Best Practices for Risk-Based Forecasts of Land Volatility for Corridor Management

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NCHRP 20-68A ,Scan 10-01
Sacramento, CA & Olympia, WA
11/3/11

Washington State
Department of Transportation

Welcome to WSDOT

Scheduled Presenters

- Leonard Bauer, Wa. State Dept of Commerce, Leonard.Bauer@Commerce.wa.gov
- Laura Cameron, Transportation Planning Specialist, Strategic Assessment Office, laura.cameron@wsdot.wa.gov
- Keith Cotton, Transportation Planning Supervisor, Public Transportation Division, keith.cotton@wsdot.wa.gov
- Barbara De Ste. Croix, Transportation Supervising Engineer, Highway Access Office, barb.destecroix@wsdot.wa.gov
- Charlene Kay, Planning Engineer, Eastern Region, charlene.kay@wsdot.wa.gov
- Judy Lorenzo, Manager, Transportation Planning Office, judy.lorenzo@wsdot.wa.gov

Welcome to WSDOT

Scheduled Presenters

- Pat Morin, Program Manager-System Analyst, Capital Program Development, pat.morin@wsdot.wa.gov
- Mike Palazzo, HQ Res Manager, Real Estate Services, mike.palazzo@wsdot.wa.gov
- Terry Meara, Acq & Title Section Manager, Real Estate Services, mearaT@wsdot.wa.gov
- Kathy Murray, Transportation Planning Specialist, Transportation Planning Office, murraka@wsdot.wa.gov
- Elizabeth Robbins, Manager, Community Transportation Planning Office, elizabeth.robbins2@wsdot.wa.gov

Welcome to Washington

Summary of Today's Presentation

- State Policies and Priorities
- Transportation in Washington Overview
- Growth Management Act
- Land Use
- Real Estate Services
- Access & Developer Services
- Asset Performance & Funding
- Performance Measures & Gray Notebook
- Eastern Region Case Study

Governor Gregoire's Priorities for Washington

- Economic Development
- Education
- Health Care
- Energy
- Environment
- Veterans
- Public Safety
- Social Services
- Transportation
- Diversity
- Government Accountability

State Transportation Policy Goals

Preservation, **Safety**, Mobility, Environment, Stewardship, and Economic Vitality

