

Airport Investments, How Are They Determined?

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Federal Aviation Administration



**Washington State
Department of Transportation**

Presentation outline:

FAA

- Types of Funding
- What is a Master Plan
- Capital Improvement Program (CIP)
- ACIP Planning Process
- Steps to AIP Funding
 - Project Eligibility
 - Selection Process
 - Project Requirements
 - Grants/Closeouts

WSDOT

- Airport Aid Overview
- Funding
- Evaluation Criteria
- What is an Airport Layout Plan (ALP)
- What is a Capital Improvement Program (CIP)
- Airport Pavement Management System
- State Airport Classification System and Performance Objectives

Washington State Aviation System

- 138 public use airports in 2009
- 65 airports included in National Plan of Integrated Airport Systems (NPIAS)
- Ownership:
 - WSDOT - 17
 - County - 10
 - City/Town – 43
 - Port District - 33
 - Joint - 5
 - Private - 30



WSDOT Airport Aid Program

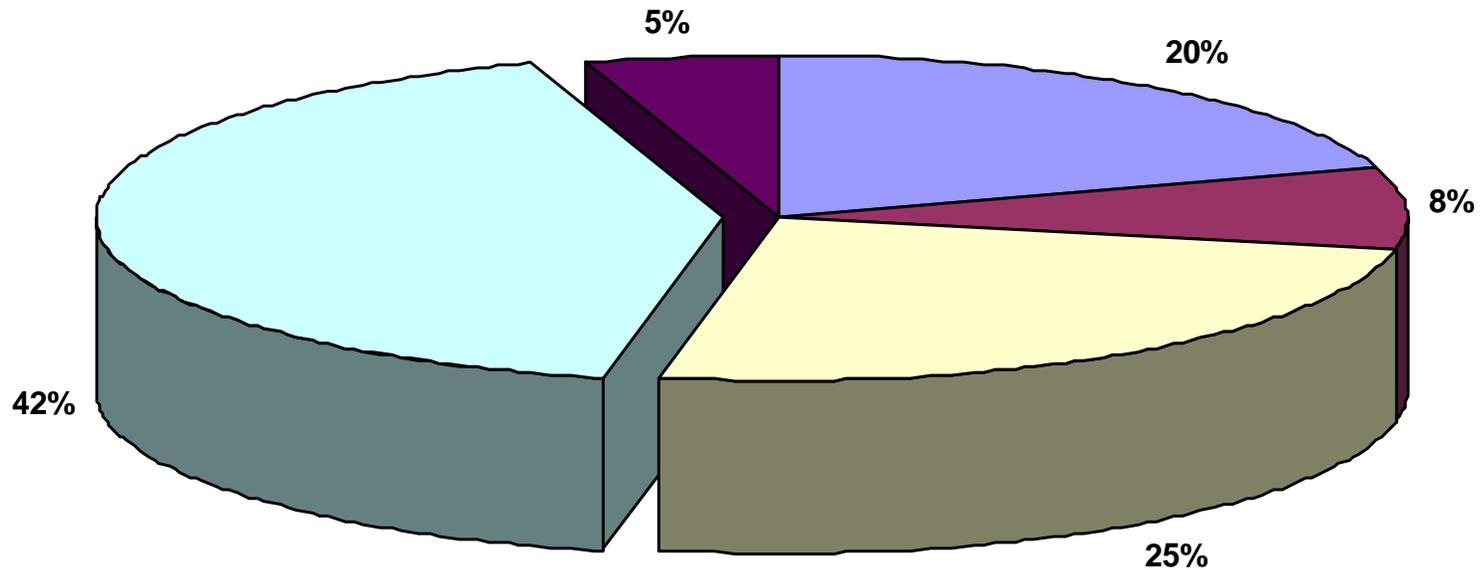
WSDOT Aviation under RCW 47.68.090 may render financial assistance by grant or loan to municipalities or federally recognized Indian tribes acting in the planning, acquisition, construction, improvement, maintenance or operation of airports owned and controlled by municipalities and Indian tribes. All such moneys are to be dispersed or expended in accordance with the terms and conditions upon which they were made available.

Where does the funding come from?

