

STATE OF WASHINGTON

## **2014 BIENNIAL TRANSPORTATION ATTAINMENT REPORT**

## WASHINGTON'S TRANSPORTATION SYSTEM: GOALS, OBJECTIVES AND PERFORMANCE MEASURES

OFFICE OF FINANCIAL MANAGEMENT November 2014

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### Message from the Office of Financial Management

Dear Governor, Legislators and Interested Readers,

I am pleased to submit this 2014 Biennial Transportation Attainment Report on the state's transportation system. With this report, we are able to look at five years or more of data and include several new measures that were not in the 2012 report. Although fiscal impacts cannot be proven to drive performance, we have included data on investments made during the 2013–15 biennium that we think have made a difference. We also have included "contributing success factors" that influence our transportation system.

The performance measures tell the story of a transportation system that is under stress while trying to support a recovering economy. Some measures demonstrate growth and improvement while many others indicate that challenges remain.

Where things are improving:

- The Washington State Department of Transportation has opened almost 1,000 miles of potential habitat for fish since 1991.
- More structurally deficient bridges have been corrected in the current biennium than in the previous biennium.
- Pedestrian fatalities appear to be declining substantially.
- Ferry and urban area transit ridership is increasing.
- Nickel and Transportation Partnership Act projects continue to consistently come in on time and on budget.
- Amtrak ridership is up.
- Air quality in the Seattle-Tacoma-Bellevue metropolitan area is improving.

Where challenges remain:

- The number of serious injuries is increasing and seatbelt utilization rates are dropping.
- The number and rate of traffic fatalities and serious injuries continues to decrease, albeit at a much slower pace.
- The demands on our transportation system are growing as the population continues to increase.
- Road pavement condition, while still good or fair, is declining rapidly in all areas except small cities.
- Serious injuries due to distracted driving continue to rise.
- In 2013, drive-alone commute rates were the highest they have been since 2008.
- The number of transportation-related jobs is beginning to decline dramatically.
- Revenue based on fuel taxes is declining as vehicle mileage improves.
- The Bellingham metropolitan area ranked third in the nation for fraud and other consumer complaints.
- After a period of decline, commuter delay is increasing in the Seattle metropolitan area.

Given these challenges, we have identified a number of areas of concern, including maintaining the safety of our citizens on Washington roadways, dealing with climate change, improving fish passage, and keeping up with preservation and maintenance needs for roads.

We look forward to working together with you, the public and our transportation partners to attain Washington's transportation goals.

Sincerely,

David Schumacher, Director Office of Financial Management

#### Washington's Transportation Attainment Reports provide a high-level assessment of the state's progress in achieving its transportation goals, using key performance measures and data.

#### Statewide Transportation Goals

In 2007, the Washington State Legislature amended RCW 47.04.280 to establish five statewide transportation policy goals to guide the planning, operation, performance of and investment in the state's transportation system. They are not prioritized.

- *Safety*: To provide for and improve the safety and security of transportation customers and the transportation system.
- *Preservation:* To maintain, preserve and extend the life and utility of prior investments in transportation systems and services.
- *Mobility (addressing congestion):* To improve the predictable movement of goods and people throughout Washington state.
- *Environment:* To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities and protect the environment.
- *Stewardship:* To continuously improve the quality, effectiveness and efficiency of the transportation system.

In 2010, the Legislature added a sixth goal:

*Economic vitality:* To promote and develop transportation systems that stimulate, support and enhance the movement of people and goods to ensure a prosperous economy.

#### **Biennial Transportation Progress Reports**

and performance measures for each of the legislatively adopted goals, and for preparing a biennial progress report (also referred to as an "Attainment Report") for the Legislature and Governor (RCW 47.04.280). The purpose of these reports is to assess progress on the goals and contribute positively to the performance of the transportation system. Rather than report on agency-specific performance, the focus is on overall system performance.

Most of the objectives and measures were developed with input from transportation agencies, stakeholders and the Legislature in 2008, and are updated here. This report provides a high-level indicator for each measure to allow the quick assessment of progress.

Many of the measures and supporting data are being used to make investment decisions, develop strategies and programs, provide accountability and promote stronger internal management. All the measures will evolve as we continue to make progress in assessing the performance of the multifaceted components of Washington's transportation system.

### Washington State Transportation System – Just the Facts

Pressure on the transportation system comes from a number of sources including, but not limited to, population increases, job creation, new housing units constructed, and the greater numbers of vehicles and drivers. The following data help put into context what some of these pressures mean.

## Population growth has averaged about 1.25 percent annually over the past few years and has increased 40 percent since 1990, an addition of 2 million people.

Population forecasters expect another 500,000 Washington residents by the year 2019. One of the most striking characteristics of Washington's population is the increase in people older than 65 years. By 2030, the elderly population is forecast to reach 1,675,100, representing one-fifth of the state's total population.

#### We've added 43,000 housing units since 2010.

More than 3,000 lane miles were added to state, county and city roads between 2009 and 2014 to support these new homes. In 2013, there were 2,928,217 housing units in the state, with working residents 16 and older having a mean travel time to work of 25.5 minutes from these units.

## Employment has grown from 2.8 million in July 2010 to 3.3 million in July 2014, an increase of 18 percent.

Employment has recovered from recessionary lows in 2008 and 2009. Growth since 2010 has been dramatic in terms of number of people working when the unemployment rate was 8.9 percent; in July 2014, it was 5.6 percent. Employment has significant impacts on commute rates and road congestion at peak travel times as well as on transit usage, ferry ridership, port activity, train and airport boardings, and vehicle miles traveled on state roads.

One of the biggest transportation problems related to employment is the disparity between where the job growth is compared to where affordable housing exists. The farther out commuters go, the greater the demand for both public transportation and more highway capacity.

#### Vehicle ownership has grown faster than the state population.

In 1990, there were 4.9 million vehicles registered in Washington compared to 7.2 million vehicles registered in 2014. This represents an increase of more than 2.3 million vehicles, or a staggering 47 percent. In fact, there are more registered vehicles than there are licensed drivers.

#### There are 1.33 vehicles registered per licensed driver.

Between 2010 and 2014, the number of licensed drivers in the state has grown at a rate of 100,000 additional drivers annually.

### **2013 Key Transportation Facts**

| .4 million licensed drivers (FY 2014)<br>.5 million registered passenger vehicles<br>FY 2014) | <ul><li>1.09 million miles of roads snowplowed</li><li>7,902 bridges statewide</li></ul> |
|---|--|
|   | 7,902 bridges statewide  |
|   |  |
| .2 million total registered vehicles (FY 2014)  | 309 miles of HOV freeway lanes complete  |
| 7.2 billion vehicle miles traveled  | 357 park-and-ride lots with 57,000 spaces  |
| .37 billion gallons of fuel consumed (FY 2014)  | 2,995 vanpools   |
| 6.91 miles per gallon on average (FY 2014)  | 9.5 million annual vanpool trips (2010)  |
| 0,556 miles per licensed driver on average<br>FY 2014)  | 31 transit systems   |
| 8,435 state highway lane miles  | 235 million transit passenger trips  |
| ,005 interstate freeway lane miles (2012)   | 582,943 state-supported Amtrak Cascades passenger trips                                  |
| 8,708 county road lane miles  | 3,652 miles of freight railroad (2009)   |
| 8,907 city road lane miles  | 103.3 million tons of rail freight (2012)  |
| 3.3% of daily traffic on county and city roads  | 372 million tons of freight carried by truck (2012)                                      |
| 5.3% of daily traffic on state highways includes 27.1% of daily traffic on interstates)       | \$132 billion in cargo passing through ports   |
| In the  | e Air  |
| 6 state-managed airports (9 owned by state)   | 1.26 million tons of air cargo (2012)  |
| 34 public use airports  | 16 million passenger boardings at Sea-Tac<br>Airport (2012)                              |
| On the  | Water  |
| 3 ferries, largest system in the nation (2014)  | 22.4 million ferry passengers  |
| 0 terminals   | 10 million vehicles carried on ferries   |
| 5 port districts  | 3.5 million 20-foot container equivalent units through Seattle and Tacoma ports          |
| 0 ferry routes  | 115.6 million tons of waterborne freight tonnage (2012)                                  |
| 50 daily sailings   |  |

Sources: OFM; Dept. of Licensing; WSDOT; U.S. DOT; U.S. Dept. of Commerce. Data are 2013 unless otherwise noted.

### Statewide Transportation Goals, Objectives and Performance Measures

### Summary of Progress — 2014 Status

| GOA  | AL 1. SAFETY  |   |  |
|--|---|---|--|
| the safety and security                              | of transportation customers   | s and the trans   | portation system.  |
| Objective  | Status  | Progress  | 5-Year Trend   |
| Reduce roadway<br>fatalities                         | 436 traffic fatalities in<br>2013, a 5.2% drop since<br>2010 but are essentially<br>flat between 2012 and<br>2013   | •   | •  |
| Reduce rate of traffic<br>fatalities per 100M<br>VMT | 0.76 rate in 2013, a 12.5%<br>decrease from 2009 but the<br>rate of decline is also<br>flattening   | •   | *****  |
| Reduce number of collisions                          | 10% reduction in collisions<br>from 2008 to 2013 but a<br>1% increase from 2012   | •   | <b>~~~~</b>  |
| Reduce severity of collisions                        | A 14% reduction from 2008<br>to 2012 but a 3.5% increase<br>from 2011   | •   | ++   |
| Reduce number of pedestrian fatalities               | Number of fatalities has<br>dropped from 75 in 2012 to<br>49 in 2013  | *   |  |
| Reduce number of pedacyclist fatalities              | 6 fatalities in 2010, rising<br>to 11 in 2013   | •   |  |
|  | the safety and security   Objective   Reduce roadway   fatalities   Reduce rate of traffic fatalities per 100M VMT Reduce number of collisions Reduce severity of collisions Reduce number of pedestrian fatalities Reduce number of pedestrian fatalities Reduce number of pedestrian fatalities | ObjectiveStatusReduce roadway<br>fatalities436 traffic fatalities in<br>2013, a 5.2% drop since<br>2010 but are essentially<br>flat between 2012 and<br>2013Reduce rate of traffic<br>fatalities per 100M<br>VMT0.76 rate in 2013, a 12.5%<br>decrease from 2009 but the<br>rate of decline is also<br>flatteningReduce number of<br>collisions10% reduction in collisions<br>from 2008 to 2013 but a<br>1% increase from 2012Reduce severity of<br>collisionsA 14% reduction from 2008<br>to 2012 but a 3.5% increase<br>from 2011Reduce number of<br>pedestrian fatalitiesNumber of fatalities has<br>dropped from 75 in 2012 to<br>49 in 2013Reduce number of<br>pedestrian fatalitiesStatus | the safety and security of transportation customers and the trans         Objective       Status       Progress         Reduce roadway<br>fatalities       436 traffic fatalities in<br>2013, a 5.2% drop since<br>2010 but are essentially<br>flat between 2012 and<br>2013       •         Reduce rate of traffic<br>fatalities per 100M<br>VMT       0.76 rate in 2013, a 12.5%<br>decrease from 2009 but the<br>rate of decline is also<br>flattening       •         Reduce number of<br>collisions       0.76 reduction in collisions<br>from 2008 to 2013 but a<br>1% increase from 2012       •         Reduce severity of<br>collisions       10% reduction from 2008<br>to 2012 but a 3.5% increase<br>from 2011       •         Reduce number of<br>pedestrian fatalities       Number of fatalities has<br>dropped from 75 in 2012 to<br>49 in 2013       *         Reduce number of<br>pedestrian fatalities       Number of fatalities has<br>dropped from 75 in 2012 to<br>49 in 2013       * |

• Performance is not moving in a favorable direction, showing no change or is an area of concern

| Measure 1.4 Ferry Passenger<br>Injuries<br>Number of passenger injuries per<br>1 million passenger miles               | Reduce passenger<br>injuries                          | Injury rate is back to 2010<br>levels with only 12 injuries<br>in 2014                | * |  |
|--|---|---|---|--|
| Measure 1.5 Facial Recognition<br>License Suspensions & Record<br>Cancellations<br>Number of identity theft complaints | Reduce fraudulent<br>driver's licenses and<br>records | Reduction of more than<br>1,000 identity theft<br>complaints between 2008<br>and 2013 | * |  |

### GOAL 2. PRESERVATION

#### To maintain, preserve and extend the life and utility of prior investments in transportation systems and services.

| Measures  | Objective                                | Status   | Progress | 5-Year Trend |
|---|--|--|----------|--------------|
| <b>Measure 2.1 Highway Pavement</b><br>Percentage of state highway<br>pavement in fair or better condition      | Extend the useful life<br>of pavement    | Highway pavement in fair or<br>better condition dropped<br>from 94.7% in 2008 to<br>91.8 % in 2012 | •        |              |
| <b>Measure 2.2 Bridges</b><br>Percentage of state bridges rated<br>structurally deficient (SD)                  | Keep bridges safe<br>and open to traffic | 4.7% of bridges were rated<br>SD in 2013, a 0.6%<br>improvement from 2009                          | *        |              |
| <b>Measure 2.3 Ferry Terminals</b><br>Percentage of state ferry terminal<br>systems in fair or better condition | Extend the useful life ferry terminals   | 86% rated fair or better in<br>2011, a 2% increase from<br>2008                                    | *        |              |