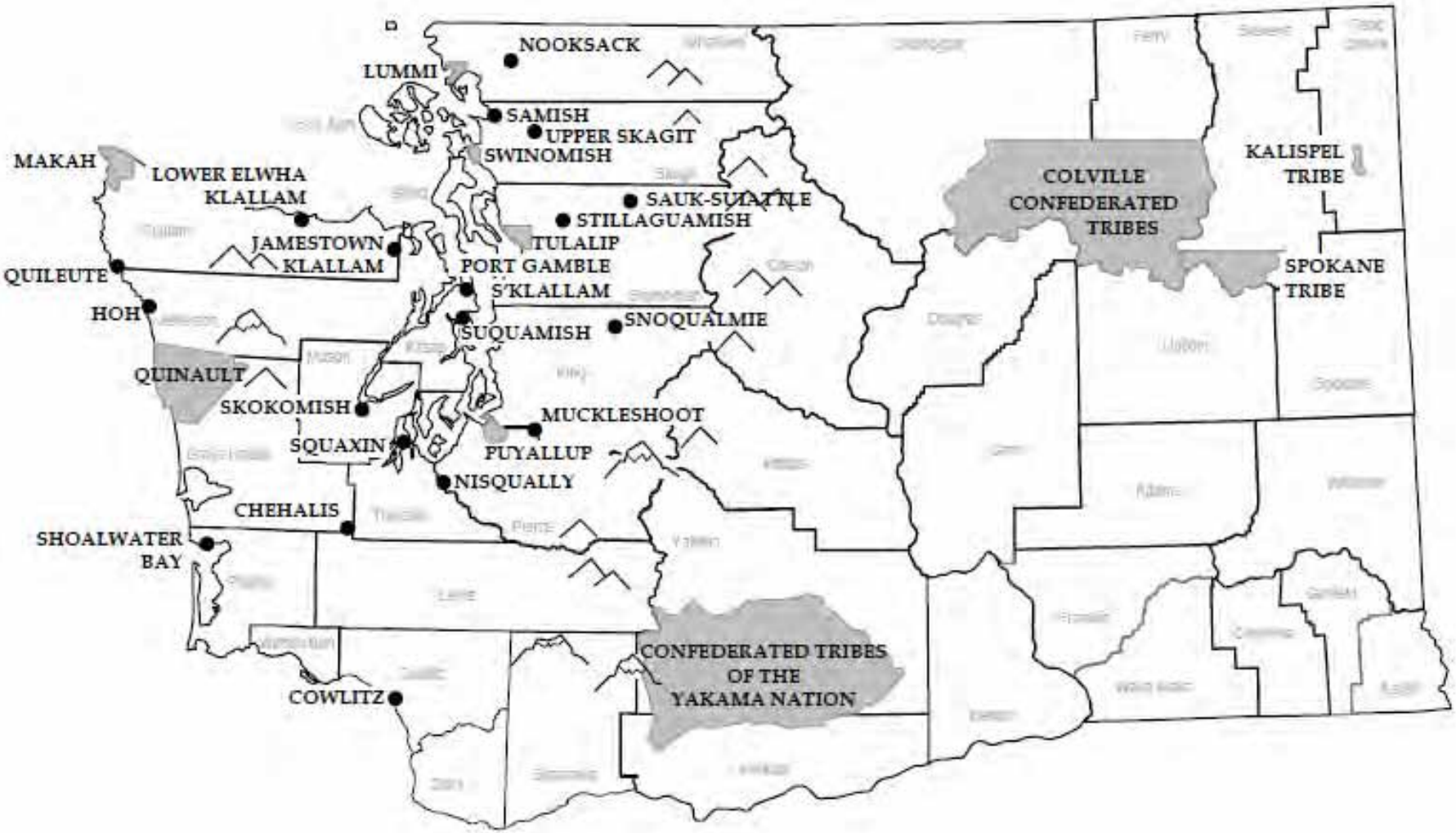
Strategic Highway Safety Plan

Statewide Transportation Plans

Congestion Management

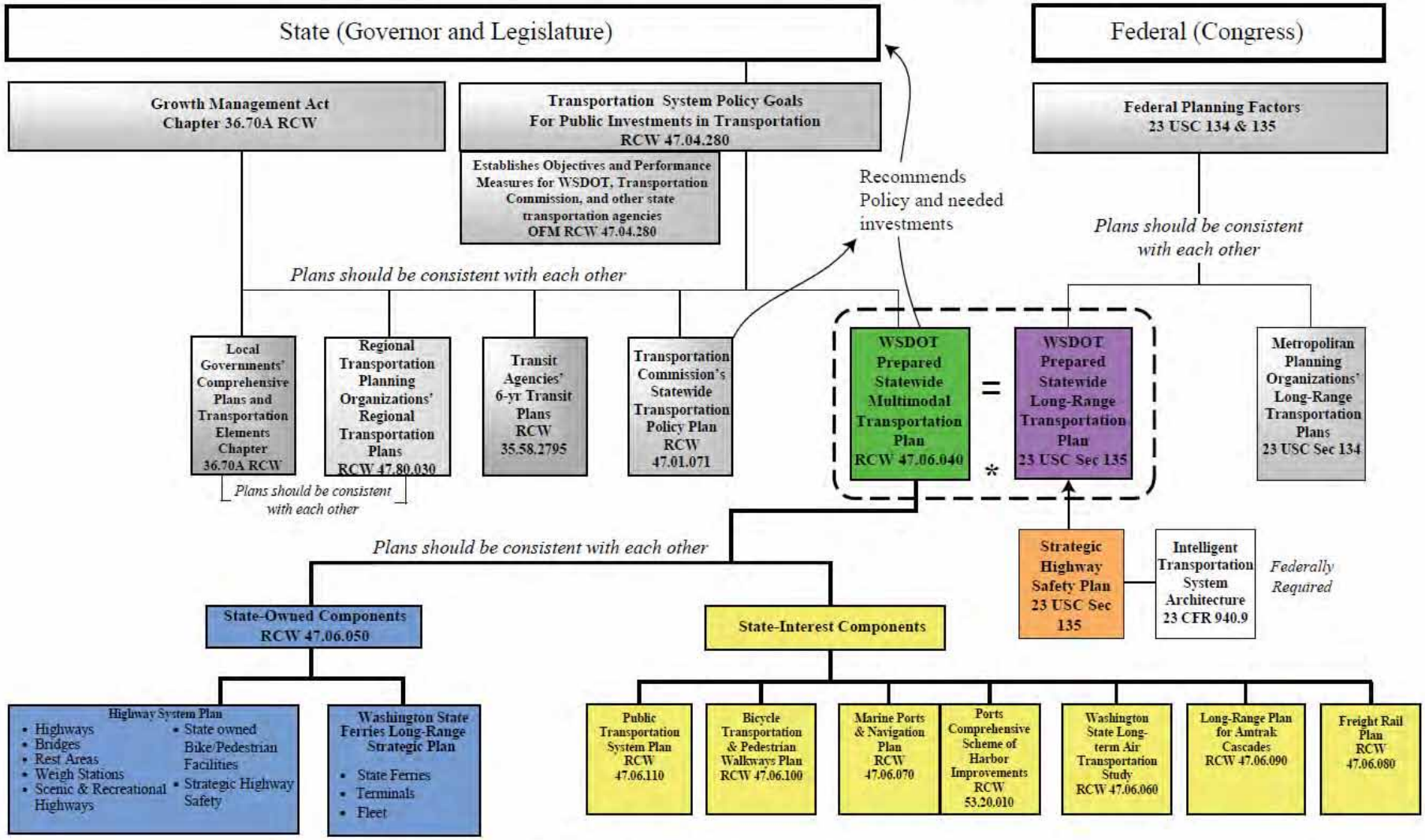
Regional Transportation Plans

FEDERALLY RECOGNIZED TRIBES OF WASHINGTON STATE



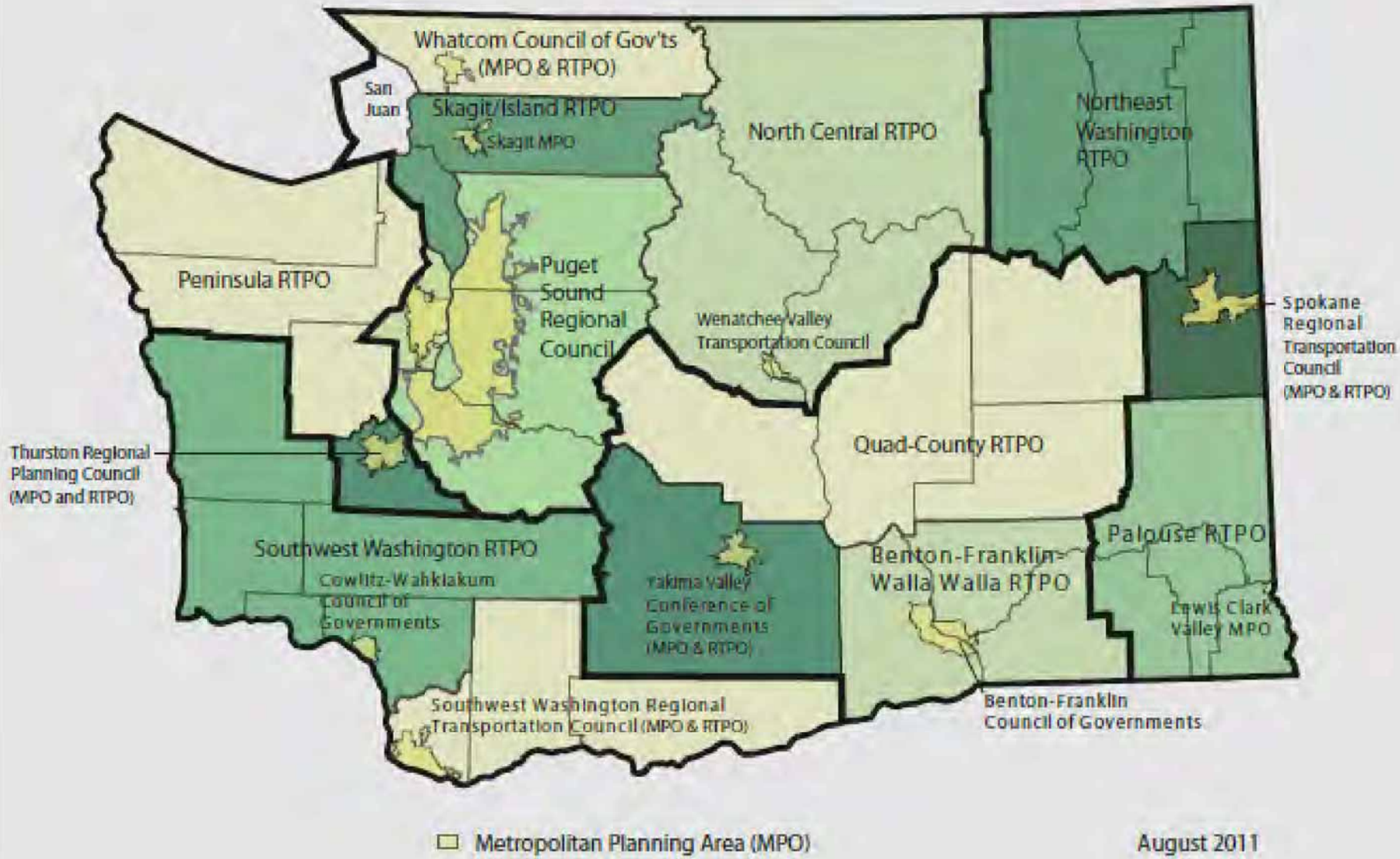
Washington State Department of Transportation

The Legal Framework of Transportation Planning in Washington



*WSDOT also relies on coordination and other planning processes not specifically named in law

Washington State MPO/RTPO Map



The Difference Between RTPOs and MPOs

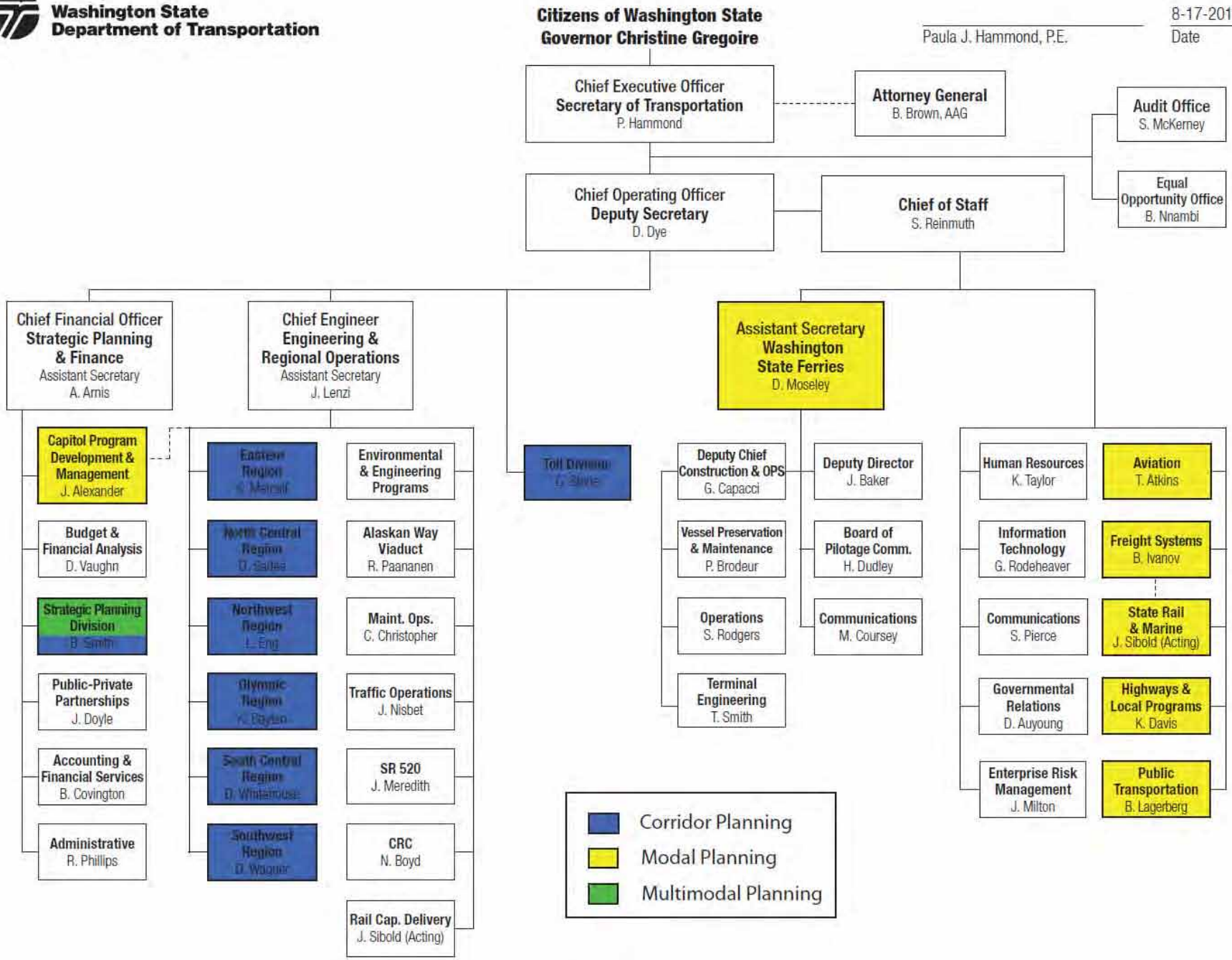
- State legislation created RTPOs
- Federal legislation created MPOs
- An RTPO covers both urban and rural areas and receives state funding in support of its planning efforts
- An MPO covers an urbanized area and receives federal funding in support of its planning efforts

Washington State Department of Transportation Regions

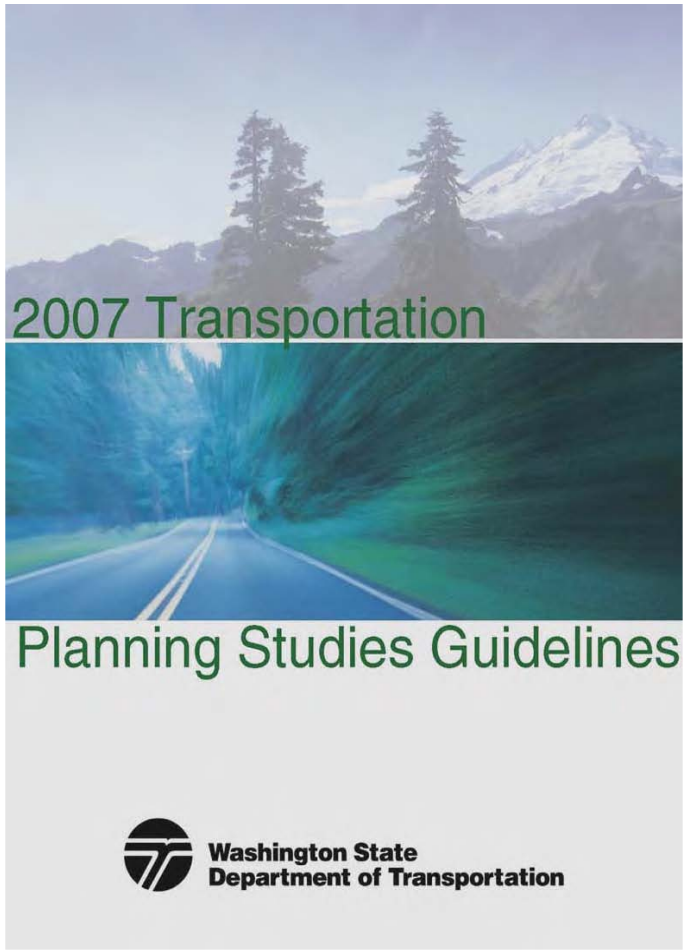
Washington State Department of Transportation

Paula J. Hammond, P.E.

8-17-2011
Date



Moving Washington



Washington State Department of Commerce

Integrated SEPA/GMA:
Up-front SEPA: Defined Mitigation

House Environment Committee

October 20, 2011

Eight Subareas' Development Goals

Industrial or Employment Center:

- Everett
- Redmond

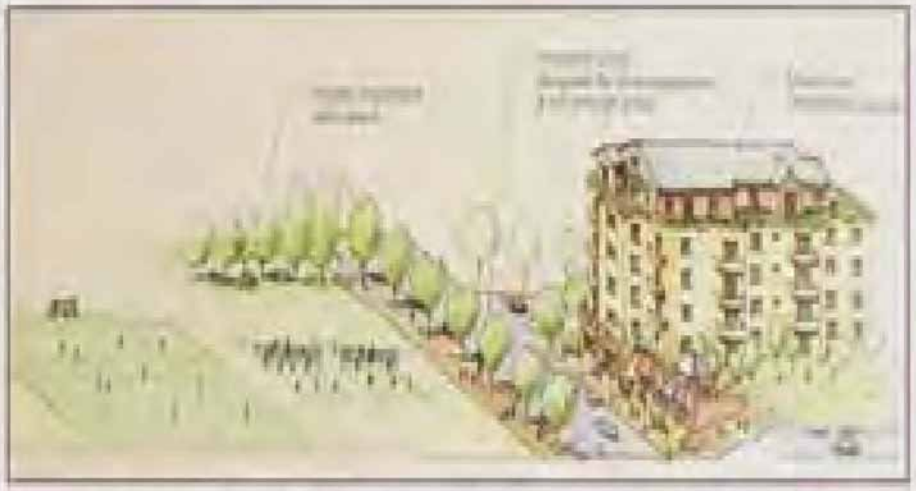
Stimulate Downtown Development:

