

# **Washington State Aviation Planning Council**

Long-Term Air Transportation Study (LATS)

February 5, 2009

**Courtyard Marriott  
Richland, WA**

# Meeting Objectives

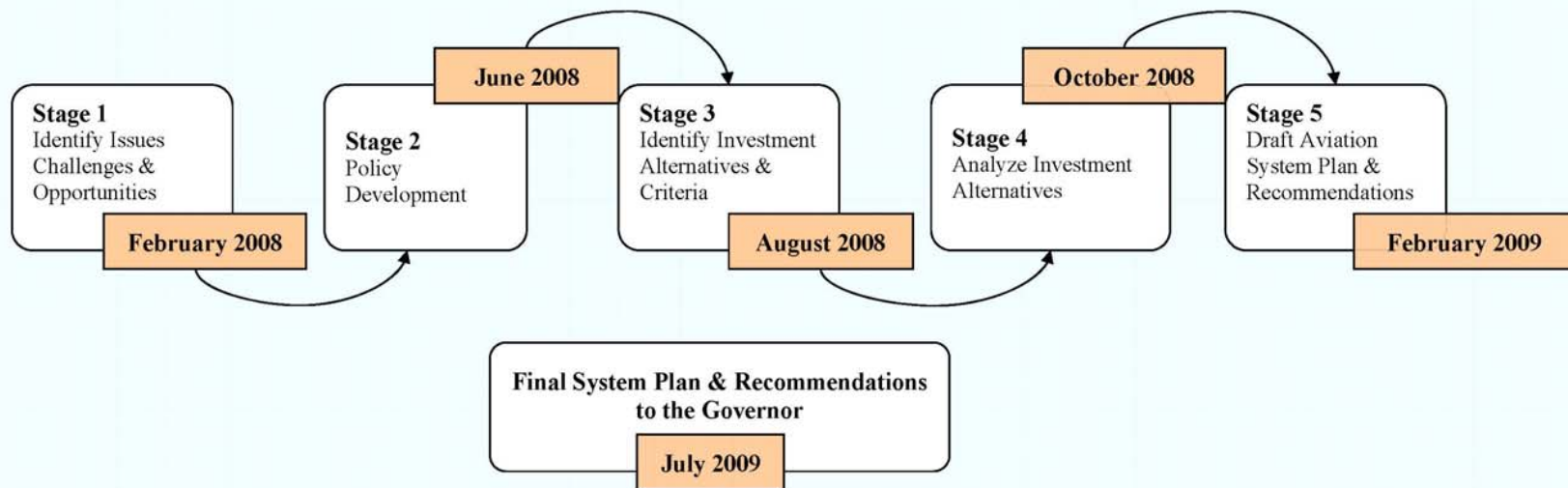
- **Review alternative strategies**
- **Review aviation system plan**
- **Concurrence on alternative strategies to be forwarded for public review**

# Council Work Program

**Project Timeline**

2008													2009					
Stage 1				Stage 2			Stage 3		Stage 4				Stage 5					
Month	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Activity	(1) Meeting	(2) Workshop	(3) Workshop	(4) Workshop	(5) Meeting	*Regional Meetings	(6) Workshop		(7) Meeting		(8) Meeting		(9) Workshop	*Online Survey	*Regional Meeting		(10) Meeting	
Location	Seattle	Seattle	Seattle	Seattle	Spokane	Everett/Wenatchee	Vancouver		Seattle		Spokane		TriCities	Statewide	Vancouver TriCities		Seattle	

**Public Outreach and Participation Throughout the Project**  
 (Media Releases, Web Page, Regional Meetings, Stakeholder Briefings, Electronic Town Hall, Online Survey, E-News Briefings, etc...)



Note: Aviation Council meetings and workshops numbers ( ) listed above correspond with the attached work program. Scheduled regional meetings together with the E-Townhall meetings through Knowledge Network are scheduled to occur twice during the study period. Regional meetings will be held on the east and the west side of the state.

# Follow up from last meeting

## Revised language for Land Use Policy #7

- *Washington State should require that airport sponsors and local jurisdictions coordinate with each other during the development and amendment of airport master plans and comprehensive plans/development regulations.*

# Overview of Phase III Products

## ■ Council Report

- Overview of the Council process and actions
- Transmits the Council's recommendations to the Governor, Legislature, Transportation Commission and regional transportation planning organizations.

## ■ Aviation System Plan

- Includes information on the existing conditions of the aviation system, airport classification, airport performance measures, and forecast needs and trends.
- Recommended alternatives will be based on ESSB 5121 and federal and state requirements.
- Findings will be integrated into the Washington Transportation Plan.
- This is a WSDOT document, but Council review is requested to ensure consistency with other LATS work products.

## ■ Phase III Alternative Strategies White Paper

- Proposes alternative strategies based on the four key issues identified by the Council
- Document is a component of the Aviation System Plan, but is a separate document for purposes of this review.

# LATS Key Findings: Statewide Overview

Sonjia Murray

# Background for LATS

- **Washington has one of the most dynamic aviation systems in our nation**
  - System of 138 public use airports
  - Every year, over 17 million enplaning passengers... 3.7 million aircraft landings/departures... more than 600,000 tons of air cargo...
  - 171,000 jobs, \$4.1 million in wages, and \$18.6 billion in total output
- **Need for long-range aviation planning in Washington**
  - Population in Washington has doubled in the last 30 years and will increase by an additional 2.5 million by 2030
  - Other challenges include limited funding, concentration of activity in key regions, local land use conflicts, and a fluctuating economy

***In 2005, the Governor authorized the Washington State Long-Term Air Transportation Study (LATS) through transportation bill ESSB 5121***

# Legislation and FAA System Planning Grant

- Engrossed Substitute Senate Bill (ESSB) 5121
  - Long-term planning study for general aviation (GA) and commercial airports in Washington with a special focus on 4 Emphasis regions
  - Three phases of LATS
- Charge to Washington State Aviation Planning Council
  - Provide recommendations of how best to meet statewide commercial and GA capacity needs
  - Determine regions of the state in need of improvement
  - Make recommendations about future commercial and GA airport facilities
  - Includes a comprehensive and highly visible public input process
- FAA Statewide Airport System Planning Grant Allowed for a Comprehensive Assessment of Capacity
- LATS Recommendations integrated into the Washington Transportation Plan (WTP), the FAA Bi-Annual National Plan of Integrated Airport Systems (NPIAS), and regional and local transportation plans

# Three Phase Approach to LATS

<b>Phase I: What we have.</b>	<b>Phase II: What we need.</b>	<b>Phase III: How we meet the needs.</b>
Airport inventory, capacity and airspace assessment.	25 year commercial service market forecast, air cargo forecast, high speed passenger rail assessment; future capacity analysis, system requirements.	Governor appointed planning council to provide recommendations for future airport strategy and investment statewide.
<i>Completed September 2006.</i>	<i>Completed July 2007.</i>	<i>To be completed July 2009.</i>

# State Airport Classification

***The state airport classification system was developed to identify the role of each airport in the state system and to understand the types of facilities and services necessary at each...***

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; at least 20 based aircraft; paved runway
Local Service	33	Serves a community; fewer than 20 based aircraft; paved runway
Recreation or Remote	39	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
- Two types of performance objectives are proposed:
  - 1) Those that relate to all classifications
  - 2) Those that are customized for the facilities and services appropriate to each classification

	Objective	Commercial Service	Regional Service	Community Service	Local Service	Recreation or Remote	Seaplane Base
Operational Factors	Standard runway safety area	X	x	X	x	x	NA
	Runway PCI 75	X	x	X	x	x	NA
	Taxiway PCI 70	X	x	X	x	x	NA
	Apron PCI 70	X	x	X	x	x	NA
	No obstacles in threshold siting surface	X	x	X	x	x	X
	No obstacles in obstacle free zone	X	x	X	x	x	X
Plan	Planning documents less than 7 years old	X	x	x	x	x	X
	Compatibility policies in comprehensive plan	X	x	x	x	x	X
Land Use Compatibility Protection	Appropriate zoning designation for airport	X	x	x	x	x	X
	Land use controlled in runway protection zones	X	x	x	x	x	X
	Height hazard zoning or regulations	X	x	x	x	x	X
	Zoning discourages incompatible	X	x	x	x	x	X
Facilities	Runway Length	5,000 feet	5,000 feet	3,200 feet	2,400 feet	No objective	No objective
	Taxiway	Parallel	Parallel	Parallel	around	around	around
	Instrument Approach	Lower than the visibility minimum	Lower than the visibility minimum	1 mile visibility minimum	No objective	No objective	No objective
	Lighting	Medium intensity	Medium intensity	Medium intensity	Low intensity	Reflectors	NA
	Visual Glide Slope Indicators	X	x	x	x	No objective	NA
	Weather Reporting	AWOS or ASOS	AWOS or ASOS	Super-Unicom	No objective	No objective	No objective
	Dock Facility	NA	NA	NA	NA	NA	Yes
	Fuel Sales	Jet A and 100LL	Jet A and 100LL	100LL	No objective	No objective	No objective
	Maintenance Service	Major	Major	Minor	No objective	No objective	No objective

# System Performance

- **Commercial Service Airports (16):** Perform well in most categories... However, only 50% comply with land use and zoning compatibility objectives.
- **Regional Service Airports (19):** Perform poorer than commercial service airports for same objectives... Less than 50% comply with land use and zoning compatibility objectives, and only 37% meet instrument approach objective.
- **Community Service Airports (23):** Less than 50% have compliant runway safety areas... Most deficient objectives also land use compatibility and instrument approach.
- **Local Service Airports (33):** Perform well in lighting, runway length and runway pavement... Perform poorly in many other objectives including land use, runway safety, and visual indicators
- **Recreation Airports(39):** Incomplete data as many of these airports privately owned... Generally lower compliance in all objectives
- **Seaplane Bases(9):** Certain objectives relevant to land-based airports not applicable... Compliance low, except in runway protection zone control

# Activity Forecast

*Forecasts identify expected demand in commercial passenger traffic, general aviation activity, and air cargo volume in Washington through 2030...*

<b>ACTIVITY</b>	<b>2005</b>	<b>2030</b>	<b>GROWTH</b>
<b>Passenger Enplanements</b>	16.47 million	31.27 million	90% increase / 2.6% per year
<b>Commercial operations</b>	670,000	1,110,000	2.1% per year
<b>GA operations</b>	3.0 million	4.4 million	1.6% per year
<b>GA based aircraft</b>	8,100	11,800	1.5% per year
<b>Air Cargo Volume</b>	600,000 tons	1,407,000 tons	135% increase / 3.5% per year

# Capacity Analysis

- **Measures the ability of existing airport facilities to accommodate existing activity, as well as expected future activity**
- **The LATS capacity analysis examined five elements of aviation system capacity:**
  - ***Airfield Capacity:*** the ability of an airport’s runway system to accommodate take-offs and landings without experiencing delays.
  - ***Commercial Airline Passengers:*** the ability of an airport terminal to accommodate airline passengers with adequate space for ticketing, security, etc.
  - ***Air Cargo:*** the ability of an airport to accommodate processing of air cargo tonnage using existing facilities.
  - ***Aircraft Storage and Parking:*** the ability of an airport to accommodate storage of based and transient GA aircraft in tie-downs and hangars.
  - ***Airspace System:*** the ability of available airspace to safely accommodate aircraft in transit between airports.