• Performance is not moving in a favorable direction, showing no change or is an area of concern

| <b>T</b>  | o muo di eta h la successo  |  |                   |              |
|---|---|--|-------------------|--------------|
| -   | -   | it of goods and people throug  | -                 |              |
| Measures<br>Measure 3.1 Annual Hours of<br>Delay per Traveler<br>Annual hours of delay per traveler on<br>major corridors in greater Seattle and<br>Spokane areas | <i>Objective</i><br>Reduce congestion on<br>urban highways and<br>arterials (Seattle) | <i>Status</i><br>5-hour reduction from<br>2007 to 2009 but has<br>increased by 1 hour<br>between 2010 and 2011           | <i>Progress</i> ◆ | 5-Year Trend |
|   | Reduce congestion on<br>urban highways and<br>arterials (Spokane)                     | 3-hour decrease from 2007 to 2011  | *                 | ~~~~         |
| Measure 3.2 Avoided Annual<br>Hours of Delay per Traveler<br>Annual hours of delay avoided<br>through operational or public<br>transportation enhancements        | Reduce congestion by<br>making systems more<br>efficient                              | 15 hours of additional<br>delay avoided in 2009 but<br>has not improved<br>between 2009 and 2011<br>(Seattle area shown) | •                 | <b>~</b>     |
| <b>Measure 3.3 High Occupancy Toll</b><br>(HOT) Lanes<br>Usage of HOT lanes on SR 167   | Improve traffic flow<br>through HOT lanes   | Pilot project shows daily<br>usage of HOT lanes<br>increasing 87% since<br>2010  | *                 | -            |
| Measure 3.4 High Occupancy<br>Vehicle (HOV) Lanes<br>Usage of Seattle-area network of<br>HOV lanes by person miles traveled<br>(PMT)                              | Improve performance<br>of HOV lanes   | HOV usage increased 5% by<br>PMT in Seattle area from<br>2007 to 2011  | *                 |              |
| Measure 3.5 Drive-Alone Rate<br>Percentage of commute trips taken<br>while driving alone  | Reduce percentage of<br>commuters who drive<br>alone to work                          | Drive-alone rate increased<br>1% from 2009 to 2013   | •                 | ****         |

| Increase ridership   | Ridership increased 0.8%<br>between 2010 and 2014,<br>and 1.9% between 2013<br>and 2014   | *  | • <u> </u>   |
|--|---|--|--|
| Increase percentage of on-time trips                         | On-time trips improve,<br>especially summer season<br>(shown) at 96.4 % in 2014   | *  |  |
| Increase ridership   | Ridership increased 10.8%<br>from 2009 to 2010 but has<br>been flat between 2010<br>and 2013  | •  |  |
| Increase percentage of<br>on-time trips                      | On-time trips improve,<br>winter trips improve from<br>53.7% in 2011 to 71% in<br>2013 (winters shown)  | *  | ••••   |
| Increase ridership in<br>Puget Sound area                    | Puget area ridership<br>increased 7% between<br>2009 and 2013   | *  |  |
| Increase ridership in<br>areas outside of the<br>Puget Sound | Other state transit systems<br>lose 4% in ridership due to<br>service cutbacks in the<br>same time frame  | •  |  |
|  | Increase percentage of<br>on-time trips<br>Increase ridership<br>Increase percentage of<br>on-time trips<br>Increase ridership in<br>Puget Sound area | between 2010 and 2014,<br>and 1.9% between 2013<br>and 2014Increase percentage of<br>on-time tripsOn-time trips improve,<br>especially summer season<br>(shown) at 96.4 % in 2014Increase ridershipRidership increased 10.8%<br>from 2009 to 2010 but has<br>been flat between 2010<br>and 2013Increase percentage of<br>on-time tripsOn-time trips improve,<br>winter trips improve,<br>winter trips improve from<br>53.7% in 2011 to 71% in<br>2013 (winters shown)Increase ridership in<br>Puget Sound areaPuget area ridership<br>increased 7% between<br>2009 and 2013Increase ridership in<br>areas outside of the<br>Puget SoundOther state transit systems<br>lose 4% in ridership due to<br>service cutbacks in the | between 2010 and 2014,<br>and 1.9% between 2013<br>and 2014Increase percentage of<br>on-time tripsOn-time trips improve,<br>especially summer season<br>(shown) at 96.4 % in 2014Increase ridershipRidership increased 10.8%<br>from 2009 to 2010 but has<br>been flat between 2010<br>and 2013Increase percentage of<br>on-time tripsOn-time trips improve,<br>winter trips improve,<br>winter trips improve from<br>53.7% in 2011 to 71% in<br>2013 (winters shown)Increase ridership in<br>Puget Sound areaPuget area ridership<br>increased 7% between<br>2009 and 2013Increase ridership in<br>areas outside of the<br>Puget SoundOther state transit systems<br> |

| Measure 3.9 Walking or Biking  | Promote walking and<br>biking to improve<br>public health      | Bicycling as a commute<br>mode increased 17%<br>between 2008 and 2012                                       | *             |                        |
|--|--|---|---------------|------------------------|
|  | GOAL 4.  | Environment   |               |                        |
| To enhance Washington's quality<br>healthy communities and protect   |  | tation investments that pron  | note energy o | conservation, enhance  |
| Measures   | Objective  | Status  | Progress      | 5-Year Trend           |
| Measure 4.1 Fish Passage<br>Number of culverts fixed and miles of<br>stream habitat opened up                                  | Increase number of culverts fixed                              | 12 culverts were fixed in<br>2012 and 13 were fixed in<br>2013  | *             | 1                      |
|  | Increase number of<br>potential miles of<br>habitat gained     | 55 miles of potential habitat<br>were gained in 2012 and 41<br>miles were gained in 2013                    | *             |                        |
| Measure 4.2 Stormwater Runoff<br>Quality<br>Percentage of stormwater quality<br>measurements requiring Ecology<br>notification | Improve water quality<br>by managing<br>stormwater runoff      | 2.1% of weekly site<br>measurements in 2012<br>required Ecology notification,<br>increasing to 2.3% in 2013 | *             | 1                      |
| <b>Measure 4.3 Greenhouse Gases</b><br>Tons of greenhouse gases produced<br>statewide  | Reduce greenhouse<br>gas emissions caused<br>by transportation | Transportation greenhouse<br>gas emissions peak in 2007<br>and are slowly declining                         | *             | *- <b>•</b> - <b>•</b> |

|   | GOAL 5.  | STEWARDSHIP   |          |              |  |
|---|--|---|----------|--------------|--|
| To continuously improve the quality, effectiveness and efficiency of the transportation system.   |  |   |          |              |  |
| Measures  | Objective  | Status  | Progress | 5-Year Trend |  |
| Measure 5.1 Capital Project<br>Delivery<br>Percent of 2003 (Nickel) and 2005<br>(TPA) revenue packages' capital<br>projects completed on time and on<br>budget (based on last legislatively<br>approved list) | Deliver 90% of Nickel<br>and TPA projects on<br>time   | 87% on time in FY 2014,<br>down from 89% in FY<br>2010  | •        | <b></b>      |  |
|   | Deliver 90% of Nickel<br>and TPA projects on<br>budget   | 91% on budget in FY<br>2014, down 1% from FY<br>2010  | •        |              |  |
| Measure 5.2 Ferry Terminal<br>Capital Projects<br>Ferry terminal capital projects<br>completed on time  | Deliver 90% of ferry<br>terminal capital<br>projects on time   | 94% on time over past 5<br>years  | *        |              |  |
| Measure 5.3 Ferry Vessels Weeks<br>Out-of-Service<br>Time that ferry vessels are out of<br>service  | Limit out-of-service<br>time for ferry vessels   | Each vessel averaged 8.1<br>weeks out-of-service in<br>FY 2014  | <b>♦</b> |              |  |
| Measure 5.4 Rail Capital Project<br>Delivery<br>Nickel and TPA rail projects<br>completed on time and on budget   | Deliver 90% of rail<br>capital projects on<br>time and on budget                                       | 100% Nickel and TPA rail<br>projects since 2006 have<br>been delivered on time<br>and on budget and are<br>now completed      | *        |              |  |
| Measure 5.5 Grade<br>Transportation System<br>Survey local, regional and statewide<br>customers   | Measure public<br>perception about<br>condition and needs of<br>the statewide<br>transportation system | In 2013, 68% of<br>respondents rated<br>statewide systems<br>average or better but<br>scores were lower than in<br>2011 by 2% | •        |              |  |
|   | Measure public<br>perception about<br>condition and needs of<br>their local<br>transportation system   | In 2013, 62% of<br>respondents rated local<br>systems average or better<br>but scores were lower<br>than in 2011 by 8%        | •        | <b>~</b>     |  |

Measure 5.6 Passenger Satisfaction – Ferry System Survey ferry system passengers Measure passenger satisfaction with ferry system In 2014, 83% indicate they are satisfied or neutral about ferry service



\*

| GOAL 6. ECONOMIC VITALITY<br>To promote and develop transportation systems that stimulate, support, and enhance<br>the movement of people and goods to ensure a prosperous economy |   |  |          |  |  |
|--|---|--|----------|--|--|
| Measures Objective Status Progress 5-Year Trend  |   |  |          |  |  |
| <b>Measure 6.1 Jobs Created</b><br>Number of jobs created or sustained<br>by transportation projects   | Create and sustain jobs<br>through investments<br>in transportation<br>(5 biennia trend<br>shown) | Estimated jobs have<br>flattened and will drop<br>sharply over next 2<br>biennia | •        |  |  |
| <b>Measure 6.2 Freight</b><br>Amount of freight cargo moving in,<br>out and within Washington through<br>the air, by water or by rail  | Enhance<br>transportation systems<br>to facilitate movement<br>of freight                         | Air, water and rail tonnage<br>decreased by 4% between<br>2010 to 2012           | <b>♦</b> |  |  |

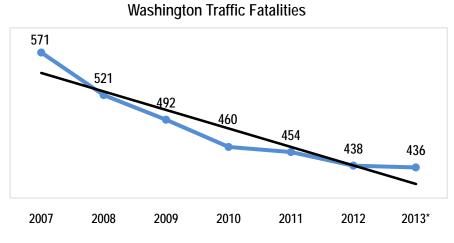
\* Performance is moving in a favorable direction

#### **Objective: Reduce roadway fatalities**

#### Fatalities in Washington have declined, but at a slower rate in the past three years.

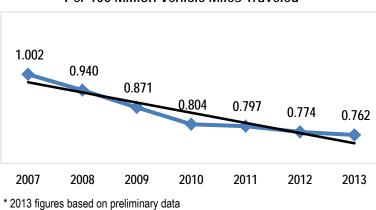
#### **Trend Analysis**

Between 2010 and 2013, the number of traffic fatalities decreased from 460 to 436, a 5.2 percent drop. However, the decline in the number of fatalities for the same three-year time frame prior to 2010 was 19.4 percent. Between 2010 and 2013, the rate of fatalities per 100 million vehicle miles travelled fell from 0.80 to 0.76, also a 5.2 percent drop. For the same three-year time frame prior to 2010, the rate per 100 million miles traveled decreased by 19.8 percent. The rate of fatalities in Washington continues to trend well below the national average of 1.14 per 100 million miles traveled. However, the rate of fatality decrease year-over-year in Washington has dramatically plateaued since 2010.



\* 2013 figures based on preliminary WTSC data

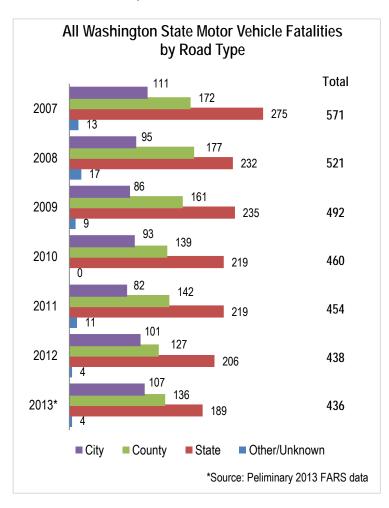
Source: Fatality Analysis Reporting System (FARS)



#### Washington Traffic Fatalities Per 100 Million Vehicle Miles Traveled

Source: FARS

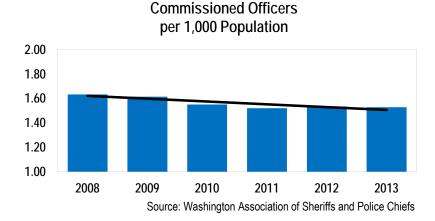
In 2013, 43.9 percent of all fatalities occurred on state highways, 31 percent on county roads and 24.2 percent on city roads. While state highway fatalities continue to decrease, fatalities have been increasing on local roads in recent years.



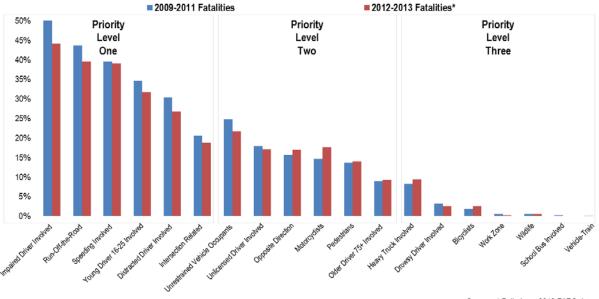
#### State Investment Highlight 2013–15

Target Zero Teams first rolled out in King, Pierce and Snohomish counties in July 2010. In 2013, two additional Target Zero Teams were added to Yakima and Spokane counties as part of a two-year project funded by a grant from the National Highway Traffic Safety Administration (NHTSA).

- Target Zero, the state's safety plan to reduce highway deaths to zero by 2030
- Deployment of mobile office platforms in trooper cars has increased trooper efficiency.
- Infrastructure investments such as rumble strips, guardrail retrofits and roadway realignment
- Safer vehicles
- Motorists driving less
- Department of Licensing YouTube videos have more than 6.2 million views, with almost 57,000 views of videos on texting while driving.



Washington State's "Target Zero" goal is to reduce traffic fatalities and serious injuries to zero by 2030. Target Zero contains three levels of priority factors based on the percentage of traffic fatalities associated with each factor. Priority One contains the factors associated with the largest number of fatalities: impairment, run-off-the-road collisions, speeding, young drivers, distracted driving and intersections. Each of these factors was involved in 30 percent or more of reported traffic fatalities. Priority Two contains factors involved in at least 10 percent of traffic fatalities, including seat belt use, unlicensed drivers, wrong way driving, motorcyclists and pedestrians. Priority Three factors are associated with less than 10 percent of fatalities.



#### Contributing Factors to Fatalities by Target Zero Category and Priority

Source: \* Peliminary 2013 FARS data

As shown in the table above, Washington has made solid progress with all Target Zero Priority Level One factors since the 2009–11 biennium.

#### Fatalities involving:

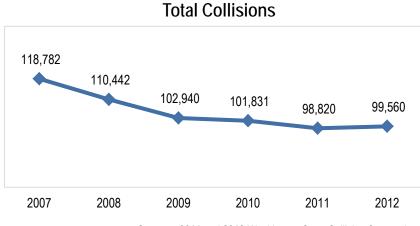
- Alcohol- or drug-impaired drivers dropped from 50 percent to 44.1 percent.
- Run-off-the-road collisions dropped from 43.7 percent to 39.6 percent.
- Speeding dropped from 39.5 percent to 39.1 percent.
- Young drivers between the ages of 16 and 25 dropped from 34.6 percent to 31.7 percent.
- Distracted drivers dropped from 30.3 percent to 26.7 percent.

### **Objective: Reduce number and severity of roadway collisions**

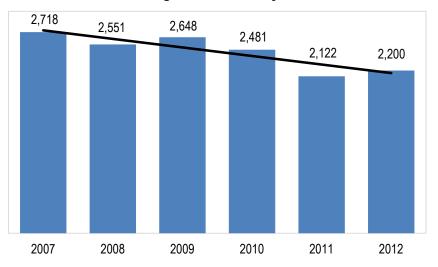
#### Collisions and serious injuries increase on public roads statewide. Washington seatbelt use declines.

#### **Trend Analysis**

After many years of decline, collisions and serious injuries actually experienced a small increase in 2012 over 2011. While still well above the national average, the state's observed seat belt usage rate fell from a high of 97.6 percent in 2010 to 94.5 percent 2013.



