

# State of Transportation

## **Moving Washington Forward**

ROGER MILLAR, SECRETARY OF TRANSPORTATION  
House Transportation Committee, Jan. 11, 2017

# Overview

## Transportation System – By the numbers

- State-owned system
- Multimodal system

## Agency Emphasis areas

- Workforce
- Inclusion
- Practical Solutions

## 2016 Accomplishments

### Connecting Washington



# Washington's Transportation System – By the numbers



**State-owned highways** – only one part of the whole system that includes city streets, county roads, forest roads, private roads

- WSDOT-managed lane miles: 18,680
  - HOV: 244 lane miles completed of 369 planned
  - **Replacement value of all pavements: \$19 billion**
    - Replacement cycle varies by pavement type. Cost-effective asset management shows an average need of \$250 million per year to preserve; current funding averages \$202 million per year for stand-alone projects
- Toll facilities:
  - SR 16 Tacoma Narrows Bridge
  - SR 167 HOT lanes
  - SR 520 Bridge
  - I-405 express toll lanes
- Motorist Information Systems:
  - Traffic cameras: 1,146 (\$15,000 - \$30,000 per device)
  - Variable message signs: 319 (\$100,000 – \$250,000 per device)
  - Road/weather information systems: 113 (\$25,000 - \$50,000 per device)
  - Highway advisory radio transmitters: 86 (\$50,000 per device)



# Washington's Transportation System – By the numbers (continued)

- **State-owned bridges: 3,294**
  - 91.2% deck area in fair or better condition
  - 223 bridges 80 years or older
  - 6 are 100 years or older
  - 126 bridges load restricted or posted
  - **Replacement value: estimated \$58.2 billion**
    - If all were new, based on 80-year replacement cycle: \$727 million needed annually.
    - The 223 bridges over 80 years old have a replacement value of \$2.5 billion
    - Asset management analysis shows an estimated need of \$270 million per year over the next 10 years to preserve these assets
    - Current funding averages \$118 million per year for stand-alone projects



# Washington's Transportation System – By the numbers (continued)

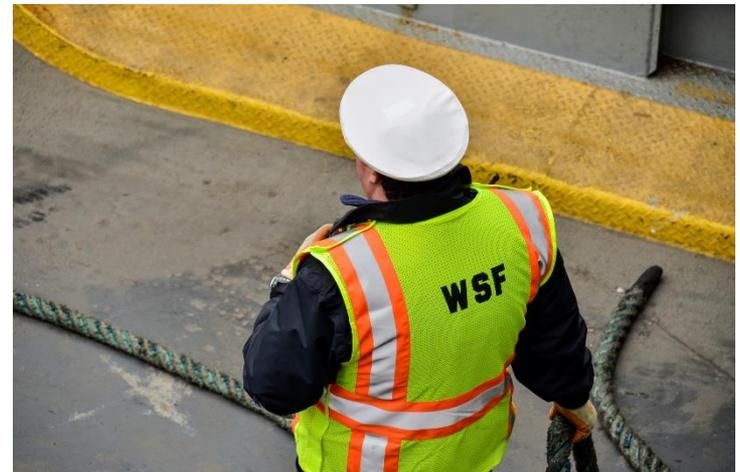
- **Washington State Ferries**

- 23 vessels in the fleet; largest system in the U.S.
- Carries 23.88 million passengers per year
- Average age of vessels: 31 years
- **Replacement value: estimated \$2.9 billion**
  - If all were new, based on a 60-year replacement cycle, \$48.2 million needed annually to replace on time
  - Preservation backlog is \$269.4 million and growing



- **Terminals**

- **Replacement value: estimated \$1.6 billion**
  - Based upon a 50-year replacement cycle, \$32 million needed annually
  - Preservation backlog is \$54 million (not including Seattle and Mukilteo terminals)