# Airfield Capacity

- **Four Washington airports are anticipated to exceed 100 percent of their operating capacity by 2030:**
  - Seattle-Tacoma International
  - Boeing Field
  - Harvey Field
  - Kenmore Air Harbor Inc.
  
- **Eight additional state airports were identified as exceeding the 60 percent capacity planning threshold – the activity level at which planning should commence for adding capacity – by 2030. These airports include:**
  - Arlington Municipal, Auburn Municipal, Snohomish County/Paine Field, Crest Airpark, Friday Harbor, Spokane International, and Olympia
  
- **Significant operations capacity constraints in the Puget Sound Region**
  - Nine of the twelve airports expected to exceed or approach their operations capacity by 2030 within the Puget Sound Region

# Passenger Terminal Capacity

- **Six airports either currently exceed or are expected to exceed their peak hour passenger capacity by 2030:**
  - Anacortes
  - Kenmore Air Harbor, Inc.
  - Kenmore Air Harbor Seaplane Base
  - Orcas Island
  - Seattle-Tacoma International
  - Tri-Cities
  
- **With the exception of Seattle-Tacoma International, the passenger terminal expansions required are not significant and may be accommodated within the existing airport footprint.**
  
- **Four additional airports are forecast to exceed the 60 percent threshold at which planning for facility expansion should begin.**
  - These four airports include: Pangborn Memorial, Friday Harbor, Pullman/Moscow Regional, and Spokane International
  - Bellingham International is also operating above its capacity due to recent service increases that occurred since 2006

# Aircraft Storage Capacity

- Aircraft parking and storage is generally constructed “on demand” – that is, tiedown positions and aircraft hangars are typically only constructed as the demand occurs.
- Approximately one-quarter (36 of 139) of Washington State airports are expected to have capacity shortfalls by 2030.

# Air Cargo Capacity

- **Over 98 percent of statewide cargo tonnage is processed through three facilities:**
  - Seattle-Tacoma International
  - Boeing Field/King County International
  - Spokane International Airport
  
- **General statewide air cargo findings:**
  - Air cargo companies build facilities when they are needed.
  - Facility expansion occurs as demand grows.
  - Excess capacity seldom exists.
  - Key factors influencing future growth include market demand, geographic location and apron/land availability.
  - Availability of off-airport properties for cargo processing facilities provide a way around limitations on developable land at airports.

# Airspace Capacity

- **No significant airspace overlaps occur outside of the Four Special Emphasis Regions.**
- **The majority of overlaps occur in the Puget Sound Special Emphasis Region where population and aviation activity is highest**
  - Seattle-Tacoma International Airport (SEA) and Boeing Field/King County International Airport (BFI) show the biggest airspace overlap in terms of potential operational conflict. As such, their proximity implies that flight path coordination between the two airports is required.
- **Airspace within Washington State is subject to overlap from airports outside of the state. More specifically, airports in Southwest Washington are affected by Portland International Airport.**
- **Further study of airspace capacity and available technologies is needed to address future demand anticipated for the Central Puget Sound area. Such a study would fall under the purview of the FAA.**

# Special Emphasis Regions

# Four Special Emphasis Regions

- The Washington State Legislature designated four geographic areas as warranting more detailed analysis than the remainder of the state because they constitute key centers of population, employment and economic activity.

- ***The Puget Sound Region:***

Consisting of King, Snohomish, Pierce, and Kitsap Counties.

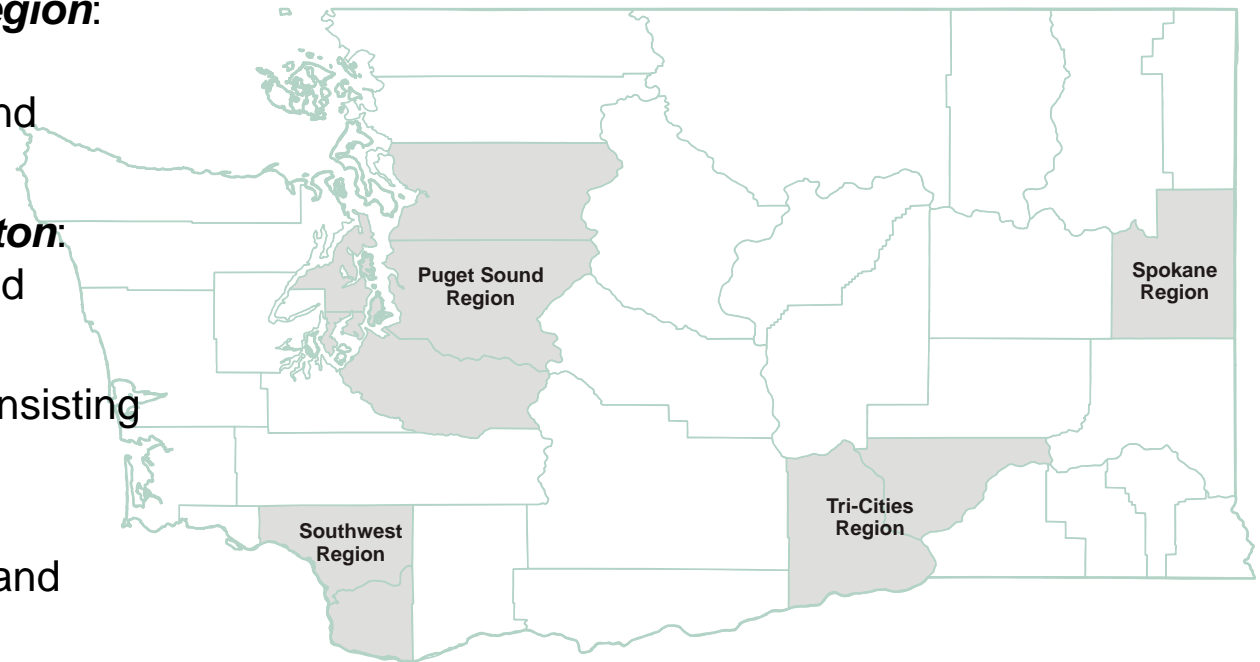
- ***Southwest Washington:***

Consisting of Clark and Cowlitz Counties.

- ***Spokane Region:*** Consisting of Spokane County.

- ***The Tri-Cities area:***

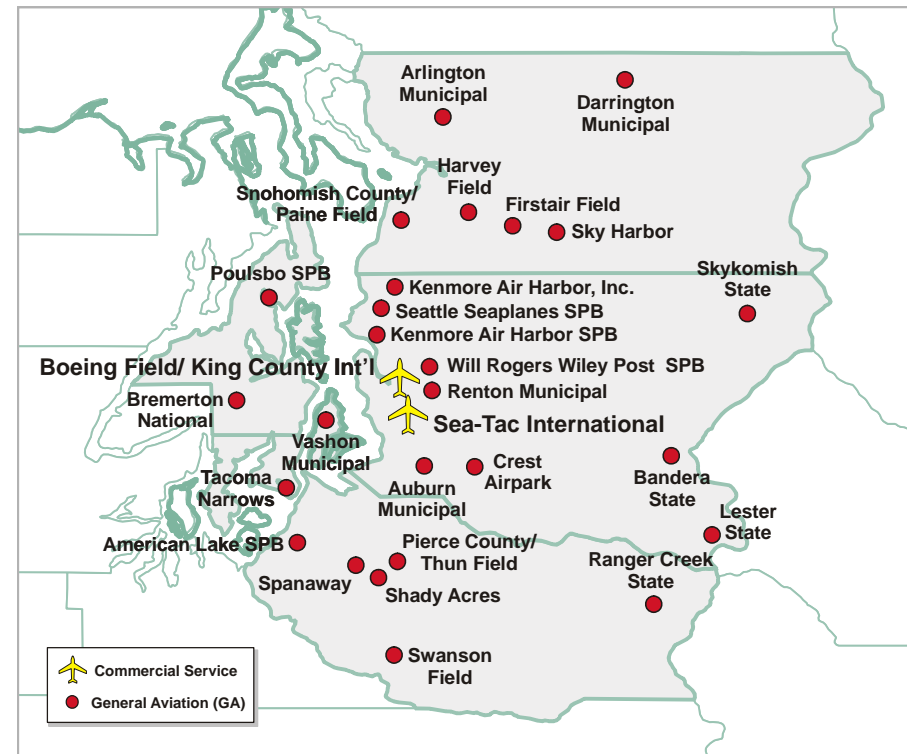
Consisting of Benton and Franklin Counties.



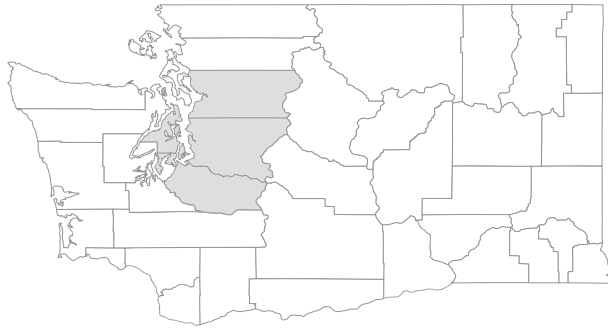
# Puget Sound Special Emphasis Region

*The Puget Sound Region represents the most populated region in Washington State and the busiest aviation area*

- Total population of 3.5 million (approx. 55% of total Washington population)
- In 2005, the Puget Sound Region accounted for:
  - 14.3 million annual enplanements (87% of the 16.5 million total annual enplanements reported in the entire state)
  - 49% of total operations in the state
  - 47% of Washington’s total GA based aircraft.
  - 83% of state’s air cargo tonnage



# Puget Sound Special Emphasis Region (Ctd.)



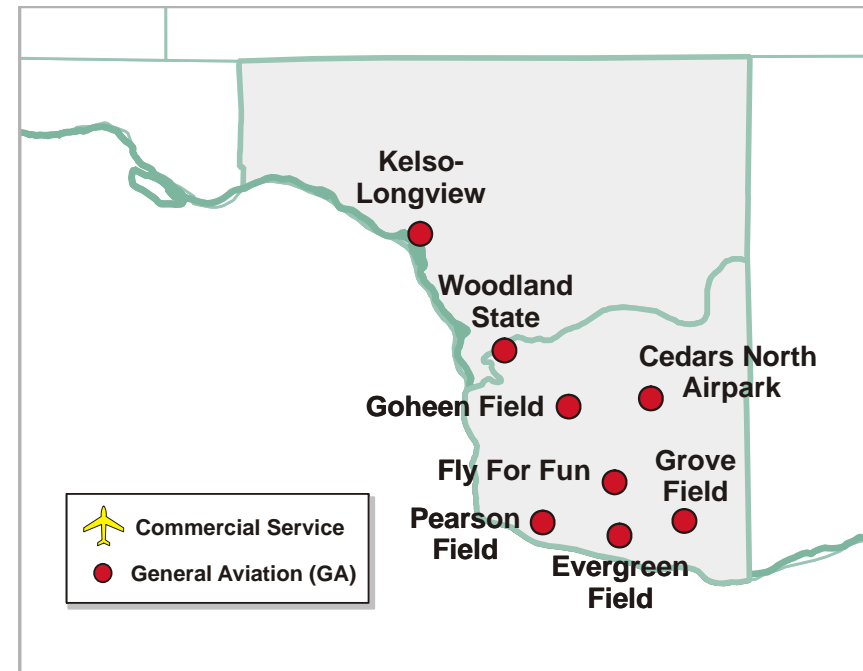
- **Nine airports within the Puget Sound Special Emphasis Area are expected to exceed or approach their operations capacity by 2030**
  - Four airports will exceed capacity completely: Seattle-Tacoma International, Boeing Field/King County International, Harvey Field, and Kenmore Air Harbor, Inc.

