

# **Washington State Aviation Planning Council**

Long-Term Air Transportation Study (LATS)

**Puget Sound Regional Council**  
Seattle, WA

October 2, 2008

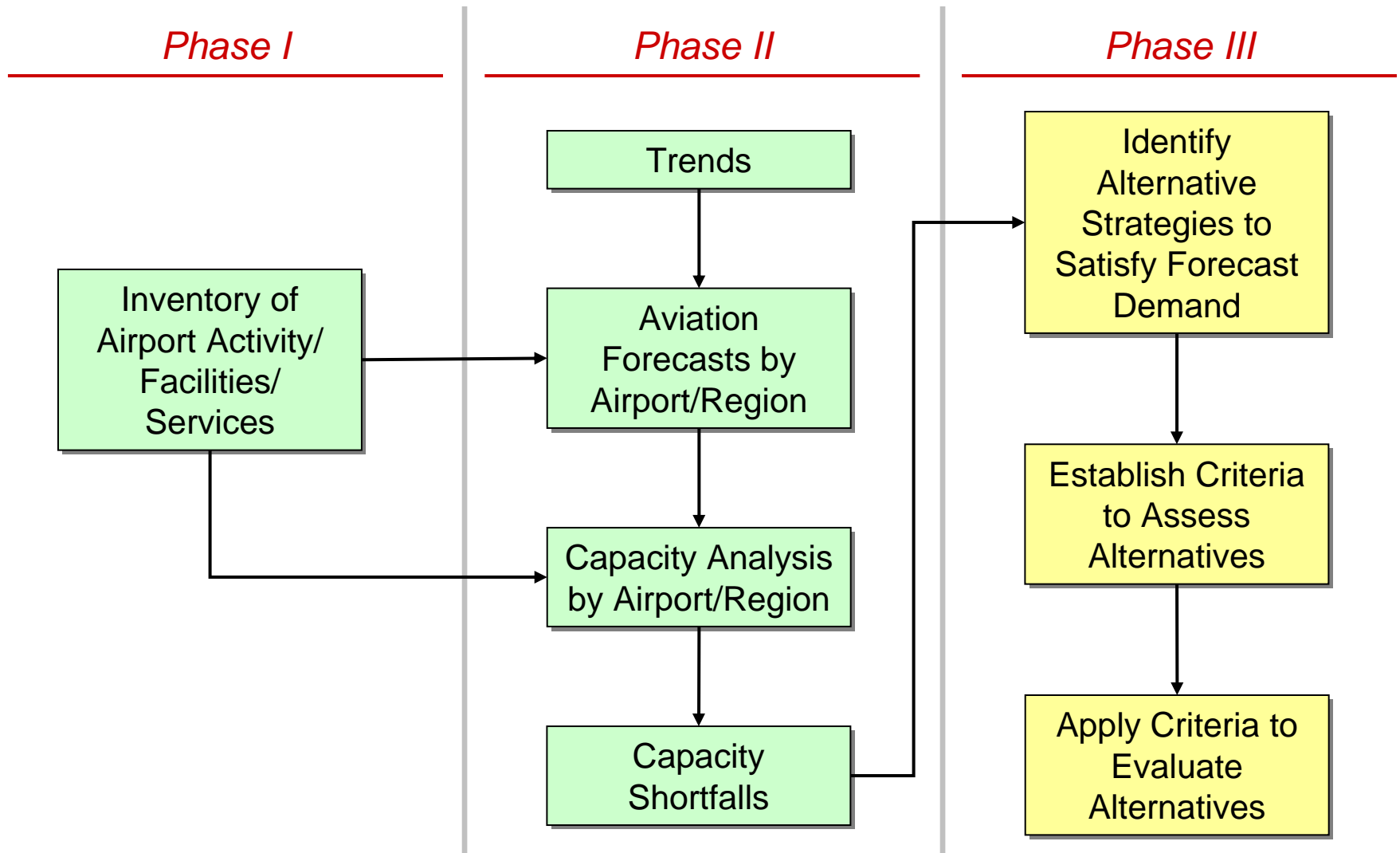
# Workshop Objectives

- Review public comment on draft statewide aviation policies
- Subcommittee reports on recommended policy action
- Adopt statewide aviation policies
- Update on alternatives analysis

# Update on Alternatives Analysis

John Yarnish

# What We've Done and Where We're Going



# Overview of Key Issues and Challenges

- **Significant capacity constraints are anticipated by 2030**
  - Airfield capacity constraints are expected to emerge at ten airports
  - Several of these are among the state's busiest airports including Sea-Tac, Boeing Field, and Harvey Field
  - Approximately one-quarter of Washington's public-use airports are expected to have aircraft storage capacity shortfalls by 2030
- **Passenger rail improvements are not likely to provide meaningful capacity relief to the commercial air transportation system within the 2030 planning timeframe**
- **Trends contributing to the loss of service at smaller commercial service airports are expected to continue through 2030**
- **The loss of private airfields, which are at higher risk of closure due to land use conflicts or sale for alternative use, could reduce available capacity in high-growth regions**

# Addressing Capacity Constraints: Understanding the Capacity Hierarchy...

## ■ Airfield Capacity

- Generally addressed with construction of additional runways, normally parallel with the current primary runway
- Critical, difficult to address, time consuming process, public opposition most likely

## ■ Terminal Capacity

- Generally addressed with a terminal expansion program
- Terminal expansion is generally relatively easy to accomplish
- Airports do not build excess terminal capacity – five years hence is the most
- SEA is the exception; the port has committed to no expansion beyond 45MAP