# The multimodal system – By the numbers

## Transit

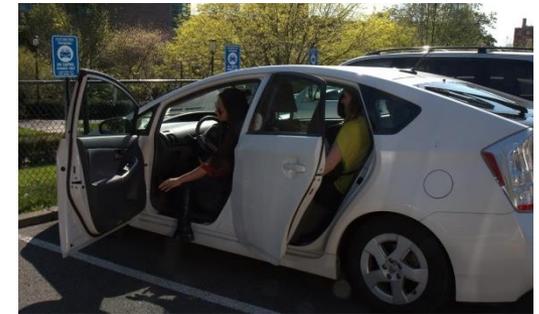
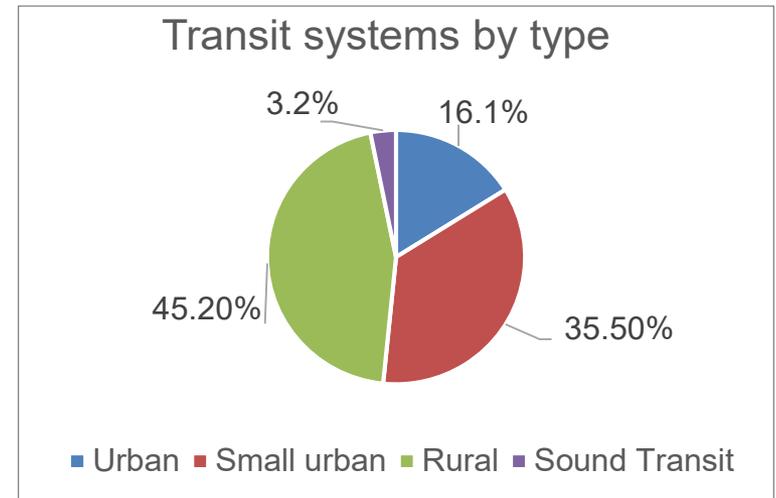
- 31 agencies across the state
- 229 million passenger trips in 2015
  - Peak period transit ridership on I-5 Central Puget Sound = four extra lanes of capacity
  - Rural transit systems cover 11 million miles annually, connecting people in rural areas to jobs, appointments and other services
- Sound Transit: 34 million passenger trips