- \$.11 per gallon tax on general aviation fuel
- \$15.00 aircraft registration fee
- 10% of excise tax collected

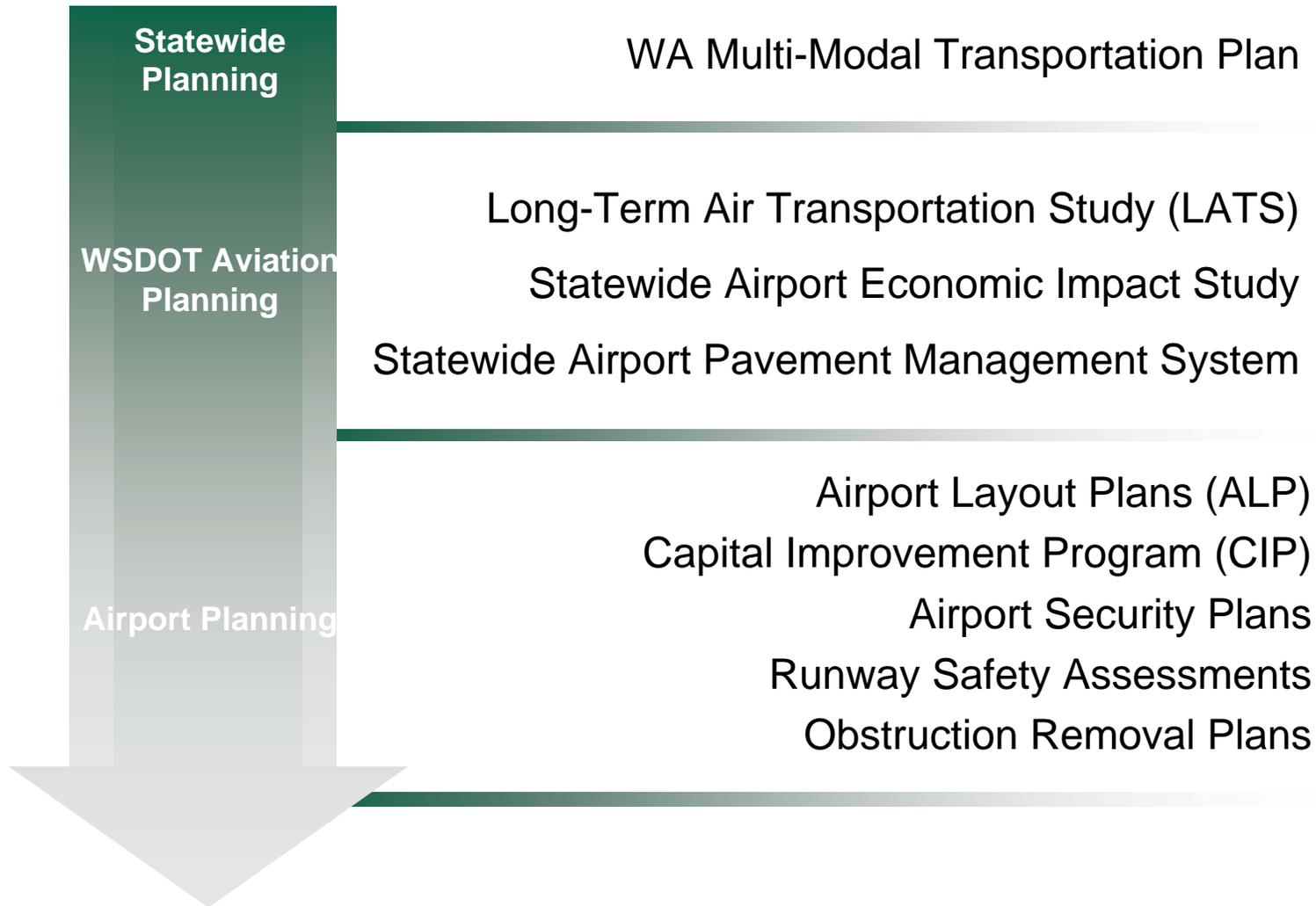
WSDOT Aviation FY09-11 Budget (incl. Fed Dollars)

Total Bi-Annual Budget \$8,128,000 with Federal share of \$2,150,000



- | | |
|------------------------|------------------------|
| Aviation Mgmt/Sup | St Airport Const/Maint |
| Aviation Planning | Airport Aid |
| Aviation Emergency Svs | |

WSDOT Top-Down Planning Strategy



How are grant applications evaluated, prioritized and funding decisions made?