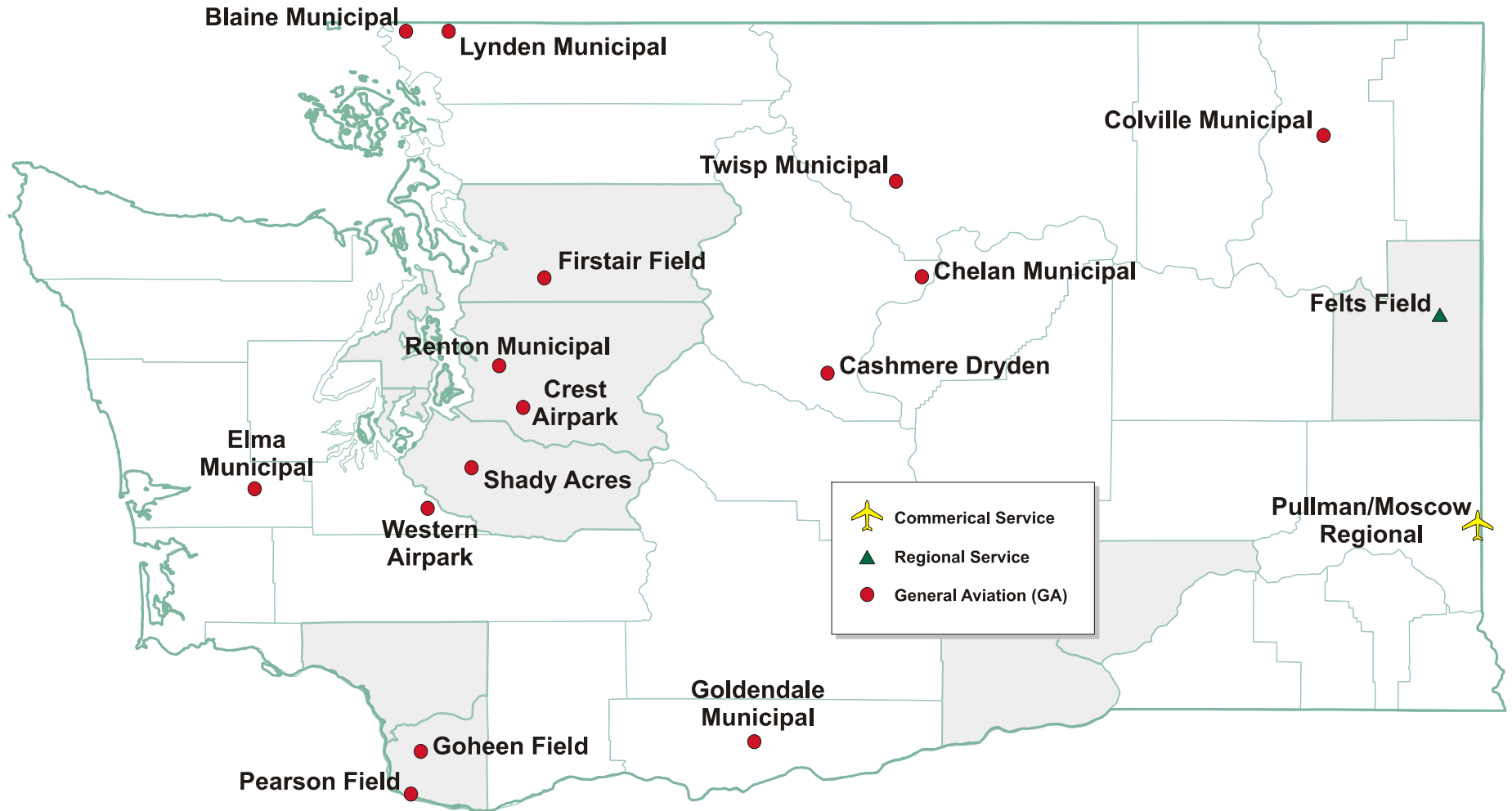
## ■ Aircraft Storage Capacity

- Generally addressed through hangar construction
- Hangars are built on an as-needed basis
- Land for hangar expansion is generally, but not always, easier to acquire