- **Recent trends at Sea-Tac International including higher passenger load factors and an “upgauging” of aircraft size indicate that the airport may now reach its capacity limits beyond 2030...**
- **Ten airports (more than a third of the total airports in the region) are expected to approach or exceed aircraft storage capacity by 2030.**
- **Seattle-Tacoma International and Boeing Field may have potential operational conflict due to airspace overlap. Their proximity implies that flight path coordination between the two airports is required.**

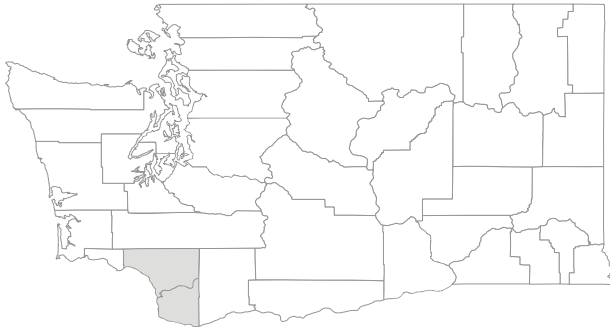
# Southwest Washington Special Emphasis Region

*The Southwest Region is one of the fastest growing regions in the state in terms of based aircraft and GA operations*

- **Total population of 500,000**
- **Four of the eight airports in this region are privately owned**
  - These airports face significant land use encroachment issues
  - Evergreen Field closed in 2006 due to competing land uses
- **Of the four publicly owned airports, two airports have limited ability to expand**
  - Woodland State Airport and Pearson Airport are both unable to expand in the future



# Southwest Washington Special Emphasis Region (Ctd.)

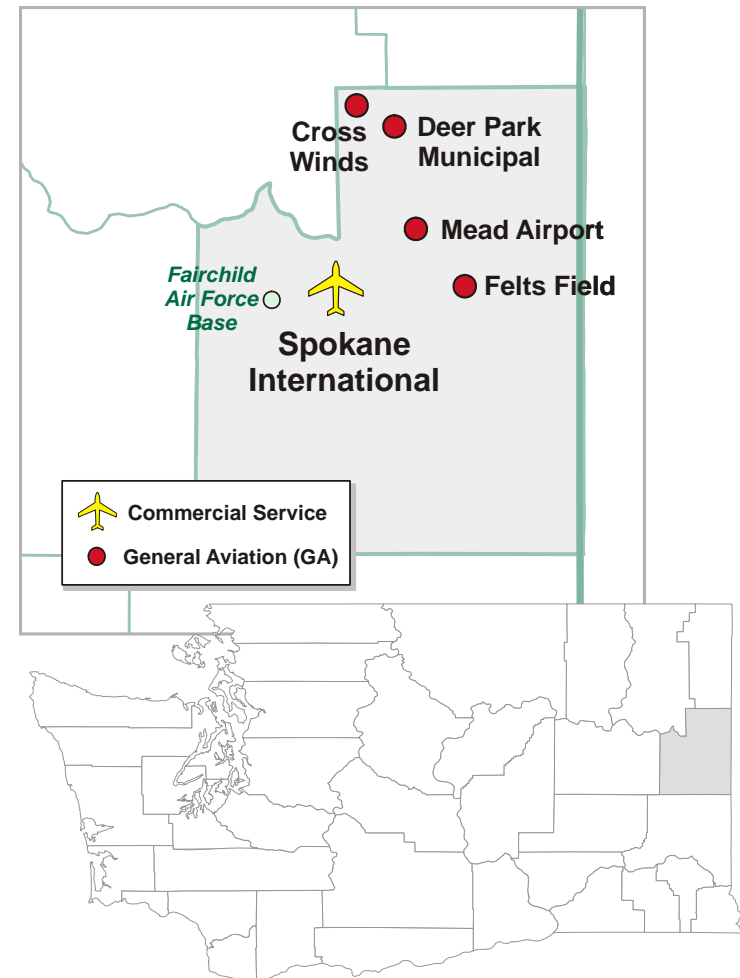


- In the early 1990's the FAA was working with Clark County officials to locate/build an new airport north of the City of Vancouver along the I-5 corridor. The project was never constructed due to significant opposition by the public.
  
- **Capacity and demand within the Southwest Region is complicated by the fact that the dominant airport for the region is located in Oregon**
  - Portland International Airport (PDX), located just south of the region across the Columbia River, provides all passenger and cargo service for the region
  - Additionally, three active GA facilities located within Oregon and controlled by the Port of Portland provide capacity for GA growth in the Southwest Region
  
- **Five out of eight airports in the region are expected to approach or exceed aircraft storage capacity by 2030.**

# Spokane Special Emphasis Region

*The Spokane Region accounts for the second largest concentration of commercial and GA activity in the state after the Puget Sound Region*

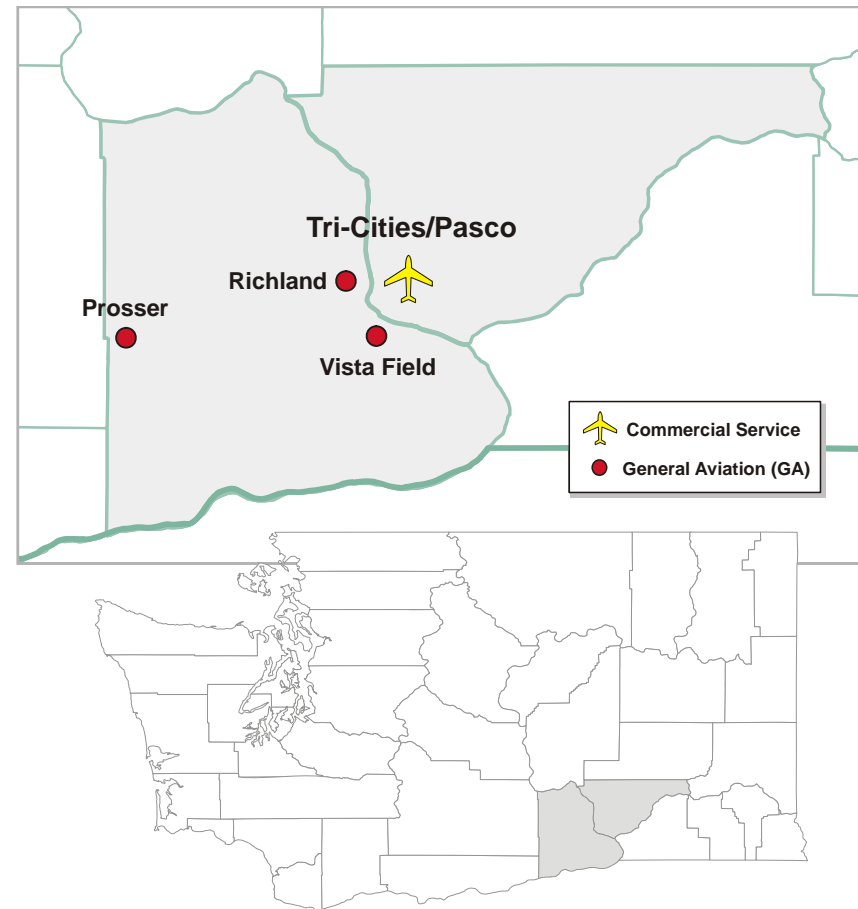
- Total population of 440,000
- In 2005, Spokane accounted for:
  - 7.1 percent of statewide based aircraft
  - 9.4 percent of statewide enplanements
  - 16 percent of state's air cargo tonnage
- Three airports in the Spokane Region are expected to be at or exceeding aircraft storage capacity by 2030



# Tri-Cities Special Emphasis Region

*Land use encroachment and alternative land use make the airports in the Tri-Cities region vulnerable to closure*

- **Total population of 220,000**
- **The TriCities Region has four public use airports.**
  - Tri-Cities is the third busiest commercial airport in the state after Sea-Tac and Spokane
  - Three airports are located within 20 miles of each other and include Pasco, Richland and Vista Field.
- **Vista Field may be closed in the future due to alternative land use**
  - Question of whether there is sufficient capacity at the remaining airports to accommodate demand is yet to be answered



# Other Regions of the State

*Other regions in Washington outside of the Special Emphasis Regions also have a dynamic history in aviation and present both challenges and opportunities in helping the state meet long-term needs*

- Many small communities across Washington have lost a substantial amount of scheduled air service over the past 10-15 years. All of these communities are located outside of the four special emphasis areas.
  - Small community airports include: Walla Walla, Yakima, Wenatchee, Moses Lake, Pullman, Port Angeles, Friday Harbor, and East Sound
- In the mid 1990's, the FAA worked with Officials from the City of Colville to locate at new airport in the City of Colville. After completion of a fairly extensive environmental review process, City Official withdrew from the negotiations.
- The 14 Regional Transportation Planning Organizations (RTPO's) in Washington develop regional transportation plans.
  - RTPOs coordinate regional planning among cities, counties, port authorities, public transportation providers, WSDOT, and other agencies.