- Project Justification
 - Airport Layout Plan (ALP)
 - Capital Improvement Program (CIP)
 - Airport Pavement Management System (APMS)
 - Long-term Air Transportation Study (LATS) Performance Objectives
- Project Type
- Available Funding
- Other Factors
 - Project Readiness
 - Matching Funds
 - Community Need / Support
 - Economic Development / Self-sufficiency
 - Appropriate Land Use Protections

Airport Layout Plan (ALP)

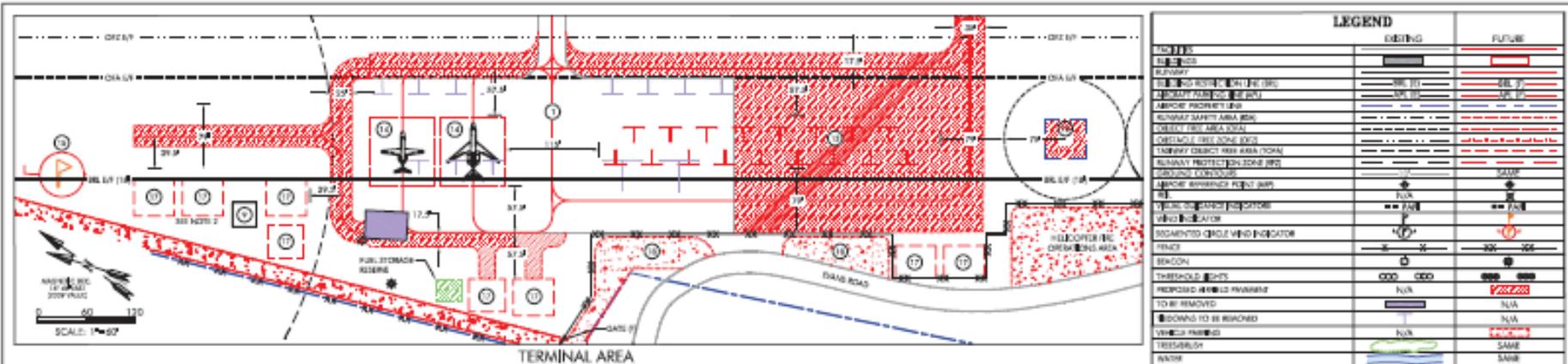
A narrative and graphic portrayal of the existing and proposed facilities, which are deemed necessary for operation of the airport. Intended to ensure that a public entity has:

1. Studied its airport needs,
2. Recognized the problems in development of its airport,
3. Proposed a plan to meet the present and future needs, and
4. Accepted and officially approved the plan.

Airport Layout Plan (ALP)

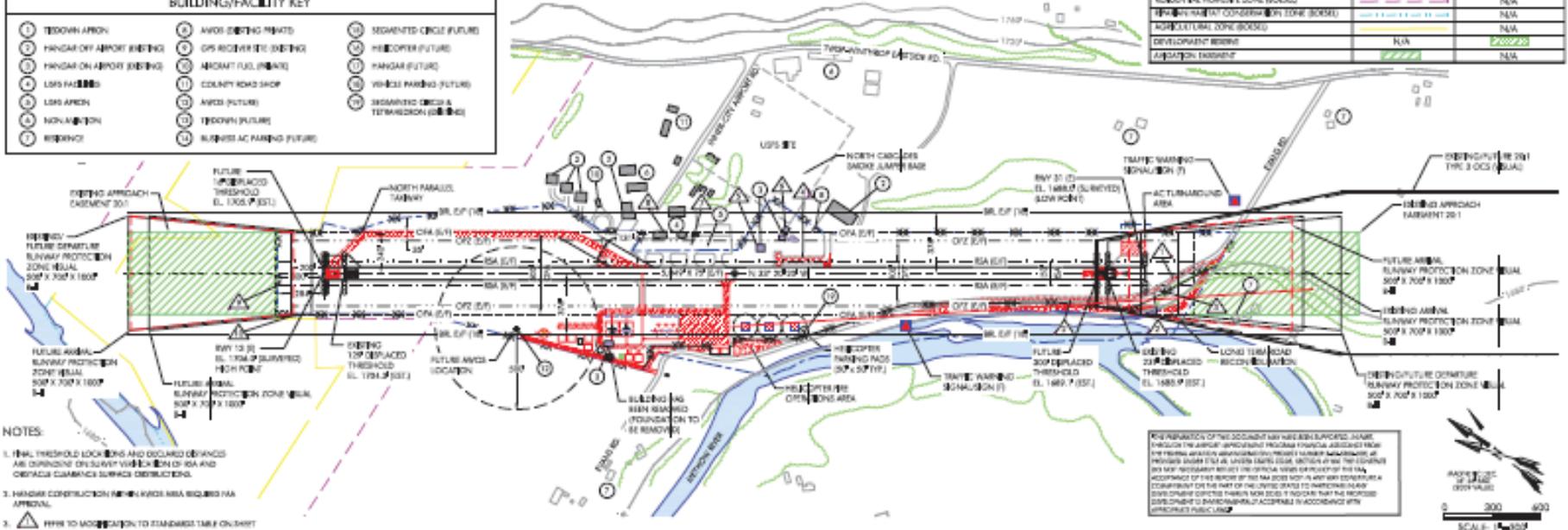
- Inventory
- Facility Requirements
- Development Alternatives
- Development Program (CIP)
- ALP Drawing Set
 - Airport Data Sheet
 - Airport Layout Plan
 - Terminal Area
 - FAR Part 77 Airspace Plan & Runway Approach & Profile
 - Runway RPZ and Inner Approach Plan & Profile
 - Airport Land Use Plan
 - Exhibit 'A' Airport Property Plan