# Ten Washington Airports Are Forecast to Exceed or Approach Airfield Capacity by 2030



# Seventeen Washington Airports Will Exceed Their Aircraft Storage Capacity by 2030

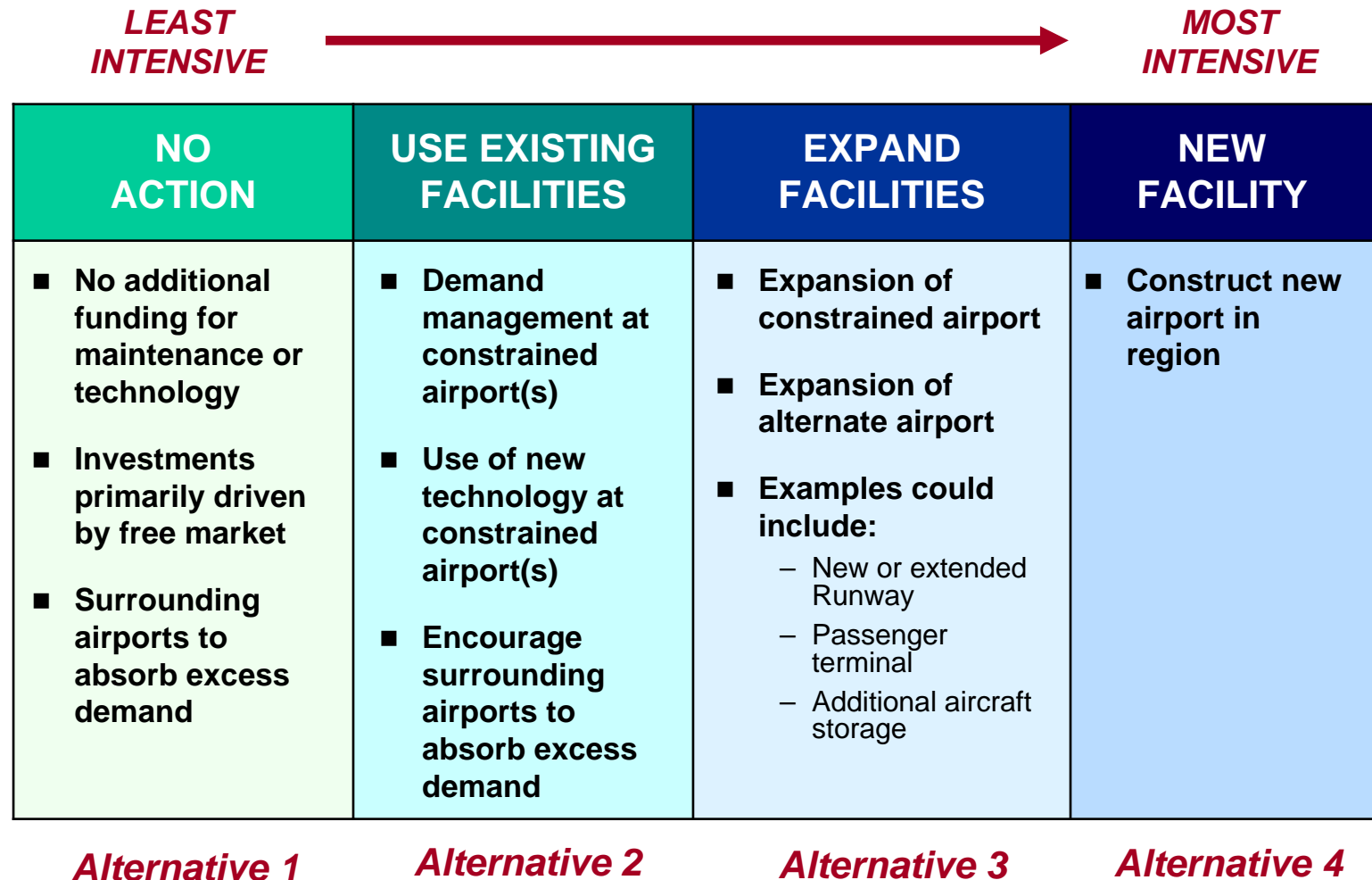


# Discussion: Four Airports With the Most Pressing Airfield Capacity Constraints/Shortfall

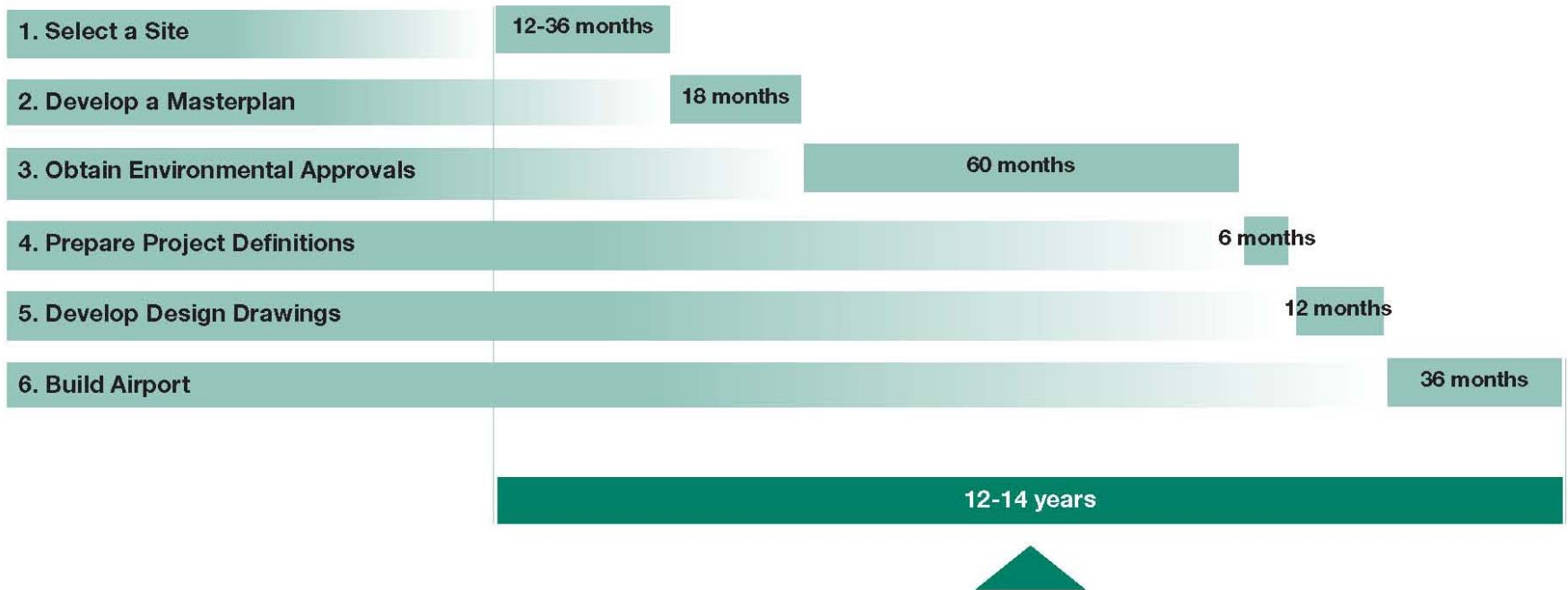
Airport	Airfield <i>Year Expected to Reach Capacity</i>	Terminal <i>Expected 2030 Shortfall (Peak Hour Psgrs)</i>	Storage <i>Expected 2030 Shortfall (Storage Spaces)</i>
Sea-Tac International	Approaching capacity in 2030	2,209	11
Boeing Field	2017	-	946
Harvey Field	2029	-	-
Kenmore Air Harbor, Inc.*	2005	5	138

\*Seaplane base

# Hierarchy of Alternative Strategies for Tackling Capacity Constraints/Shortfalls



# Timeline for Building a New Airport as Reference Point



# Applying Alternatives to Airfield Capacity Shortages

1. **Take no action (includes the benefits from technological advantages such as NEXGEN)**
2. **Provide additional capacity wherever demand is**
3. **Allow or encourage demand to move to other airports where capacity exists**
4. **Provide new capacity (New Airport)**