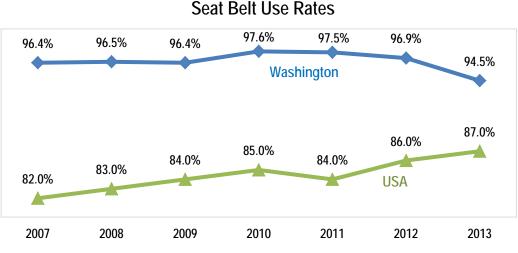
Sources: 2011 and 2012 Washington State Collision Summaries



### Washington Serious Injuries

Sources: 2011 and 2012 Washington State Collision Data Summaries

In 2010, 97.6 percent of Washington drivers wore their seatbelts, the highest rate in state history and the highest in the United States. Since then, observed seatbelt usage has dropped 3.1 percent and Washington has dropped to fourth place among other states in usage.



Source: USDOT - NHTSA - 2013 National Occupant Protection Use Survey (NOPUS)

#### State Investment Highlights 2013–15:

- Continued investment of \$500,000 for community traffic safety task forces
- Continued investment of \$500,000 to purchase ignition interlock devices
- Continued investment of \$50,000 for teen safe driving projects

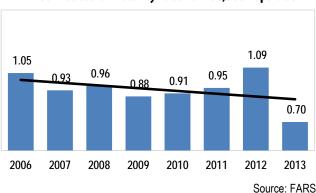
- Engineering enhancements on roadways, including roundabouts and rumble strips
- Click It or Ticket program
- 2010 Distracted Driving Law (RCW 46.61.667)
- The Washington State Patrol is increasing its trooper training efforts for drug impairment recognition.

#### **Objective: Reduce pedestrian and bicycle fatalities**

## After three years of increases, pedestrian fatalities appear to have dropped substantially in 2013. Bicycle fatality rates have held steady for the past three years.

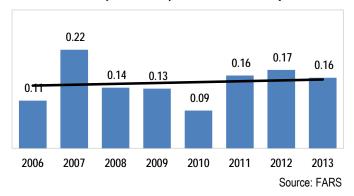
#### **Trend Analysis**

In 2012, there were 75 pedestrian and 12 bicyclist fatalities in Washington. Preliminary data in 2013 indicate 26 fewer pedestrian fatalities and one fewer bicyclist fatality.



#### Annual Pedestrian Fatality Rate Per 100,000 Population

Annual Pedacyclist Fatality Rate Per 100,000 Population



The total number of people involved in fatal and serious injury collisions with bicyclists and pedestrians in 2012 was 447, according to the 2012 Washington State Annual Collision Summary. Two-thirds of fatal pedestrian crashes are on urban roads (66.7 percent) after dark (68.7 percent) and involve males (66.3 percent). More than 51 percent involve alcohol or drug impairment.

When involved in a serious collision, pedestrians are seriously injured or killed 98.4 percent of the time. Bicyclists are seriously injured or killed 99.4 percent of the time. Motor vehicle drivers and occupants are seriously injured or killed 49.9 and 39.4 percent of the time, respectively. The U.S. Department of Transportation reports that pedestrian and cyclist deaths have been rising faster than overall traffic fatalities since 2009.

#### State Investment Highlight 2013–15

- \$28.9 million for Safe Routes to School
- \$23.6 million for Pedestrian/Bicycle program

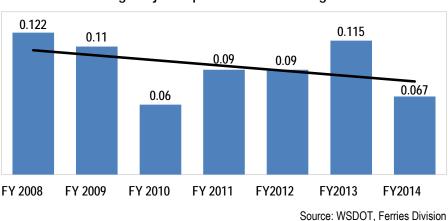
- Since its inception in 2005, Safe Routes to School has reached 194 schools, making walking and biking conditions safer for about 80,000 children. To achieve these improvements, approximately \$32 million has been awarded to 96 projects from more than \$137 million in requests.
- A statewide bicycle and pedestrian safety education program has reached approximately 25 school districts and 10,000 children in 5th through 8th grades by spring 2012.
- Washington Traffic Safety Commission offers grants for school zone flashing lights.
- "Safer People, Safer Streets," a U.S. DOT safety initiative to reduce pedestrian and bicyclist fatalities

### **Objective: Reduce passenger injuries on Washington State Ferries**

#### Passenger injuries on Washington State Ferries remain low.

#### **Trend Analysis**

In 2014, the number of passenger miles on Washington ferries was 179 million. The sevenyear average for injuries has been one injury for every 10 million passenger miles (0.09 per million). WSDOT Ferries Division has set an ultimate target goal of zero passenger injuries and an interim goal of reducing each new year's passenger injury rate below the running average of the previous three years. For 2014, the goal was an injury rate of 0.98 per 1 million passenger miles. With just 12 passenger injuries on WSDOT ferries in 2014, the resulting rate of .067 injuries per million passenger miles was significantly better than the department's goal.



#### Passenger Injuries per 1 Million Passenger Miles

#### State Investment Highlights

Not applicable

- Investigate all injuries promptly and replace non-slip pads on all vessels to reduce customer trips and spills.
- Increased safety training for vessel crews with a special focus on passenger safety and employee safety issues.

### **Objective: Reduce fraudulent driver's licenses and records**

## Rates of fraud and identity theft are on the rise across the country. Washington's fraud rate is rising while the identity theft rate remains steady.

#### **Trend Analysis**

Washington ranks 14<sup>th</sup> in the nation among states for fraud complaints. For every 100,000 residents there were 465 fraud complaints in 2013 as compared to 366 in 2010. Washington ranks 23<sup>rd</sup> among states for identity theft complaints in 2013. For every 100,000 residents there were 68 identity theft complaints in 2013 as compared to 69 in 2010. In contrast, Washington ranked seventh among states for fraud complaints and 17<sup>th</sup> for identity theft in 2010.

Over the past seven years, Washington residents have lodged an average of more than 5,000 complaints annually to the Federal Trade Commission about identity theft. State legislation passed in 2011 gave the Department of Licensing authority to use a facial recognition system for driver's license and ID card applicants to check for multiple or fraudulent identities. In 2013, the use of facial recognition by the Department of Licensing resulted in 310 driver license suspensions and the cancellation of 275 fraudulent records and the associated cards. DOL has shifted unit staff to work on facial recognition cases and non-facial recognition cases equally, resulting in a decrease in these statistics since 2011.



In 2013, the Bellingham metropolitan area ranked third among large metropolitan areas in the country for fraud and other consumer complaints and ninth for identity theft; the Seattle-Tacoma area ranked 34<sup>th</sup> and 113<sup>th</sup>, respectively; and the Spokane area ranked 36<sup>th</sup> and 123<sup>rd</sup>, respectively. As of September 2014, Washington is compliant with 20 of the 41 federal REAL ID requirements.

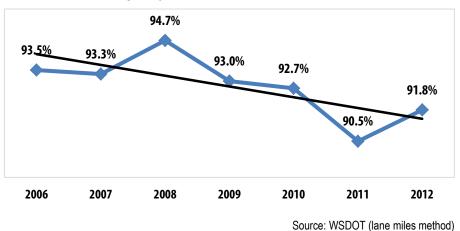
#### State Investment Highlights 2013–15

\$5.3 million to begin the business and technology modernization project to integrate separate driver and vehicle databases.

# **PRESERVATION** To maintain, preserve and extend the life and utility of prior investments in transportation systems and services.

#### **Objective: Extend the useful life of pavement**

Washington consistently maintains more than 90 percent of its state highway pavement in fair or better condition, but pavement condition is degrading.



State Highway Pavement – Fair or Better Condition

#### **Trend Analysis**

Over the past decade, WSDOT has consistently maintained more than 90 percent of state highway pavement in fair or better condition. The 91.8 percent surveyed in fair or better condition in 2012 is almost a 1 percent decrease in ratings over the previous two years, and a 3 percent decrease over the past four years. County roads mirror the state road condition trend, with county arterial roads deteriorating at a 3 percent rate over the past three years while county collector roads show 5 percent degradation.

Counter to the overall trend, small cities have shown a 10 percent improvement in "fair or better" condition in 2010 through 2014. While temporarily exempted from reporting road conditions, medium and large municipalities anecdotally report similar declines in road conditions. Fifteen years is the usual asphalt life cycle in Washington, longer than what most states achieve.

#### Discussion

According to Federal Highway Administration 2012 reports, the state owns 7,054 miles of roadway, counties own 39,338 miles, towns and municipalities own 18,524 miles, the federal government owns 8,784 miles and other jurisdictions own 10,178 miles, for a total of 83,878 miles of roadway in Washington. These reports also show that 74 percent of vehicle miles travelled occur on interstate highways, freeways and principal arterials and that 70 percent of vehicle miles travelled occur in urban areas.

| County Road Pavement Condition | 2006 Percent<br>Fair or Better | 2008 Percent<br>Fair or Better | 2010 Percent<br>Fair or Better | 2012 Percent<br>Fair or Better | 2013 Percent<br>Fair or Better |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Arterials                      | 95                             | 94                             | 91                             | 89                             | 88                             |
| Collectors                     | 95                             | 96                             | 95                             | 92                             | 90                             |

Source: WSDOT and CRAB

| City Road Pavement Condition      | 2008 Percent<br>Fair or Better | 2010 Percent<br>Fair or Better | 2012 Percent<br>Fair or Better ** | 2014* Percent<br>Fair or Better |
|-----------------------------------|--------------------------------|--------------------------------|-----------------------------------|---------------------------------|
| Large Cities (> 25,000 pop.)      | 83                             | 82                             | Unknown                           | Unknown                         |
| Medium Cities (5,000–25,000 pop.) | 72                             | 66                             | Unknown                           | Unknown                         |
| Small Cities (<5,000 pop.)        | 66                             | 75                             | Unknown                           | 85                              |

\*\* The 2011 Legislature modified pavement condition reporting requirements for cities in RCW 46.68.113 (2011 c 353 §7), resulting in incomplete pavement condition reporting for 2012–14.

Source: WSDOT and \*TIB Dashboard for Small Cities

Cities and counties are estimated to receive \$484.8 million in direct revenue distributions from statecollected gas taxes, license, permits and fees. The County Road Administration Board (CRAB) and the Transportation Improvement Board (TIB) receive dedicated distributions from the gas tax as well.

City and county roads are supported by state appropriations made to TIB and CRAB. TIB distributes grants to cities and urban counties, and CRAB distributes funds to all counties. Combined, appropriations for 2013–15 total \$355.7 million.

The Washington State Association of Counties received \$932,000 to develop performance measures related to county transportation systems. Counties have developed an online metrics dashboard and published the first-ever County Transportation Attainment Report.

- Increased use of chip seal overlay
- Dowel bar retrofits
- Selective panel replacements on concrete roadways
- CRAB "Standards of Good Practices" establish the control parameters for the administration of capital improvements on county roads.
- TIB's Small City Pavement program helps cities meet urgent preservation needs.

# **PRESERVATION** To maintain, preserve and extend the life and utility of prior investments in transportation systems and services.

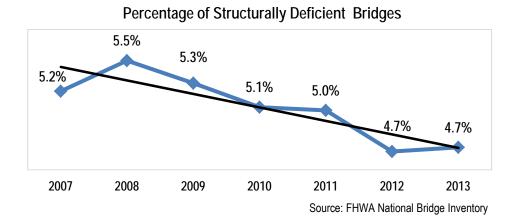
### **Objective: Keep bridges safe and open to traffic**

#### In 2013, 95.3 percent of Washington bridges were in fair or better condition.

#### **Trend Analysis**

In 2013, 7,900 Washington bridges were inventoried by the Federal Highway Administration (FHWA), which sets structural condition standards. Ratings relate to the evaluation of bridge superstructure, deck, substructure, structural adequacy and waterway adequacy codes.

According to the FHWA Bridge Inventory of Washington's publicly owned bridges, 4.7 percent are structurally deficient. This is less than half the national average. Structurally deficient bridges are safe for travel if weight restrictions are in place. Typically, the structurally deficient finding means that bridge inspectors have identified some deterioration, cracks or movement. Washington had 372 of these bridges in 2013 as compared to 401 in 2011. In 2013, Washington also had 1,694 bridges that were considered functionally obsolete and 298 bridges considered to be "fracture critical" by WSDOT. A bridge is considered functionally obsolete if its design is not suitable for current traffic needs. A fracture critical bridge is defined as one that does not contain redundant supporting elements. This means that if any one of those key supports fail, the bridge would be in danger of collapse.



## Percentage of Structurally Deficient Bridges 2013 State and Territories Comparison

| Rank | State          | Number of Bridges | Number Structurally<br>Deficient | Percentage |
|------|----------------|-------------------|----------------------------------|------------|
| 1    | Nevada         | 1,853             | 36                               | 1.9        |
| 6    | Washington     | 7,902*            | 372                              | 4.7        |
| 52   | Pennsylvania   | 22,660            | 5,218                            | 23.0       |
|      | National Total | 607,751           | 63,522                           | 10.5       |

\*Includes federal bridges

Source: FHWA National Bridge Inventory

#### State Investment Highlight 2013–15

- \$100.6 million for bridge repairs
- \$95.7 million for bridge replacements
- \$41.9 million for seismic retrofits
- \$0.7 million for bridge scour

- Performing required inspections and day-to-day maintenance on state-owned bridges.
- Managing assets and reviewing inspection data biannually.
- Identifying and cleaning fracture critical bridges.
- Repairing deteriorated bridge elements such as concrete columns, expansion joints and anchor cables to preserve life.
- Repainting steel structures to extend bridge life; also repairing and overlaying concrete bridge decks. WSDOT projects that 110 bridges are currently due or past due for painting and an additional 43 will become due for painting in the next 10 years.
- Performing seismic retrofitting and scour repairs of bridge piers in rivers to proactively minimize damage due to earthquakes and flooding.

# PRESERVATION

To maintain, preserve and extend the life and utility of prior investments in transportation systems and services.

### **Objective: Extend the useful life of ferry terminals and vessels**

In 2013, 88 percent of ferry terminal systems were in fair or better condition, compared to 87 percent in 2007. Also in 2013, 88 percent of ferry vessel vital systems were within life cycle.

#### **Trend Analysis**

Over the past five years, average ferry terminal condition rating has consistently been between 85 percent and 88 percent. In 2013, 88 percent of ferry vessel systems that the U.S. Coast Guard considers "vital" were within their assessed life cycle.