Airport Layout Plan (ALP)



SYMBOL	LEGEND	
	EXISTING	FUTURE
1. TAXIWAY	---	---
2. RUNWAY	---	---
3. TAXIWAY CENTER LINE (TCL)	---	---
4. TAXIWAY EDGE LINE (TEL)	---	---
5. AIRSIDE PROPERTY LINE	---	---
6. RUNWAY SAFETY AREA (RSA)	---	---
7. TAXIWAY SAFETY AREA (TSA)	---	---
8. OBSTACLE FREE ZONE (OFZ)	---	---
9. TAXIWAY OBSTACLE FREE ZONE (TOFZ)	---	---
10. RUNWAY PROTECTION ZONE (RPZ)	---	---
11. OBSTACLE CLEARANCE SURFACE (OCS)	---	---
12. OBSTACLE SURVEILLANCE POINT (OSP)	---	---
13. TAXIWAY CENTER LINE (TCL) INDICATOR	---	---
14. TAXIWAY EDGE LINE (TEL) INDICATOR	---	---
15. SEGMENTED CIRCLE VEHICLE INDICATOR	---	---
16. FENCE	---	---
17. SEASON	---	---
18. THRESHOLD LIGHTS	---	---
19. PROPOSED 4-WAY STOP SIGN	---	---
20. TO BE REMOVED	---	---
21. TO BE RELOCATED	---	---
22. TO BE RECONSTRUCTED	---	---
23. TO BE REPAIRED	---	---
24. TO BE MAINTAINED	---	---
25. TO BE DEMOLISHED	---	---
26. TO BE RECONSTRUCTED	---	---
27. TO BE REPAIRED	---	---
28. TO BE MAINTAINED	---	---
29. ROAD TO BE RECONSTRUCTED	---	---
30. ROADWAY PROTECTION ZONE (RPOZ)	---	---
31. ROADWAY PROTECTION ZONE (RPOZ)	---	---
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49. ROADWAY PROTECTION ZONE (RPOZ)	---	---
50. ROADWAY PROTECTION ZONE (RPOZ)	---	---

BUILDING/FACILITY KEY		
1. TOWER AERONAUTICS	2. AVIONICS CENTER	3. SEGMENTED CIRCLE FUTURE
4. HANGAR ON AIRPORT EXISTING	5. GPS RECEIVER (GPR) EXISTING	6. HANGAR FUTURE
7. HANGAR ON AIRPORT EXISTING	8. AIRCRAFT FUEL TANK	9. HANGAR FUTURE
10. LOSS FACILITY	11. COLONY ROAD SHOP	12. VEHICLE PARKING FUTURE
13. LOSS AERONAUTICS	14. AVIONICS (FUTURE)	15. SEGMENTED CIRCLE & TOWER FUTURE
16. NON-AERONAUTICS	17. TOWER (FUTURE)	
18. REPAIRING	19. BUSINESS AIR PARKING FUTURE	



NOTES

1. FINAL THRESHOLD LIGHTS AND OBSTACLE INDICATORS ARE DEPENDENT ON SURVEY VERIFICATION OF ISA AND OBSTACLE CLEARANCE SURFACE OBSTRUCTIONS.
2. HANGAR CONSTRUCTION SHALL REQUIRE NEAR BY AIR APPROVAL.
3. ALL FUTURE MODIFICATION TO STANDARD TIME ON-SHIFT (TOS) OF 11.

THE PREPARATION OF THIS DOCUMENT HAS BEEN SUPPORTED, IN PART, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FUNDS PROVIDED FROM THE FEDERAL AVIATION ADMINISTRATION. THE FEDERAL AVIATION ADMINISTRATION, THROUGH THE AIRPORT IMPROVEMENT PROGRAM FUNDS, ASSURES THAT THE AIRPORT IMPROVEMENT PROGRAM FUNDS WILL BE USED IN ACCORDANCE WITH THE AIRPORT IMPROVEMENT PROGRAM ACT AND THE AIRPORT IMPROVEMENT PROGRAM REGULATIONS. THE AIRPORT IMPROVEMENT PROGRAM FUNDS WILL BE USED IN ACCORDANCE WITH THE AIRPORT IMPROVEMENT PROGRAM ACT AND THE AIRPORT IMPROVEMENT PROGRAM REGULATIONS.