# Seattle Tacoma International Airport



# Seattle Tacoma International Airport

Alternative	Issues
1. Take No Action	<ul style="list-style-type: none"> <li>■Traffic will continue to increase at SEA</li> <li>■Likely that the airport will operate over capacity</li> <li>■Increased delays and related costs</li> <li>■Market forces will direct future air service decisions</li> </ul>
2. Provide capacity where demand is	<ul style="list-style-type: none"> <li>■Port is committed to 45 MAP cap. Expansion beyond this would need to be directed/sponsored by some other entity</li> <li>■Airport’s environs are not suited to expansion</li> <li>■Decades of assurances and public processes at risk</li> </ul>
3. Allow demand to Move	<ul style="list-style-type: none"> <li>■No air service capacity exists closer than BLI to the north, PDX to the south.</li> <li>■Airports capable of being upgraded to accommodate air carrier service include:               <ul style="list-style-type: none"> <li>–<b>Paine Field</b>: Snohomish County has objected to service</li> <li>–<b>Boeing Field</b>: There is no capacity at BFI. King County is on record as opposing air service here</li> <li>–<b>Olympia</b>: Could eventually accommodate some service but historically air service has not succeeded here</li> <li>–<b>Bremerton</b>: Location and travel distance and accessibility make this unattractive</li> </ul> </li> </ul>
4. Provide New Capacity	<ul style="list-style-type: none"> <li>■Process will take decades – capacity will be needed before a new airport will open</li> <li>■Finding available, suitable land will not be easy</li> <li>■This will be a costly process</li> <li>■To be successful, a political sponsor would need to be found</li> </ul>

# King County International Airport / Boeing Field



# King County International Airport / Boeing Field

Alternative	Issues
<p><b>1. Take No Action</b></p>	<ul style="list-style-type: none"> <li>■Traffic will continue to increase</li> <li>■Likely that the airport will operate over capacity</li> <li>■Increased delays and related costs</li> <li>■Market forces will likely result in increased concentration of corporate jets and air cargo with smaller aircraft and training operations being relocated</li> <li>■Smaller GA will likely depart for the closest available airport – to maintain their in-city base.</li> <li>■Paine Field, Renton, Tacoma Narrows, Auburn, Arlington and others are potential alternatives</li> </ul>
<p><b>2. Provide capacity where demand is</b></p>	<ul style="list-style-type: none"> <li>■Airport’s environs are not suited to expansion</li> <li>■To build a new runway would require relocation of Boeing, the railroad or interstate 5</li> <li>■King County is unlikely to back this expansion.</li> <li>■Decades of neighborhood programs, political assurances and public processes at risk</li> </ul>
<p><b>3. Allow demand to Move</b></p>	<ul style="list-style-type: none"> <li>■Capacity exists within the region                             <ul style="list-style-type: none"> <li>–Aircraft at BFI likely need the urban location for their business</li> <li>–Alternative airports would need improvements as well as reclassification</li> </ul> </li> </ul>
<p><b>4. Provide New Capacity</b></p>	<ul style="list-style-type: none"> <li>■Process will take decades – capacity will be needed before a new airport will open</li> <li>■Finding available, suitable land will not be easy</li> <li>■This will be a costly process</li> <li>■To be successful, a political sponsor would need to be found</li> </ul>

# Harvey Field



# Harvey Field

Alternative	Issues
1. Take No Action	<ul style="list-style-type: none"> <li>■Traffic will continue to increase</li> <li>■Likely that the airport will operate over capacity</li> <li>■Increased delays and related costs will be experienced</li> </ul>
2. Provide capacity where demand is	<ul style="list-style-type: none"> <li>■Airport’s environs are not suited to expansion</li> <li>■Private airport expansion likely to be difficult (and expensive)</li> </ul>
3. Allow demand to Move	<ul style="list-style-type: none"> <li>■Capacity exists within the region  <ul style="list-style-type: none"> <li>–Paine Field, Arlington, Firstair Field etc</li> </ul> </li> <li>■Small single engine piston aircraft are generally the easiest to move</li> </ul>
4. Provide New Capacity	<ul style="list-style-type: none"> <li>■Process will take decades – capacity will be needed before a new airport will open</li> <li>■Finding available, suitable land will not be easy</li> <li>■This will be a costly process</li> <li>■To be successful, a political sponsor would need to be found</li> </ul>

# Kenmore Air Harbor, Inc.

- **Standard alternatives do not apply. Additional capacity within the water is possible, given the relative nature of seaplane bases.**



# Ongoing Analysis on Terminal Capacity

- **SEA Capacity is finite. The Port has capped the number of passengers to be accommodated at 45 MAP**
- **Other airports where there is a terminal capacity issue either have terminal expansion plans underway or have recognized the need in their master plans**
- **Those airports (except SEA), where terminal capacity is needed, have sufficient airfield capacity to allow for the larger terminal**
- **In some cases, Anacortes, Orcas, Kenmore Air Harbor and Kenmore – Lake Union, the current terminal is intended to serve 9-passenger aircraft and while this isn't expected to change, there may be a need to accommodate more than one aircraft per hour.**

# Starting Analysis on Aircraft Storage Capacity

- No consideration has been given to landside capacity issues to date

# Evaluation Criteria for Alternatives

## Discussion:

- Are these the right evaluation criteria?
- Is this the right methodology – selecting a list of evaluation criteria and then measuring each alternative against criteria on a high level?