Terminal and vessel condition data are a composite of several ferry system elements, as shown below. Each system category is composed of multiple components. For example, transfer spans include mechanical systems, electrical systems and structural parts. A "poor or worse" or "out-of-life cycle" composite rating does not mean that ferry vessels or terminals are unsafe, but indicates where additional investments need to be made.

| State Ferry Terminal Systems |                           |  |  |  |  |  |
|------------------------------|---------------------------|--|--|--|--|--|
| Year                         | Good or Fair<br>Condition |  |  |  |  |  |
| 2007                         | 87%                       |  |  |  |  |  |
| 2008                         | 84%                       |  |  |  |  |  |
| 2009                         | 85%                       |  |  |  |  |  |
| 2010                         | 85%                       |  |  |  |  |  |
| 2011                         | 86%                       |  |  |  |  |  |
| 2012                         | 87%                       |  |  |  |  |  |
| 2013                         | 88%                       |  |  |  |  |  |

Source: WSDOT Ferry Division

| Washington State Ferries Terminal Systems Rated "Poor or Worse" |      |      |      |      |      |      |      |  |
|---|------|------|------|------|------|------|------|--|
| System  | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |  |
| Landing Aids  | 25%  | 27%  | 25%  | 25%  | 23%  | 24%  | 23%  |  |
| Vehicle Transfer Spans  | 9%   | 14%  | 15%  | 15%  | 16%  | 13%  | 11%  |  |
| Overhead Loading Systems  | 8%   | 3%   | 9%   | 9%   | 9%   | 9%   | 11%  |  |
| Trestle and Bulkheads   | 6%   | 7%   | 7%   | 7%   | 9%   | 7%   | 9%   |  |
| Pavement*   | 9%   | 9%   | 9%   | 9%   | 13%  | 14%  | 10%  |  |
| Buildings*  | n/a  | n/a  | 1%   | 1%   | 0%   | 0%   | 0%   |  |
| Passenger-only Facilities                                       | n/a  | n/a  | 7%   | 7%   | 7%   | 13%  | 13%  |  |
| Total Average   | 13%  | 15%  | 13%  | 13%  | 13%  | 13%  | 12%  |  |

\* Not all structures in these categories were rated.

Source: WSDOT Ferry Division

| Vital Vessel Systems Percent Within Life Cycle |      |      |  |  |  |  |  |
|--|------|------|--|--|--|--|--|
| Coast Guard Category 1 Systems                 | 2011 | 2014 |  |  |  |  |  |
| Communication, Navigation, Lifesaving          | 87%  | 93%  |  |  |  |  |  |
| Mechanical, Electrical                         | 89%  | 92%  |  |  |  |  |  |
| Piping   | 81%  | 79%  |  |  |  |  |  |
| Propulsion                                     | 92%  | 82%  |  |  |  |  |  |
| Security                                       | 99%  | 99%  |  |  |  |  |  |
| Steel Structural                               | 87%  | 99%  |  |  |  |  |  |
| Total Average                                  | 89%  | 91%  |  |  |  |  |  |

Source: WSDOT Ferry Division

#### State Investment Highlights 2013–15

- \$35.3 million for terminal preservation
- \$83.9 million for vessel preservation

- Using life cycle cost model to identify when systems have reached the end of useful life.
- Using a risk assessment guide and economic impact model to rate vessel systems based on systems criticality and impact of their failure to drive preservation decision making.
- Using concrete instead of timber for wing walls and dolphins to extend useful life.
- Performing thorough maintenance work to extend useful life of system components.
- New boats improve vital vessel system ratings.

# **MOBILITY** To improve the predictable movement of goods and people throughout the state.

#### **Objective: Reduce congestion on urban highways and arterials**

#### After a period of decline, commuter delay is increasing in the Seattle metropolitan area.

#### **Trend Analysis**

The Texas Transportation Institute's 2012 Urban Mobility Report says that between 2010 and 2011 (the last year data are available), the annual hours of delay per driver in the Seattle area is 48 hours. While lower than delays experienced in 2006 through 2008, this is an increase from 2009 and 2010 levels. The 2012 report ranks Seattle as the ninth most-congested metropolitan area in the nation, a change from 12<sup>th</sup> in 2006. The TomTom Traffic Index continues to rank Seattle as the ninth most-congested area in America as of January 2014.

Delay hours in the Seattle area increased rapidly from the early 1980s through 2006, during which the average number of hours of delay during peak congestion hours increased more than 500 percent, from 10 hours in 1982 to 54 hours in 2006. According to the WSDOT 2012 Congestion Report, 99 percent of statewide traffic delay occurs in the Puget Sound region.

In the Spokane area, annual hours of delay per driver in 2011 was 23 hours, a level of delay that has not changed since 2009. Spokane was ranked as the nation's 83<sup>rd</sup> most-congested urban area in 2011.

According to the INRIX's 2013 National Traffic Scorecard, the following five Puget Sound corridors made the top 100 "Most Congested Corridors" in the country during peak travel times:

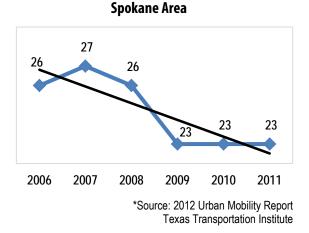
- #6 I-5 southbound from 130<sup>th</sup> St., exit 174 to Union St., exit 165 (p.m. hours)
- #12 I-405 southbound from Eighth St., exit 13 to S.E. Coal Creek Parkway, exit 10 (p.m. hours)
- #74 I-405 northbound from SR 181, exit 1 to 44<sup>th</sup> St., exit 7 (a.m. hours)
- #75 SR-167 southbound from 15<sup>th</sup> St., Auburn to Eighth St. (p.m. hours)
- #89 SR-520 westbound from 124<sup>th</sup> Ave., to 84<sup>th</sup> Ave. (p.m. hours)

Comparing 2011 to 2013, most of the major Puget Sound commute routes experienced less than a few minutes change at peak travel times. However:

- Everett to Bellevue I-5/I-405 southbound morning commutes took nine minutes longer.
- Everett to Seattle I-5 morning commutes took six minutes longer and evening commutes took 13 minutes longer.
- Federal Way to Seattle on I-5 morning commutes took six minutes longer. (Source: WSDOT's "Travel Time Trends")

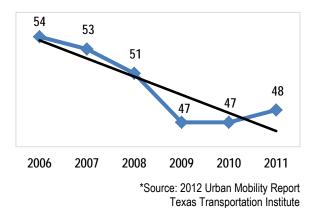
| Washington State - Vehicle Miles Traveled (in 100 Millions) |        |        |        |        |        |        |  |  |
|---|--------|--------|--------|--------|--------|--------|--|--|
| 2007  | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   |  |  |
| 56,964  | 55,447 | 56,461 | 57,190 | 56,965 | 56,607 | 57,211 |  |  |

Source: WSDOT



Annual Hours of Delay per Auto Commuter\*

#### Annual Hours of Delay per Auto Commuter\* Seattle Area



#### State Investment Highlights 2013–15

- \$3.2 billion for the highway improvement program
- The Alaskan Way Viaduct total programmed cost is \$3.1 billion, of which \$903.3 million was appropriated in 2013–15. This project is expected to be complete in late 2016.
- The SR 520 Bridge replacement total estimated cost is \$4.3 billion, of which \$1.0 billion was appropriated in 2013–15. Of the total \$4.3 billion needed for this project, \$1.4 billion is unfunded (2012 Cost Estimate and Validation Process estimate). Tolling began in December 2011. The new floating bridge opens in April 2016; the West Approach Bridge North sub-project begins in late summer 2014; and \$10 million for design work on the Westside I-5 connector element was authorized.
- The I-405/SR 167 Corridor has delivered 13 projects on time and on budget of \$1.7 billion. A total of \$247 million was appropriated for the I-405 and SR 167 corridors. This series of projects started in 2001 and is expected to be operationally complete in 2022.
- The funded portion of the North Spokane Corridor/US 395 is \$558.3 million, of which \$88.4 million was appropriated. The funded projects are expected to be complete in 2015.

- FHWA Urban Partnership Program strategies to relieve urban congestion: tolling, transit, telecommuting and technology
- Approximately 310 lane-miles of a planned 320-mile HOV freeway system have been built.
- Tolling and variable tolling used to manage the volume of traffic in a lane or on a roadway.
- Smarter highways or active traffic management technology that dynamically controls traffic based on real-time roadway conditions

## **MOBILITY** To improve the predictable movement of goods and people throughout the state.

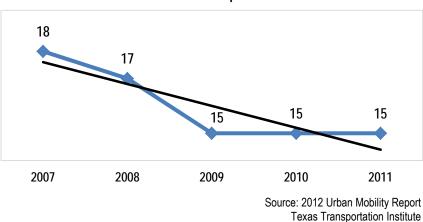
#### **Objective: Reduce congestion by making systems more efficient**

## Seattle drivers would have experienced an additional 15 hours of delay in 2011 without public transportation investments and operational enhancements.

#### **Trend Analysis**

Public transportation and operational enhancements provide a consistent benefit of 15 hours of avoided delay. Operational enhancements include ramp meters, variable message signs, dynamic speed limit signs, incident response trucks and traveler information accessed through the Internet and by dialing 5-1-1.

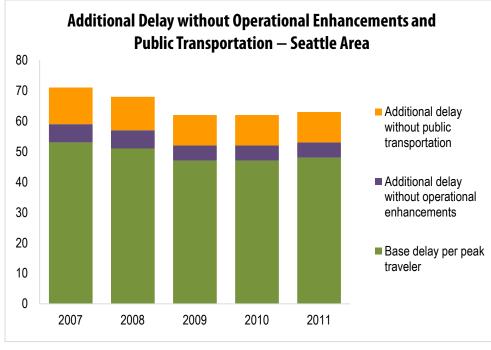
While the population in the Seattle area has increased from 1.8 million residents in 1982 to 3.3 million residents in 2011, the number of hours of delay that commuters experience during peak congestion has remained relatively constant. Drivers experienced 53 hours of delay in 2007 and 48 hours of delay in 2011. Without public transportation investments and operational enhancements, drivers would have experienced 63 hours of delay in 2011.



#### Avoided Annual Hours of Delay Due to Operational Enhancements and Public Transportation – Seattle Area

#### State Investment Highlights 2013–15

- \$14.3 million for intelligent traffic system communication systems, enhancement of existing commercial vehicle information systems and networks, and variable message signs
- \$14.4 million for Northwest Region Traffic Management Center improvements



Source: 2012 Urban Mobility Report Texas Transportation Institute

#### **Contributing Success Factors**

- A growing inventory of intelligent transportation systems, as displayed below.
- More traveler information on WSDOT's website
- Expanded use of social media

| WSDOT Intelligent Transportation Systems Inventory |      |      |           |           |          |      |      |                                |  |
|--|------|------|-----------|-----------|----------|------|------|--------------------------------|--|
| Statewide inventory as of Aug. 21, 2013            |      |      |           |           |          |      |      |                                |  |
|  |      | Nu   | mber of o | devices o | or sites |      |      |                                |  |
| Device Type  | 2007 | 2008 | 2009      | 2010      | 2011     | 2012 | 2013 | Approximate cost per<br>device |  |
| Closed circuit television cameras                  | 521  | 542  | 555       | 699       | 746      | 850  | 933  | \$15,000-\$30,000              |  |
| Variable message signs                             | 179  | 181  | 188       | 201       | 258      | 232  | 279  | \$100,000-\$250,000            |  |
| Highway advisory radio transmitters                | 64   | 68   | 70        | 82        | 88       | 83   | 86   | \$50,000                       |  |
| Road/weather information systems                   | 94   | 97   | 100       | 105       | 106      | 106  | 109  | \$25,000-\$50,000              |  |
| Metered ramps                                      | 137  | 137  | 143       | 154       | 155      | 149  | 150  | \$10,000-\$20,000              |  |
| Traffic data stations                              | 530  | 554  | 565       | 639       | 660      | 742  | 767  | \$10,000-\$20,000              |  |
| Smarter highway gantries                           | 0    | 0    | 25        | 53        | 56       | 56   | 56   | \$650,000-\$900,000            |  |

Source: WSDOT Traffic Operations Office

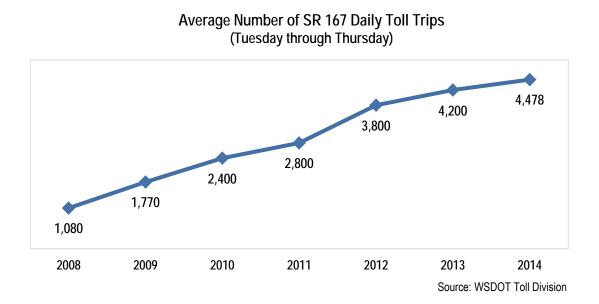
## **MOBILITY** To improve the predictable movement of goods and people throughout the state.

### **Objective: Improve traffic flow through high occupancy toll lanes**

## High occupancy toll (HOT) lanes on SR 167 continue to provide drivers of single occupant vehicles a faster option to get to their destination while making general purpose lanes less congested.

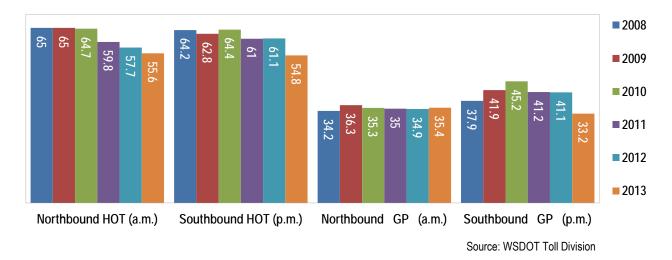
#### **Trend Analysis**

Seven years of data show that drivers in SR 167 HOT lanes average 20 to 30 miles per hour faster than the general purpose lanes in the morning hours and 20 to 26 miles per hour in the afternoon hours. As congestion has increased on SR 167, HOT lanes have slowed but general purpose lanes have remained relatively consistent. Growth in usage of HOT lanes has increased by more than 300 percent since they opened in 2008.



#### Discussion

The seven-year HOT lanes pilot project to provide single occupant vehicles the option of paying to use HOV lanes started in May 2008. The average number of daily tolled HOT trips has increased more than 300 percent since the first year of operations. Net revenue during the third quarter of fiscal year 2014 was more than \$150,000. Cost of the average northbound toll trip is \$2.20 and for southbound trips is \$1.45. Weekday drivers experience an average time savings of nine minutes in the peak hour in the northbound HOT lane and six minutes in the southbound HOT lane. In 2012, HOT lanes achieved WSDOT's reliability standard 99 percent of the time.



#### State Investment Highlights 2013–15

- A total of \$63,000 was appropriated as the final installment of the \$18.8 million, four-year HOT lanes pilot project.
- Pilot project extended to June 30, 2015. Agency-request legislation to extend the program permanently is expected in 2015–17.

#### **Contributing Success Factors**

HOT lanes cannot work effectively without law enforcement. The Washington State Patrol estimates a compliance rate between 95 percent and 97 percent.