NO. DATE BY APPR. REVISIONS	FEDERAL AVIATION ADMINISTRATION APPROVAL APPROVAL DATE: _____ SIGNATURE: _____	WSDOT AVIATION DIVISION APPROVAL APPROVAL DATE: _____ SIGNATURE: _____	CENTURY WEST ENGINEERING DESIGNED BY: DAWN M. J.S. DATE: OCTOBER 2008	CENTURY WEST ENGINEERING CHECKED BY: J.S. PROJECT NO. 4140200701	METHOW VALLEY STATE AIRPORT AIRPORT LAYOUT PLAN	FIGURE NO.

Capital Improvement Program (CIP)

- Reflects local project priorities
- Provides predictability for local, state and federal decision-makers
- Determines near-term funding needs
 - 20-year prioritized list of projects
 - Short Term – Years 0 to 5
 - Intermediate Term – Years 6 to 10
 - Long Term – Years 11 to 20

Capital Improvement Program (CIP)

Methow Valley State Airport
WSDOT Aviation Division
2009-2029

(DRAFT)

20-YEAR CAPITAL IMPROVEMENT PROGRAM

(DRAFT)

(DRAFT)

Short Term	Yr	Project	Project Category	Unit	Quantity	Unit Cost	Subtotal Cost	35% Engineering / Environmental / Contingency	Total Cost	FAA Eligible	Airport Sponsor
2009-2010	0,1	Install PAPI (Rwy 13 & 31)	Lighting	ea	2	\$100,000	\$200,000	\$70,000	\$270,000	\$256,500	\$13,500
		Obstruction Survey (Runway Approaches & RSA)	Other	LS	1	\$30,000	\$30,000	\$10,500	\$40,500	\$38,475	\$2,025
		Threshold Location & Declared Distance Evaluation; ALP Update	Other	LS	1	\$24,000	\$24,000	\$8,400	\$32,400	\$30,780	\$1,620
		MIRL (Replace existing lighting system)	Lighting	LF	5,049	\$55	\$277,695	\$97,193	\$374,888	\$356,144	\$18,744
		Replace Airport Beacon & Pole	Lighting	ea	1	\$80,000	\$80,000	\$28,000	\$108,000	\$102,600	\$5,400
		Relocate Displaced Thresholds; Install Runway Distance Remaining Signs and Lighting; Modify Threshold Lights	Safety	LS	1	\$150,000	\$150,000	\$52,500	\$202,500	\$192,375	\$10,125
		Install Traffic Safety Signals (on Evans Road)	Safety	LS	1	\$15,000	\$15,000	\$5,250	\$20,250	\$19,238	\$1,013
		Relocate Segmented Circle	Other	LS	1	\$60,000	\$60,000	\$21,000	\$81,000	\$76,950	\$4,050
Subtotal - Year 1 & 2							\$836,695	\$292,843	\$1,129,538	\$1,073,061	\$56,477
2011	2	RSA grading and stormwater management project Environmental	Safety	LS	1	\$100,000.00	\$112,000	\$39,200	\$151,200	\$143,640	\$7,560
		West Apron Expansion & Reconfiguration	Pavement Construction	SY	9,260	\$75.00	\$724,500	\$253,575	\$978,075	\$929,171	\$48,904
		East Hangar Taxiway Reconfiguration	Pavement Construction	SY	290	\$75.00	\$22,250	\$7,788	\$30,038	\$0	\$30,038
		Expand Aircraft Turnaround (Rwy 31 end)	Pavement Construction	SY	1,575	\$75.00	\$118,625	\$41,519	\$160,144	\$152,137	\$8,007
Subtotal - Year 2							\$977,375	\$342,081	\$1,319,456	\$1,224,948	\$94,508
2012	3	Overlay Runway; repaint markings;	Pavement Maintenance	SY	45,140	\$40.00	\$1,817,600	\$636,160	\$2,453,760	\$2,331,072	\$122,688
		RSA grading, R/W underdrains, and stormwater management project	Safety	LS	1	\$500,000.00	\$512,000	\$179,200	\$691,200	\$656,640	\$34,560
Subtotal - Year 3							\$2,329,600	\$815,360	\$3,144,960	\$2,987,712	\$157,248
2013	4	Snow Removal Building; Snow Removal Equipment	Other	LS	1	\$900,000	\$900,000	\$315,000	\$1,215,000	\$1,154,250	\$60,750
		Slurry Seal West Apron & Taxiway; repaint markings & tiedowns	Pavement Maintenance	SY	10,392	\$5.00	\$51,960	\$18,186	\$70,146	\$66,639	\$3,507
Subtotal - Year 4							\$951,960	\$333,186	\$1,285,146	\$1,220,889	\$64,257
2014	5	Construct 3 Helicopter Parking Pads (50 x50 PCC)	Pavement Construction	SY	834	\$100	\$93,400	\$32,690	\$126,090	\$119,786	\$6,305
Subtotal - Year 5							\$93,400	\$32,690	\$126,090	\$119,786	\$6,305
Yr 0-5 Total							\$5,189,030	\$1,816,161	\$7,005,191	\$6,626,395	\$378,795

