potential shortfall	\$3.271 billion	Overall potential funding gap when comparing needs with projected federal and state funding.

The 5-year CIP cost estimate totals approximately \$998.9 million. Pavement accounts for the largest share at approximately \$419.0 million, followed by landside improvements at approximately \$283.1 million.

## 6. Executive Takeaways

The WASP confirms that Washington has a mature, widely distributed aviation system that provides substantial public value. Its statewide network supports commercial passenger service, general aviation, air cargo, emergency access, recreation, medical transport, firefighting, agriculture, business mobility, and economic development.

The core challenge is not simply whether the system exists, but whether it can be preserved, modernized, and adapted to meet future demand. The most important findings are:

- Washington's system is broadly accessible, with most residents close to a general aviation airport and a large majority within service areas of Major commercial service airports.
- Commercial passenger demand, cargo activity, general aviation operations, and based aircraft are all forecast to grow by 2041.
- Puget Sound commercial capacity remains a critical long-range issue; existing facilities cannot accommodate all unconstrained 2050 demand, even with improvements.
- Aircraft storage shortages are already visible at some airports and are expected to become more pronounced by 2041, especially at Major and Community airports.
- Emerging technologies such as SAF, electric propulsion, hydrogen propulsion, UAS, eVTOL, and STOL create opportunities but will require substantial infrastructure, energy, regulatory, and funding coordination.
- The plan identifies a significant funding gap, indicating that current federal and state funding trajectories are unlikely to fully meet 20-year system needs without additional investment or prioritization.

**The WASP provides a decision-making framework for WSDOT Aviation Division and partners: preserve and improve the existing airport system, address known capacity and safety needs, strengthen community and economic value, and prepare the state for the next generation of aviation technology.**

### Source Note

This executive summary was prepared from the Washington Aviation System Plan Final Report, December 2025. Quantities and findings are summarized from the report's chapters on goals and performance measures, airport classifications, forecasts, capacity analysis, intermodal access, emerging trends, system performance, policy recommendations, and system implementation.