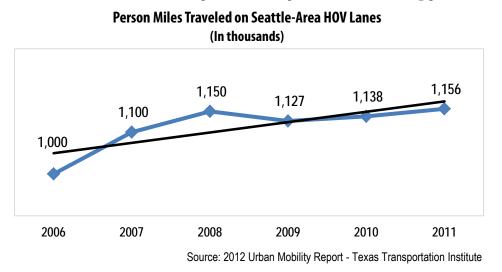
# **MOBILITY** To improve the predictable movement of goods and people throughout the state.

### **Objective: Improve performance of high occupancy vehicle lanes**

## High occupancy vehicle (HOV) lanes are starting to show increased usage and more congestion but still remain effective at moving people.

#### **Trend Analysis**

Person miles traveled in Seattle area HOV lanes has returned to pre-recession levels, and indicators show growing utilization and congestion. Seven of 14 monitored HOV peak-direction corridors met the state performance standard of 45 mph or greater 90 percent of the time in 2011. In 2012, only five of the 14 corridors met the standard. When comparing 2011 to 2012, the HOV reliability on the SR 520 corridor between Redmond and Bellevue dropped from 97 percent to 51 percent in the morning peak commute time and from 70 percent to 54 percent in the evening peak commute time.



#### State Investment Highlight 2013-15

\$192.5 million was appropriated for the I-5/Tacoma HOV improvement project. This is the biggest project in the state's HOV system and is currently funded at a total cost of \$1.5 billion. It is expected to be finished in 2022.

- Approximately 310 lane miles of a planned 320-mile HOV freeway system have been built.
- In 2012, the HOV lane person volume was higher than that of the adjacent single occupancy vehicle (SOV) lane in nine of 10 monitored locations.
- Transit ridership is a significant contributor to person volume on the freeway HOV network.
- New inside HOV lanes between Lake Washington and 108th Ave. NE opened in summer 2014.
- The HOV system carries more than 35 percent of travelers during peak travel periods.
- HOT lanes, such as the pilot on SR 167, have added capacity for SOV drivers willing to pay for a faster commute, which also benefits general purpose lanes by decreasing the volume of vehicles using those lanes.
- HOV person occupancy compliance was 98 percent in 2012.
- The HERO program helps WSDOT educate HOV and HOT lane violators on the purpose, rules and benefits of these freeway lanes.
- More conversions of HOV to HOT lanes (or express toll lanes) are expected.

# **MOBILITY** To improve the predictable movement of goods and people throughout the state.

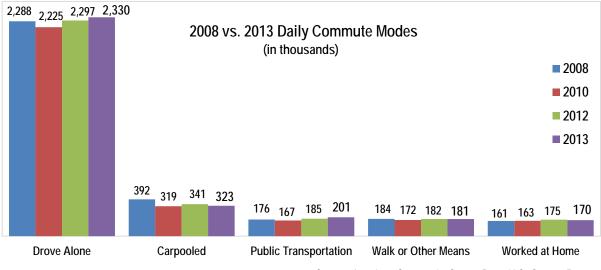
#### Objective: Reduce percentage of commuters who drive alone to work

## As the number of Washington commuters has increased to an all-time high, the percentage who drive alone has climbed back to pre-recession levels.

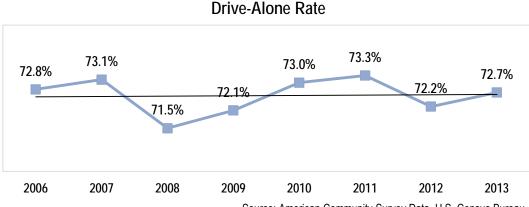
#### **Trend Analysis**

Of 3.2 million Washington daily commuters, more than 2.3 million chose to drive alone to work in 2013, an increase of 105,000 over 2010. Commuters choosing to carpool or use public transportation on a daily basis numbered 524,000. Commuters choosing to get to work on a motorcycle, taxi, bicycle or on foot were 181,000. These commuter categories showed more trips made compared to 2010 data, presumably reflecting improved employment. While drive-alone rates have held steady, carpooling commuters are down 17.5 percent while commuters using public transportation are up 14.3 percent since 2008.

Since 2006, an annual average of 72.6 percent of all commuters drove alone to work. In 2013, 72.7 percent of commuters choose to drive alone.



Source: American Community Survey Data, U.S. Census Bureau



Source: American Community Survey Data, U.S. Census Bureau

As a counterpoint to Census Bureau data, the 2013 Statewide Voice of Washington State Transportation Survey asked 5,673 Washington residents the following question:

| Please think about all the trips you make from home during a typical week such as going to work, running errands or going to appointments. |      |      |      |  |  |  |
|--|------|------|------|--|--|--|
| Approximately what percentage of those trips per week are done by:   |      |      |      |  |  |  |
|  | 2011 | 2012 | 2013 |  |  |  |
| Driving alone in your vehicle  | 59%  | 56%  | 55%  |  |  |  |
| Carpooling or driving with someone else  | 25%  | 25%  | 23%  |  |  |  |
| Riding public transit  | 8%   | 10%  | 12%  |  |  |  |
| Riding a motorcycle  | 1%   | 1%   | 1%   |  |  |  |
| Riding a bicycle or walking instead  | 6%   | 6%   | 7%   |  |  |  |
| Traveling some other way   | 2%   | 2%   | 2%   |  |  |  |

### State Investment Highlights 2013–15

- \$6 million for vanpools
- \$6.4 million for Commute Trip Reduction grants and activities
- \$51.1 million for Regional Mobility Grants

- Commute Trip Reduction uses employer-based programs that encourage the use of alternatives to driving alone. More than 1,050 worksites and 530,000 commuters statewide participate in this program.
- There are 2,850 vanpools in service statewide, averaging eight people in a vanpool. Twenty transit agencies in the state operate vanpool fleets.
- <u>www.rideshareonline.com</u>, a resource for commuting options in the Northwest managed by WSDOT

# **MOBILITY** To improve the predictable movement of goods and people throughout the state.

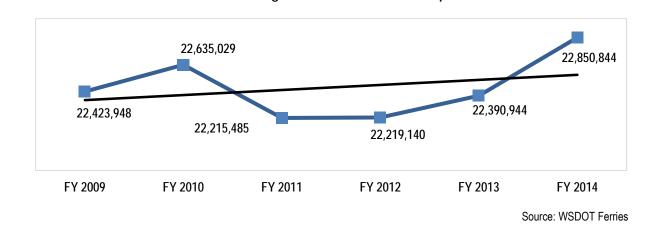
### **Objectives: Increase on-time performance of Washington State Ferries**

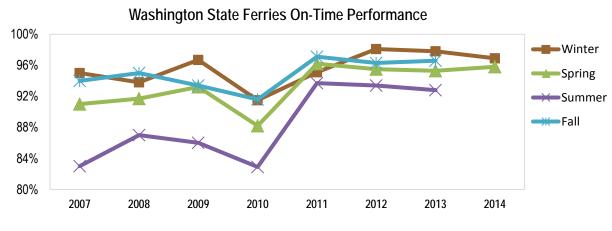
# Washington State Ferries ridership was up 2.6 percent since fiscal year 2011 and on-time sailings have averaged 95.5 percent.

### **Trend Analysis**

Washington State Ferries ridership decreased 6.3 percent between FY 2007 and FY 2011. However, ridership has rebounded 2.6 percent between FY 2011 and FY 2014. Even though the number of passenger trips has increased, on-time sailings continue to perform at 2011 levels in 2014. On-time performance improved dramatically in 2011, and WSDOT Ferries Division has been able to maintain this improvement in performance. Summer has historically been the weakest performing season, averaging a 93.3 percent on-time rate over the past three years, typically due to greater numbers of trips and riders.

Washington State Ferries Ridership





Source: WSDOT Gray Notebook

## 36

In addition to on-time performance, WSDOT also tracks trip reliability. In FY 2013, trip reliability was 99.3 percent and in 2014, it improved to 99.5 percent (40,617 trips), well above the department's 99 percent goal for trip completion.

### State Investment Highlights 2013–15

- \$483.5 million for ferry operations
- \$140.1 million to complete the addition of two new 144-vehicle capacity ferries. The first, the MV Tokitae, was deployed in June 2014 and the second, the MV Samish, is on track to be completed in early 2015.

- A reservation system to allow ferry users to reserve a space on vessels is now being implemented. Current routes accepting reservations are Port Townsend/Coupeville, Anacortes/Sidney, B.C., and Anacortes/San Juan Islands for commercial travel only. The Port Townsend/Coupeville route reserves 80 percent of each sailing, which limits the number of drive-up vehicles. Full implementation for Anacortes/San Juan Islands will begin January 2015.
- The number of cancellations due to crewing issues has fluctuated recently as the U.S. Coast Guard is requiring more staff with higher levels of training on multiple vessel classes.

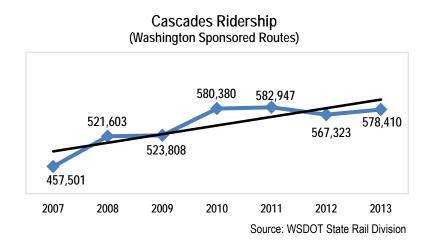
# **MOBILITY** To improve the predictable movement of goods and people throughout the state.

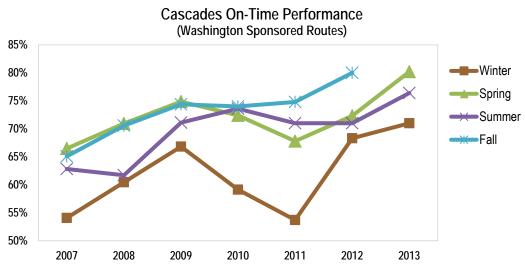
### **Objectives:** Increase ridership and on-time performance of the Amtrak Cascades line

## Ridership has grown 10.4 percent since 2009. On-time performance has improved from 72 percent to 76 percent in the same time period.

### **Trend Analysis**

Over the past five years, ridership on Amtrak Cascades routes in Washington has increased 10.4 percent. At the same time, the number of on-time trips increased, averaging 76 percent in 2013. Trip reliability is the worst over the winter quarters due to inclement weather and landslides. Since 2009, winter quarter on-time performance has averaged 63.8 percent.





Source: WSDOT State Rail Division

### State Investment Highlights 2013–15

- As of Oct. 1, 2013, Washington and Oregon had to absorb all direct costs not covered by ticket revenues for operating the Amtrak Cascades service. Until that date, Amtrak had paid approximately 20 percent of the unfunded operational costs.
- \$40.3 million in state funding for rail operations. In 2013, ticket revenues covered 59.5 percent of Washington's operating cost of the Amtrak Cascades service.
- \$469.6 million for rail capital, including \$23 million for completion of the Vancouver Rail Bypass and 39<sup>th</sup> Street project; \$21.6 million for completion of the Tacoma D to M Street connection; and \$35.9 million for the first phase of the Point Defiance Bypass project.
- Almost 91 percent of the rail capital program—\$429 million—is supported by federal funds.

- With elimination of federal Amtrak financial support, states are able to take a stronger, more active role in management of the service to control costs.
- The Washington State and Oregon departments of Transportation developed the Cascades Rail Corridor Management Work Plan as required under the memorandum of understanding executed by the two agencies in March 2012.
- In 2011, free WiFi service was added.
- In 2011, agreement was reached with Canada to continue a second train to Vancouver, B.C.
- Multimodal train passenger service contributes significantly to relieving traffic congestion on the I-5 corridor.
- Service between Portland and Seattle remains the most popular, with 882,400 passengers getting on and off the train in the Portland and Seattle stations in 2013.
- Washington was awarded nearly \$800 million in federal grants to improve Amtrak Cascades service.

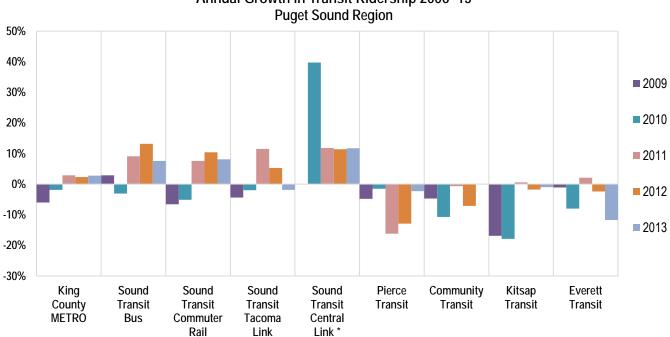
# **MOBILITY** To improve the predictable movement of goods and people throughout the state.

### **Objectives: Increase ridership on public transit**

### Puget Sound regional transit ridership increased 4.7 percent between 2009 and 2013.

#### **Trend Analysis**

Transit routes in the Puget Sound region have increased passenger trips by more than 10 million riders per year when comparing 2009 to 2013, a 4.7 percent increase. More economic activity and higher employment are the strongest factors in determining ridership. Everett Transit reduced service 15 percent in the last third of 2012, along with instituting a 25-cent fare increase in January 2013. Both factors contributed to decreases in ridership for 2013 by 11.7 percent. Outside of the central Puget Sound region, ridership decreased by more than 1.3 million passenger trips, a 4.2 percent decline, largely due to budget cutbacks.

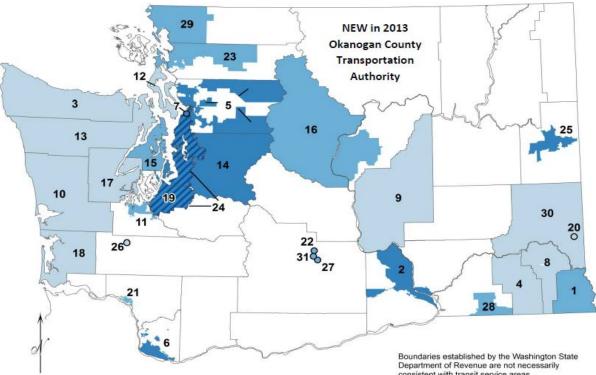


Annual Growth in Transit Ridership 2006-13

Source: Puget Sound Regional Council's "Puget Sound Trends: Transit Ridership 2013" \* Sound Transit Central Link ridership growth from mid-2009 only.

Ridership is not an indicator of transit demand. Since 2009, statewide fixed route transit services have reduced vehicle operating hours, reduced vehicle miles, reduced employees, reduced fuel consumption and increased farebox revenues while passenger trips have remained unchanged. (Source: WSDOT 2012 Summary of Public Transportation)

### Washington State's Public Transit Authorities



consistent with transit service areas.