- Colville
- Mill Creek

Eight Subareas' Development Goals

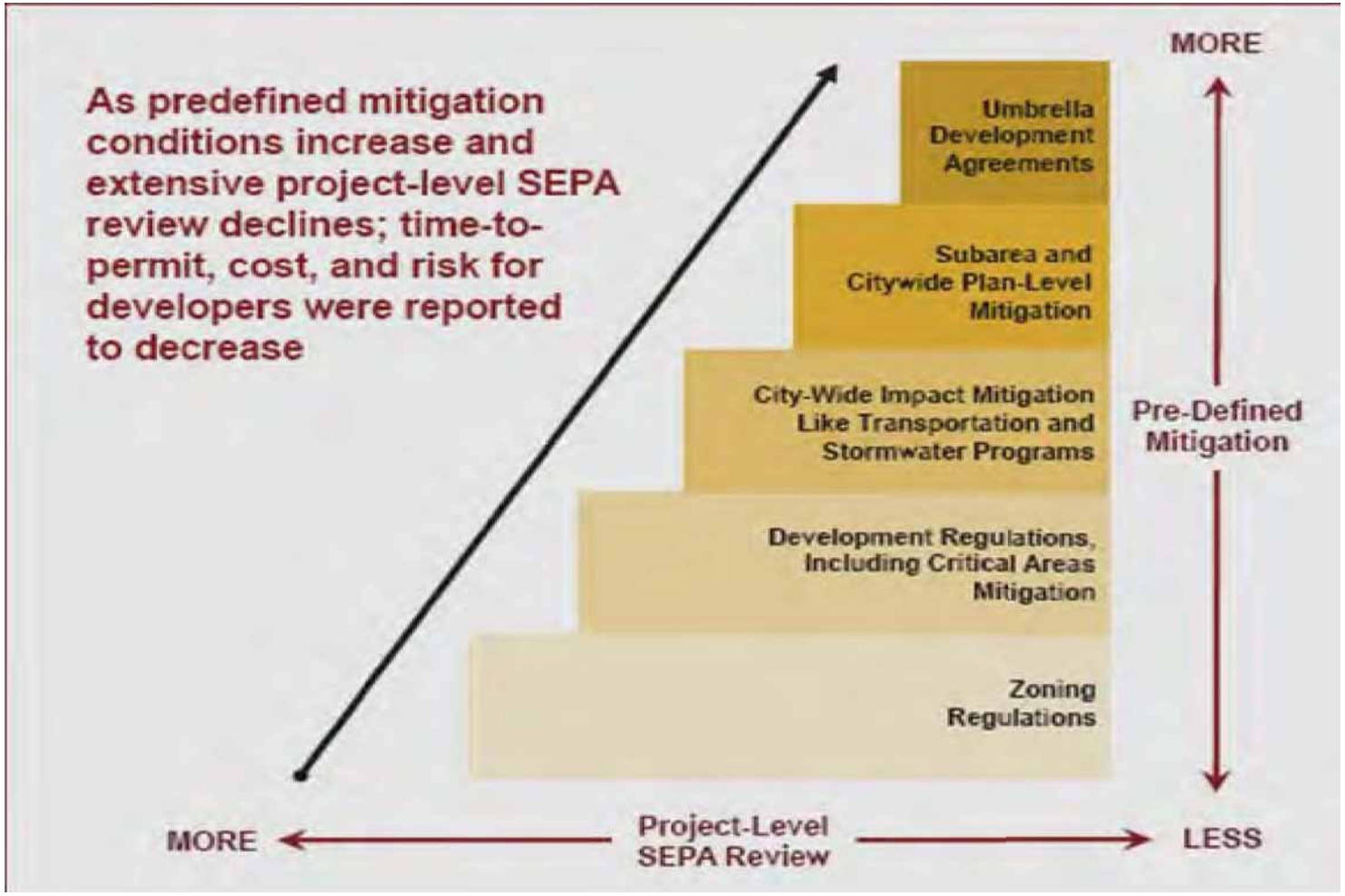
Expand Downtown Urban Re-Development:

- Kent
- Vancouver
- Spokane
- Wenatchee



A sketch of Wenatchee Riverfront Subarea depicting an expanded park and a mixed-use private development with residential over restaurants and other commercial spaces

Predefined Mitigation



For more information on SEPA Case Studies, go to: www.commerce.wa.gov/growth and click on "What's New"

Or contact:

leonard.bauer@commerce.wa.gov
(360) 725-3055
heather.ballash@commerce.wa.gov
(360) 725-3044

Land Use and Transportation Integration

The Growth Management Act and Transportation Planning
(Leonard Bauer, Commerce Growth Management Services)

WSDOT's Work to Integrate Transportation and Local Land Use
(Elizabeth Robbins, WSDOT Community Transportation Planning)

"It is in everybody's best interest to direct future urban growth to walkable, attractive, and affordable urban areas where citizens can live, work, and play. It is the best use of our transportation infrastructure dollars, and it helps Washingtonians."

Governor Chris Gregoire
April 30, 2008
Urban Land Institute Reality Check Event

Washington's Planning Framework

GMA Planning Goals Balance:

Urban Growth
Reduce sprawl
Transportation
Housing
Economic Development
Property Rights
Permits
Natural Resource Industries
Open Space and Recreation
Environment
Citizen Participation and Coordination
Public Facilities and Services
Historic Preservation
Shoreline Management

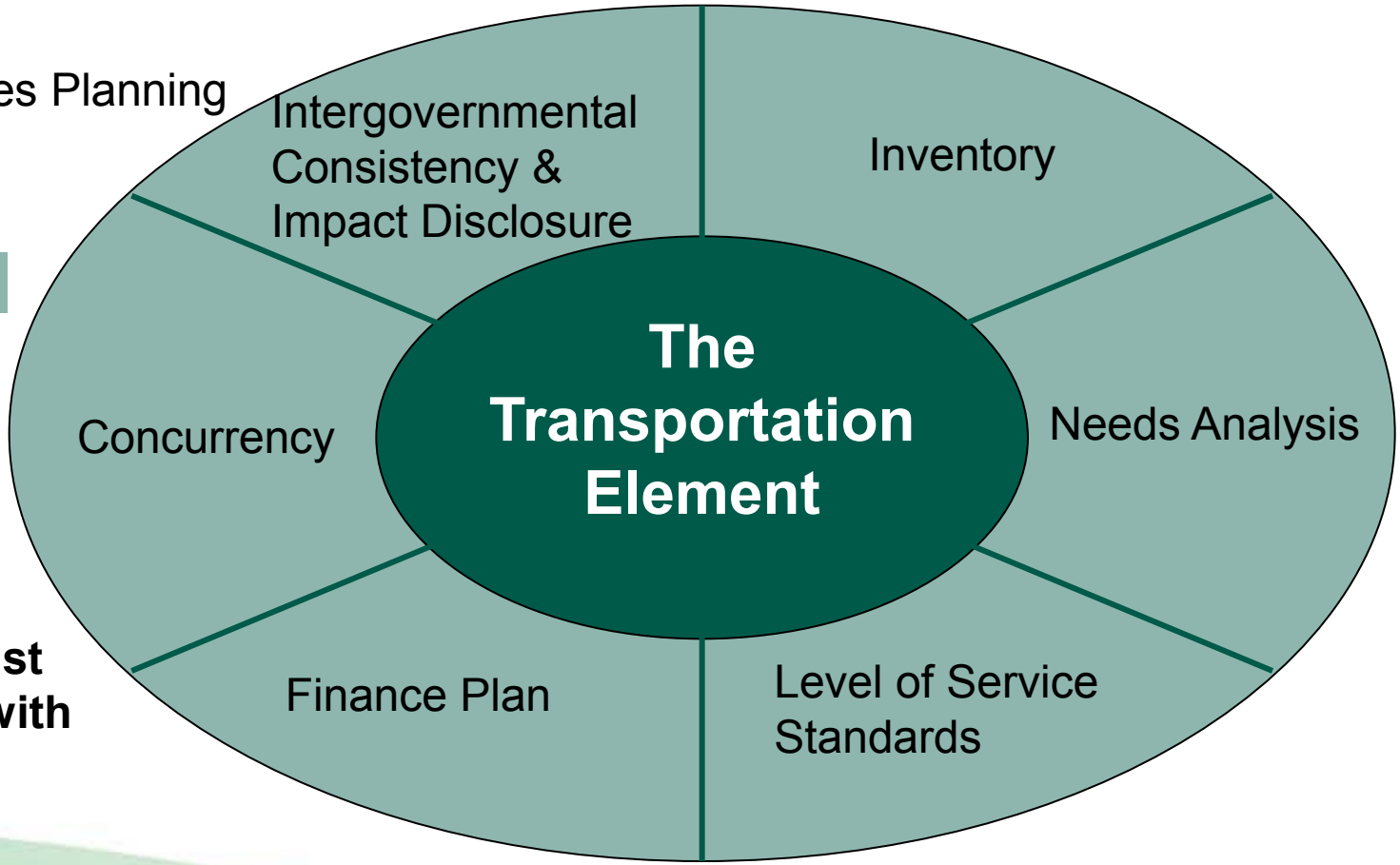
The Transportation Goal:

Encourage efficient multimodal transportation systems based on regional priorities and coordinated with county and city comprehensive plans.

The GMA and Transportation Planning

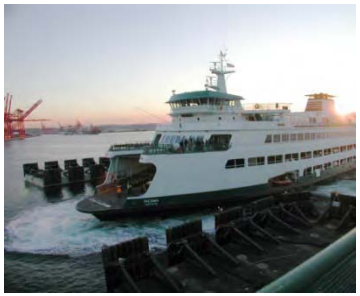
Plan Elements Must Be Consistent…

Land Use
Housing
Capital Facilities Planning
Utilities
Rural Areas
Transportation



…and Development Regulations must Be Consistent with the Plan.

The GMA and the State Transportation System



Local Governments are Required to:

- Inventory the state-owned transportation facilities within their boundaries.
- Estimate the traffic impacts to state-owned facilities resulting from their land use assumptions.
- List the state transportation system improvements needed to meet demand.
- Identify the adopted LOS standards for state-owned highways and ferry routes.

Local Governments are NOT Required to:

- Apply concurrency to state transportation facilities and services (except in Island and San Juan counties).

The GMA Coordinates Land Use and Transportation Planning

State Transportation Plans.

Regional Transportation Plans.

Multicounty Planning Policies.

Countywide Planning Policies.

County Transportation Plans.

City Transportation Plans.

State Consistency

Regional Certification

Consistency with Neighboring Jurisdictions

Integrating Land Use and Transportation is Part of Our Effort to Provide a 21st Century Sustainable Transportation System

WSDOT Community Transportation Planning Office

Created in January, 2010 to better integrate land use and transportation planning by:

- Identifying and sharing new planning techniques and technologies.
- Increasing the knowledge and effectiveness of WSDOT staff in sustainable land use and transportation planning.
- Integrating sustainable land use and transportation principles in agency policies and practices.
- Developing effective working relationships between local, regional, state, and federal agencies.
- Identifying national, state, and private funding opportunities.

CTPO's Projects Make Progress on Integrating Transportation and Land Use

- Participating in a National Governors Association Policy Academy on shaping a new approach to transportation and land use planning.
- Securing FHWA sponsorship of a one-day workshop in Clark County featuring nationally known scenario planning experts.
- Providing training to WSDOT staff on:
  - Effectively participating in local planning.
  - Reviewing a transportation element.
  - Effectively participating in planned actions under SEPA
- Developing resources for WSDOT staff including:
  - A plan review checklist.
  - A repository for agency comment letters.
  - A regular forum for discussing issues.
- Distributing a quarterly electronic newsletter.
- Developing guidance for local governments

Real Estate Services

Highway Location and Design – Early Right-of-Way Involvement

- Provide and evaluate ownership information
- Title work
- Estimate costs of acquisition, relocation assistance, and other costs
- Identify:
  - Needs for, and feasibility of, functional replacement of publicly-owned real property
  - Evaluate social, economic, and aesthetic impacts of the proposed project upon adjacent property, the community
  - Displacements of people, businesses, farms, and nonprofit organizations

Real Estate Services

Highway Location and Design – Early Right-of-Way Involvement

Tools

- Scoping estimates
  - Analyses of various routes and/or alternatives
  - Level of detail
- Project Funding Estimates
  - Detailed parcel-by-parcel estimate of total expected right -of -way acquisition costs
  - Hazardous material issues
  - Project data package (sales, sales map, neighborhood & project description, damage studies, cost to cure documentation)

Real Estate Services
Advance Right-of-Way Revolving Fund (Fund 880)

- Definition – Revised Code of Washington (RCW) 47.12.242
- RCW 47.12.244
  - 1991 Legislature transferred initial $10 Million from Motor Vehicle Fund
  - All moneys received from rental income (not subject to federal aid reimbursement)
  - Amendments (2007-2009, 2009-2011 biennia): Legislature may transfer excess fund balance to motor vehicle account
- RCW 47.12. 246
  - Funds received from interim management of the properties
  - Reimbursement

Real Estate Services
Advance Right-of-Way Revolving Fund (Fund 880)

- Key Fund Requirements
  - Must be in a highway transportation corridor
  - Included in the state's ten year capital improvement and preservation program
  - High degree of certainty that the right-of-way will be needed
  - High degree of certainty that the right-of-way will increase in cost

Real Estate Services

Discussion of North South Corridor – Spokane WA

- Advance Acquisition

Access & Development Services

WSDOT Uses:

- Modal Plans
- Corridor Plans
- Comprehensive Plans

To assist in determining the future deficiencies and proposed solutions

Access & Development Services

Working together with local agencies turns roadways . . .