Washington State Airport Pavement Management System (APMS)

A system-wide study of pavement to assess the existing condition of runways, taxiways and aprons at public use airports across Washington State. Estimates funding needs to maintain the system at an acceptable level.

- Provides a tool to:
 - Monitor the condition of pavements to ensure they are able to safely accommodate aircraft traffic
 - Identify system needs
 - Make programming decisions for funding
 - Provide information for legislative decision making
 - Assist local jurisdictions with planning decisions
- Cost-effective way to track a very important capital investment and plan for its preservation and eventual rehabilitation

Pavement Condition Index (PCI)

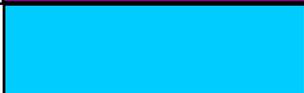
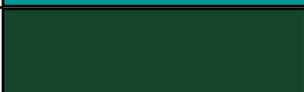
The *Pavement Condition Index* (PCI) is used to evaluate the system.

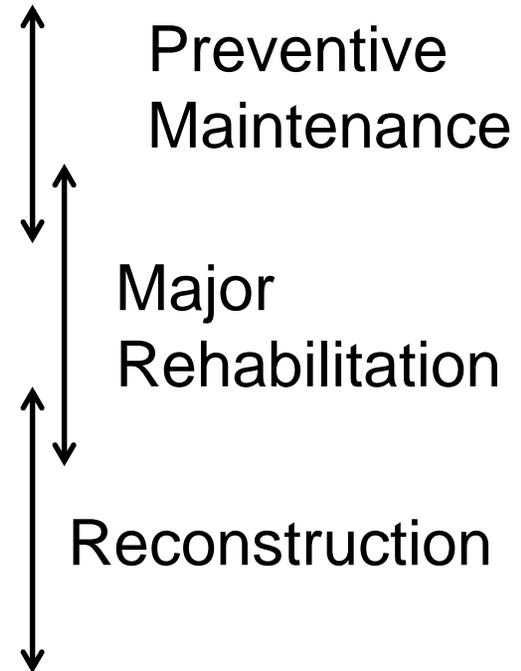
The PCI is the national standard when evaluating airport conditions at the state level.