#### Urban Systems

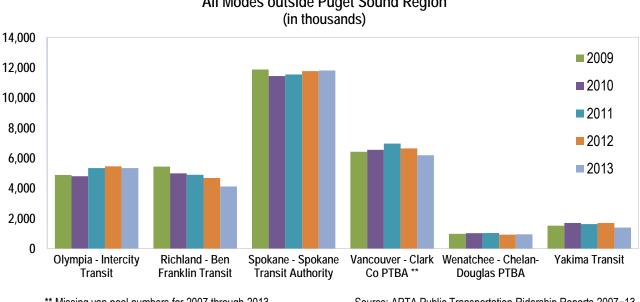
- 1 Ben Franklin Transit
- 2 Community Transit (Snohomish)
- 3 C-TRAN (Clark)
- 4 Everett Transit
- 5 King County Metro Transit
- 6 Pierce Transit
- 7 Sound Transit District
- 8 Spokane Transit Authority

### Small Urban Systems

- 9 Asotin County Transit
- 10 Intercity Transit (Thurston)
- 11 Kitsap Transit
- 12 Link Transit (Chelan/Douglas)
- 13 RiverCities (Cowlitz)
- 14 Selah
- 15 Skagit Transit
- 16 Union Gap Transit
- 17 Valley Transit (Walla Walla)
- 18 Whatcom Transpo. Authority
- 19 Yakima Transit

### **Rural Systems**

- 20 Clallam Transit System
- 21 Columbia County Public Transpo.
- 22 Garfield County Public Transpo.
- 23 Grant Transit
- 24 Grays Harbor Transit Authority
- 25 Island Transit
- 26 Jefferson Transit Authority
- 27 Mason County Transpo. Authority
- 28 Pacific Transit
- 29 Pullman Transit
- 30 Twin Transit (Lewis)
- 31 Whitman (WCUTBA)



#### Annual Growth in Public Transit Ridership All Modes outside Puget Sound Region (in thousands)

\*\* Missing van pool numbers for 2007 through 2013

Source: APTA Public Transportation Ridership Reports 2007-13

### State Investment Highlights 2013–15

- \$51 million for the Regional Mobility Grant program
- \$17 million for the Rural Mobility Grant program
- \$6 million for vans

### **Contributing Success Factors**

The 2005 Legislature created the Regional Mobility Grant program, which has awarded \$171.4 million to support 78 local projects (49 completed, 29 in progress) between 2006 and 2013. These projects include 16 local park-and-ride lots and eight new or expanded transit centers. In addition, 42 buses have been purchased.

# **MOBILITY** To improve the predictable movement of goods and people throughout the state.

### **Objectives:** Promote walking and biking to improve public health

### Rates of bicycling and walking to work remain steady.

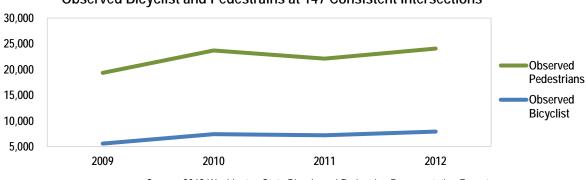
### **Trend Analysis**

The number of bicycling and walking commuters varied by less than 1 percent between 2010 and 2012, according to the American Community Survey. Commute trips account for between 16 percent and 20 percent of all trips. The 2012 Washington State Bicycle and Pedestrian Documentation Report on observed traffic shows no growth in pedestrians and a 6.7 percent increase in bicyclists in the same 2010 to 2012 time period when counts were performed at 147 consistent Washington intersections.

In 2005, the Governor and the Washington State Legislature increased the state's role in improving conditions for biking and walking by providing a grant program and related technical assistance services. The state also supports walking through the sidewalk program administered by the Transportation Improvement Board (TIB). It requires inclusion of sidewalks on both sides of each of its street projects in urban areas, and on at least one side in small cities.



Source: Estimates from the American Community Survey





Source: 2012 Washington State Bicycle and Pedestrian Documentation Report

#### State Investment Highlights 2013–15

- TIB awarded \$6 million to small cities and \$10 million to large cities for sidewalk construction and improvements. TIB 2013 awards helped finance 23.5 miles of sidewalks and 12.5 miles of bike lanes.
- The WSDOT Local Programs manages the Pedestrian and Bicycle Program, which has made \$32 million available between 2005 and 2013 to 45 local agencies for 87 projects from \$113 million in agency requests.
  - > More than 70 percent of projects awarded in the first three cycles have been completed.
  - > The program has improved more than 80 individual, known pedestrian-risk locations.
  - > To date, 45 projects have been completed, 41 are underway and one was cancelled.

- TIB is the only state agency that has a stand-alone sidewalk program, which aims to improve pedestrian safety, access, and fill connectivity and system continuity gaps.
- WSDOT Engineering Policy and Innovation Division and FHWA provide technical support for the Livable Communities initiative.
- WSDOT Local Programs also has a Safe Routes to School program.
- Washington's Bicycle Facilities and Pedestrian Walkways Plan and regional bicycle and pedestrian plans guide investment decisions.

# **ENVIRONMENT**

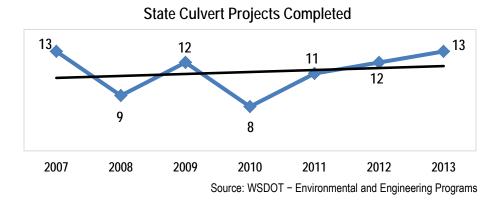
To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities and protect the environment.

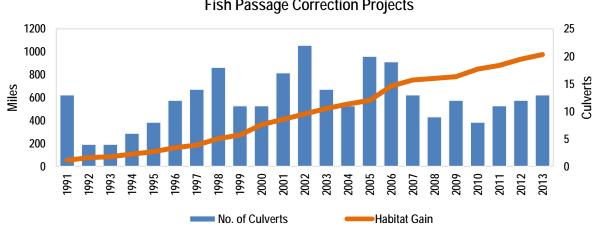
### Objective: Increase the number of culverts fixed and potential miles of habitat gained

### WSDOT has opened 976 miles of potential habitat to fish since 1991.

#### **Trend Analysis**

Between 2007 and 2013, WSDOT has fixed 65 culverts that opened 276 miles of potential habitat. The 2014 WSDOT Fish Passage Inventory identified 1,982 fish passage barriers associated with 3,601 WSDOT highway and right-of-way water crossings. Of that total, 1,537 were identified as "barriers with significant habitat gain," which is defined as a section of stream having at least 200 linear meters of habitat without a natural barrier. Since 1991, 282 barriers have been fixed, opening up 976 miles of potential fish habitat.





Projected Lineal Miles of Habitat Gained and Completed Fish Passage Correction Projects

Source: WSDOT Environmental and Engineering Programs

### State Investment Highlight 2013-15

\$43.6 million for replacing or rehabilitating culverts

- Statewide inventory of culverts and prioritization of projects
- In addition to correcting fish passage barriers in "stand-alone" projects, WSDOT corrects fish barriers as part of larger transportation construction projects where culverts are within the project limits and as part of maintenance activities where only limited work is needed.
- Coordination with the Washington Department of Fish and Wildlife to identify and scope projects
- Newly established Fish Passage Barrier Removal Board tasked with finding ways to prioritize barrier corrections and coordinate barrier correction efforts

# **ENVIRONMENT**

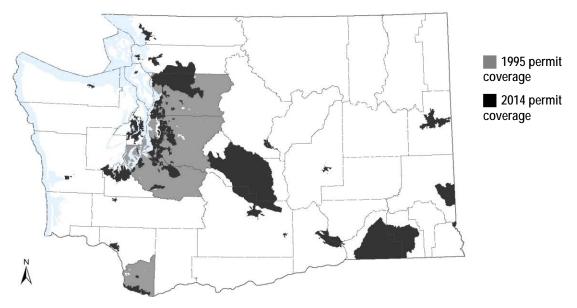
To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities and protect the environment.

### Objective: Improve water quality by managing stormwater runoff

## Permit compliance continues. Progress is being made on mapping stormwater outfalls. Stormwater clarity at WSDOT construction sites improves.

### Discussion

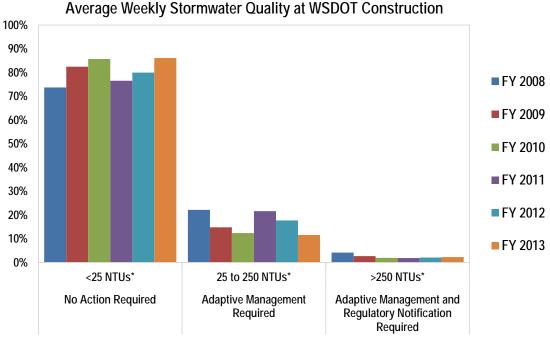
WSDOT has increased GIS mapping coverage of its outfall inventory to 1,660 centerline highway miles, which is 100 percent compliant with the 2009 permit area mapping requirement. In FY 2013, there were 169 stormwater treatment facilities constructed within the municipal permit area boundaries. WSDOT completed all the 1,804 stormwater facility inspections in FY 2013. WSDOT collected baseline water quality data for stormwater runoff from transportation facilities, meeting its monitoring program agreement for permit compliance with the Department of Ecology for 2013.



### WSDOT Municipal Stormwater Permit Coverage Areas

Source: Washington Dept. of Ecology: Municipal Stormwater Permit Areas - WSDOT

Variable weather, soil conditions and terrain affect stormwater runoff quality at construction sites. The National Pollutant Discharge Elimination System (NPDES) stormwater 2011 construction permit sets monitoring standards for construction sites that trigger water quality best management practices when runoff water clarity (turbidity) measurements fall below an acceptable benchmark and Department of Ecology notification requirements.



\*NTUs are a water clarity measure (turbidity units)

Source: WSDOT - Environmental Services Office

### State Investment Highlight 2013–15

- \$23.6 million for stormwater management within the NPDES permit area
- \$25.8 million for stormwater management outside the NPDES area

- Stormwater best management practices, approved by the Department of Ecology, are contained in WSDOT's Highway Runoff Manual and include:
  - > detention ponds
  - grassy swales
  - > compost-amended embankment soils
  - > engineered shoulders and ditches
  - > natural landscape and vegetation along roadsides to disperse and infiltrate stormwater runoff
- Quality Assurance Project Plan for Baseline Stormwater Monitoring of WSDOT Maintenance Facilities, Rest Areas and Ferry Terminals
- TIB paving projects that restore stormwater conveyance systems

# **ENVIRONMENT**

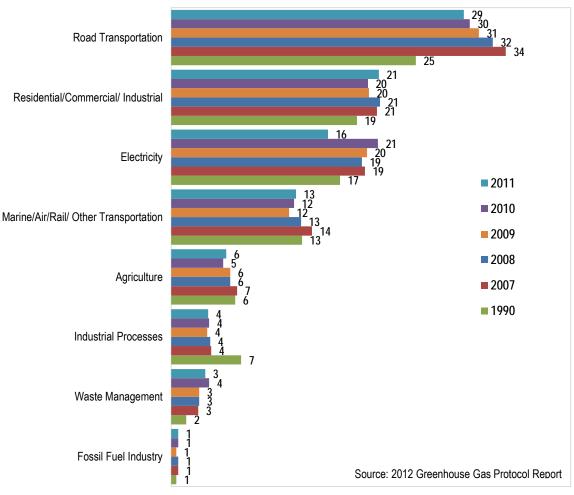
To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities and protect the environment.

### Objective: Reduce greenhouse emissions caused by transportation

## Transportation-related greenhouse gas emissions decline between 2007 and 2011 but still have a long way to go to meet established goals.

### **Trend Analysis**

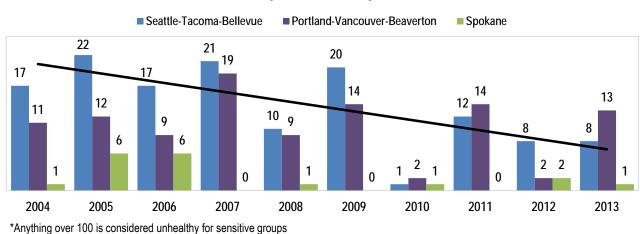
Transportation-related greenhouse gas emission decreased by 5 million metric tons between 2007 and 2011, according to the Greenhouse Gas Protocol Report. Vehicle miles traveled (VMT) were essentially unchanged in the same time frame. In 2008, the Governor's goal of reducing emissions by 2050 to 50 percent below 1990 levels was codified. This was intended, in part, to decrease the annual per-person number of vehicle miles traveled statewide. To reach their part of the goal, road transportation-related greenhouse gas emissions need to decrease by 16.5 million metric tons.



### Total State Greenhouse Gas Emissions – 1990, 2007, 2008, 2010 and 2011 Millions of Metric Tons CO2 Equivalent (rounded)

Reducing VMT on a statewide basis, especially in the most populous counties, requires some combination of the following actions: develop cleaner automobiles; shift modes from private cars to transit, walking or biking; increase vehicle occupancy; travel less through telecommuting, combining trips or reducing the number of discretionary vehicle trips; expand use of alternative work hours; use more compact land development that supports transit, walking and biking; make more services available online; and implement road usage pricing strategies.

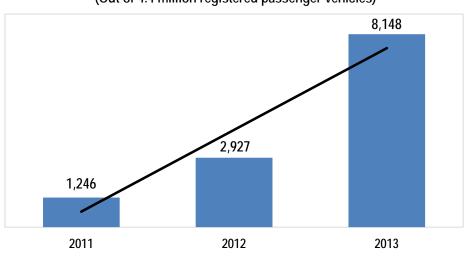
While affected by many factors, EPA air quality measurements for the Puget Sound area show a gradual improvement over the past 10 years.



Air Quality in Major Metropolitan Areas (Number of Days with Air Quality Index > 100)\*

Source: Environmental Protection Agency

According to POLK Automotive, between January 2013 and November 2013, 1.6 percent of all new car registrations were for electric vehicles.

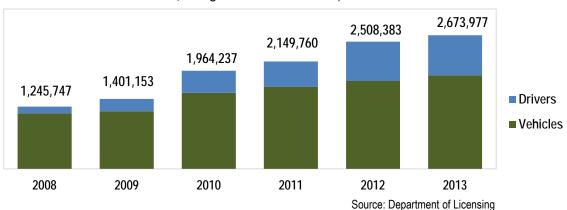


### Number of Registered Electric Vehicles in Washington (Out of 4.4 million registered passenger vehicles)

Source: Washington State Department of Licensing

In 2009, the Legislature also required state agencies to report their emissions and develop strategies to meet reductions.

WSDOT has a number of strategies for reducing greenhouse gas emissions in the agency, including greater use of vehicle fleet biodiesel, lower gas and diesel consumption, and replacing fleet sedans with hybrid and electric vehicles. WSDOT Ferry's Division strategies include reducing the number of engines in Jumbo Mark II ferries from three to two, increasing the use of biodiesel, installing positive restraint systems at the Edmunds/Kingston Dock and powering the new Super Class vessels with liquefied natural gas.