## Vanpools

- 2,920 vanpools statewide; 8 million passenger trips

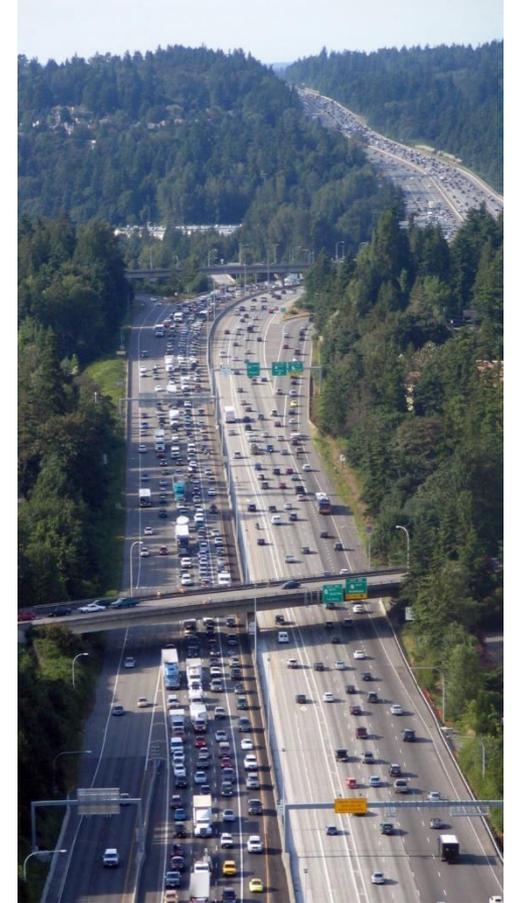
## CTR Program

- Nearly 1,000 worksites across Washington



# The multimodal system – By the numbers (continued)

- **Passenger vehicles**
  - 59.7 billion vehicle miles traveled on all state roads
  - 33.3 billion vehicles miles traveled on state highways
  - 567 roadway fatalities in 2015: fatality rate of 0.95 per 100 million vehicle miles traveled
- **Freight system**
  - 433 million tons moved into, out of, within and through Washington in 2015
  - Total imports and exports valued at \$137.5 billion
  - By tonnage, trucks move 64.3% of all freight in Washington (followed by pipeline, 14.1%; rail, 11.3%; marine, 4.7%; multiple modes, 4%; air, 0.1%; other 1.6%)
  - 300 miles of state-owned Palouse-Coulee City rail gives wheat growers a close-to-home option for shipping grain
- **Economic factors that influence increasing traffic**
  - Employment is up: 3.15 million workers in 2015 (up 5.6% from 2013)
  - Gas prices are down: 2.70 gallon in 2015 (down 27.2% from 2013)
  - Population is up: 7.06 million in 2015 (up 2.6% from 2013)
  - Taxable retail sales are up: \$135.4 billion in 2015 (up 13.5% from 2013)



# The multimodal system – By the numbers (continued)



## Amtrak Cascades

- Provides a travel option along I-5 corridor
- 672,000 passengers in 2015
- Other Amtrak options: Empire Builder, Coast Starlight

## Ferries – the marine highway

- Third largest transit system in the state
- Connects with nine landside transit systems
- Multimodal terminals being built at Colman Dock and Mukilteo, enhancing seamless connections



## Airports

- 6,519 registered aircraft
- 134 general use airports
- 16 state-managed airports

## Bicycle and pedestrian

- 50 Pedestrian and Bicycle Grant projects underway
  - 90% of completed project locations with 3+ years of data have not had a collision
- 22% of state's K-8 students walk or bike to school
- 72 Safe Routes to School projects underway



## 2016 Agency accomplishments

- **SR 520 Bridge**
  - Grand opening April – 50,000 attended
  - World's longest floating highway 7,708.5 feet: Guinness World Record
  - Completed 95th and final column for the West Approach Bridge North – connects to Seattle's Montlake neighborhood
- **SR 99 Tunnel and Alaskan Way Viaduct Replacement**
  - One of the world's largest diameter tunneling machines at 57.5 feet
  - 70 percent of tunnel boring completed in December; laid 1,000<sup>th</sup> ring of 1,426
  - In zone 8 of 10 zones – Lenora to Bell streets
  - 21 of 32 total projects now completed



# 2016 Agency accomplishments (continued)

## Washington State Ferries

- Responding to preservation needs in the fleet
  - Chimacum, 3<sup>rd</sup> Olympic Class Ferry, christened in September
  - Suquamish, 4<sup>th</sup> Olympic Class Ferry, keel laying in May
  - Terminal repairs (seismic) at Coupeville and Vashon
  - Design continues for Colman Dock and Mukilteo multimodal terminals
- Reliability and on-time performance
  - System-wide reliability: 99.5%
  - On-time performance: 94.4%
  - Missed sailings due to crewing issues reduced nearly 70% over previous 26 months
- Added benefit: saving lives
  - 17 WSF employees awarded Life Ring Awards in 2016 for aiding in life-critical events



Photo courtesy: Vigor Industrial

## 2016 Agency accomplishments (continued)

### **Interstate 90, Snoqualmie Pass**

- Finished one of two avalanche bridges to reduce closures
- Completed first arch of the wildlife overcrossing to improve safety

### **Interstate 90, Vantage Bridge**

- Completed painting to protect, preserve the 52-year old bridge; carries 14,000 vehicles a day

### **Interstate 90, Spokane**

- Opened new westbound Freya Street ramp to reduce congestion

### **State Route 153, Pateros to Twisp**

- Rehabilitated the deck of seven of 11 bridges
- Replace asphalt overlay, waterproof membrane and expansion joints



## 2016 Agency accomplishments (continued)



### Tolling

- I-405 express toll lanes: drivers have taken 14.4 million trips in first year
  - \$17.5 million raised from tolls; after expenses, toll revenue goes back into corridor for improvements
  - Funded northbound peak use shoulder lane from SR 527 to I-5, scheduled to open spring 2017
  - About 1% of vehicles are transit, carrying about 15% of people
- SR 167 HOT lanes: 4,600 toll paying customers and 2,200 bus riders each weekday
  - SR 167 HOT lane extension project – added 6 miles southbound to Pacific
- One-time penalty waiver helped 92,000 customers; waived \$31 million in fees and penalties; WSDOT collected \$3.5 million in previously unpaid tolls
- RFP issued for new vendor for new *Good To Go!* billing system