FROM THIS:

TO THIS:

Access & Development Services

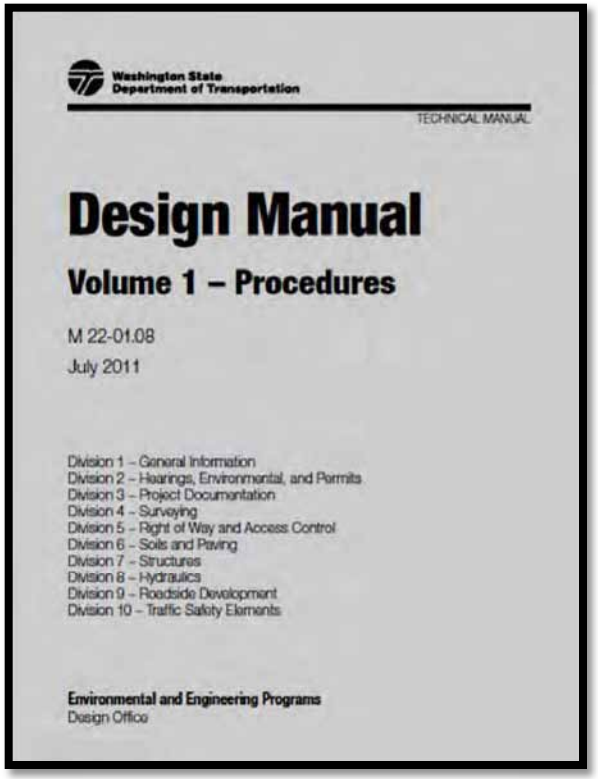
When Does ROW Involvement Begin?

EARLY!!!

WSDOT tools are available online and provide guidance and step-by-step directions

- WSDOT Design Manual
- WSDOT Right-of-Way Manual
- Project Management Online Guide
- Master Deliverables List

Access & Development Services



Washington State Department of Transportation

TECHNICAL MANUAL

Design Manual

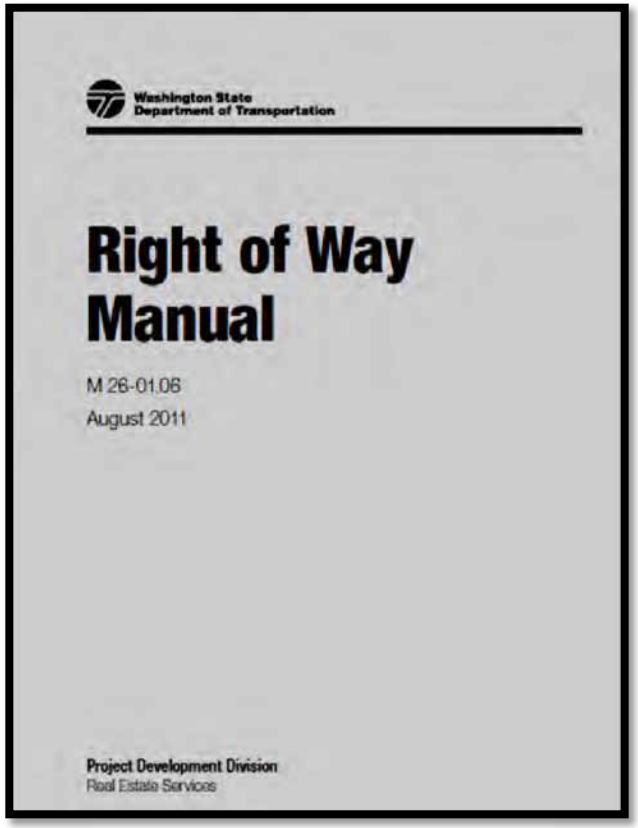
Volume 1 – Procedures

M 22-01.08

July 2011

Division 1 – General Information
Division 2 – Hearings, Environmental, and Permits
Division 3 – Project Documentation
Division 4 – Surveying
Division 5 – Right of Way and Access Control
Division 6 – Soils and Paving
Division 7 – Structures
Division 8 – Hydraulics
Division 9 – Roadside Development
Division 10 – Traffic Safety Elements

Environmental and Engineering Programs
Design Office



Washington State Department of Transportation

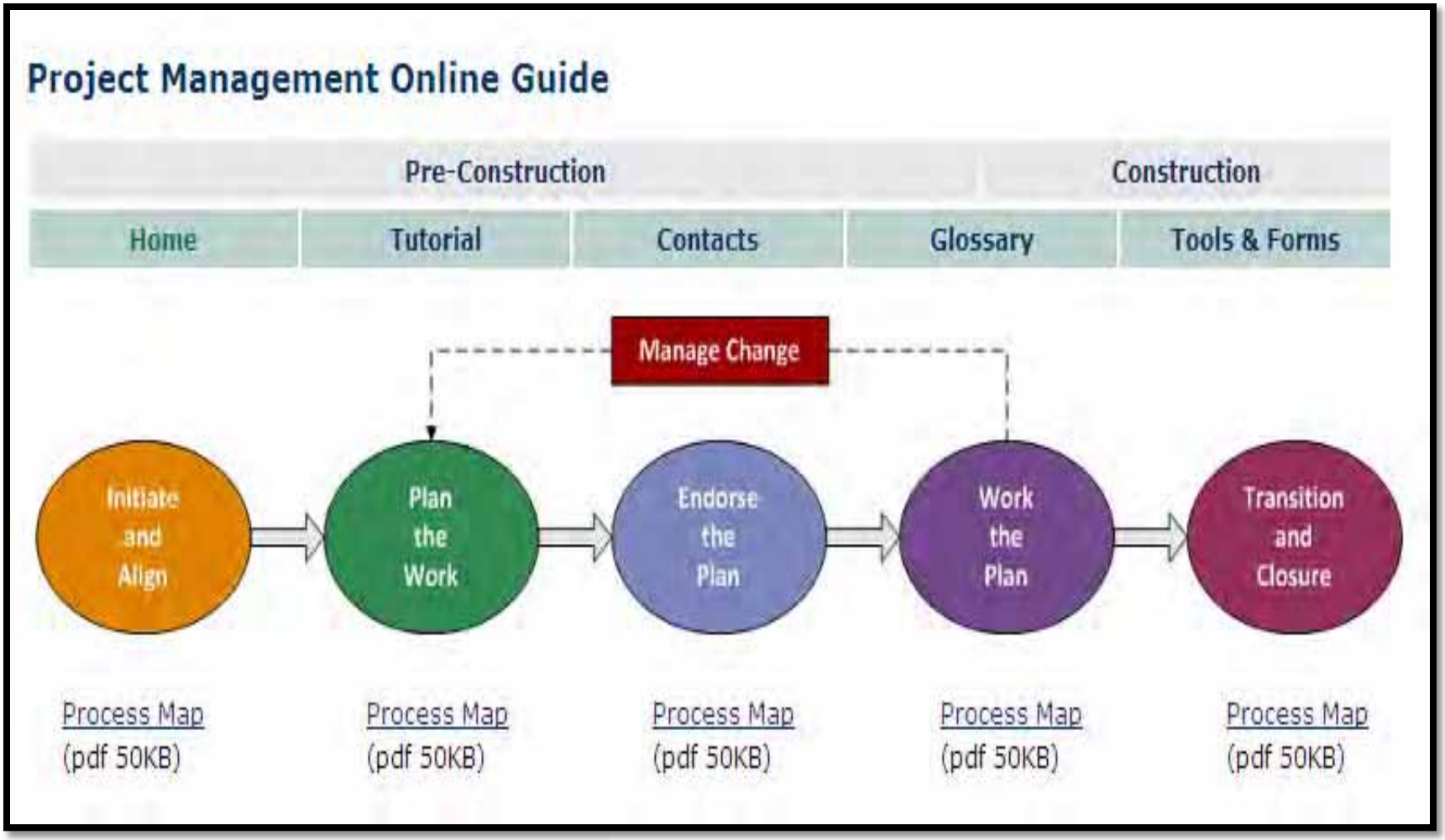
Right of Way Manual

M 26-01.06

August 2011

Project Development Division
Real Estate Services

Access & Development Services



Access & Development Services

WSDOT Master Deliverable List (MDL)

Preliminary Engineering	
General Project Management & Overhead - Preli...	
Begin Preliminary Engineering	
0015	Begin Preliminary Engineering
Project Management and Overhead	
0010	Project Management & Overhead - Preliminary Engineering
0025	General Project Management (Project Office)
0115	Other Work for Management and Overhead
0117	Environmental Overhead
A1050	Redistributed PE Project Management and Overhead (HQ & Region)
Project Management Plan Development & Maintenance	
Other Work for Management and Overhead	

Transportation System Policy Goals
RCW 47.04.280

The Washington State Legislature established these policy goals for the planning, operation, performance of, and investment in the state's transportation system:

- Economic vitality
- Preservation
- Safety
- Mobility
- Environment
- Stewardship

Washington's transportation system - a valuable asset

Highways

- Carry 86 million vehicle miles/day *(on 18,500 state highway lane miles)*
- 309 lane miles of a planned 320-mile HOV freeway system *(Including transit and HOV treatments on arterials and ramps)*
- More than 3,600 bridges and structures

Ferries

- Carry 22.3 million passengers/year *(on 22 ferry vessels, 20 terminals, and 505 daily sailings)*

Passenger rail

- Carries over 800,000 passengers/year *(Partner in Amtrak Cascades state passenger rail)*

Aviation

- 17 WSDOT-managed airports, *(statewide 138 public-use airports)*

Freight rail

- Grain Train delivers over 1.2 million tons of grain, 100 tons per car in 2010. *(Since 1994, grain train runs 118 cars, including 29 added in 2010)*
- WSDOT owns 296 miles of short-line railroad *(Shipping during 2010 on the Palouse-Coulee City rail system increased 20% over 2009 to 8,000 carloads.)*
- 3,600 miles of public and private freight railroad move 116 million tons of freight. *(2008 data)*

Transit support

- Employer commute programs support more than 810,000 commuters statewide *(170 million vehicle miles traveled reduced annually)*
- Vanpool program includes more than 2,400 vans *(Washington has the largest public vanpool fleet in the nation)*

Public Transportation in Washington state

- **Public Transportation Providers**
  - 31 public transit authorities
  - Social service agencies, non-profit organizations, and tribal governments also provide transportation services
- **Grant Programs**
- **Travel Washington Intercity Bus Program**

Highway Construction Program

Preservation (P)

Roadway (P1)

Paving

Basic Safety Restoration

Structures (P2)

Preservation

Scour Risk

Seismic Risk

Other Facilities (P3)

Rest Areas

Weigh Stations

Unstable Slopes

Major Drainage

& Electrical

Program Support (P4)

Improvement (I)

Mobility (I1)

Urban

Rural

Urban Bicycle

Core HOV

Safety (I2)

Collision Reduction

Collision Prevention

Economic Initiatives (I3)

All Weather

1995 2007 Rest Areas (new)

Scenic Byways

Trunk System

Restricted Bridges

Bicycle Touring

Environmental Retrofit (I4)

Stormwater

Fish Barriers

Noise Reduction

Air Quality

Program Support (I5)