# DOL Trips Avoided (through online transactions)

Since 2008, the Department of Licensing has expanded opportunities for customers to conduct business without having to travel to an office. As a result of these online options, the agency has caused the:

- Avoidance of 2.7 million trips in 2013, a 115 percent increase in trips avoided since 2008.
- Avoidance of 27 million miles of travel and saved 1.35 million gallons of gasoline.
- Reduction of 25 million pounds of carbon dioxide.
- Savings to customers of \$5 million in 2013 through lower fuel costs.

- Launching of the nation's first electric vehicle highway
- U.S. Coast Guard risk assessment of converting six ferry vessels to liquefied natural gas finds WSDOT designs "inherently safe." WSDOT expects to reduce carbon dioxide emissions on the six vessels by 28 percent, based on results from new software created by the agency to model maritime liquefied natural gas emissions.
- WSDOT released a request for proposals in March 2014 to convert the M/V Hyak to a dieselelectric hybrid propulsion system.
- WSDOT ferry vessels used a total of 687,741 gallons of biodiesel in 2013, up roughly 42 percent from the 485,537 gallons used in 2012.
- All projects funded by the Regional Mobility Grant program reduce greenhouse gas and vehicle miles traveled (VMT). As of 2013, completed Regional Mobility Grant projects and those still under construction will reduce an estimated 327 million VMT and 143,000 metric tons of carbon dioxide annually.
- Operation of the Commute Trip Reduction Program
- Required analysis of greenhouse gas emissions by each state agency

- Reduced 154 million VMT since 2007
- Reduced 69,000 metric tons of greenhouse gas emissions
- Saved about 3 million gallons of fuel each biennium
- According to Department of Ecology's Reducing Greenhouse Gas Emissions in Washington State Government report, total state agency greenhouse gas emissions increased 5.2 percent from 2005 to 2008, and then steadily declined from 2008 to 2011. The 2011 emissions were equivalent to state agency emissions levels in 2005.
- Transportation Improvement Board LED street light pilot program

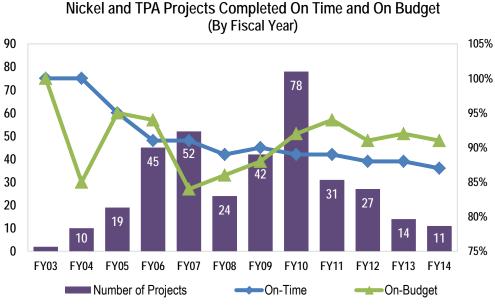
# **STEWARDSHIP** To continuously improve the quality, effectiveness and efficiency of the transportation system.

# Objective: Deliver 90 percent of Nickel and Transportation Partnership Act projects on time and budget

## WSDOT's capital program for the Transportation Partnership Act (TPA) and Nickel revenue packages continues to deliver projects on time and on budget.

### **Trend Analysis**

There are 421 projects on the combined TPA and Nickel construction project list. As of June 2014, 355 projects have been completed: 87 percent on time, 91 percent on budget and 85 percent on time *and* on budget.



Source: WSDOT - Capital Program Development & Management

#### State Investment Highlights 2013–15

TPA and Nickel project expenditures are projected to total \$16.3 billion, which is not the total cost of these projects. Other revenue sources have also been committed to many of these projects. In the 2013–15 biennium, \$1.9 billion was appropriated from the TPA and Nickel accounts.

Over the next 20 to 30 years, the TPA and Nickel gas tax revenues will be available only to pay off debt.

### **Contributing Success Factors**

Passage of the TPA and revenue packages enabled WSDOT to embark on the largest construction program in Washington state history. These revenue packages significantly advanced a number of mega projects, including the Alaskan Way Viaduct, SR 520, I-90 at Snoqualmie Pass, the Tacoma HOV system and SR 395, as well as a number of smaller projects across the state.

The following efforts have been taken to ensure success:

- Used cost estimate validation processes on complex projects to gauge the multiple costs of various degrees of probable risk.
- Used the private sector to design more than 54 percent of the TPA and Nickel program.
- Used expert review panels to advise on project scope, delivery and budget for the mega projects.
- Engaged community steering committees for the mega projects.
- Provided quarterly project updates.
- Reported on progress through the Gray Notebook: http://www.wsdot.wa.gov/Accountability/GrayNotebook/SubjectIndex.htm.

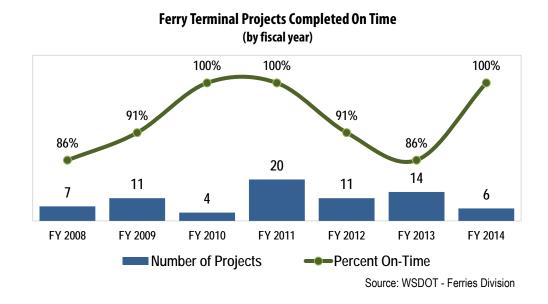
# **STEWARDSHIP** To continuously improve the quality, effectiveness and efficiency of the transportation system.

### **Objective: Deliver 90 percent of ferry terminal projects on time**

## WSDOT Ferries Division is completing terminal capital projects on time more than 95 percent of the time.

### **Trend Analysis**

Ferry terminal projects range from building rehabilitation for compliance with the Americans with Disabilities Act to replacement of wing walls and dolphins in the water. Over the past five years, Ferries Division has completed more than 95 percent of terminal projects on time.



### State Investment Highlights 2013–15

A total of \$79.1 million has been invested in ferry terminal capital projects, including:

- \$20.3 million of the \$131.1 million Mukilteo terminal improvement project
- \$14.4 million for preservation of the Seattle terminal
- \$2.3 million of the \$23.6 million Anacortes terminal improvement project
- \$2.2 million of the \$6.0 million reservation system project
- \$2.4 million for security upgrades
- \$5.9 million for preservation of the Bainbridge Island terminal
- \$3.2 million for preservation of the Point Defiance terminal
- \$3.0 million for preservation of the Bremerton terminal

- Terminal design standards established as a result of 2009 legislation optimize capital and operating investments
- An environmental assessment instead of a lengthy National Environmental Policy Act process for the project to replace the Seattle multimodal terminal (Coleman Dock project)

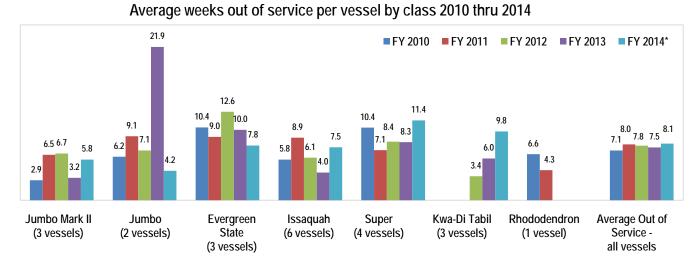
#### To continuously improve the quality, effectiveness **STEWARDSHIP** and efficiency of the transportation system.

### **Objective: Limit out-of-service time for ferry vessels**

### Vessel out-of-service time correlates very closely to vessel age.

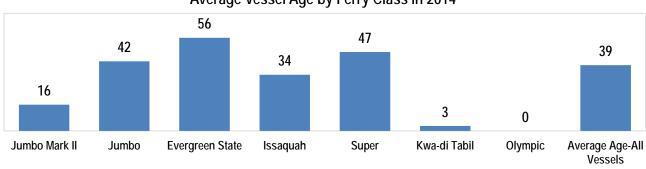
#### **Trend Analysis**

Ferry vessels have spent an average of 7.7 weeks per vessel, per year in out-of-service status over the past five fiscal years. The Ferry Division's goal for out-of service time is an average of eight weeks per year. The three Evergreen State class vessels, which have an average age of 56 years, averaged 10.0 weeks per year out of service since 2010. The newer Kwa-di Tabil class vessels, with an average age of 3.3 years, averaged 9.8 weeks out of service in 2014. The Walla Walla experienced an unusually long out-of-service time in FY 2013 due to an electric drive motor failure.



\*Tokitae not included; started service June 30, 2014

Source: WSDOT Ferries Division



Average Vessel Age by Ferry Class in 2014

Source: WSDOT Ferries Division

### State Investment Highlights 2013–15

The 2009 ferry long-range plan called for 10 new vessels by 2030. Two of these were to replace the old Steel Electric vessels on the Port Townsend-Keystone route and eight to replace older vessels. The total estimated cost in 2009 was \$1.9 billion. Funding has been provided for six of these vessels:

- \$210.2 million for three 64-car Kwa-di Tabil class vessels. The boats went into service November 2010, July 2011 and February 2012.
- \$393.5 million for three 144-car Olympic class vessels. The first vessel went into service June 2014 and the second is scheduled to go into service in early 2015. The third vessel is scheduled to be completed in early 2017. Legislative appropriations for these vessels started in 2007 and are projected to extend through 2017.

#### **Contributing Success Factors**

Driving out-of-service times for vessels are such needs as painting, passenger space renovations, and major mechanical and electrical machinery refurbishments. Emergency vessel repairs are also a factor in out-of-service status.

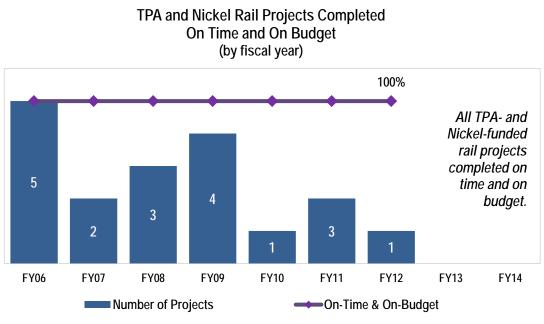
# **STEWARDSHIP** To continuously improve the quality, effectiveness and efficiency of the transportation system.

### Objective: Deliver 90 percent of rail capital projects on time and budget

# WSDOT's capital delivery program for rail-related projects delivers all Transportation Partnership Act (TPA) and Nickel projects on time and on budget.

### **Trend Analysis**

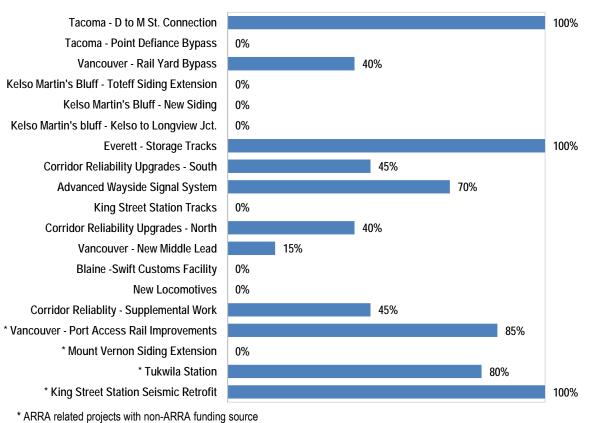
In FY 2012, the last rail project on the combined Nickel and TPA construction project list was completed on time and on budget.



Source: WSDOT Capital Program Development & Management

In addition to the TPA and Nickel projects, in the 2013–15 biennium there are 19 stimulus projects, 11 freight rail infrastructure loan-supported projects and five freight rail assistance, grant-supported projects.

### American Recovery and Reinvestment Act and Related non-ARRA Funded Projects Percentage of Construction Completed



Source: WSDOT Capital Program Development & Management

### State Investment Highlights 2013–15

Rail capital: nearly \$500 million, including:

- \$51.6 million of a total project cost of \$58.2 million for advanced signal systems
- \$61.7 million of a total project cost of \$87 million for corridor improvements
- \$66 million of total project cost of \$172.7 million for Vancouver freight and passenger rail service improvements
- \$21.6 million total cost for Tacoma D to M Street connection
- \$35.9 million of the total cost of \$90.1 million for the Tacoma Point Defiance bypass\*
- \$63 million of a total project cost of \$188.7 million for Kelso Martin's Bluff improvements
- \$6.4 million of a total project cost of \$77.9 million for Seattle's King Street Station track and station upgrades
- \$7.7 million in freight rail infrastructure loans
- \$4 million in freight rail assistance grants

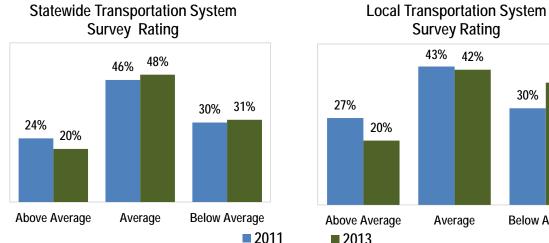
\*The Point Defiance Bypass project has been redesigned and is in the process of being approved by the Federal Rail Administration. WSDOT will use savings on other ARRA projects to pay for higher Point Defiance Bypass project costs.

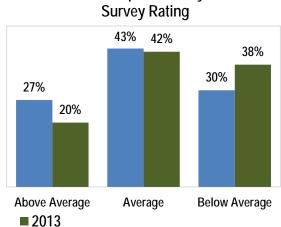
# **STEWARDSHIP**

To continuously improve the quality, effectiveness and efficiency of the transportation system.

## Objective: Measure public perception about the condition and needs of the transportation system.

68 percent of the respondents gave statewide transportation systems a "C" or better grade and 62 percent of the respondents gave their local system a "C" or better.





Survey details are available at

http://wstc.wa.gov/StudiesSurveys/StatewideTransportationSurvey/documents/2014\_02\_VOWSStatewideS urveyReport.pdf. Information about boundaries of regional transportation planning organizations is available at http://www.wsdot.wa.gov/planning/Regional/Default.htm. Results were administered and tallied for residents living within regional transportation planning organization jurisdictions.

As noted in the survey detail, respondents in the Palouse area and the Benton-Franklin county area gave the statewide systems the highest rankings (C+). Respondents in the Puget Sound and Thurston County areas gave the state transportation system the lowest overall grades (D+).

Regions that ranked their local systems the highest are Whatcom, Benton, Franklin, Walla Walla and the Palouse (C+). Regions that ranked their local systems the lowest are the Southwest regional area, including Vancouver and the Spokane area (D+).

## Maintaining and repairing existing roads, highways and bridges continues to be seen as the most important statewide investment.