### Incident Response Program

- 10 new vehicles added in supplemental budget for a total of 69 Incident Response Teams
- Based on UW research, cost of delay is estimated at \$345 per minute for blocking incidents
- In 2015, IRT cleared 50,092 incidents; Contributed an estimated \$80.2 million in economic benefits; 628 incidents lasted more than 90 minutes
- In the first three quarters of 2016, IRT cleared 42,847 incidents; Contributed an estimated \$63.5 million in economic benefits; 435 incidents lasted more than 90 minutes

## 2016 Agency accomplishments (continued)

### Interstate 5 Chamber Way Overpass

- This project demonstrated the importance and value of good community engagement
  - July 22 – over height load struck and damaged several girders beyond repair
  - July 27 – demolition of damaged section completed
  - August 4 – temporary span opened to vehicle traffic
- This is an important local corridor and business-hub access point
  - Engaged the community to find a solution to this emergency situation
  - Goodwill and relationships created will serve WSDOT well in finding long-term solution
- Tremendous amount of teamwork required for a successful project
  - Collaboration with Transportation Committee leadership: Idea to Request for Proposal (RFP) in four months



## 2016 Agency accomplishments (continued)

### Fish Passage

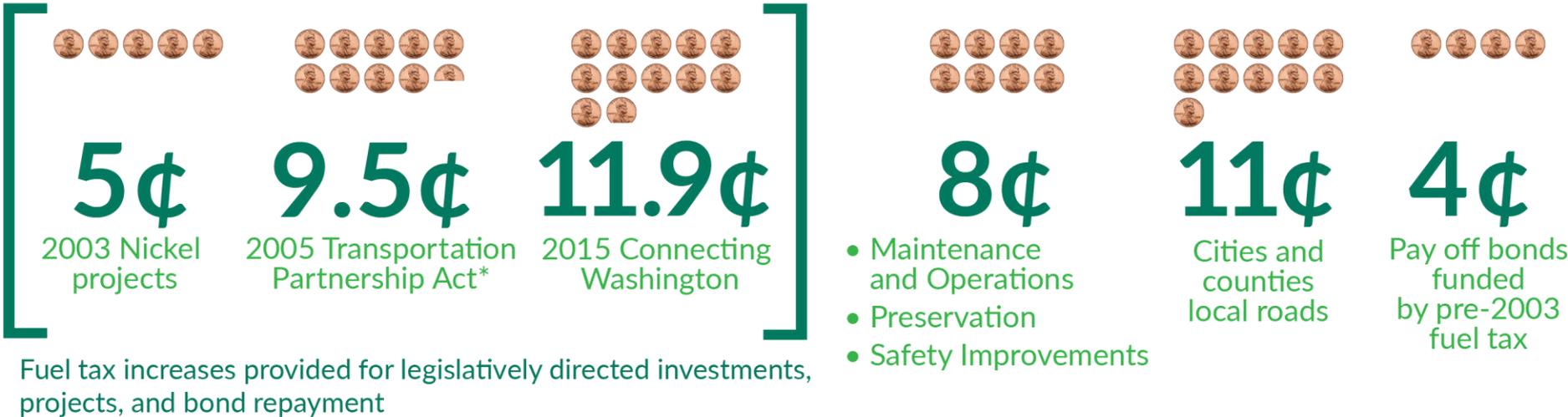
- U.S. Court injunction requires WSDOT to correct 825 barriers to fish by 2030
- Estimated \$2.4 billion needed to meet injunction; all funding sources provide \$640 million
- Funding for 2015-17 is \$88.7 million for stand-alone fish passage projects
- In 2016, corrected 20 fish passage barriers, opening additional 93 miles of stream habitat
- To gain efficiencies, WSDOT is:
  - Using designated fish passage design teams with specialized expertise
  - Working with permitting agencies to streamline permit process
  - Incorporating elements of practical design



Lake Creek on State Route 9 before and after.