Chronic Env Deficiency

Wildlife Connectivity

Mgmt of Environmental Mitigation Sites

Strategy no longer active

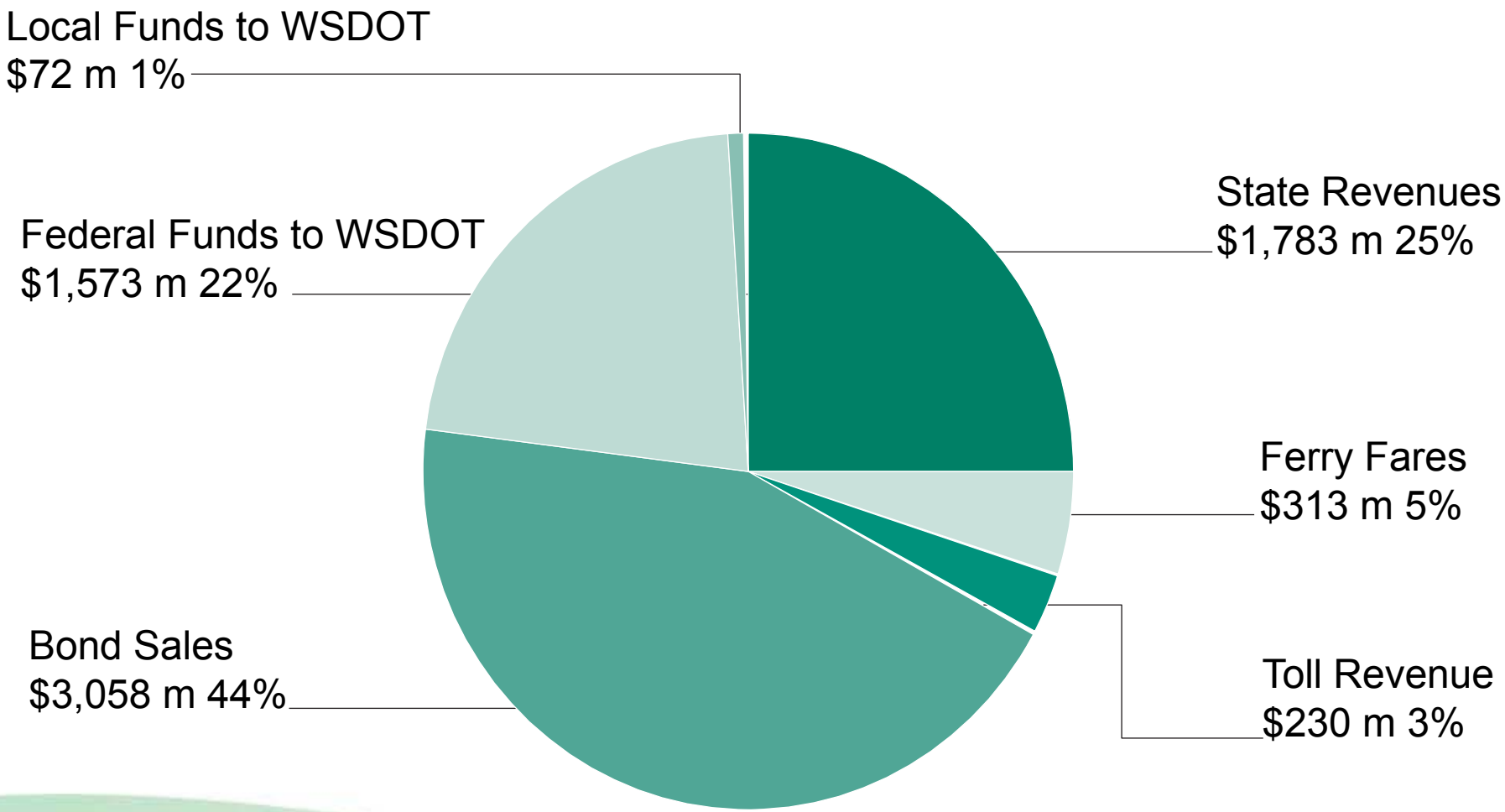
Approved Scoping Process

Scoping Process Under Development

3/28/07

Washington State Department of Transportation

WSDOT Funding Sources



Washington's primary transportation revenue source is limited, committed, and doesn't keep up with inflation and growing demand.

76% of all state transportation investments are financed by the gas tax.

37½¢ Per gallon Washington state gas tax rate as of July 1, 2008

-9½¢ **261 specific transportation projects statewide***
(2005 Transportation Partnership Projects)

-5¢ **160 specific transportation projects statewide**
(2003 Nickel Package projects)

Funded 421 projects

23¢ **Base Gas Tax**

-11¢ Supports **cities and counties** for local roads

-4¢ Supports debt service to reduce **bond debt** that funded past highway and ferry projects

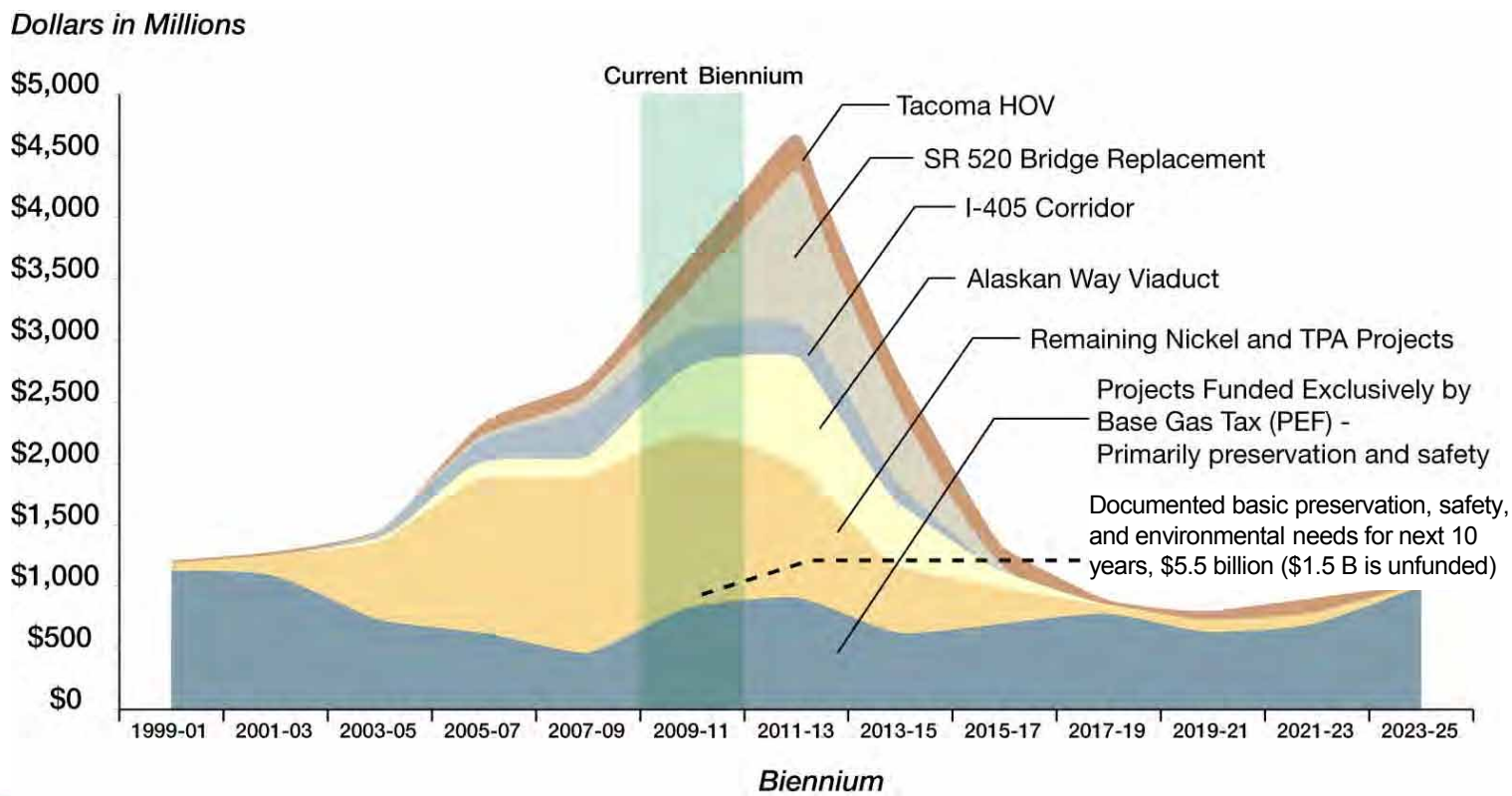
8¢ Remains for **maintenance and operations** as well as **preservation, safety improvements,** and **congestion relief** projects for state highways and ferries

* Of the 9½ cents, 8½ cents is used by the state for highway projects, 1 cent goes to cities and counties for improvements to streets and roads.

WSDOT Highway Construction Program

All funds from the 2003 and 2005 gas tax increases are committed.

2011 Governor proposed budget request - program total with select mega-projects highlighted



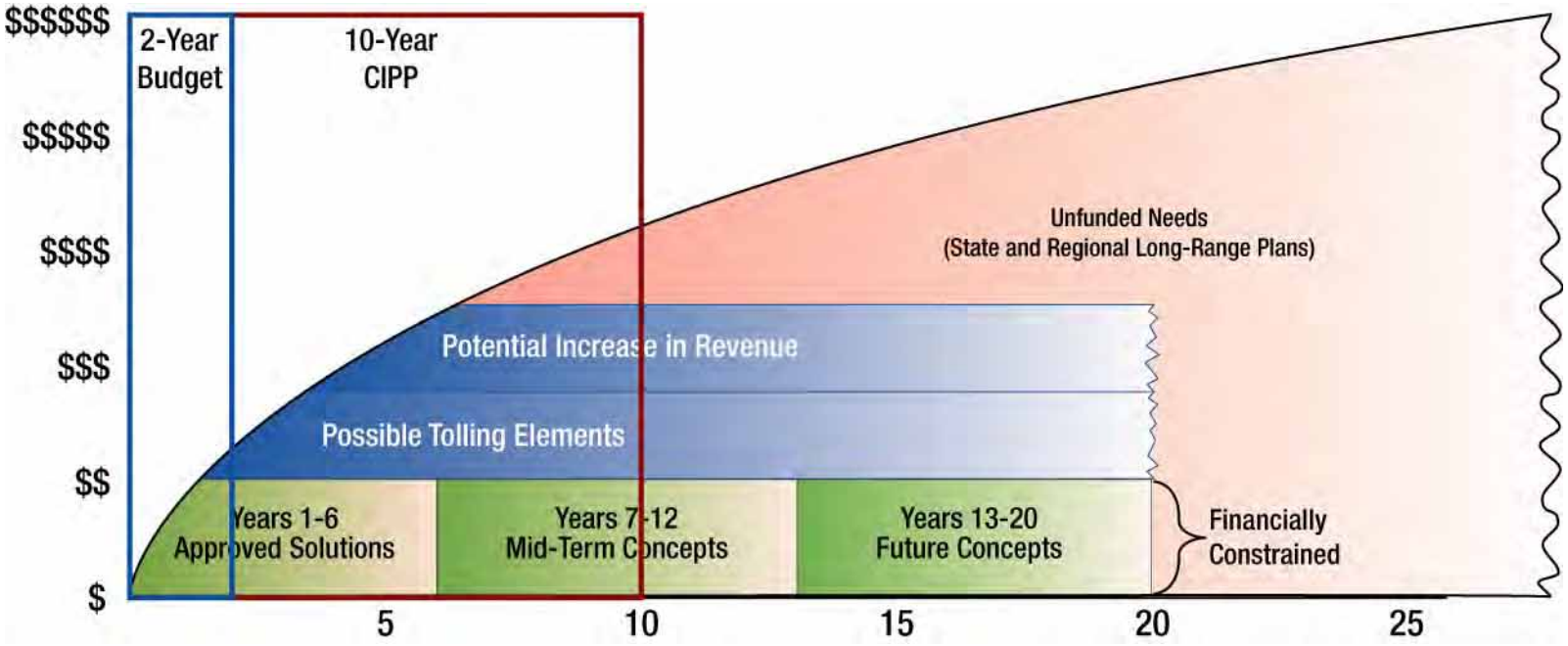
74% of highway program dollars are contracted to the private sector.

$6 B of the $15.5 B in Nickel and TPA will be delivered through our design-build program.