On a statewide basis, 84 percent of respondents felt that maintaining existing roads and bridges was important. This was almost 35 percentage points higher than the second-ranked activity, expanding public transit services. Improving regional airports was the lowest-ranked activity, with only 13 percent of respondents thinking of it as important, and building bike lines showed the biggest drop in interest, going from 40 percent thinking it was important in 2011 to 23 percent thinking it was important in 2013.

| Percentage of respondents ranking investments as important |      |      |  |  |
|--|------|------|--|--|
| Investment   | 2011 | 2013 |  |  |
| Maintenance of existing roads and highways                 | 85   | 84   |  |  |
| Expanding public transit service                           | 51   | 49   |  |  |
| Increasing intercity passenger rail service                | 55   | 46   |  |  |
| Operating and maintaining the ferry system                 | 46   | 40   |  |  |
| Widening and building more roads                           | 51   | 40   |  |  |
| Keeping rural roads and mountain passes open year round    | 44   | 34   |  |  |
| Minimizing closures of roads from<br>snow/flooding         | n/a  | 33   |  |  |
| Improving roads and infrastructure at<br>shipping ports    | 38   | 31   |  |  |
| Increasing law enforcement and public safety on highways   | 37   | 29   |  |  |
| Building or improving sidewalks                            | 30   | 27   |  |  |
| Building bike lanes  | 40   | 23   |  |  |
| Improving regional airports                                | 23   | 13   |  |  |

Source: Washington State Transportation Commission

http://wstc.wa.gov/StudiesSurveys/StatewideTransportationSurvey/documents/2014\_02\_VOWS StatewideSurveyReport.pdf.

### State Investment Highlight 2013–15

- \$174,000 for the Washington State Transportation Commission to maintain the survey process and two Voice of Washington transportation surveys.
- \$250,000 for the Washington State Transportation Commission to produce the 2014 Washington Transportation Plan.
- \$850,000 to the Transportation Commission to further develop the concept of, and business case for, a road usage charge system.

# **STEWARDSHIP**

To continuously improve the quality, effectiveness and efficiency of the transportation system.

### **Objective:** Measure passenger satisfaction with the Washington State Ferries system

In 2014, ferry riders were more satisfied with the service provided by Washington State Ferries than they were four years ago.

| System-wide Satisfaction |           |                |              |                                  |  |  |
|--------------------------|-----------|----------------|--------------|----------------------------------|--|--|
|                          | Satisfied | Very Satisfied | Dissatisfied | Don't Know/No<br>Opinion/Neutral |  |  |
| 2014                     | 39%       | 35%            | 17%          | 9%                               |  |  |
| 2012                     | 38%       | 29%            | 17%          | 16%                              |  |  |
| 2010                     | 47%       | 25%            | 17%          | 11%                              |  |  |
| 2008                     | 68%       | N/A            | 20%          | 12%                              |  |  |

Source: 2014 Winter Wave Summary Report,

prepared by EMC Research http://www.wstc.wa.gov/FROGSurvey/

Since 2008, the Transportation Commission has conducted a biennial survey of ferry riders to help inform policy and financing decisions. In 2010, a targeted effort was made to assess the opinions of frequent ferry riders and the FROG, or Ferry Riders' Opinion Group, was created. FROG is an online community where ferry users weigh in on ferry issues through surveys and quick polls.

#### **Satisfaction Factors**

These results were identified by ferry riders in the 2014 survey:

- Ferry riders are most satisfied with the friendliness and helpfulness of vessel crews. In general, ferry vessel crew members are seen as polite, helpful and competent by ferry riders.
- Passengers find toll booth staff friendly and generally find purchasing tickets easy.

Other efforts that likely led to positive findings include:

- Passenger seating areas are clean.
- Unloading crews provide clear directions.
- A new Olympic class vessel was put into service on the Mukilteo to Clinton ferry route.

| Dissatisfaction by Route   |      |      |      |      |  |  |
|----------------------------|------|------|------|------|--|--|
|                            | 2008 | 2010 | 2012 | 2014 |  |  |
| Seattle/Bainbridge         | 16%  | 16%  | 13%  | 12%  |  |  |
| Seattle/Bremerton          | 24%  | 20%  | 19%  | 13%  |  |  |
| Edmonds/Kingston           | 16%  | 17%  | 16%  | 13%  |  |  |
| Fauntleroy/Vashon          | 36%  | 22%  | 17%  | 27%  |  |  |
| Fauntleroy/Southworth      | 22%  | 23%  | 32%  | 22%  |  |  |
| Southworth/Vashon          | n/a  | 24%  | 12%  | 23%  |  |  |
| Point Defiance/Tahlequah   | 44%  | 24%  | 18%  | 15%  |  |  |
| Mukilteo/Clinton           | 15%  | 14%  | 16%  | 15%  |  |  |
| Port Townsend/Coupeville   | 19%  | 17%  | 28%  | 20%  |  |  |
| Anacortes/San Juan Islands | 13%  | 21%  | 33%  | 48%  |  |  |
| San Juan-Interisland       | n/a  | 25%  | n/a  | 48%  |  |  |

Source: 2014 Winter Wave Summary Report, prepared by EResearch, http://www.wstc.wa.gov/FROGSurvey/

### **Dissatisfaction Factors**

- Terminal restroom and seating area cleanliness needs improvement.
- Loading crew need to provide clearer direction and uniform hand signals.
- Loading procedures need to improve in the holding areas.

Passengers on the San Juan-Interisland and Anacortes-San Juan routes showed the most dissatisfaction in 2014. On-time departures and arrivals, loading and unloading procedures, vessel maintenance and coordination with transit are the biggest problems at these locations. Parking availability near the terminal was a major contributor to dissatisfaction on the Fauntleroy/Vashon and Mukilteo/Clinton routes.

### State Investment Highlight 2013–15

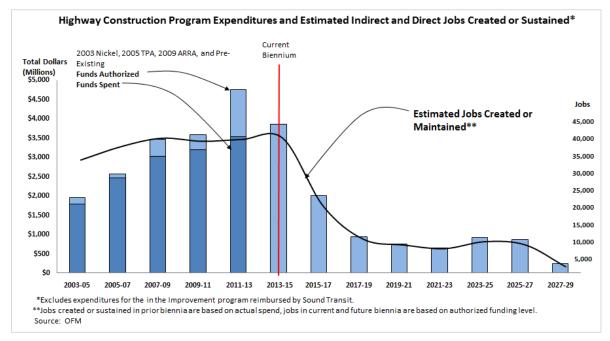
- In 2014, the Legislature provided one-time funding to restore a traffic attendant at the Fauntleroy ferry terminal.
- In the 2013–15 biennium, the Legislature provide \$4.03 million to continue Phase 2 of the ferry reservation system.

# ECONOMIC VITALITY

To promote and develop transportation systems that stimulate, support and enhance the movement of people and goods to ensure a prosperous economy.

### Objective: Create and sustain jobs through investments in transportation

If completely spent, the 2013–15 highway capital budget is estimated to support more than 38,000 direct, indirect and induced jobs.



### **Trend Analysis**

In the 2013–15 biennium, OFM estimates that the highway construction program could be responsible for creating or sustaining an estimated 38,244 jobs. In the 2011–13 biennium, based on actual spending, the highway construction program is estimated to have created or sustained 37,910 jobs. These job estimates represent the peak biennial employment levels for TPA and Nickel gas tax-funded projects. As these projects are finished, OFM estimates that the number of jobs will decrease to 8,968 by the 2017–19 biennium.

### State Investment Highlights 2013-15

- \$3.9 billion in capital improvements
- \$718.4 million for preservation

- As of December 2013, an estimated 5,995 total full-time equivalent jobs have been created or saved by expended American Recovery and Reinvestment Act state and local highway project dollars.
- Between 2003 and 2012, 83 percent of WSDOT project related expenditures (\$8 billion) were spent on construction. The majority of construction expenditures (\$6.7 billion, or 84 percent) were for payments to prime contractors. (Source: Burke and Associates 2013 Joint Transportation Commission Study)
- A competitive bidding climate continues in the 2013–15 biennium, and inflation costs remain relatively low, allowing more work to be performed.

# ECONOMIC VITALITY

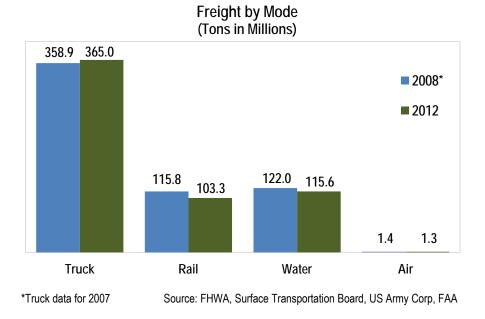
To promote and develop transportation systems that stimulate, support and enhance the movement of people and goods to ensure a prosperous economy.

### **Objective: Enhance transportation systems to facilitate movement of freight**

## All modes of freight were crippled by the recession. Only truck freight is beginning to rebound to pre-recession levels.

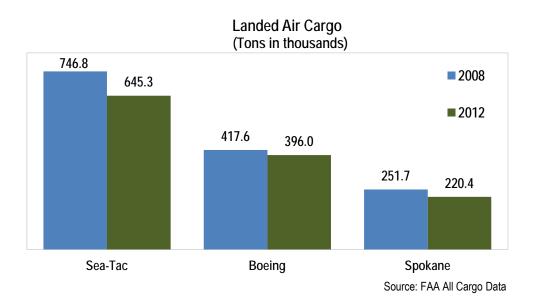
### **Trend Analysis**

In 2012, domestic waterborne freight in terms of tonnage was the lowest it had been in 19 years. Rail freight that terminates in state was down more than 32 percent between 2008 and 2012. Air cargo freight at Sea-Tac International Airport was down almost 14 percent over the same time frame. Only truck shipments showed resiliency, growing almost 2 percent between 2007 and 2012.

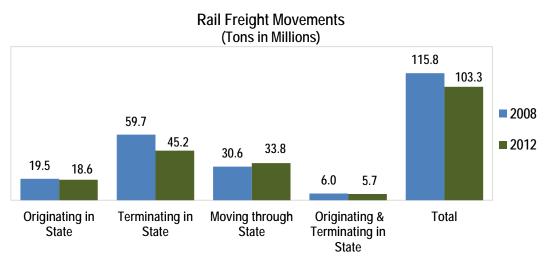


*Air freight:* In 2008, planes carried 1.4 million tons of air cargo. In 2012, they carried 1.3 million tons, a decrease of 10.9 percent.

The three airports contained in the air freight measure are Sea-Tac International, Boeing Field and Spokane International. All airports showed a decline in air cargo activity. Both Spokane and Sea-Tac lost more than 12 percent of their air cargo activity while Boeing lost slightly more than 5 percent between 2008 and 2012. Although not shown in this report, 2013 activity did begin to improve, and a small positive growth will be reflected in the next Attainment Report.



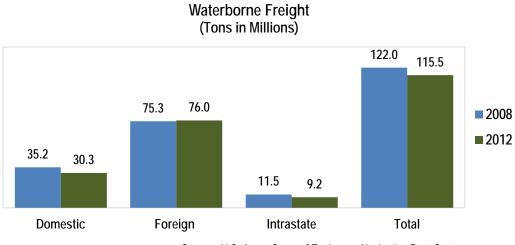
*Rail freight:* In 2008, rail carried 115.8 million tons of cargo. In 2012, rail carried 103.3 million tons, a decrease of 10.8 percent.



Source: Surface Transportation Board Public Use Waybill Sample

There is significant variability in the tonnage of rail freight moved from year to year. In the five years examined for this report, rail had its best years in 2008 and 2010, with significantly lower levels of goods moved in the other three years. The greatest volume of goods moved — between 45.2 and 59.8 million tons of freight per year — terminates in Washington. This category of rail movements has decreased the sharpest, down more than 32 percent between 2008 and 2012. On the other hand, rail freight moving through the state has increased more than 9 percent.

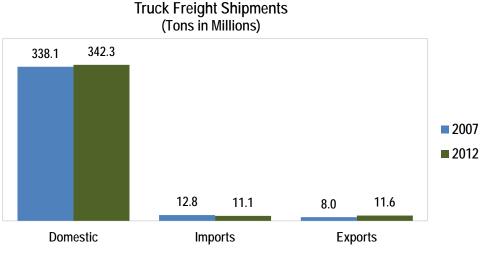
*Water freight:* In 2008, vessels carried 122 million tons of cargo. In 2012, vessels carried 115 million tons, a decrease of 5.3 percent.



Source: U.S. Army Corps of Engineers, Navigation Data Center

Waterborne freight tonnage declined significantly during the recession, dropping more than 12 percent between 2008 and 2009. It has slowly been climbing back, but in 2012 was still lagging prerecession levels. Foreign freight was the fastest growing market during from 2008 to 2012, while domestic markets fell in each of the five years. Intrastate freight fell sharply. While recovering slowly, intrastate waterborne trade in 2012 was at the lowest level since 1994.

*Truck freight:* In 2007, trucks moved 358.9 million tons. In 2012, trucks moved 365 million tons, an increase of 1.7 percent.



Source: Federal Highway Administration, FAFS3

Domestic and export truck freight increased between 2007 and 2012 while import freight decreased. Domestic freight increased 1.2 percent, export freight increased almost 45 percent and import freight decreased 13 percent.

### State Investment Highlights 2013–15

- \$8.6 million in the Freight Rail Investment Bank Program supported 11 loans to the ports of Everett and Walla Walla and the cities of Richland and Tacoma.
- \$2.9 million in the Freight Rail Assistance Program supported four grants in Clark, Spokane, Whitman, Lincoln, Grant and Walla Walla counties.
- \$2.4 million was appropriated to the PCC Rail System for preservation projects in Spokane, Whitman, Lincoln and Grant counties.
- \$31.5 million was appropriated to the Freight Mobility Strategic Investment Board for 31 projects across the state. Completed projects include at-grade crossing removals in Auburn, Renton and Yakima, and improved freight movement in Fife, Yakima, Walla Walla and Benton County and at the Port of Vancouver.
- \$ 1.1 billion in the WSDOT mobility subprogram supported 179 projects that provided freight benefits on state truck freight economic corridors in 23 counties.
- \$0.43 billion in WSDOT roadway and structure preservation subprograms supported 317 projects on truck economic corridors that provided benefits to truck movement in 32 counties.

- The Washington State Freight Mobility Plan<sup>1</sup> identified and mapped the state's multimodal freight economic corridors. The truck freight economic corridors include high-volume roads and highways as well as first- and last-mile routes that connect freight-intensive land uses to the backbone system. Moving toward a performance-based system, WSDOT is developing advanced methods to assess performance of the truck freight economic corridors. In the next six years, WSDOT plans to:
  - > Analyze and report on truck freight performance on the interstate system, as required under the Moving Ahead for Progress in the 21st Century (MAP-21) Act.
  - > Extend the analysis of truck travel delay and reliability beyond the interstate system to all state truck freight economic corridors, particularly high-value, multi-jurisdictional state supply chains such as agribusiness, manufacturing, construction, timber/wood products, and wholesale/retail trade.
  - > Use the analyses to identify locations with performance issues.
  - > Measure progress made toward truck freight performance targets.
- Leveraging of state funds for private contributions
- Although outside the time frame of this report, the ports of Seattle and Tacoma have recently announced they will form an alliance to manage the marine cargo business of both ports. This change will be reflected in the next attainment report.

<sup>&</sup>lt;sup>1</sup> Washington State Freight Mobility Plan <u>http://www.wsdot.wa.gov/Freight/freightmobilityplan</u>