# Where Does the State Fuel Tax Go?

**49.4¢ PER-GALLON STATE FUEL TAX**

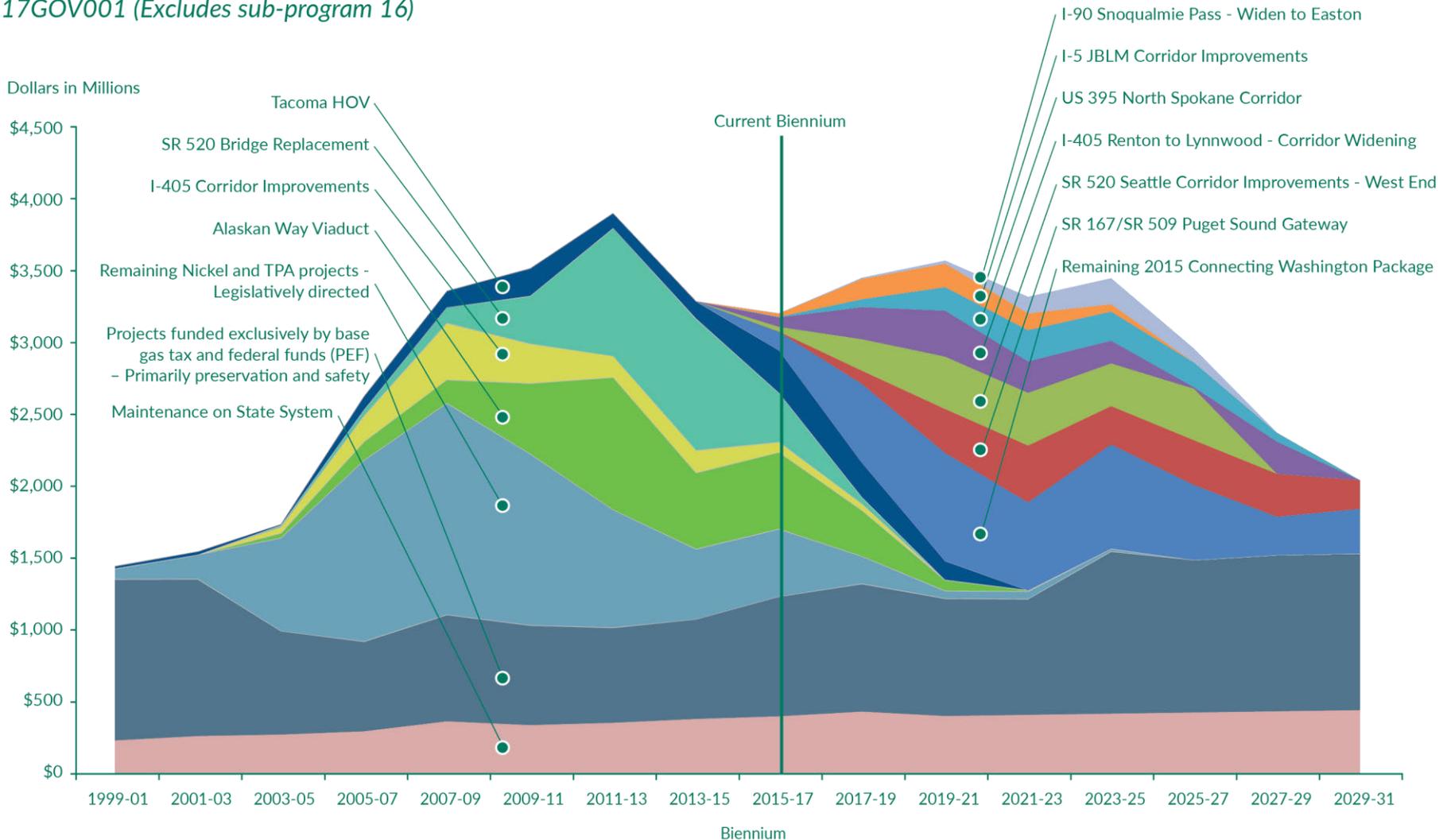


\*Of the 9.5 cents, 8.5 cents is used by the state for highway projects, 1 cent goes to cities and counties for street and road improvements