PCI Scale

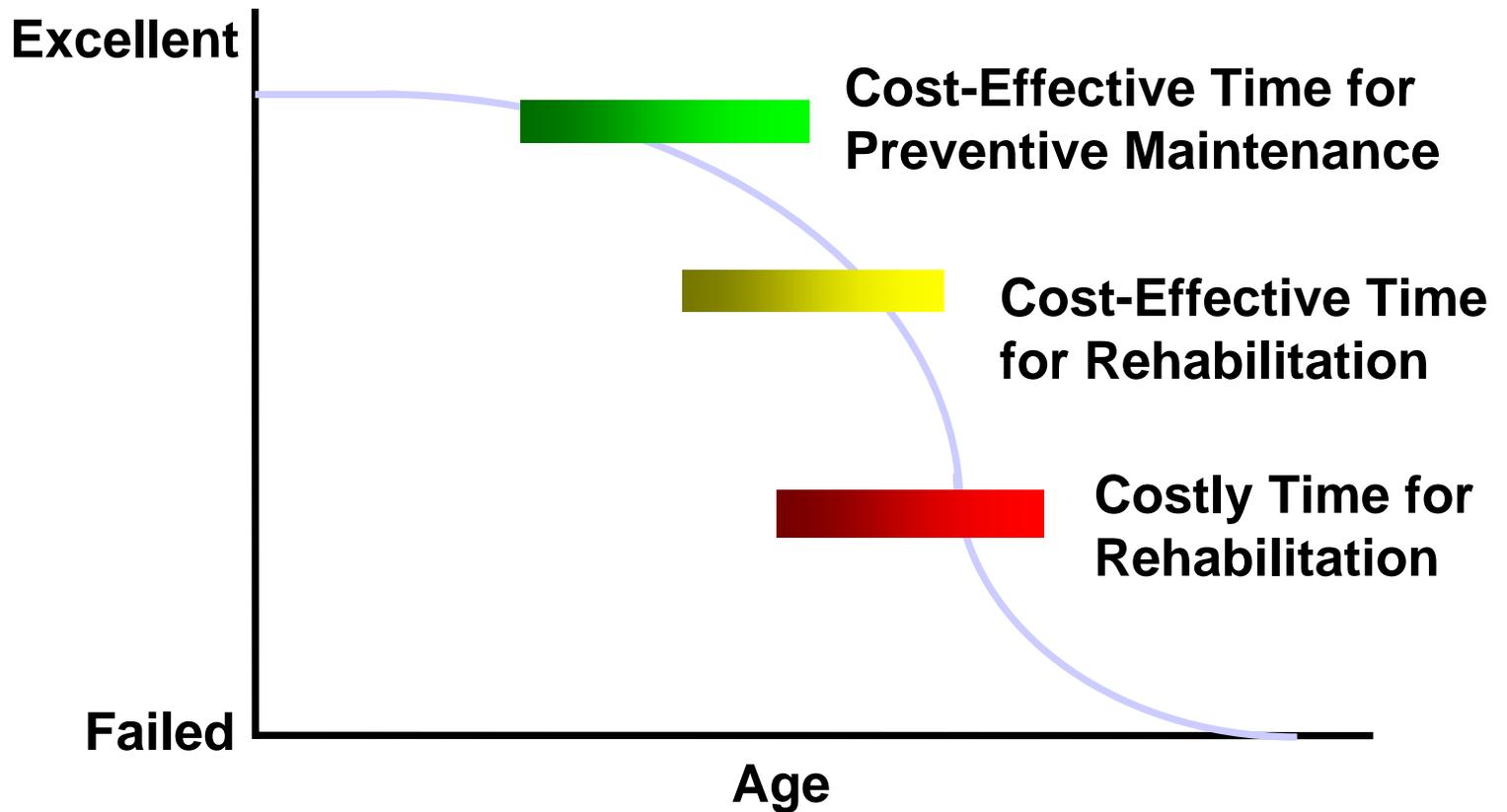


PCI

100	
85	
70	
55	
40	
25	
10	
0	



Pavement Management Philosophy



Pavement Reports

- Statewide
- Washington Aviation System Pavement Needs and Policy Summary
- Puget Sound Region
- Individual Airport
 - Provides summary of data collected (inventory and condition) as well as a base work program
 - Airport sponsors use the results to develop a tailored program for their airport based on:
 - Local costs
 - Funding constraints
 - Other considerations (operational, plans for future work, etc.)
- Pavement Management Manual
 - Helps airports tailor the pavement maintenance and rehabilitation recommendations in the individual report
 - Develop and implement a pavement maintenance and rehabilitation program

Washington State Airport Classification System

- LATS established a state airport classification system to identify the role of each airport in the system and determine the types of facilities and services necessary at each
- Factors considered include runway length, based aircraft, economic impact, population served, and service area driving time
- Six classifications are used in the Washington State airport classification system:
 - Commercial Service Airports
 - Regional Service Airports
 - Community Service Airports
 - Local Service Airports
 - Rural Essential Airports
 - Seaplane Bases

Distribution of Airports by State Classification

Classification	No. Of Airports	Description
Commercial Service	16	Accommodates at least 2,500 scheduled passenger boardings per year for at least three years.
Regional Service	19	Serves large or multiple communities; all NPIAS Relievers; 40 based aircraft and 4,000-foot long runway, with exceptions
Community Service	23	Serves a community; has at least 20 based aircraft; paved runway
Local Service	33	Serves a community; has fewer than 20 based aircraft; paved runway
Rural Essential	38	Other land-based airports, including residential airparks
Seaplane Bases	9	Identified by FAA as a seaplane base, unless it is a Commercial Service Airport

Performance Objectives

- Performance objectives set targets for each classification level
- Targets investment based on classification to stretch resources
- Two types of performance objectives:
 - 1) Those that relate to all classifications
 - 2) Those that are customized for the facilities and services appropriate to each classification

Airport Aid Allocation

Type of Airport	Type of Project		
	Pavement	Safety	Maintenance, Security & Planning
	75%	15%	10%
NPIAS GA airports w/<20 based aircraft, and all non-NPIAS airports (41 airports) (55%)	41%	8%	6%
All Others (48 airports) (45%)	34%	7%	4%

WSDOT Airport Aid Program Funding

- Approximately \$2 to \$3 million per biennium
- Maximum \$250,000 per grant cycle
- 5% minimum local match