# **Alternative Strategies**

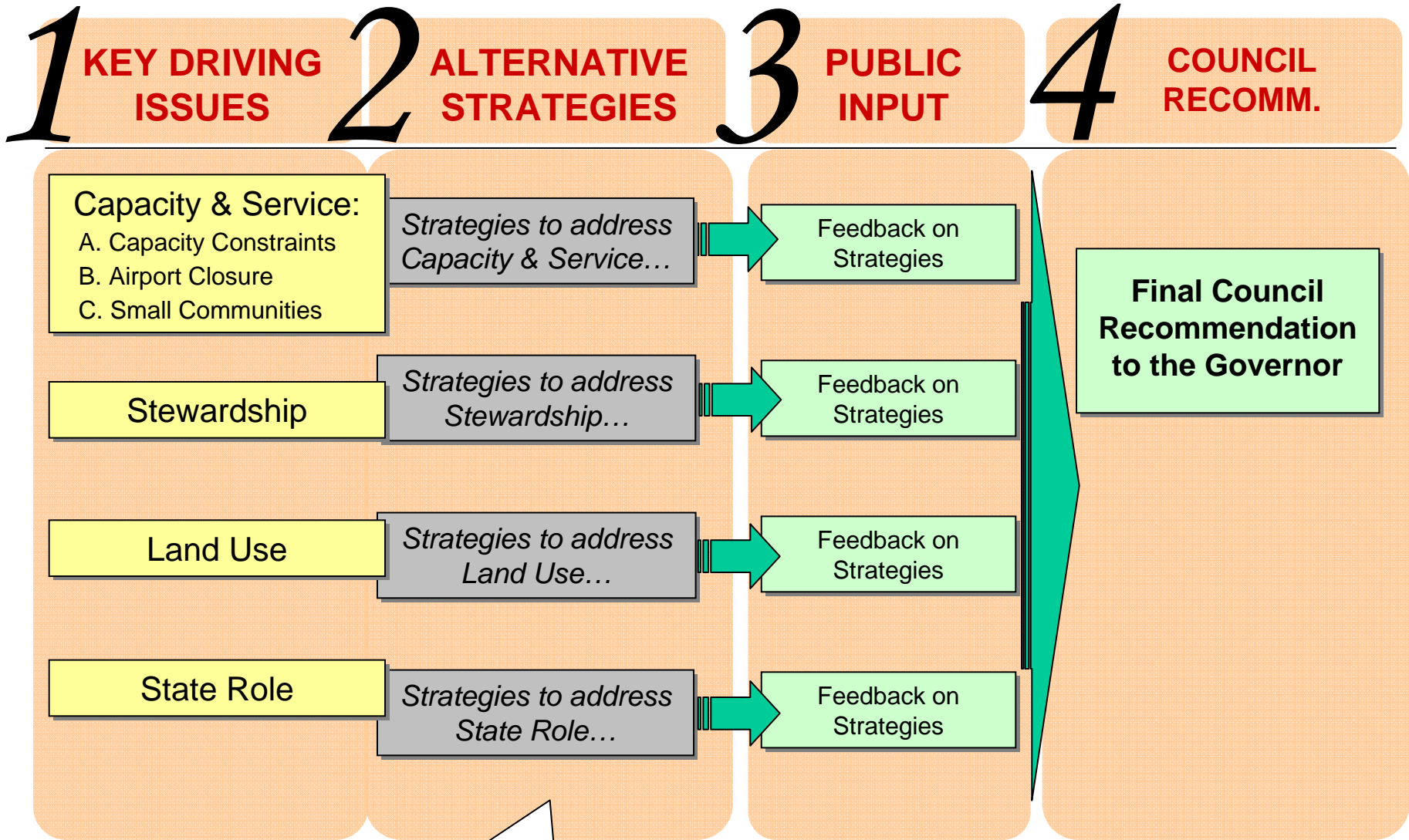
**Sara Funk  
John Yarnish  
Rita Brogan**

# Alternative Strategies Development Process

*(How can Washington best meet its long-term air transportation needs?)*

- **Key Issues:** Represent major long-term challenges to the Washington air transportation system that impact both commercial and general aviation users across the state
- **Alternative Strategies:** Address the four key issues identified, will be evaluated based on various decision criteria, and will be submitted to the public for review
- Based upon public input and technical consultation, the Council will develop a package of preferred strategies as part of its recommendation to the Legislature.

# Getting From Alternatives To Recommendation...



**We are currently here**

# Key Issues Facing Washington Aviation System

## **1. Capacity and Service Constraints**

- Capacity Constraints
- Airport Closures
- Small Community Air Service Loss

## **2. Stewardship: Performance Objectives**

## **3. Incompatible Land Use Encroachment**

## **4. State Role in Airport Development**

# **Key Issue #1: Capacity and Service**

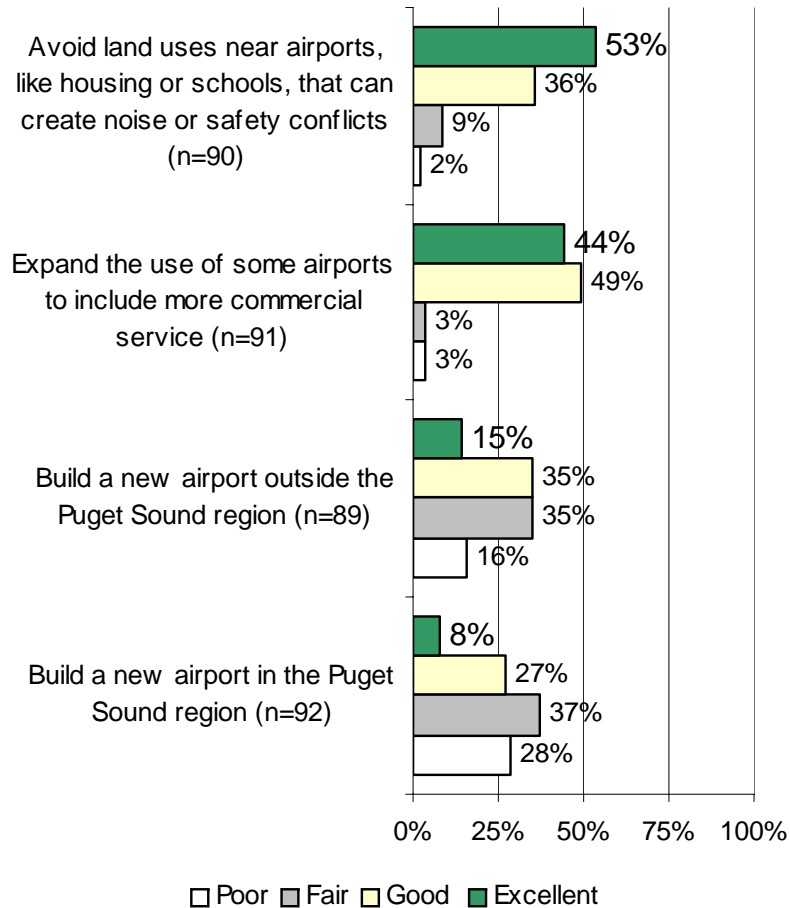
John Yarnish

# **Issue: Significant Capacity and Air Service Constraints Expected in Washington State**

- 1-1. Capacity Constraints Anticipated by 2030**
- 1-2. Airport Closures in Washington State**
- 1-3. Loss of Scheduled Passenger Services at Smaller Washington Commercial Airports**

# Public Input: Addressing Capacity Shortfalls

Rate each idea for things the state could do to address aviation capacity shortfalls:



## E-Town Hall #2:

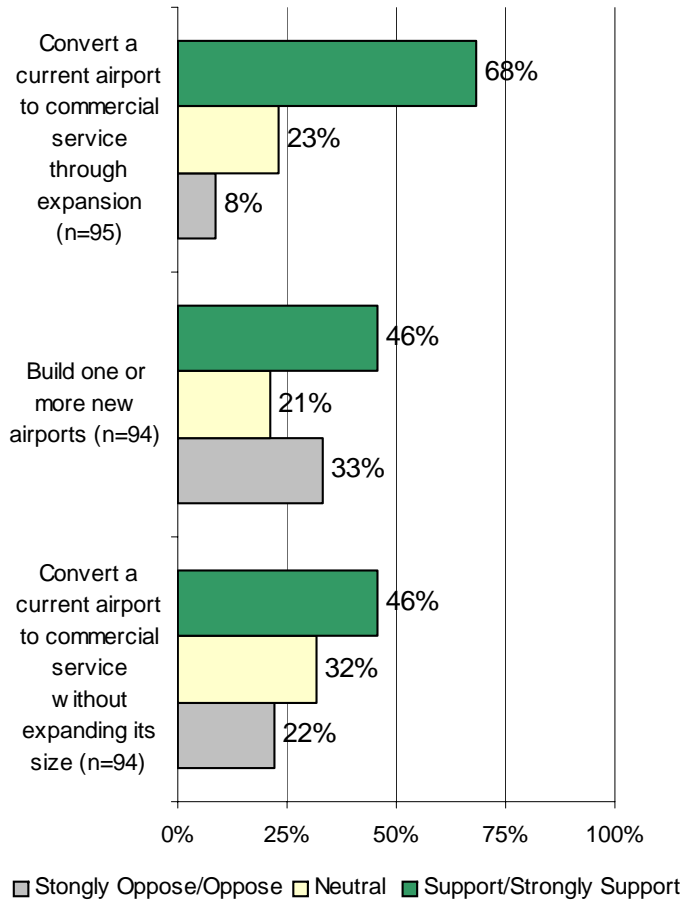
- Most support for avoiding incompatible land uses
- Support for expanding existing airports to include more commercial service
- Opinion was divided about building a new airport outside of the Puget Sound Region
  - Participants outside the Puget Sound region more likely to rate this idea as 'good'
  - Participants living inside the Puget Sound region more likely to rate this idea as 'fair'
- Similar to E-Town Hall 1, least amount of support for building a new airport in the Puget Sound region

## Regional Public Meetings:

- Consider the impacts of airport development and expansion on adjacent communities, not just economic development benefits.

# Public Input: Meeting Future Capacity Needs

Indicate level of support for meeting the State's future capacity needs



## E-Town Hall:

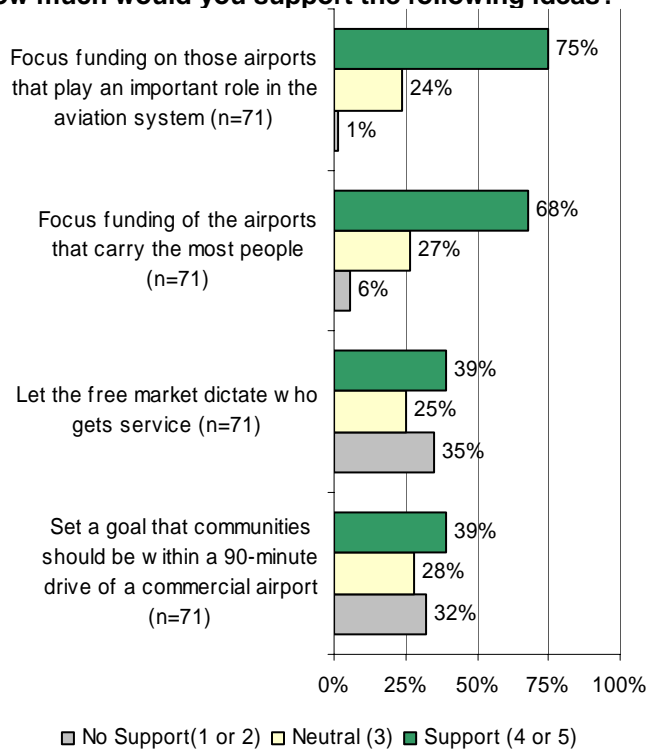
- Participants were most supportive of converting a current airport to commercial service *through expansion*.
  - Participants outside of Puget Sound more likely to support or strongly support this idea
  - Participants in urban communities more likely to oppose or strongly oppose this idea
- Opinion was divided about building a new airport and converting an existing airport without expansion.