# WSDOT Highway Maintenance and Construction Program with Revenue Packages

## 2017 Governor's Proposed Budget

17GOV001 (Excludes sub-program 16)



# Connecting Washington

## \$16 billion transportation investment over 16 years

- First Connecting Washington project completed: I-82 Benton City Roundabout
- Broke ground on I-405/SR 167 interchange: first Connecting Washington project in Seattle area



## High-level funding highlights

- \$9.4 billion – state and local road projects
- \$3 billion – debt service and contingency
- \$1.4 billion – state highway maintenance, operations and preservation
- \$602 million – 4th Olympic Class ferry, terminal construction and preservation



# Connecting Washington project highlights

- **SR 167/SR 509 Puget Sound Gateway - \$ 1.9 billion**
  - Builds SR 167 from Puyallup to I-5 and on to SR 509 near Port of Tacoma; builds SR 509 near SeaTac Airport to I-5 in King County
  - Project will be built in stages, tolling starts as each stage is completed
  - Funding extends through 2031
- **SR 520 Rest of the West - \$1.6 billion**
  - Completes the SR 520 program by extending the six-lane corridor to I-5
  - Builds West Approach Bridge South and Montlake interchange and lid; includes a multimodal transit hub on the Montlake lid
  - Funding extends through the 2027-29 biennium
- **I-405 Renton to Bellevue - \$1.3 billion**
  - Funds next phase of the I-405 Master Plan
  - Includes I-405/SR 167 Direct Connector flyover ramp; scheduled to open late 2018
  - Renton to Bellevue widening and express toll lane construction 2019-2024

# Connecting Washington project highlights (continued)

- **US 395 North Spokane Corridor - \$879 million**
  - Completes the final 5.5 miles of new north/south route
  - In total, 10.5 miles connecting US 2/US 395 on north end to I-90 on the south end
  - Funding extends through 2029
- **I-5 Joint Base Lewis McChord - \$494 million**
  - Funds congestion relief through JBLM; preferred alternative adds one lane each direction from DuPont-Steilacoom Road to Thorne Lane, with local connector road
  - Funding for design and construction through 2025; work to be done in stages
- **I-90 Snoqualmie Pass - \$426 million**
  - Finished the remaining 8 miles of a 15-mile-long project
  - Widens I-90 from four to six lanes; Expands chain-up areas; addresses wildlife connectivity
  - Funding extends through 2027

# Connecting Washington project highlights (continued)

- **Preservation - \$1.2 billion**
  - Applying asset management principles across assets to maximize benefits to the transportation system. Assets include pavements, bridges, ferries, safety rest areas, agency facilities, communication systems, etc.
  - Targeted investments to manage the existing backlog of asphalt, upcoming concrete pavement needs and to preserve our aging bridge network
- **Multimodal - \$1.3 billion**
  - \$200 million: Regional Mobility Grant Program – supports local efforts to improve transit mobility
  - \$111 million: Transit-related grant projects such as park and ride lots, transit facilities, new buses
  - \$110 million: Rural Mobility Grant Program – improves public transportation in small cities and rural areas
  - \$41 million: Commute Trip Reduction Program – sustains a tax credit to businesses with employer-based commuter programs
- **Active Transportation (Bicycles/Pedestrians – part of multimodal funding)**
  - \$75 million for pedestrian and safety grants to local agencies statewide
  - \$56 million for Safe Routes to School Grants – projects intended to increase walking and biking to school

# WSDOT is changing how it does business

## WSDOT has demonstrated we're good at delivering projects and programs

- 374 of 421 Nickel/TPA construction projects
  - 87% on time
  - 92% on budget
- Managing maintenance and preservation backlog with existing resources

Now focusing on moving to the next level of integrated stewardship of the multimodal transportation system...