# Proposed Evaluation Criteria

- 1. Does the alternative address the issue?**
- 2. Does the alternative meet the goals of the council:**
  - a. Capacity enhancement
  - b. Technology
  - c. Stewardship
  - d. Mobility
  - e. Economy
  - f. Environment
  - g. Land Use
  - h. Safety
- 3. What are the impacts of the alternative on the region's airspace?**
- 4. What are the impacts of the alternative on the regional surface access system?**
- 5. Can the alternative be implemented based on logistical, political and other decisions made for the airport in their master planning or public participation processes?**
- 6. What is the cost of implementation?**

# Seattle Tacoma International Airport: Preliminary Assessment for Discussion Purposes

	Alternative 1: Take No Action	Alternative 2: Provide Capacity Where Demand Is	Alternative 3: Allow Demand To Move	Alternative 4: Provide New Capacity
Does The Alternative Address The Issue	■	○	○	○
Council Goals				
- Capacity Enhancement	■	○	■	○
- Technology	☒	☒	☒	☒
- Stewardship	■	○	○	○
- Mobility	■	○	■	○
- Economy	■	?	○	○
- Environment	■	?	○	?
- Land Use	■	○	■	■
- Safety	○	○	○	○
Airspace Impacts	○	?	?	?
Regional Surface Access System	○	○	■	■
Compliance With Airport Master Plan	○	■	■	○
Implementation Cost	?	?	?	?

■ Does not meet criteria    ○ Meets criteria  
 ☒ Neutral    ? Needs more analysis

# King County International Airport / Boeing Field: Preliminary Assessment for Discussion Purposes

	Alternative 1: Take No Action	Alternative 2: Provide Capacity Where Demand Is	Alternative 3: Allow Demand To Move	Alternative 4: Provide New Capacity
Does The Alternative Address The Issue	■	○	○	○
Council Goals				
- Capacity Enhancement	■	○	■	○
- Technology	☒	☒	☒	☒
- Stewardship	■	○	○	○
- Mobility	■	○	■	○
- Economy	■	?	○	○
- Environment	■	?	○	?
- Land Use	■	○	■	■
- Safety	○	○	○	○
Airspace Impacts	○	?	?	?
Regional Surface Access System	○	○	■	■
Compliance With Airport Master Plan	○	■	■	○
Implementation Cost	?	?	?	?

■ Does not meet criteria    ○ Meets criteria  
 ☒ Neutral    ? Needs more analysis

# Harvey Field: Preliminary Assessment for Discussion Purposes

	Alternative 1: Take No Action	Alternative 2: Provide Capacity Where Demand Is	Alternative 3: Allow Demand To Move	Alternative 4: Provide New Capacity
Does The Alternative Address The Issue	■	○	○	○
Council Goals				
- Capacity Enhancement	■	○	■	○
- Technology	☒	☒	☒	☒
- Stewardship	■	○	○	○
- Mobility	■	○	■	○
- Economy	■	?	○	○
- Environment	■	?	○	?
- Land Use	■	○	■	■
- Safety	○	○	○	○
Airspace Impacts	○	○	?	?
Regional Surface Access System	○	○	■	■
Compliance With Airport Master Plan	○	○	■	○
Implementation Cost	?	?	?	?

■ Does not meet criteria    ○ Meets criteria  
 ☒ Neutral    ? Needs more analysis

# Discussion on Alternatives Evaluation Criteria

- Are these the right evaluation criteria?
- Is this the right methodology – selecting a list of evaluation criteria and then measuring each alternative against criteria on a high level?

# Report on Public Involvement


Rita Brogan

# E-Town Hall

- Held August 26, 2008
- 81 participants, from panel randomly recruited by Knowledge Networks
- Event Structure:
  - Presented background information on the State aviation system
  - Participants “voted” on key issues
  - Open ended responses about aviation issues
  - Open question and answer session

In your view, how important are these aviation benefits to the people of Washington?


	Not at all				Very
Jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Movement of freight and goods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meeting the needs of small communities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Search and rescue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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

Indicate your level of support for the following ideas:

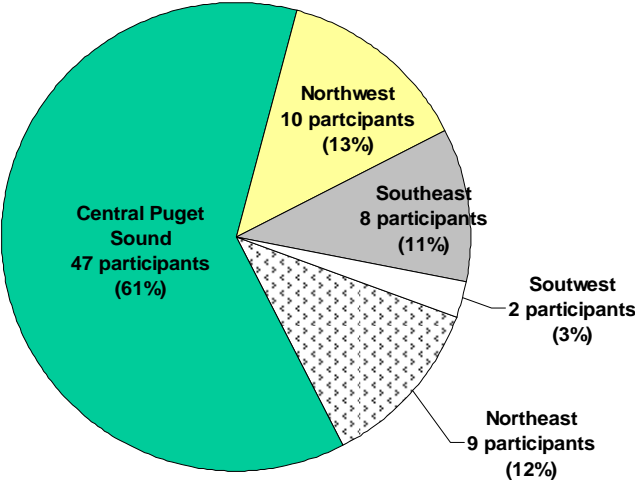
	No support				Strong support
Provide funding to help maintain public airports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discourage land uses near airports that might make it difficult for airports to operate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Help local government develop ways to protect their airports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set operations standards that public airports must meet in order to qualify for funds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## E-Town Hall Discussion Guide

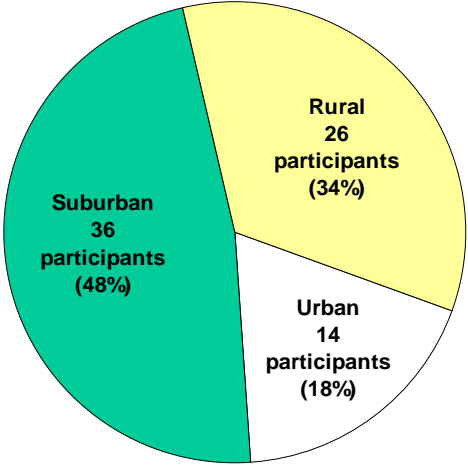
# E-Town Hall Participant Demographics

In what part of the state do you live?