54% of the design effort for Nickel and TPA was delivered by consultants.

Source: WSDOT Capital Program Development and Management Office

Building the Lists:
Aligning with the Budget Proposal



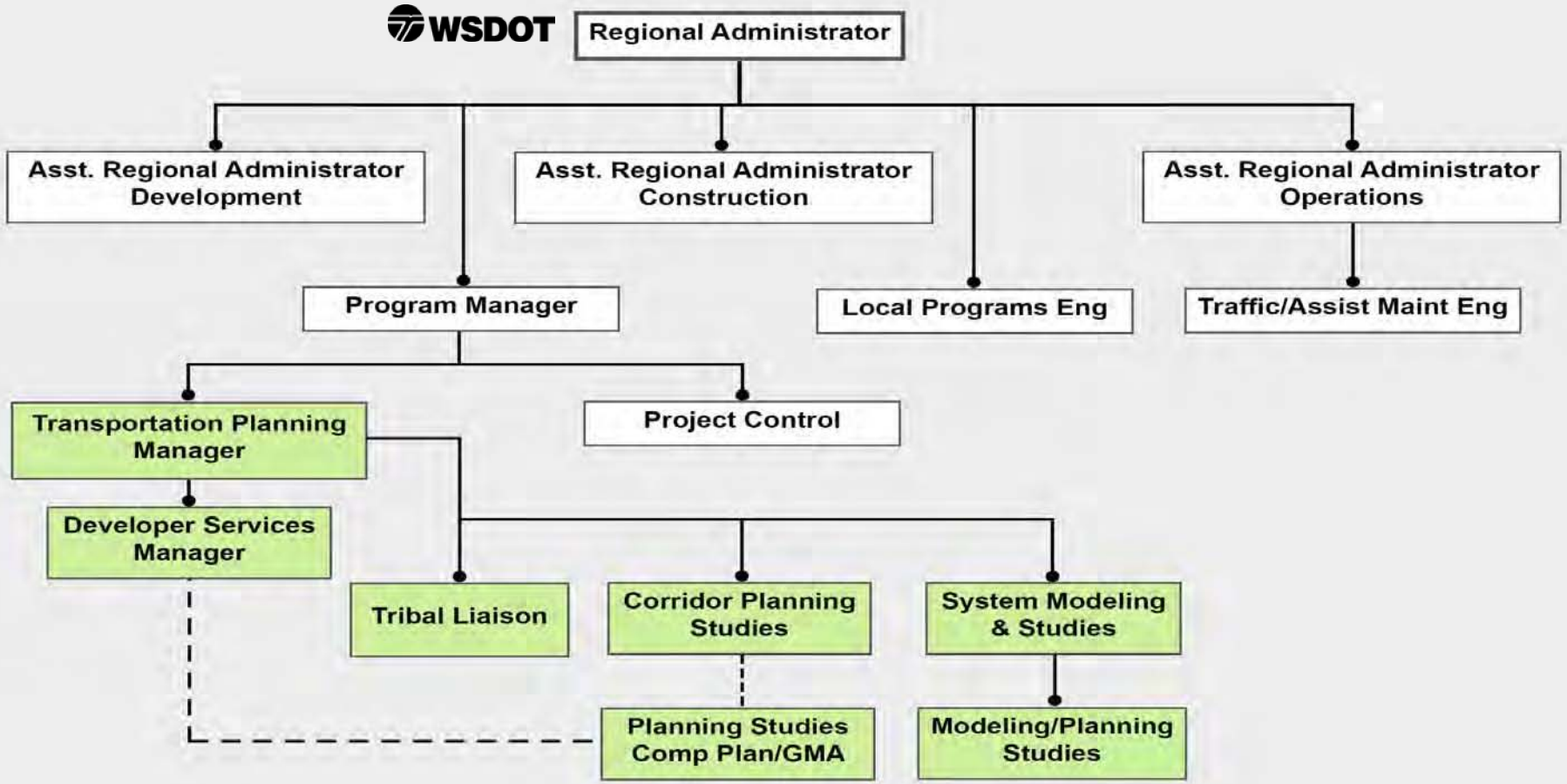
Performance Reporting

- The *Gray Notebook* is the Washington State Department of Transportation's quarterly accountability report.
- Starting with the first report in May 2001, the agency has used the quarterly document to provide the latest information on system performance and project delivery.

Eastern Region Planning Case Study

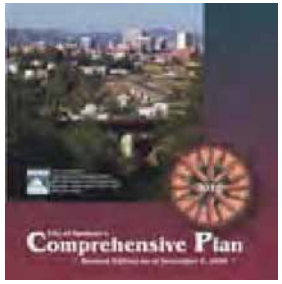
- Planning at Eastern Region is a continuous, evolving, and flexible process.
- The region develops and implements sound and innovative strategies.
- We also addresses dynamic issues and needs that face our transportation system.

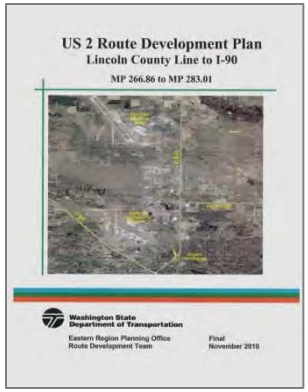
Eastern Region Table of Organization (Partial)

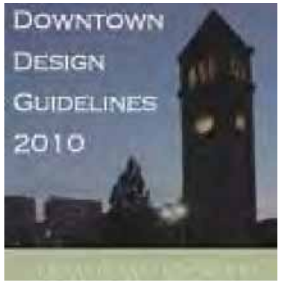


How Does Eastern Region Identify Corridors to Focus On?

- Review comprehensive plans
- Participate in MPO modeling coordination
- Increase WSDOT Development Services Activities
- Continue networking with local agencies, tribes, communities, & developers







How Does Eastern Region Respond to Unexpected Land Development?

- Research studies for identified improvements
- Immediately coordinate with respective jurisdictions
- Respond quickly to secure appropriate mitigation
- Pull together internal decision-makers

Facilitating Interaction with Developers and Local Agencies for Land Use Decisions through:

- Local governments' development review processes
- State Environmental Policy Act
- State Growth Management Act
- Ongoing coordination and participation with Metropolitan Planning Organizations (MPO) and Region Transportation Planning Organizations (RTPO)

Interact with Developers, Local Agencies, and Eastern Region on Land Use Decisions by:

- Developing and updating MPO Transportation Model
- Using Traffic/Level of Service/Collision Data
- Participating in:
  - Highway System Planning
  - Statewide Transportation Improvement Program (STIP) and local Transportation Improvement Programs (TIPs)
  - Local agency transportation-related studies/policy development (Transit, Complete Streets, Gateway Development, Main Streets, Corridor Plans, Neighborhood Planning)

Prepare for Land Development by:

- Coordinating with Local Jurisdictions
- Conducting Corridor Studies
- Reviewing Local Government Comprehensive Plans
- Tracking and Commenting on Zoning Ordinances
- Coordinating Mitigation Fees
- Keeping Current and Engaged
- Participating in Local Land Use Policy Revisions

Who is Involved From Planning to Project?

- Local Governments (counties, cities, and towns)
- Tribal Governments
- Federal Agencies
- State Agencies
- Military
- Public Use Airports
- MPOs/RTPOs
- Economic Development Councils
- Public

Exceptions

- Adjacent out-of-state development

Corridor Management Plans*

- Comprehensive roadway improvement strategy to address future and existing safety and capacity problems on a section of state highway
- Assesses current and projected (20 years) functions
- Evaluates public input, safety, mobility, land use, and environmental concerns
- Are developed using a *four-phased* process

* *Formerly Route Development Plans*

Corridor Management Plans Provide:

- Guidance for region decision-makers
- Potential mitigation for proposed developments
- Solutions from the Highway System Plan
- Guidance for interim projects to ensure long-range objectives
- Opportunity to coordinate with stakeholders on future development of corridor

Corridor Management Plans
Phase 1

- Initiate and Document Stakeholder and Public Involvement
- Collect Data:
  - Inventory existing conditions
  - Identify deficiencies, future needs, existing/ projected levels of service (LOS)
  - Examine corridor continuity

Corridor Management Plans
Phase 2

- Form Stakeholder Advisory Committee
- Form Eastern Region Steering Committee involving:
  - Planning
  - Program Management
  - Environmental
  - Construction
  - Maintenance
  - Traffic
  - Local Programs
  - Project Development

Corridor Management Plans
Phase 3

- Develop and evaluate alternative design concepts
- Present findings to Steering Committee, stakeholders, and public

Corridor Management Plans
Phase 4

- Revise concepts as needed
- Finalize the draft
- Present conceptual alternatives to stakeholders
- Ensure consistency with the statewide, tribal, metropolitan, regional, and local transportation plans

Corridor Plans Provide

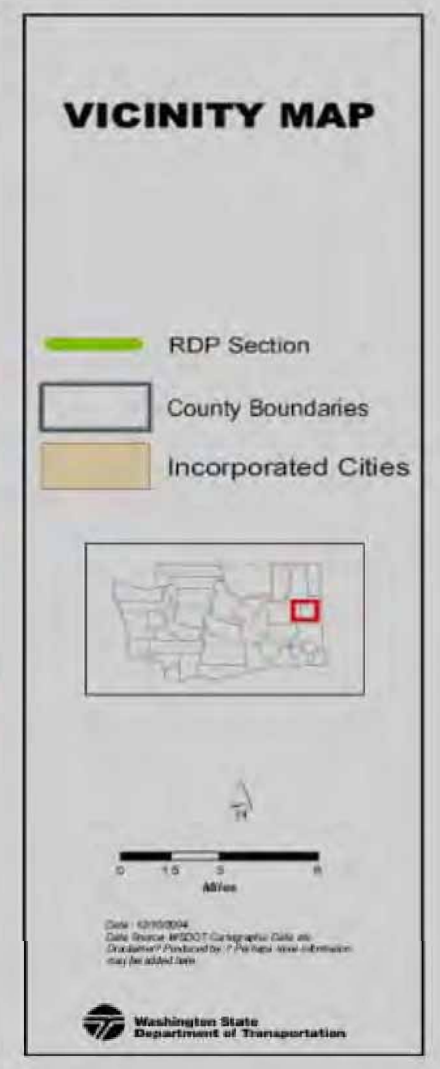
- Guidance for decision makers
- Direction for mitigation measures for proposed developments
- Guidance for interim projects ensuring long-range objectives
- Coordination with stakeholders on the future development of route
- Adoption into regional comprehensive plans