## Practical Solutions approach

- Delivering Connecting Washington with Practical Solutions
  - Performance-based decision making, rather than standards-based
  - Data-driven approach to manage assets, improve the performance of the multimodal transportation system
  - Uses data and analysis tools to seek lower-cost solutions, efficiencies
- Executive oversight: Practical Solutions Roundtable
  - Reviews each project
  - Guides implementation of Practical Solutions approach
  - Forum for sharing best practices
- Community engagement is a key in developing transportation solutions
  - Collaborative decision making
  - Corridor Sketch Initiative
- Training is a crucial part of changing WSDOT culture

# Framework for future investment decisions

## Policy Direction

- RCW 47.04.280
- Results Washington
- Results WSDOT strategic plan

## Manage Assets

- Operate and maintain multimodal system and agency resources to meet performance objectives at the lowest cost

## Identify Needs

- Identify performance targets for all policy goals
- Understand critical corridors

## Assess Alternative Strategies

- Build strategies with partners
- Consider least cost strategies first
  - Safety
  - Operations
  - Demand Management
  - Capital
  - Other

## Refine Solutions

- Integrated scoping
  - Safety
  - Operations
  - Demand Management
  - Capital
  - Other

## Assign Resources

- Investments reviewed across funding programs to synchronize for best performance

## Develop Funded Solutions

- Solutions defined to address the performance gap at the lowest cost

## Implement Solutions

- Implement or construct

# Framework for future investment decisions (continued)

- Statewide Transportation Asset Management Plan is used to:
  - Identify performance measures and targets
  - Identify assets and their condition
  - Identify gaps between the existing condition and state performance targets
  - Perform lifecycle-cost and risk management analysis
  - Create a financial plan
  - Describe investment strategies to preserve the asset, using a Practical Solutions approach
- Corridor Sketch planning is used to assess system needs and changes over time

Manage  
Assets

Identify  
Needs

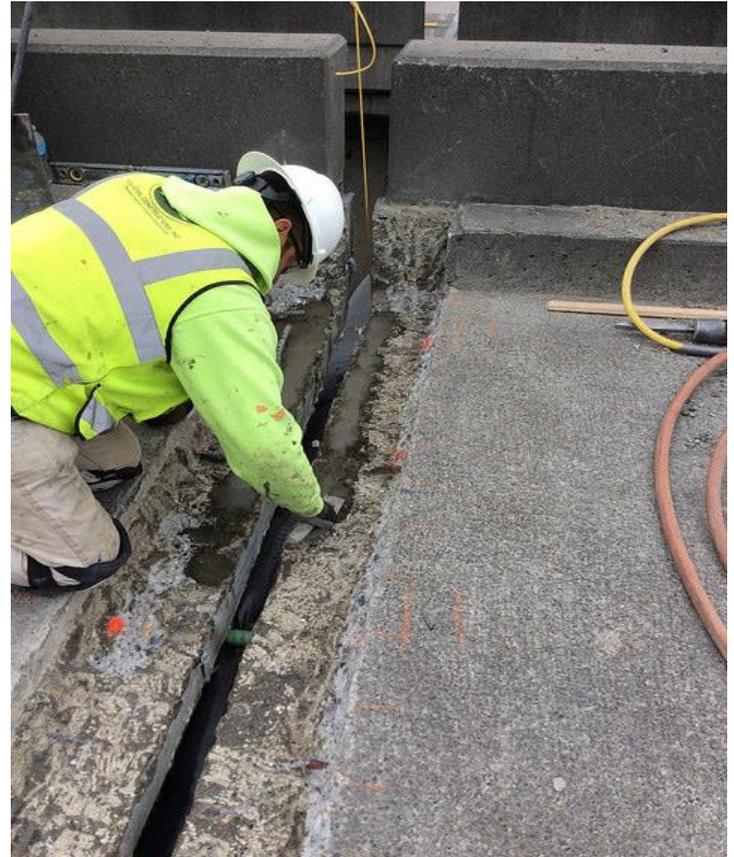


# Framework for future investment decisions (continued)

- State of good repair
  - Preservation
  - Lifecycle-cost and risk management analysis
- Safety
  - Target Zero
  - MAP 21 national performance goals
- Transportation system management
  - Operate more efficiently
  - Low-cost, high-impact adjustments
- Demand management
  - CTR, public transportation, land use
- Capacity expansion
  - Capital program