- Northeastern WA
- Northwestern WA
- Southwestern WA
- Central Puget Sound
- Southeastern WA

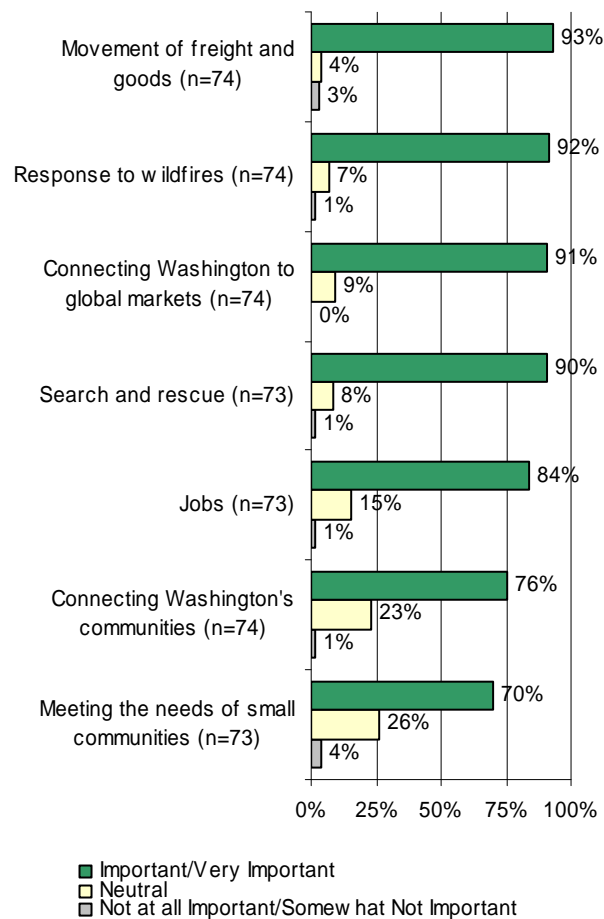
Do you consider your community to be urban, suburban, or rural?



- Urban
- Suburban
- Rural

# Views on Aviation Benefits

In your view, how important are these aviation benefits to the people of Washington?

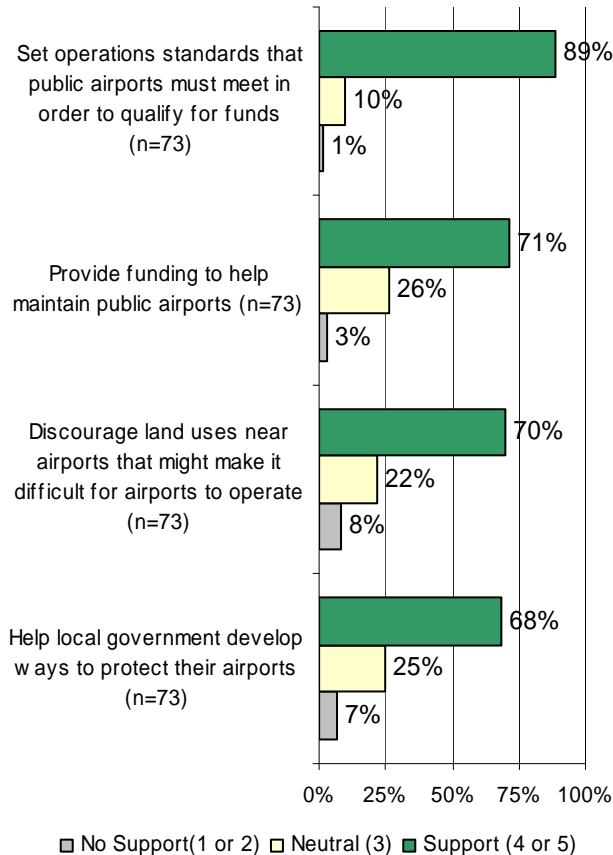


## ■ Highest rated aviation benefits:

- Movement of freight and goods (93%)
- Response to wildfires (92%)
- Connecting Washington to global markets (91%)
- Search and rescue operations (90%)

# Role of State Government

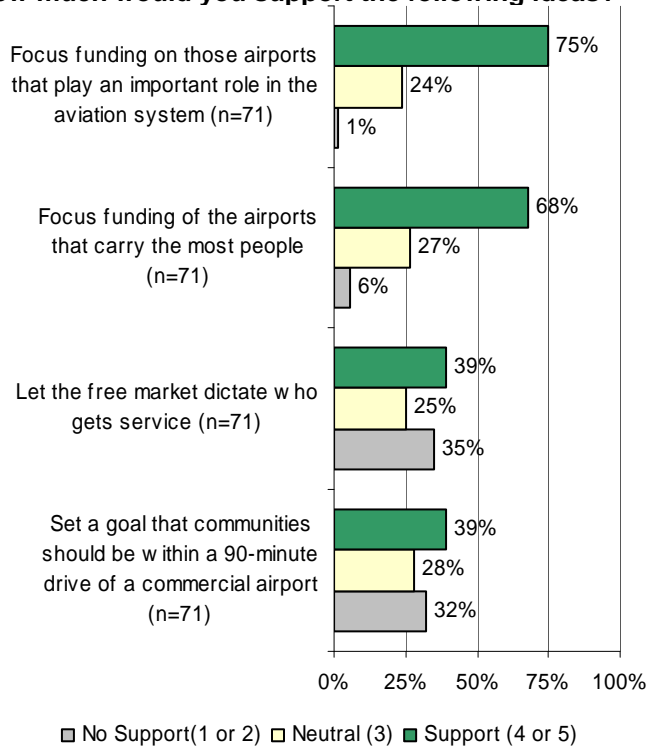
How much would you support these ideas for the state government's role in aviation?