Process Phases

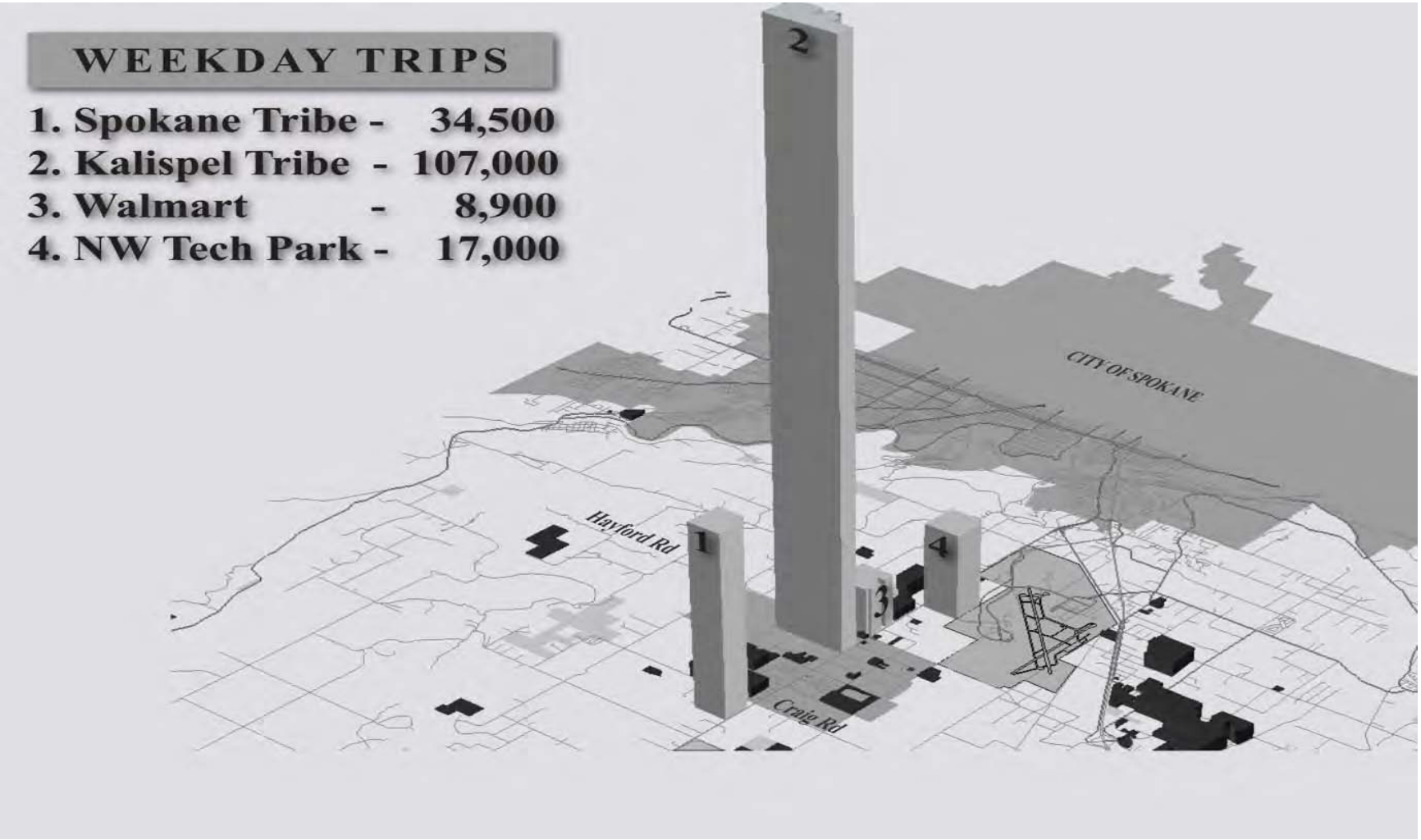
- Identify study area
- Establish goals and objectives
- Collect data
- Conduct public meetings
- Consult with tribes & agencies
- Analyze traffic
- Review proposed alternatives
- Review comments
- Document PI & EJ & Title VI
- Implement
- Evaluate

US-2 LINCOLN COUNTY LINE TO I-90

ROUTE DEVELOPMENT PLAN



Significant Trip Generators



Land Use Transportation Modeling

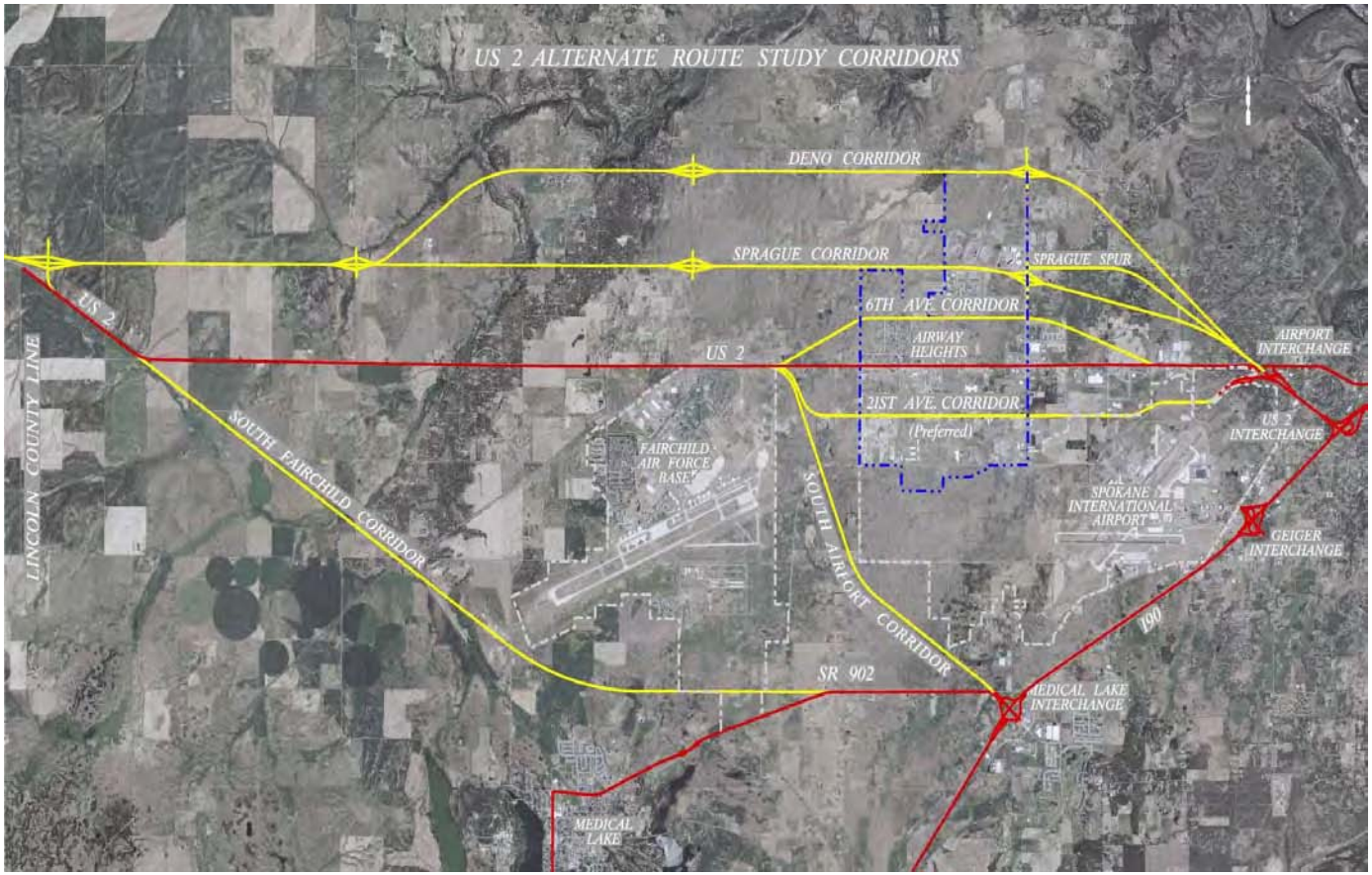
TAZ 459 – 2015

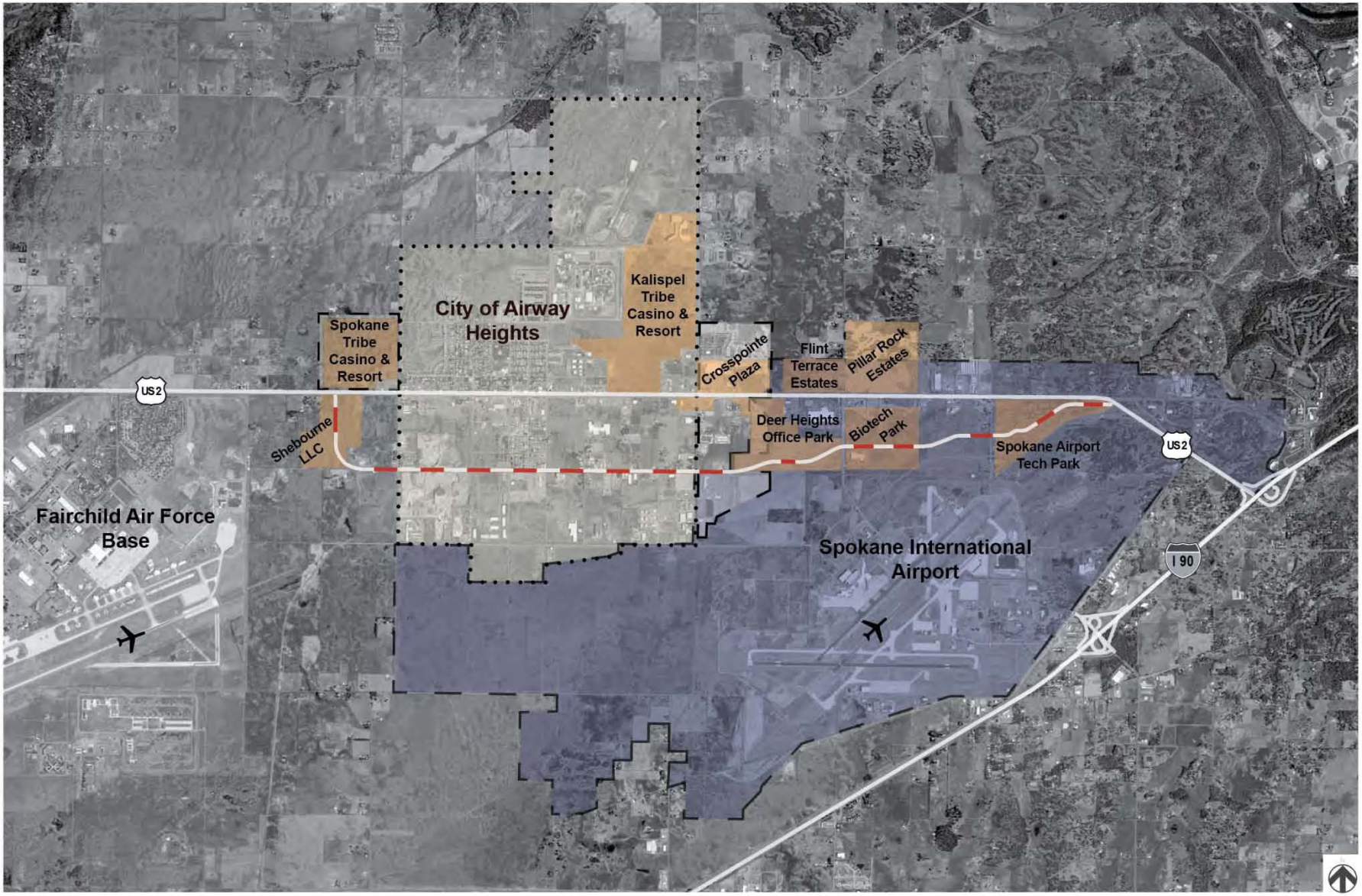
LAND USE	SRTC 2005	SRTC 2015	KALISPEL TRIBE	2015 (adjusted)
SFDU	370	833	195	833
MFDU	33	156	0	156
HOTEL	23	25	500	523
RETAIL	1,235	1,364	1,131	2,366
OFFICE	614	678	564	1,178
FIRE	7	8	0	8
MEDICAL	11	12	0	12
INDUSTRIAL	21	23	376	397
SCHOOL	50	55	0	55
EMP. ONLY	**1,938**	**2,140**	**2,071**	**4,016**
TOTAL	**2,364**	**3,154**	**2,766**	**5,528**

TAZ 460 – 2015 SOUTH AND

LAND USE	SRTC 2005	SRTC 2015	Spokane TRIBE	2015 (adjusted)
SFDU	443	617	0	617
MFDU	153	224	0	224
HOTEL	115	127	83	198
RETAIL	247	273	653	900
OFFICE	8	9	160	168
FIRE	20	22	0	22
MEDICAL	3	3	0	3
INDUSTRIAL	943	1,041	0	1,041
SCHOOL	0	0	0	0
EMP. ONLY	**1,221**	**1,348**	**813**	**2,134**
TOTAL	**1,932**	**2,316**	**896**	**3,173**