## Regional Public Meetings:

- Consider alternative travel modes to ease aviation capacity shortfalls.
- Consider greener replacements to air travel

# Public Input: Capacity – Aviation Access for Small Communities

When it comes to aviation access for small communities, how much would you support the following ideas?



## E-Town Hall #1:

- Participants were most supportive of focusing funding on airports that play an important role in the aviation system
- Participants were also supportive of focusing funding on the airports that carry the most people
- Opinion was divided about:
  - Letting the free market decide who gets service
  - Setting a goal that communities should be within a 90-minute drive of a commercial airport

# Issue 1.1: Capacity Constraints Anticipated by 2030

- **Airfield capacity constraints are expected to emerge at twelve airports**
  - Several of the busiest commercial and general aviation airports in the state will reach capacity, including Sea-Tac, Boeing Field, and Harvey Field
- **Several commercial airports in the state lack terminal capacity to accommodate the future passenger demand expected**
  - Constrained airports include Sea-Tac, Tri-Cities, Anacortes, Orcas Island, and Kenmore Air Harbor, Inc.
- **A significant number of Washington’s general aviation airports are also expected to have aircraft storage capacity shortfalls by 2030**
  - Constrained airports include Boeing Field, Sanderson Field, Felts Field, Crest Airpark, and others.

# Capacity Constraints Alternative Strategies

1. **Let the market decide**
2. **Use technology and/or demand management solutions**
3. **Promote use of alternative airports**
4. **Expand constrained airports**
5. **Examine the possibility of constructing new airports**

# Strategy 1: Let The Market Decide

*WSDOT will continue to focus on matching FAA AIP grants and preserving the existing airport system.*

## Advantages

- Requires no additional funding, staffing or legislation.
- Maintains local control over airport development decisions

## Disadvantages

- State will have little influence on local airport decisions that have statewide system consequences
- State and regional agencies will need to react to local airport decisions rather than planning for best alternative

## Strategy 2: Use Technology and/or Demand Management Solutions

*The State influences/manages capacity by (1) promoting the use of existing resources, (2) taking an active role in the implementation of NextGen technology, and/or (3) encouraging demand management techniques that allow for better use of the airports.*

### **Advantages**

- Encourages more efficient use of existing system rather than encouraging construction of new resources.
- Next Gen and improved airspace management offer the potential to increase operational capacity without physical airport expansion.
- The cost of this strategy will be minimal.

### **Disadvantages**

- Does not directly respond to demand and could lead to decreased service to some destinations.
- Could limit airline's ability to freely respond to market demand.
- May not provide meaningful capacity benefits at all constrained airports
- Benefits may be inadequate to fully accommodate future demand growth, requiring additional measures

# Strategy 3: Promote Use of Alternative Airports

*Balance the State system by redistributing demand to airports that have available capacity. These airports will be encouraged to absorb demand from nearby airports that are at or over capacity. Alternate system airports with the capability to expand will be encouraged to do so.*

## **Advantages**

- Encourages more efficient use of the existing system rather than encouraging construction of additional resources.
- Would enable some passengers to utilize commercial services closer to their place of residence
- Promotes “sustainability” in airport development decisions.

## **Disadvantages**

- May not be conveniently located alternate airports with appropriate facilities and available capacity.
- Local communities may oppose increased traffic at their airports to serve the needs of people from other airports.

# Strategy 4: Expand Constrained Airports

*Capacity is provided at the airport where the demand occurs. Where an airport sponsor is unwilling or experiences difficulty implementing expansion projects, the State could encourage other airports to change their system classification, transfer ownership to a different, potentially multi-jurisdictional sponsor, or even take on ownership of the airport.*

## **Advantages**

- Viable strategy where expansion is feasible based on physical, environmental and cost considerations.
- Provides the new capacity at the location where the demand exists
- Provides a mechanism for addressing local decision-making impasses.
- In the event that local airport sponsors are unable or unwilling to provide the capacity, WSDOT would have authority to step in and institute action.

## **Disadvantages**

- Most airports with the greatest needs have severe geographic and land use constraints.
- Would require the state to assume an unprecedented new role.

# Strategy 5: Examine the Possibility of Constructing New Airports

*The State would work to promote development of new airports to address long-term demand. Likely sites for consideration of new airports would be in the Puget Sound Region, in Southwest Washington, and in Northeast Washington. The expected lead time in developing new airports will require existing State system airports to expand in the interim period to keep pace with demand.*

## **Advantages**

- Provides incremental capacity to help satisfy the long-term needs of a growing aviation market.
- In regions where airport capacity is an issue, having the State sponsor, plan, and construct a new airport may be the only way such a strategy could be feasible.

## **Disadvantages**

- Extremely limited number of sites available in the areas where demand exists.
- Costly
- Might not be completed in time to provide the necessary capacity.
- Staff and budget impacts for WSDOT and other agencies.

# Discussion: Capacity Constraints

- Are these the right strategies to address the capacity constraints issue?
- Are the issues stated appropriately?
- Are the advantages and disadvantages stated appropriately?

# Issue 1.2: Airport Closures in Washington State

- Numerous publicly owned and privately owned public use airports, have been closed in recent years.
- Most of the closed airports have been located in urban areas and have been displaced by competing development or they have been relatively low activity airports that the sponsor determined could no longer be operated and maintained.
- Many of the private airports that have closed were key contributors to capacity in key regions in the state. The loss of these airports reduced available capacity in high-growth regions and impacted all key airport facilities in the immediate areas.
- Airport closures from 1971 to the present have included both public and private airports in almost all regions of the state.

# Public/Private Airport Closures Since 1980

Region	Airport	Comment
Peninsula RTPO	Port Ludlow Airport	
Puget Sound Regional Council	Sand Point	Converted to recreational use in 1977.
	Bellevue	Converted to commercial use in 1983
	Martha Lake	Converted to Martha lake Airport Park in 2000
	Kurtzer/Lake Union	
	Tacoma Seaplane Base	Converted to recreational use
	Spanaway	Scheduled for closure in 2009 - proposed to convert to residential use
	Evergreen	Converted to commercial use in 2007
Southwestern Transportation Council	Scholls	Land use conflicts contributed to the airport's closure in 1994
Quad County RTPO	J&Z Airport	Closed by the city of Almira in 2008 – lack of sufficient funds to maintain airport
Benton Franklin Walla Walla RTPO	Beardsley	
	Connell Municipal	Lack of sufficient funds to maintain airport
Palouse RTPO	Clarkston Seaplane Base	
	Dayton Municipal	Lack of sufficient funds to maintain airport
	Pomeroy	
	La Crosse Municipal	
Whatcom	Blaine Municipal	Closed by the city of Blaine in December 2008 – proposed to convert to commercial use

# Strategy 1: Education Program

*Initiate a program to educate airport sponsors and the surrounding communities about the positive economic contribution airports have on their communities compared with the short-term financial gain that comes from closure of an airport and land sale. This could be done in conjunction with other state agencies.*

## **Advantages**

- Helps build awareness of the value of airports to the State.
- Relatively low to medium cost for WSDOT

## **Disadvantages**

- Provides no financial relief for airport owners who may be in need of support
- It is not a stand alone strategy

## Strategy 2: Revise the Airport Grant Program

*Require all recipients of State grants to agree to grant assurances that recognize the importance of the airport to the system as a whole.*

### **Advantages**

- Would allow the state to exert influence on airport capacity, airport operations and administration and have a role in improving airport efficiency and utility.
- Creates accountability for recipients and protects public investments.

### **Disadvantages**

- Additional funding would be required for any increase in grant eligibility or for any financial incentives that are part of this alternative

# Strategy 3: New Legislation

*Introduce new legislation to reduce the tax burden on private airports, allowing the State to purchase development rights from airports to prevent their owners from converting them to alternative uses or allowing the funding of infrastructure improvement at private airports.*

## **Advantages**

- Provides airport operators with additional funding resources to invest in airport maintenance and improve capital facilities
- Capacity could be preserved without direct state ownership of airports.
- Allows state to exert influence on the future of private airports by providing financial support to the owners.

## **Disadvantages**

- Aid would need to be made available to all private airports.
- Could result in less money returned to the State and local governments through decreased tax revenues.
- Require additional funding or staffing.

# Strategy 4: Allow for Expanded State Ownership

*The state could purchase and operate endangered public or private airports in order for it to remain in service to the system. Under this strategy the State would develop decision criteria to assess financial feasibility, evaluate compliance issues and define the role of the airport within the statewide air transportation system.*

## **Advantages**

- Would allow the state to preserve the capacity benefits supplied by the private airports within high growth regions of the state.

## **Disadvantages**

- Requires expanding State ownership to include busy facilities that require more active day-to-day management.
- Budget and staffing impact on WSDOT.

# Discussion: Airport Closures

- Are these the right strategies to address the airport closures issue?
- Are the issues stated appropriately?
- Are the advantages and disadvantages stated appropriately?

# Issue 1.3: Loss of Scheduled Passenger Services at Smaller Washington Commercial Airports

- **Many smaller commercial airports in Washington have lost a substantial amount of scheduled passenger airline service over the past 10-15 years**
  - Six Washington airports have lost all scheduled airline services over this period
- **Factors contributing to the loss of service at smaller commercial airports include:**
  - Proximity to larger surrounding airports that draw passengers from the smaller airports' market areas
  - Reliance on a single carrier for all or most scheduled services
  - Reductions in flight frequency at smaller airports due to increases in aircraft size within regional airline fleets, high fuel prices etc.
- **Small communities such as Pullman/Moscow, Walla Walla and Wenatchee remain at risk of losing scheduled commercial services**

# Small Community Service Alternative Strategies

1. **No Action**
2. **Proactive Approach**
3. **Local, State, and Federal Support to Critical Small Communities**
4. **Local, State, and Federal Support to All Currently Served Small Communities**

# Strategy 1: No Action – Allow market decisions of airlines to determine small community service

## Advantages

- No changes in State or Dept. of Aviation staffing and funding

## Disadvantages

- Risk of losing scheduled airline services at communities which are important to the statewide and regional air transportation network

# Strategy 2: Proactive Approach

*Encourage small communities to work closely with their incumbent airlines before loss of service to determine steps to enhance the economic viability of services.... Potentially provide some funding support...*

## Advantages

- **Opportunity to retain scheduled air services at impacted small communities is maximized**
- **Allows for a closer relationship with the incumbent airline and demonstrates community and state support for continuation of service**

## Disadvantages

- **State and local funding may be required to support studies and resulting marketing campaigns.**

# Strategy 3: Local, State, and Federal Support to Critical Small Communities

*Identify small commercial airports that are most critical to the statewide air transportation network. Develop an aggressive program, potentially leveraging federal grants, to maintain or enhance patterns of scheduled airline services at those communities.*

## Advantages

- **Targets program at selected communities which are (1) most capable of developing self-sustaining service, and (2) most important from a geographic coverage standpoint.**
- **Local funding requirements can mobilize community to support services.**

## Disadvantages

- **The track record of small community air service development grants is mixed. Risk that services will terminate after subsidy/support is expended.**

# Strategy 4: Local, State, and Federal Support to All Currently Served Small Communities

*Develop an aggressive program, potentially leveraging federal grants, to maintain or enhance patterns of scheduled airline services. Applicable to all small communities that currently receive scheduled airline services.*

## Advantages

- Could preserve, at least temporarily, services to the State's small air service markets

## Disadvantages

- Greater financial exposure and risk, compared to Strategies 2 and 3
- Provides funding to less-isolated communities that are more likely to ultimately lose service

# Discussion: Small Community Service

- Are these the right strategies to address the small community service issue?
- Are the issues stated appropriately?
- Are the advantages and disadvantages stated appropriately?