- **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%)
  - and helping local governments protect airports (68%)
- **Fewer than 10% of participants indicated little or no support for these roles of state government in aviation**

# Role of State Government

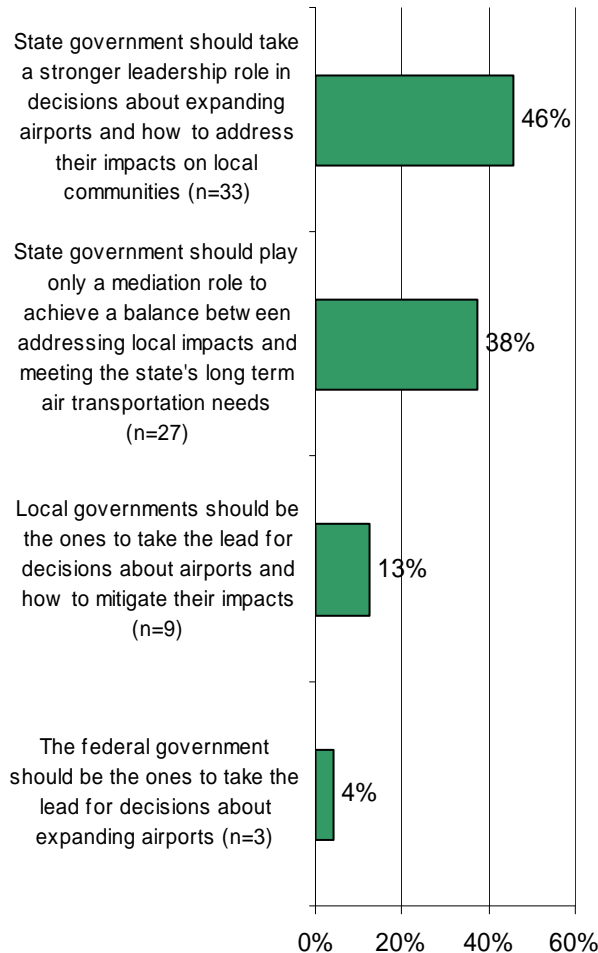
When it comes to aviation access for small communities, how much would you support the following ideas?



- 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

# Future Airport Capacity – Airport Expansion

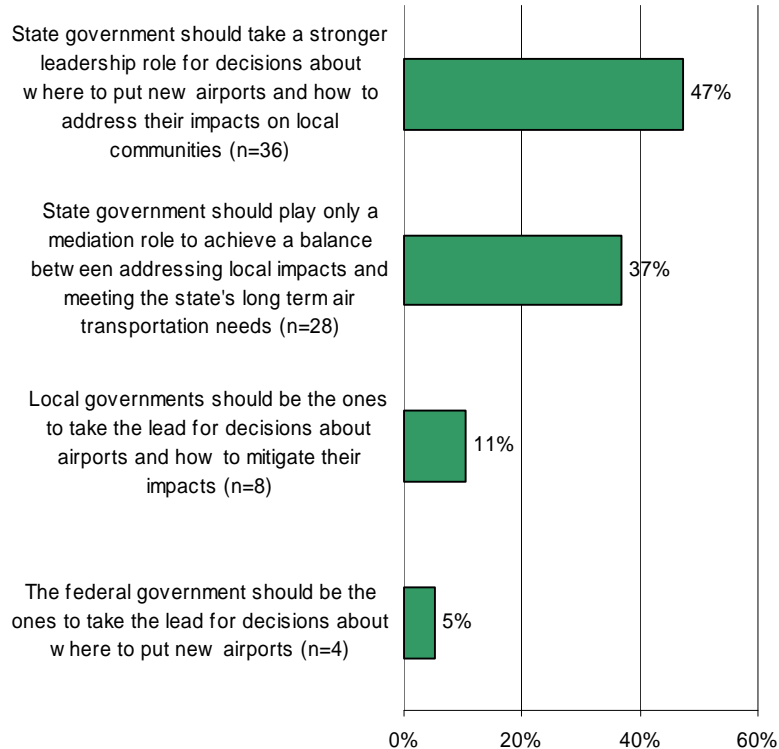
When it comes to expanding existing airports, how should decisions be made?



- 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 amount of support for the federal government taking the lead in decisions about airport expansion (4%)

# Future Airport Capacity – Building New Airports

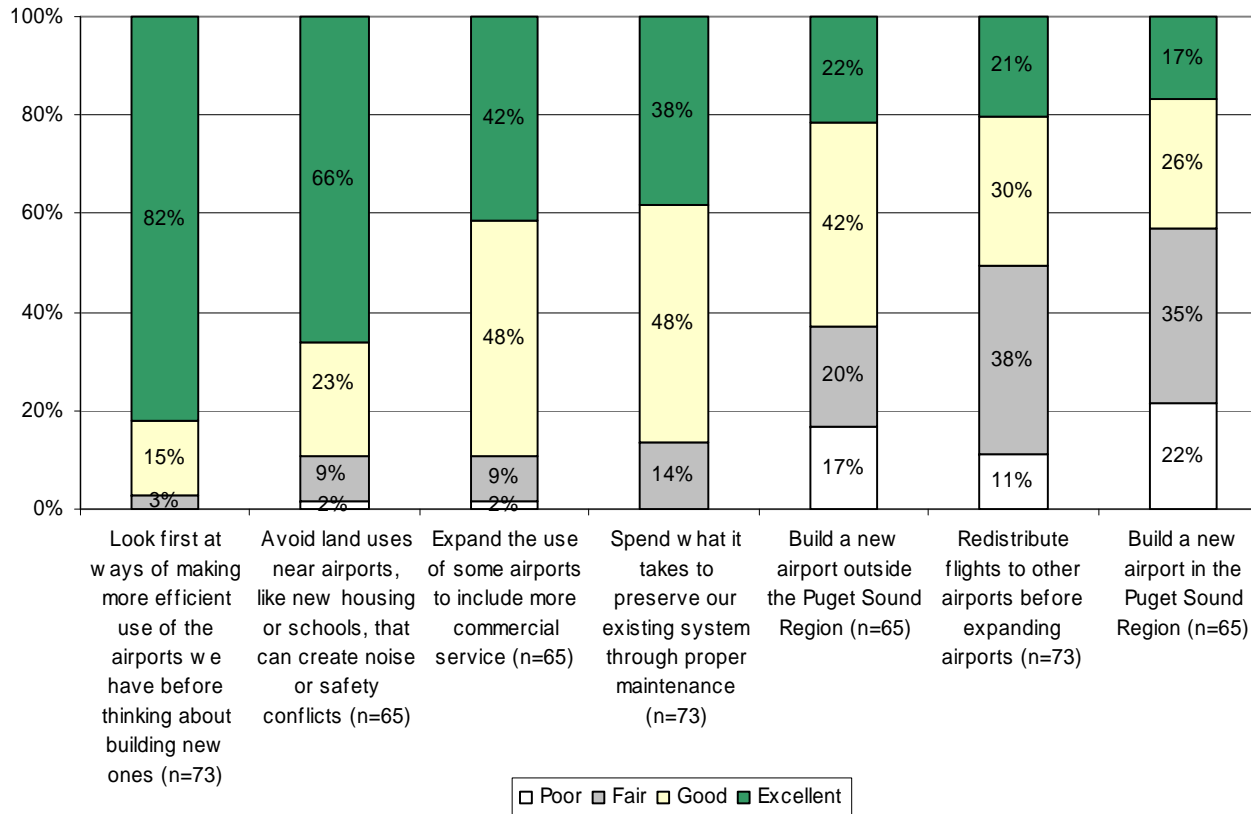
When it comes to building or finding a location for new airports, how should decisions be made?