Other Considerations

- Project Readiness
- Schedule
 - Projects must be completed in current biennium
- Matching Funds
 - Above 5%
- Community Need / Support
- Economic Development / Self-sufficiency
- Appropriate Land Use Protections

Grant Award Decisions

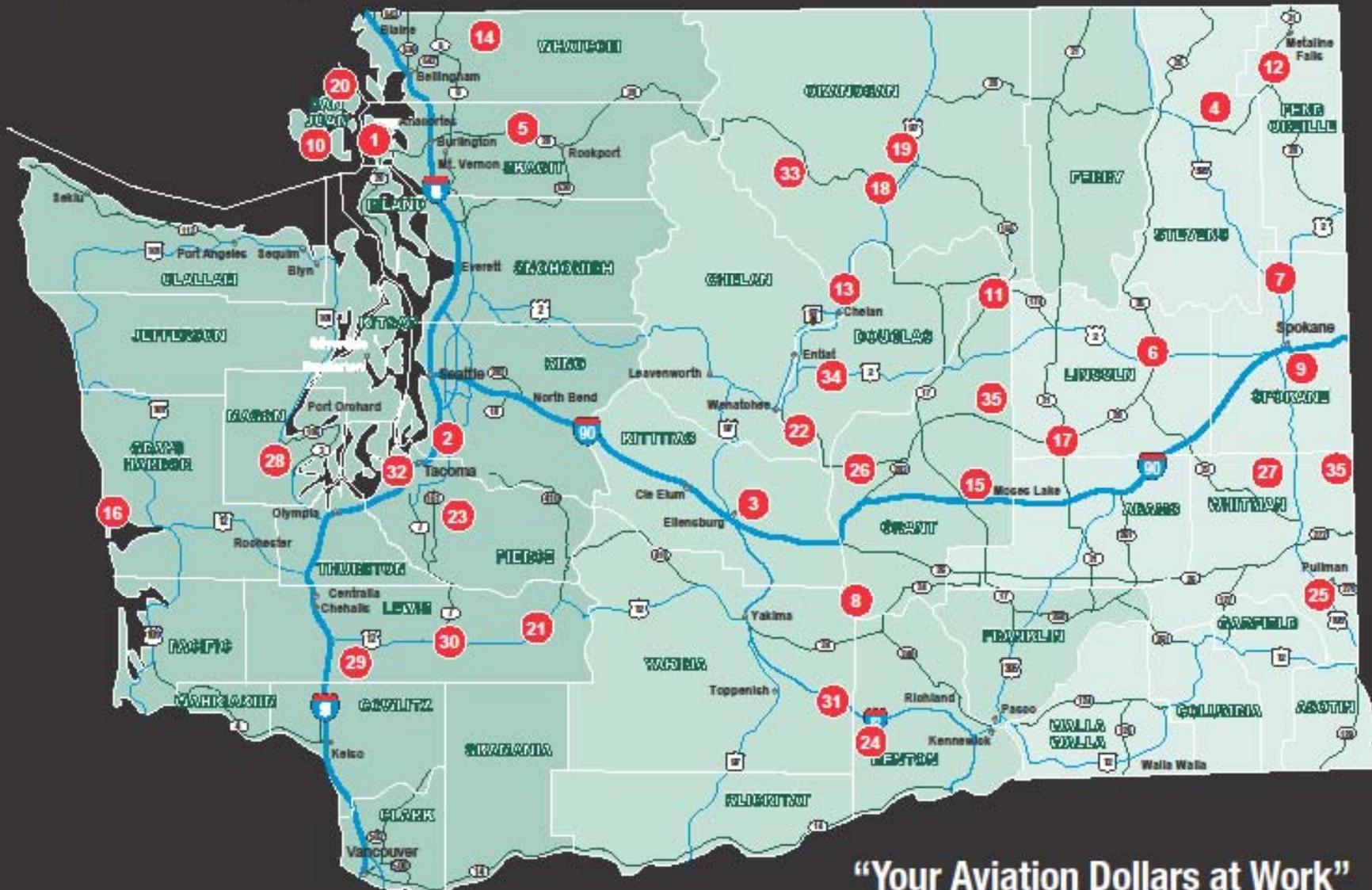
- Airport Sponsors Notified
- Public Announcements
 - Website
 - Aviation News Service
 - Grant Maps
 - Legislature
 - FAA
 - All Airport Sponsors

2009 Airport Improvement Projects

Airport Aid Grant Program 2009 – 2011 Biennium



Washington State
Department of Transportation



"Your Aviation Dollars at Work"

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