# **Key Issue #2: Stewardship**

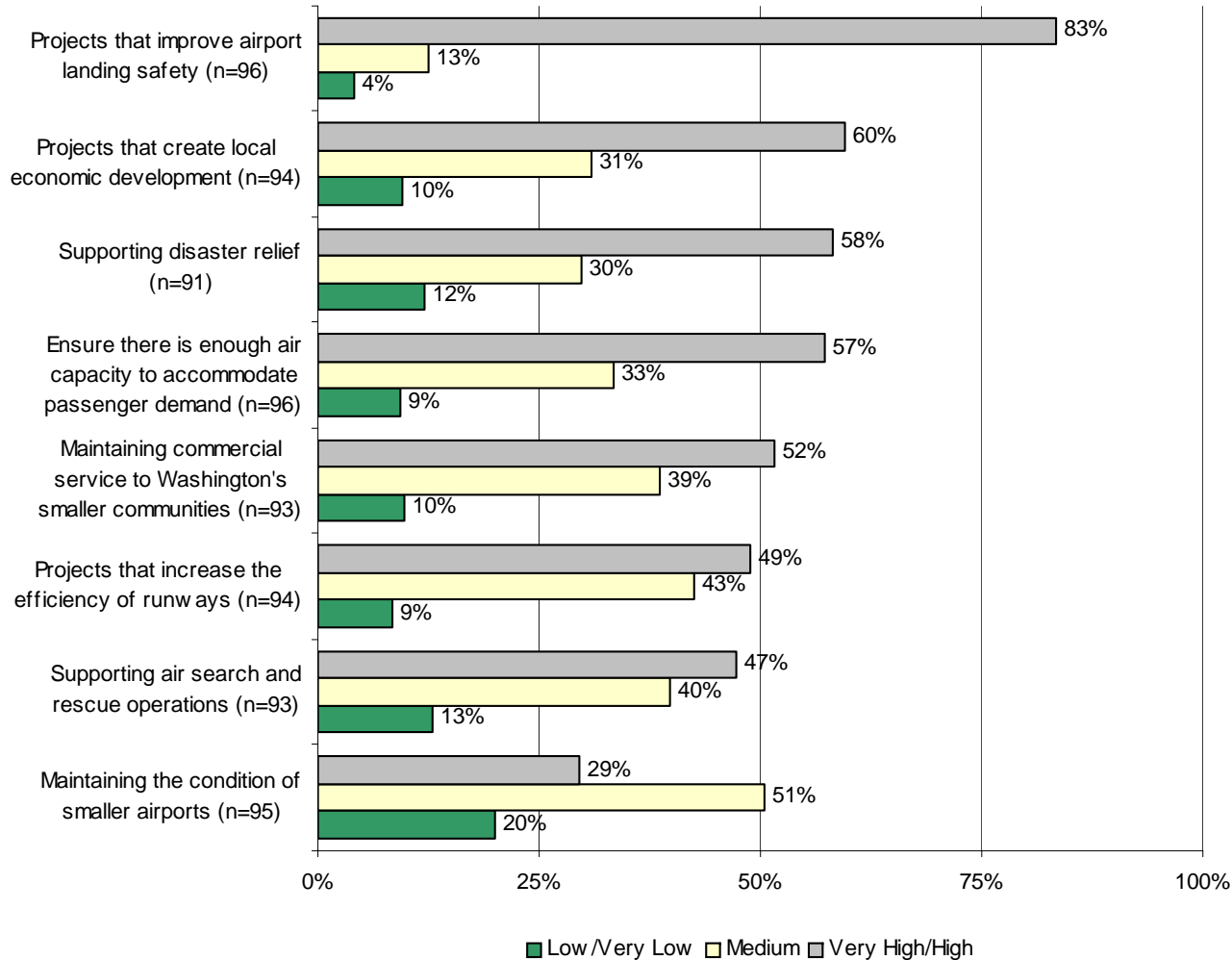
Sara Funk

# Issue: Stewardship

- **Measuring airport system performance is important to ensuring that it stays healthy**
- **Many public use airports do not meet performance objectives that are appropriate for their classifications**
- **Objectives are for type, not amount of aviation**
- **Objectives include pavement preservation, safety standards, up-to-date planning documents, land use compatibility protection, minimum airfield facilities, and services for aircraft and pilots**
- **Estimated \$600 million needed to fix performance deficiencies; estimated \$11 million available annually**

# Public Input: Stewardship – Views on Funding Priorities

What funding priority would you place on the following aviation system needs?

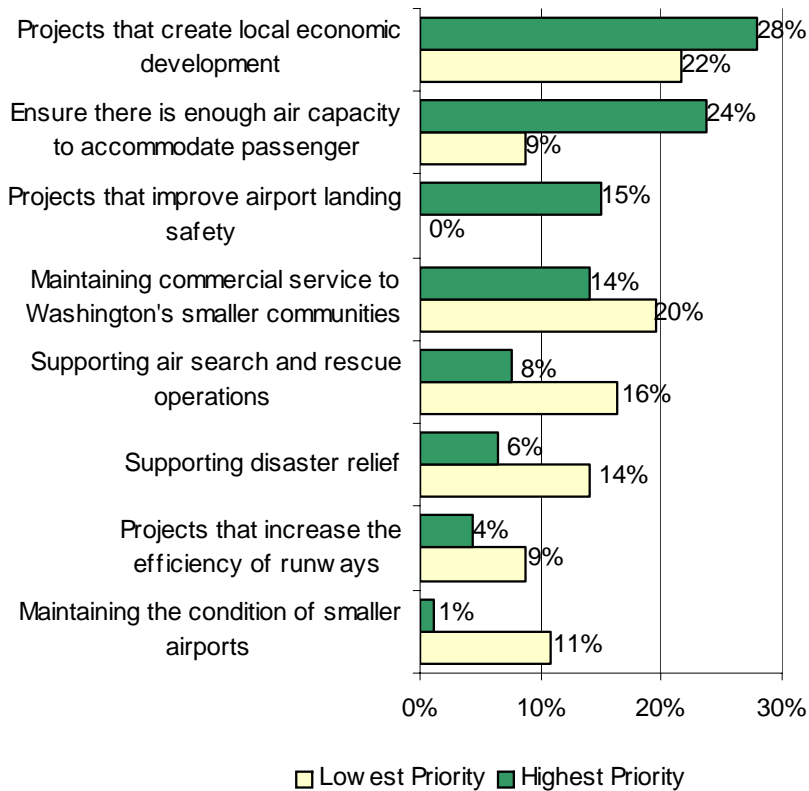


## ■ Top funding priorities – E-Town Hall #2:

- Improving airport landing safety (83%)
- Local economic development (60%)
- Supporting disaster relief (58%)
- Meeting passenger capacity demand (57%)
- Maintaining service to Washington's smaller communities (52%)

# Public Input: Stewardship – Highest/Lowest Priority Aviation System Needs

If you had to choose one of these aviation system needs, which of should be the highest priority?  
Which would be the lowest priority?



## E-Town Hall #2:

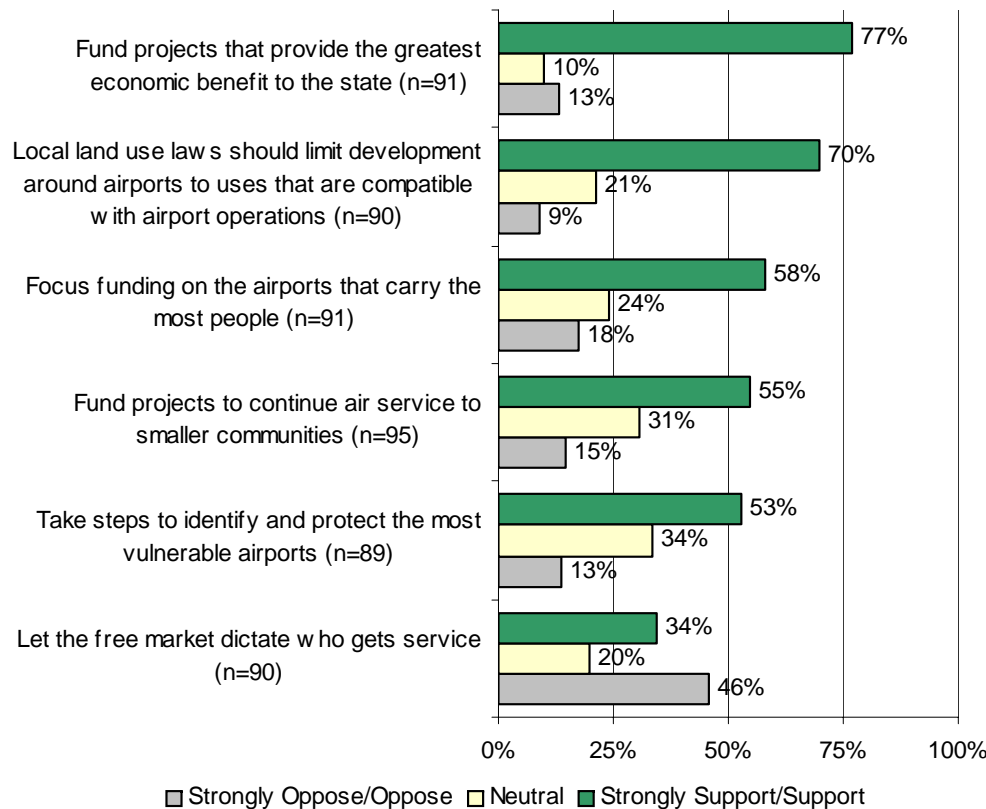
- Participants living outside the Puget Sound region more likely view economic development and maintaining commercial service to smaller communities as the highest priority aviation system needs.
- Ensuring adequate capacity to accommodate passenger demand and airport safety projects highest priority needs for those living inside the Puget Sound region

## Regional Public Meetings:

- Ensure that public investments are commensurate with public benefits;
- State should recapture grant funds if airport closes prior to agreed upon lifetime of improvements.
- Are airports the best economic development opportunity? Participants concerned that airports generate lower-level jobs.