- **47% of participants indicated that state government should take a strong 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**

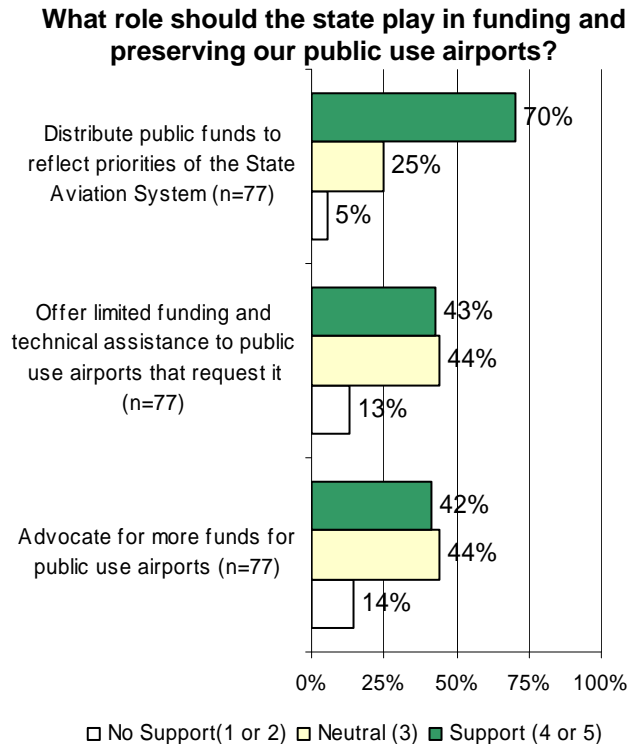
# Addressing Capacity Shortfalls

How should the state address capacity shortfalls?



- Most support for making use of the existing system first
- Avoid incompatible land uses
- Support for building an airport outside the Puget Sound region
- Opinion divided about redistributing flights to other airports
- Participants least supportive of building a new airport in the Puget Sound region

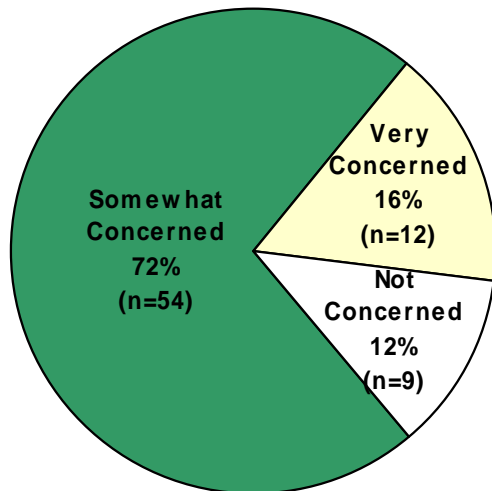
# What role should the state play in funding and preserving public use airports?



- **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**

# Level of Concern About Aviation Capacity

Which statement best describes your level of concern about Washington's aviation capacity?



- 72% of participants are somewhat concerned about Washington's long-term aviation capacity
- 16% of participants are very concerned about Washington's long-term aviation capacity
- 12% of participants are not concerned about Washington's long-term aviation capacity

# Subcommittee Work Session

- Review public comment on draft policies
- Determine amendments to policies in response to public comment
- Report to full Council at 1:45 p.m.

## Tools:

- Public comment matrix
- Staff recommendations for policy language revisions

# Subcommittee Reports

Neal Sealock  
Paul Roberts

# Council Report Outline

# Council Report Outline

Estimated Page #	Section	Description
1	Cover page	
2	Inside cover	List of Council members
3	Transmittal letter	Includes council history, charge to the council, significance of recommendations and other words of wisdom
4	Graphic	
5	Table of Contents	
6	Introduction	Include graphic on decision process
7-9	Summary of Recommendations	
10-11	Guiding Principles	
12-13	Coordination and System Planning (state, regional, and local)	Statement of Issues; Recommended Policies
14-16	Capacity	Statement of Issues; Recommended Policies
17-18	New Technology	Statement of Issues; Recommended Policies
19-20	Environment	Statement of Issues; Recommended Policies
21-22	Land Use	Statement of Issues; Recommended Policies
23-24	Preservation	Statement of Issues; Recommended Policies
25-26	Economic Vitality	Statement of Issues; Recommended Policies
27-30	Legislative Recommendations	Statement of Issues; Recommended Policies
Appendix	Public Involvement Report	
Appendix	Policy Framework Paper	

# Council Administration and Next Steps

## ■ Council Meetings

- Meeting #8: Review of Strategic Options for Analysis (Spokane)
  - Currently scheduled for November 6<sup>th</sup>
  - Propose moving meeting to December
- Meeting #9: February 5, 2009 (Tri Cities)

## ■ Public Involvement

- Electronic Town Hall #2 – November 2008
- Online Survey – March 2009
- Regional Public Meetings – March 2009