Assess  
Alternative  
Strategies

Refine  
solutions



# Framework for future investment decisions (continued)



Assign  
Resources

Develop  
Funded  
Solutions

Implement  
Solutions

- Assign Resources
  - Examine how solutions rank across the state based on benefit/cost
  - Look across programs for best fit for resourcing
  - Develop prioritized list of investments
- Develop funded solutions
  - Assess design/development options for the proposed solution
  - Design/develop for the lowest cost that addresses the solution
- Implement solutions
  - Manage implementation/construction to address the performance gap

# WSDOT's workforce

## opportunities and challenges

- Downsizing as we neared the end of Nickel and TPA funded projects
  - Reduced workforce by 800 FTEs to meet projected project expenditures
- Now managing Connecting Washington
  - \$16 billion construction program over 16 years
  - Highly qualified, skilled staff needed to deliver innovative, cost-effective projects
- Experiencing increasing attrition
  - Expect 45% of engineering classifications to leave WSDOT in next five years due to retirements or better pay elsewhere
  - 75 – 80% of maintenance leadership retirement eligible in same period
- Regardless of how we deliver, need experienced workforce



# Recruitment and Retention issues



- 2016 Recruitment and Retention study:
  - WSDOT lags as much as 33% behind marketplace in compensation, benefits
  - Losing WSDOT staff to private and public employers
  - Working to address salary disparity – engineering, technical, maintenance
- 2016 State Salary Survey
  - Pay disparity reaches across many positions in the agency
  - 99% of WSDOT general service employees are 25% to 67.5% behind market
- 2016 Marine Employee Compensation Survey
  - Workforce is covered by 11 different bargaining units
  - Depending on position, lag ranges from 4.9% to 21.8% behind market for base salary



## Recruitment and Retention strategies

### Efforts underway and under development

- Recruiting for entry level staff
  - Targeted outreach: military, minorities
  - Apprenticeship program
  - Reentry program
  - Internship program
- Keeping our experienced staff
  - Increased use of in-training and development plans
  - Retire/rehire
  - WSDOT Alumni network
  - Employee referral program



# Our communities are changing

- Washington's communities are experiencing a minority/majority shift
  - U.S. Census: Percentage of non-Hispanic whites declined in all 39 counties
- Want our workforce to look like the communities we serve
  - Recruitment efforts can help us achieve diversity
  - Working with contracting community to create opportunities



	WSDOT	Washington
Women	25%	50%
Hispanic	3%	12%
African American	2%	4%
Native American	1%	2%
Asian-Pacific	5%	8%



# WSDOT Inclusion goals

## Be a leader in Inclusion

- Create fair and equal opportunity to participate
  - WSDOT employment, contracts, decision making
  - Work with any business willing and ready to work with us
- Improve access: Make sure every voice is heard
  - Reaching out to disadvantaged, underrepresented, underserved communities
- Provide tools and training for staff to be successful working with diverse cultures



# Inclusion action plan

## Increasing opportunities for participation

- Focused on Minority, Small, Veteran and Women's Business Enterprises
  - Intended to meet Governor's Goals:
    - Minority: 10 percent
    - Women: 6 percent
    - Small: 5 percent
    - Veteran: 5 percent
- Working with industry partners to develop Mentor/Protégé Program
  - Planned for 30 to 50 mentors and protégés – AGC and minority contractors
    - Building relationships and capacity
    - If not effective, will implement enforceable goals program
- Proposed Small and Veteran's Business Enforceable Goals Program
  - Condition of award goals, Good Faith efforts
  - Tiered participation – extra goal credits for firms new to WSDOT, based on firm size
  - If not effective, then consider race-conscious goals



# Questions and suggestions?

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