US 2 Lincoln County line to I-90 Alternative Concepts





Proposed 21st Avenue Corridor

US 2 & I 90 Vicinity

21st Avenue

City of Airway Heights

Future Annexation by City of Airway Heights

Future Annexation by City of Spokane

Map courtesy of WSDOT Eastern Region Planning 9/2011

Conceptual Roundabout
at Craig Road

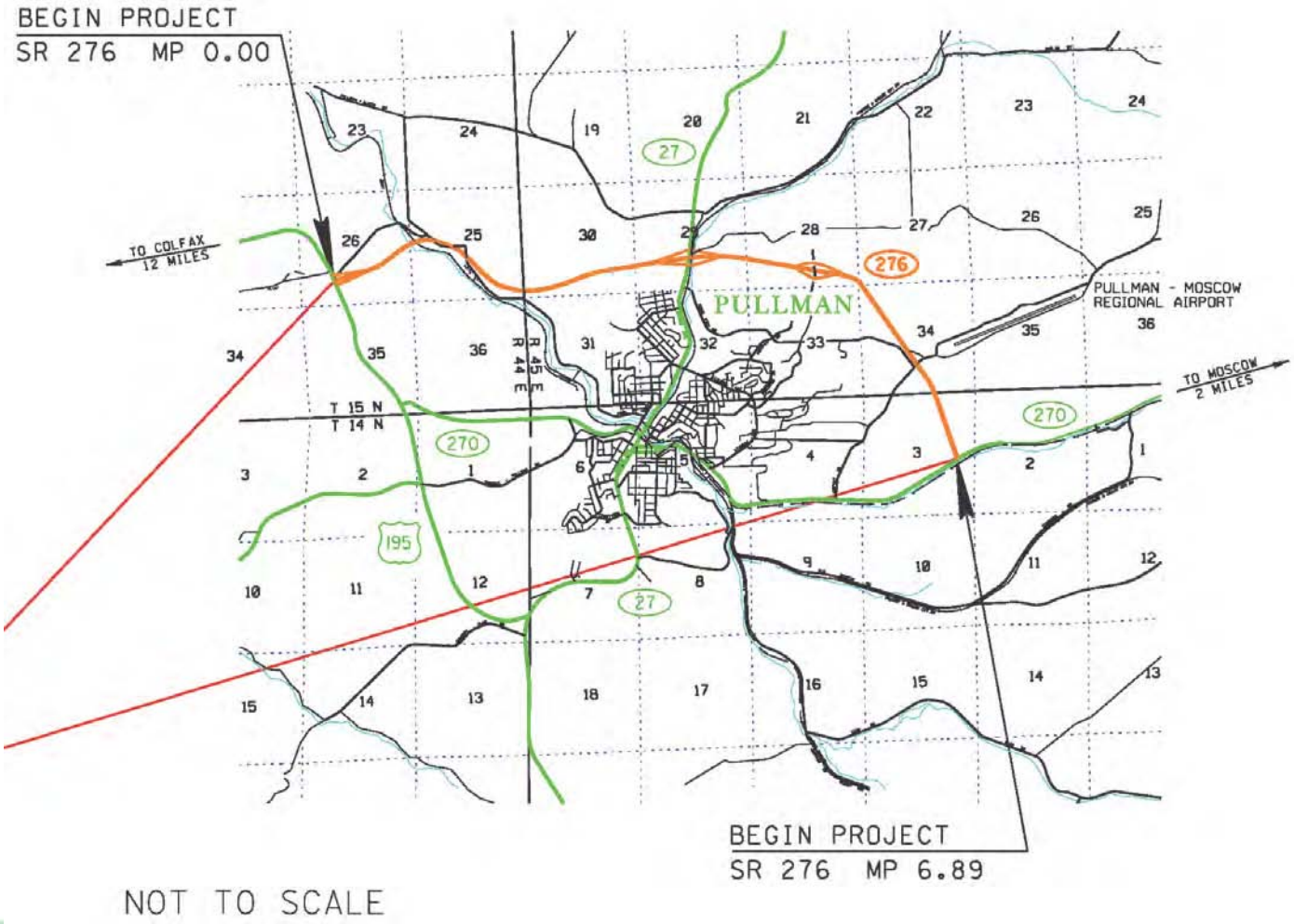
Targeted Area Development (TAD)

- Development strategy of City of Spokane Business & Development Services department
- Location-based strategy that maximizes resources for effective implementation and growth
- New and innovative approach to aligning infrastructure with economic opportunities to maximize capital investment.
- Promotes private investment, which helps to create and retain jobs.
- Focuses the use of incentives to align with long-term community priorities

Washington State
Department of Transportation

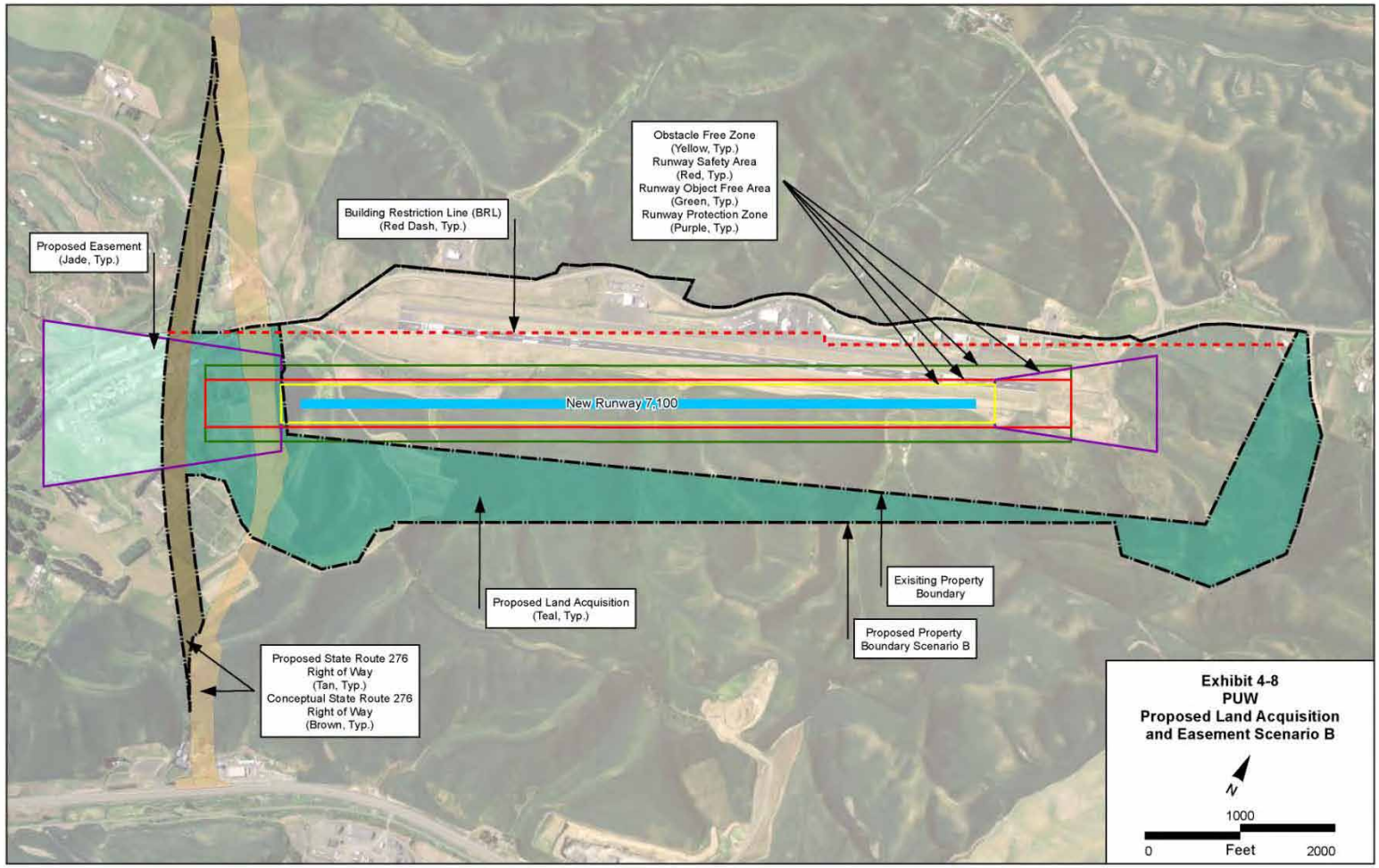
- North-East Development Advisory Board & Stakeholders
- Greater Hillyard Neighborhood Planning Alliance
- Greater Hillyard Business Association
- Hillyard Neighborhood Council
- Bemis Neighborhood Council
- Whitman Neighborhood Council
- Greater Spokane Incorporated
- Avista Utilities
- WSDOT
- Washington State University's Design Institute
- Eastern Washington University Business & Public Administration
- City Council Resolution 2010-0049 Adopted the TAD Strategies

SR 276 Corridor Study



Washington State
Department of Transportation

SR 276 Pullman Airport Expansion

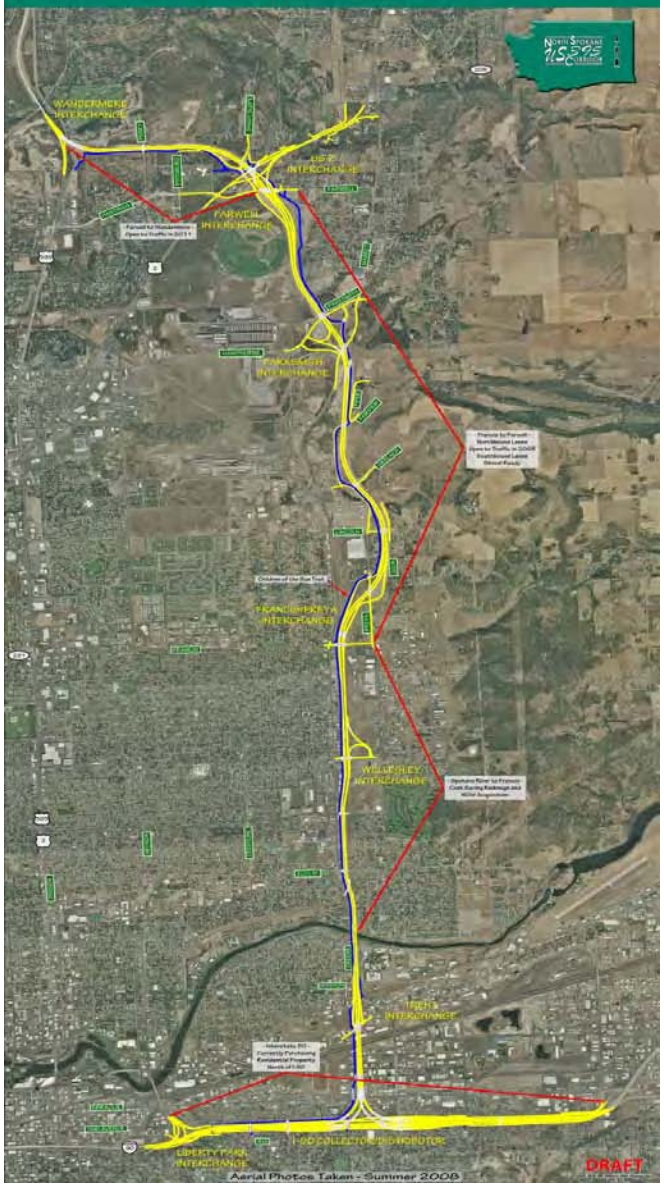


US 195 - Hatch Rd to Interstate 90

US 395 NORTH SPOKANE CORRIDOR

PROJECT STATUS

Washington State Department of Transportation



Aerial Photos Taken - Summer 2008

Washington State Department of Transportation

Thank You

Further Questions?

Please contact Charlene Kay, Planning Engineer, Eastern Region, charlene.kay@wsdot.wa.gov