# Public Input: Stewardship – Preserving Washington’s Airports

Please indicate your level of support for each of the following ideas for preserving Washington's current airports.



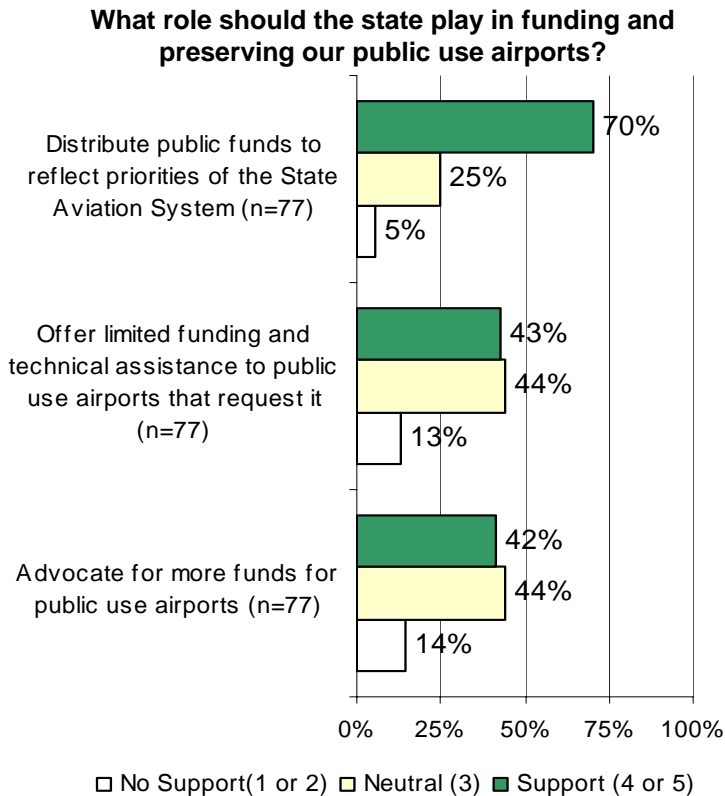
## E-Town Hall #2:

- 77% support funding projects that provide the greatest economic benefit to the state
- 70% support the idea of limiting incompatible land uses around airports
- 46% opposed letting the free market decide who gets service.

## Regional Public Meetings

- Provide special consideration for airports that serve an important role in emergencies.

# Public Input: Stewardship – Role of State in Funding and Preserving Public Use Airports



## E-Town Hall #1:

- Strong support for distributing public funds to reflect the priorities of the State Aviation System
- Moderate support for offering funding and technical assistance to public use airports
- Moderate support for the state advocating for more funds for public use airports

# Stewardship Alternative Strategies

- 1. No Action**
- 2. Redistribute state grant funding**
- 3. Improve system performance through higher levels of funding and more assertive tactics**
- 4. Initiate a comprehensive program for 100% compliance with performance objectives**

# **Strategy 1: No Action – Continue current FAA and State grant programs; most of State grants fund pavement preservation**

## **Advantages**

- **No change in funding, staffing, procedures**

## **Disadvantages**

- **Funding very inadequate and not targeted at deficiencies**
- **Inconsistent with aviation policies**

## Strategy 2: Redistribute state grant funding

*Target grant program to performance objectives. Coordinate with FAA for the same targeting. Stretch preservation funds by funding only pavements that provide needed capacity.*

### Advantages

- No change in funding or staffing

### Disadvantages

- Because funding is inadequate, only the highest priority preservation and safety projects would be implemented.

## Strategy 3: Improve system performance through higher levels of funding and more assertive tactics

*Increase state grant funding from about \$1.3 to \$5 million per year, impose grant assurances, make privately owned airports eligible for grants, reduce funding to primary airports with \$1 million entitlements, help sponsors in economically depressed areas, change sponsorship and airport classifications where beneficial...*

### Advantages

- Significantly improves system performance and helps carry out policies

### Disadvantages

- Falls short of full compliance with objectives, even after 20 years of funding improvements.

# Strategy 4: Initiate a comprehensive program for 100% compliance with performance objectives

*Increase state grant funding to about \$10 million per year, initiate revolving loan fund for revenue-generative projects, change priorities as objectives are met and conditions change...*

## Advantages

- Highest level of performance and stewardship

## Disadvantages

- Highest level of funding for state grant program

# Discussion: Stewardship

- Are these the right strategies to the stewardship issue?
- Are the issues stated appropriately?
- Are the advantages and disadvantages stated appropriately?

# **Key Issue #3: Land Use**

Sara Funk

# Issue: Incompatible Land Use

- **Local governments not protecting airports in spite of GMA**
- **Incompatibility includes height, noise-sensitivity, wildlife attraction**
- **Hurts airport operations, airport expansion, economic development**

# Public Input: Incompatible Land Use

## ■ E-Town Halls:

- Support among E-Town Hall 1 participants for a state role in discouraging incompatible land use.
- Majority of participants view avoiding incompatible land uses as a ‘good’ or ‘excellent’ way for the state to address aviation capacity shortfalls.
- 70% of E-Town Hall 2 participants indicated support for limiting incompatible land uses around airports as a means of preserving Washington’s existing airports

## ■ Regional Public Meetings:

- Balance needs of airports and local communities – land use policies too focused on the needs of airports.
- Environmental policies do not adequately address issues of noise (especially on schools near airports), air pollution, impact on property values, or other adverse impacts on human health.

# **Incompatible Land Use Alternative Strategies**

- 1. No Action**
- 2. Increase enforcements and incentives**
- 3. Take a more proactive role to protect land use compatibility**
- 4. Enact new, stronger legislation**

# **Strategy 1: No Action – Continue reviewing plan/regulation amendments and provide technical assistance**

## **Advantages**

- **No change in funding, staffing, procedures**

## **Disadvantages**

- **Not effective enough to solve growing encroachment**

# Strategy 2: Increase enforcements and incentives

*Be more involved in airport and community plans, enforce assurances, withhold grants...  
More training & educational materials...*

## Advantages

- Uses airport aid as enforcement/incentive, explains problem, helps local government

## Disadvantages

- Staff and funding impact

# Strategy 3: Take a more proactive role to protect land use compatibility

*Focus efforts, audit land use, support innovation, review development permits, provide incentives to local government...*

## Advantages

- Addresses problems before they occur

## Disadvantages

- Staff and funding impact
- Relies on voluntary action by local government

# Strategy 4: Enact new, stronger legislation

*New legislation... More severe penalties... Authority to certify plans to RTPOs... Attach funds for schools, medical facilities and day care centers to siting criteria ...*

## Advantages

- Greater legal power and financial disincentives

## Disadvantages

- More bureaucracy; reduction in local control of land use

# Discussion: Incompatible Land Use

- Are these the right strategies to address the incompatible land use issue?
- Are the issues stated appropriately?
- Are the advantages and disadvantages stated appropriately?

# **Key Issue #4: State Role**

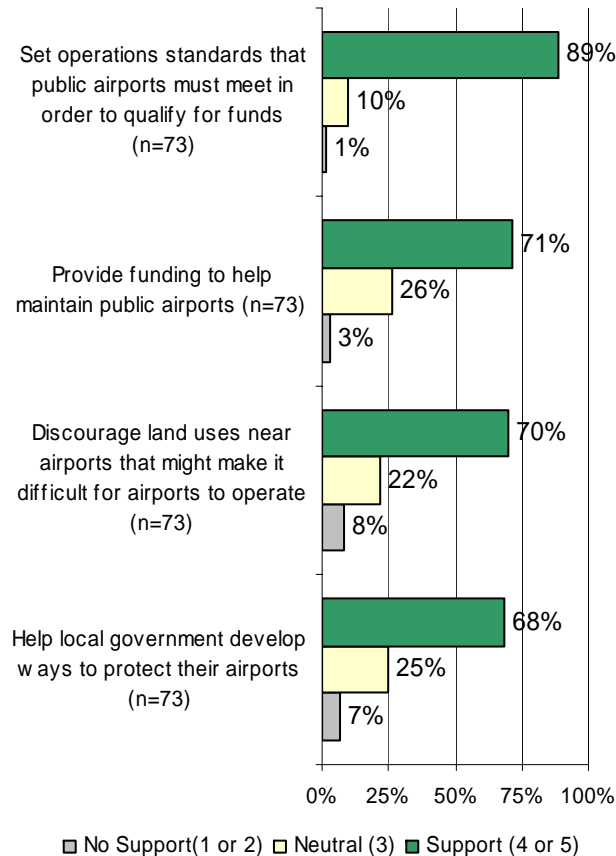
Sara Funk

# Issue: State Role in Airport Development

- **WSDOT Aviation has statutory authority to foster aeronautics, encourage establishment of airports, provide technical help, administer a grant program for airport aid.**
- **WSDOT Aviation has a logical and important role in sustaining a viable, balanced, and integrated airport system.**
- **Local airport owners develop and operate their airports without regard to system-wide impacts.**

# Public Input: State Role

How much would you support these ideas for the state government's role in aviation?

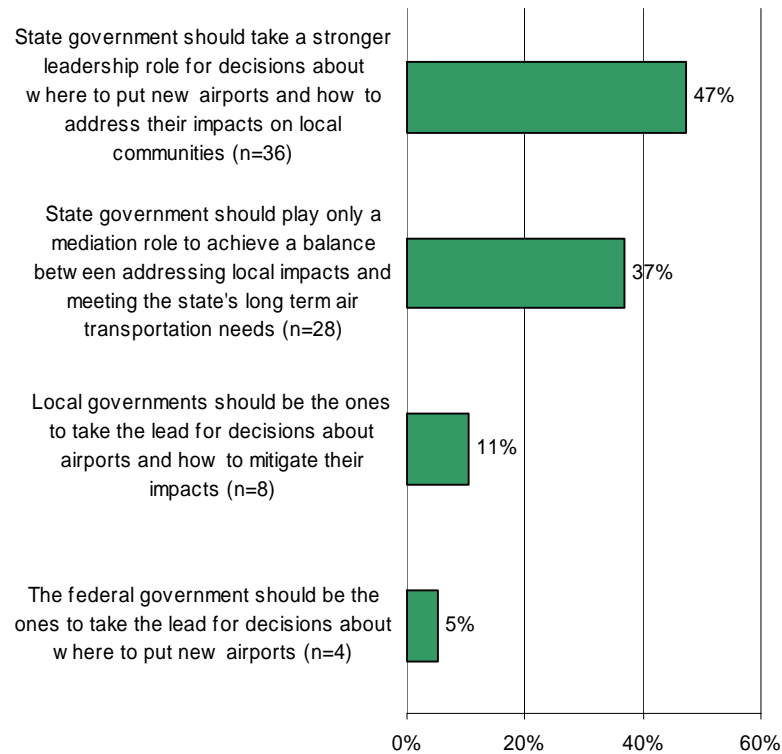


## E-Town Hall #1:

- **Strong support for state government setting standards for public airports in order to qualify for funds (89%)**
- **Participants also indicated support for a state government role in:**
  - Providing funding to help maintain airports (71%)
  - Discouraging incompatible land uses near airports (70%)
  - Helping local governments protect airports (68%)
- **Fewer than 10% of participants indicated little or no support for these roles of state government in aviation**

# Public Input: State Role – Building New Airports

When it comes to building or finding a location for new airports, how should decisions be made?

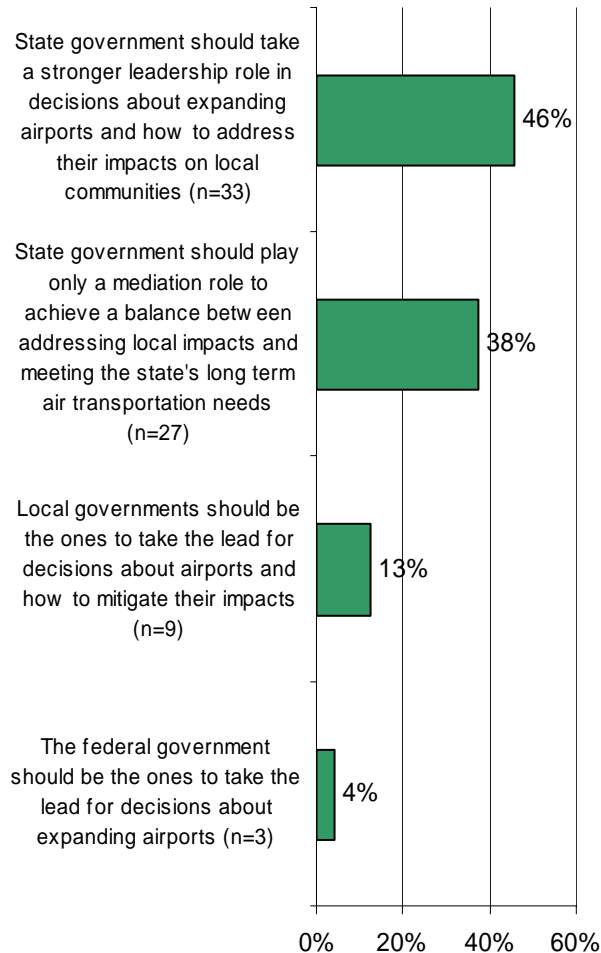


## E-Town Hall #1:

- **47% of participants indicated that state government should take a stronger leadership role in airport siting decisions**
- **37% of participants believe that the state should play only a mediation role**
- **Limited support for a leadership role for local and federal government in airport siting decisions**

# Public Input: State Role – Airport Expansion

When it comes to expanding existing airports, how should decisions be made?



## E-Town Hall #1:

- Most support for a stronger state role in airport expansion decisions (46%)
- Support for the state playing a mediation role to balance long-term air transportation needs with addressing local impacts (38%)
- Limited support for local government taking the lead in decision-making about expanding airports (13%)
- Least support for the federal government taking the lead in decisions about airport expansion (4%)

# State Role Alternative Strategies

1. **No Action**
2. **Improve effectiveness of current staff and activity**
3. **Take a more proactive role in planning airport improvements**
4. **Be more involved in building and operating airports**

# Strategy 1: No Action – Continue technical assistance and state grant program

## Advantages

- No change in funding, staffing, procedures

## Disadvantages

- System problems likely to worsen (airport closures, inadequate capacity in some areas, inadequate access in other areas)

## Strategy 2: Improve effectiveness of current staff and activity

*Through efficiency (larger grants, etc.)... Find time to focus more on system goals... Collaborate more with airport owners, FAA, and others to ensure their plans are consistent with statewide plans and policies...*

### Advantages

- No change in funding or staffing

### Disadvantages

- More coordination not likely enough to overcome the most expensive and controversial problems

# Strategy 3: Take a more proactive role in planning airport improvements

*Champion projects, participate in regional and community plans, consider pooling non-primary entitlements, consider participating in FAA block grant program...*

## Advantages

- More effective than coordination alone
- Non-primary entitlement pooling and block grant program streamline administration and aim federal funds more towards state goals

## Disadvantages

- Increase in WSDOT Aviation funding and staffing
- Block grant program requires leadership and upfront investment in staff, as well as change in legislation to raise cap on states in the program

# What is the state block grant program? (Strategy 3)

- **Transfers federal grant funds and program execution from the FAA to the State**
- **Execution more like the federal highway program**
- **Began in 1987 with 3 states, now has 10 (GA, IL, MI, MO, NC, NH, PA, TN, TX, WI)**
- **Does not apply to primary commercial service airports**

# What are the advantages of being a block grant state? (Strategy 3)

- **Priority setting and funding control more local, although FAA standards still apply**
  - Economic development, community support, etc. can be considered
  
- **Savings in time and money**
  
- **FAA can focus on large commercial service airports**
  
- **1996 GAO report said pilot program was successful:**
  - Both airports and FAA benefited
  - AIP approval streamlined, duplication eliminated

# What are the disadvantages of being a block grant state? (Strategy 3)

- **Requires major increase in state aviation staffing to be responsible for:**
  - Airport layout plan approval
  - Environmental review
  - Airspace determination
  - Release of federally obligated land
  - Compliance (safety inspections, land use protection, monitoring leases and rates)
  - Assistance during construction
- **Staff ramp-up funded by state, unless waiver to use some federal funds**
- **FAA's authorizing legislation limits to 10 states, although cap has been raised before**

# Strategy 4: Be more involved in building and operating airports

*Facilitate airport transfer, sponsor site selection and environmental assessment for new or expanded airport, build and operate new airport until it can be transferred to local ownership...*

## Advantages

- Most certain way to accomplish major projects important to the system
- Facilitates controversial projects that local politicians may not want to tackle

## Disadvantages

- Large and irregular increases in staffing and funding
- Increases risk for State (construction cost overruns, operating deficits, inability to find local sponsor)
- Reduces local community control over airports

# Discussion: State Role

- Are these the right strategies to address the state role issue?
- Are the issues stated appropriately?
- Are the advantages and disadvantages stated appropriately?

# Alternative Strategies Discussion

- **What questions would you pose to the public about the alternative strategies?**

# Aviation System Plan Proposed Approach

Sonjia Murray

# Overview of Airport System Planning

- **The goal: To ensure air transportation needs of a state are adequately served by its airports now and in the future**
  - Identifying system needs state-wide
  - Guidance on how to maximize system benefits of airport investments (aligning Federal and state/local objectives)
  
- **Typical components of System Plans Include:**
  - Airport Inventory of Current System
  - Identification of Air Transportation Needs and Airport Roles
  - Long Range Activity forecast
  - Special Studies (cargo, air service, high speed rail)
  - Key issues, constraints, and/or opportunities
  - Policy guidance and Implementation strategies
  - Conducted from a Highly Visible Platform that Includes Strong Public Outreach Efforts

# Overview of Airport System Planning, (Cont'd)

- **The Overall Product Includes:**

- A Cost-Effective Plan of Action that Guides Long Term Development
- Establishes Priorities (funding, airport roles, policy strategies)
- Identifies Important Trends
- Ensures a Responsive Plan to Overall Air Transportation Needs

- **Serve as an Important Contribution to the FAA's Bi-annual National Plan of Integrated Airport Systems (NPIAS)**

- **System Plans are typically performed every 5 years and fit Between the NPIAS and Individual Airport Master Plans**

- **The FAA's Advisory Circular 150/50707 "The Airport System Planning Process" Provides additional Guidance/Reference**

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- Chapter 1: Study Overview

## TECHNICAL BACKGROUND

- Chapter 2A: Statewide Activity
- Chapter 2B: Regional Activity
- Chapter 3: System Performance
- Chapter 4: Aviation Trends
- Chapter 5: Activity Forecasts
- Chapter 6: Capacity Analysis

# System Plan Table of Contents (Ctd.)

- Chapter 7: Policy Guidance

## RECOMMENDATION

- Chapter 8: Alternatives Analysis
- Chapter 9: System Recommendation
- Chapter 10: Implementation Plan

- Appendix: Public Process

# Chapter 1: Study Overview

- **Need for long-range planning in Washington**
- **WSDOT Aviation Division**
  - State Planning Authority
  - State Goals
- **Washington State LATS**
  - Legislation
  - Study Process
  - Aviation Planning Council
  - Public and Stakeholder Input
- **System Plan components**

**Discussion:**

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 2A: Statewide Activity

- **Washington State Profile**
  - Overview of aviation in the state
  - Public airport system
  - Socio-economic profile
- **Commercial Service Overview**
- **General Aviation Overview**
- **Air Cargo Overview**

**Discussion:**

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 2B: Regional Activity

## ■ Special Emphasis Region Profiles (Puget Sound, Southwest Washington, Spokane, and Tri-Cities)

- Current aviation activity
- Recent developments
- Public airports
- Socio-economic profile

## ■ Other Regions of the State

### Discussion:

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 3: Aviation Trends

## ■ Commercial Service Trends

- National trends
- Washington State trends

## ■ General Aviation Trends

- National trends
- Washington State trends

### Discussion:

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 4: System Performance

- **Washington State Performance Objectives**
- **Washington Airports' Compliance with Performance Objectives**
  - By performance objective
  - By airport classification
- **Constraints to Meeting Performance Objectives**

**Discussion:**

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 5: Activity Forecasts

- **Purpose and Scope**
- **Commercial Activity Forecast**
  - Passenger enplanements
  - Commercial operations
- **General Aviation Forecast**
  - Based aircraft
  - GA operations
- **Air Cargo Forecast**

## Discussion:

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 6: Capacity Analysis

- **Airfield Capacity Findings**
- **Terminal Capacity Findings**
- **Aircraft Storage Capacity Findings**
- **Air Cargo Capacity Findings**
- **Airspace Findings**

## Discussion:

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 7: Policy Guidance

- **LATS Policy Development Process**
- **Proposed Policy**
  - Capacity
  - Land Use
  - Environment
  - Safety
  - Stewardship
  - Economy
  - Mobility

**Discussion:**

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 8: Alternatives Analysis

## ■ Key Issue #1: State Role

- Alternative strategies
- Evaluation of strategies

## ■ Key Issue #2: Capacity and Service

- Alternative strategies
- Evaluation of strategies

## ■ Key Issue #3: Stewardship

- Alternative strategies
- Evaluation of strategies

## ■ Key Issue #4: Land Use Compatibility

- Alternative strategies
- Evaluation of strategies

### Discussion:

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 9: System Recommendation

## ■ LATS Recommendation Process

- Legislation
- Aviation Planning Council
- Council Guiding Principles

## ■ Recommendation Package

- Package of preferred strategies

### Discussion:

- Is this the right content for this chapter?
- Are additional data or graphics needed?

# Chapter 10: Implementation Plan

## Discussion:

➤ Additional direction?

# Council Administration and Next Steps

- **Public Involvement**

- Online Survey – March 2009
- Regional Public Meetings – March 2009

- **Final Council Meeting**

- May 7, 2009 (Seattle)