

# 2016 Corridor Capacity Report

## WSDOT'S COMPREHENSIVE ANNUAL ANALYSIS OF MULTIMODAL STATE HIGHWAY SYSTEM PERFORMANCE

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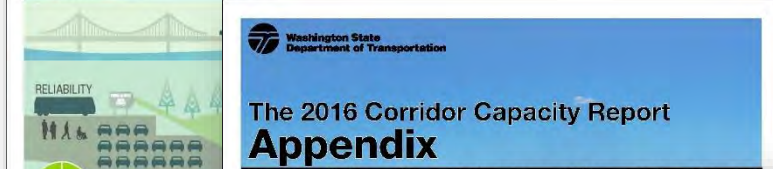
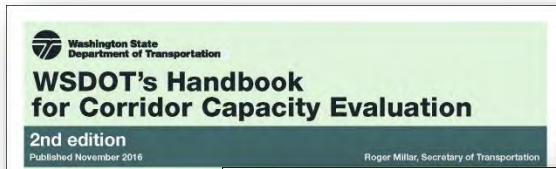
Washington State Transportation Commission

February 16, 2017

# 2016 CCR – Purpose and Intent

- **Informs** the Legislature, WSDOT executives and the public about multimodal highway system conditions
- **Supports** WSDOT Agency Emphasis Areas (Practical Solutions, Workforce Development, and Inclusion)
- **Provides** baseline multimodal system performance information for policymakers, planners and engineers
- **Prepares** Washington to comply with state and federal performance reporting requirements (Results Washington, MAP-21/FAST Act)
- **Serves** a variety of customers and provides analysis of specific corridors, regions, and the state

# 2016 CCR - WSDOT Partnerships



Puget Sound Regional Council



# 2016 CCR - Media Interest

THE NEWS TRIBUNE

“A glimmer of hope: JBLM no longer a traffic logjam”

The Olympian

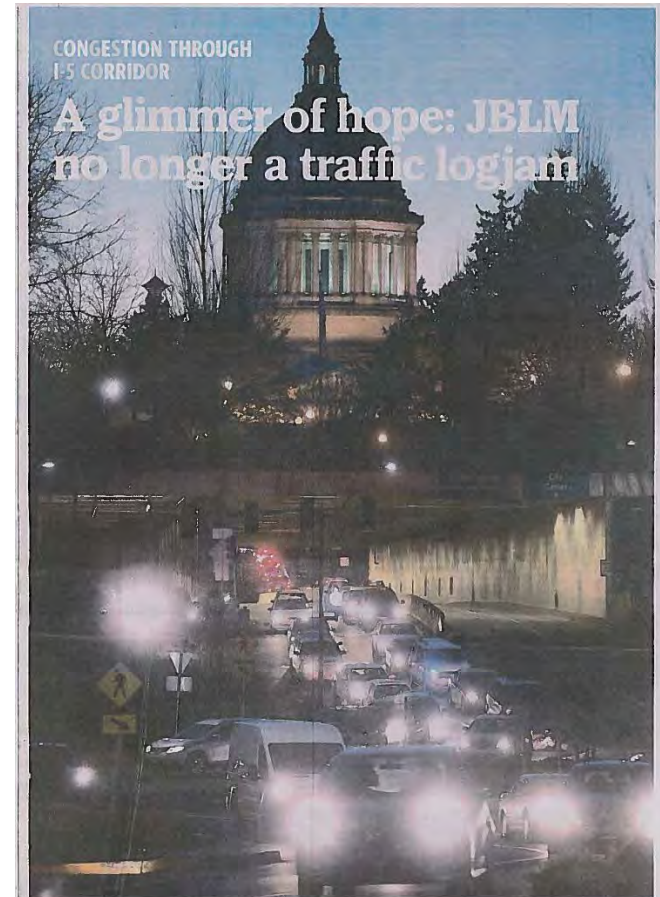
“The JBLM corridor now the bright spot in South Sound’s commuting landscape”

KIRO 7

“Seattle-area traffic up 35 percent from 2013-2015”

KVEW-TV.com

“Washington Highway travel is up”



Hundreds of cars flood out of the state Capitol Campus in Olympia heading to Interstate 5 during the evening rush hour in Olympia. TONY OVERMAN levema@theolympian.com

Now, the dismal news: Commutes through Tacoma worsened considerably from 2013 to 2015

BY ADAM LYNN  
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Here's something Thurston County commuters might have thought they'd never hear: Interstate 5 traffic near Joint Base Lewis-McChord is the bright spot in the latest Corridor Ca-

petty Report from the state Department of Transportation. The report released last week says evening-commute congestion from Tacoma to Olympia on I-5 decreased from 2013 to 2015, as did the length of delay through the Joint Base Lewis-McChord corridor overall. But those gains are thought to

have contributed to the dark spot in the South Sound traffic picture: the traffic trap near the Tacoma Dome and into Fife. How slow does traffic get on I-5 through Fife during certain times of the day? Consider this from Amella Heath of University Place: "One time traffic was so slow,

I started passing chips back and forth with another vehicle," Heath told The News Tribune via Twitter. "I think they were Fife."

Some might scoff at Heath's tale, but the DOT report sure makes it seem possible.

The report, which examined changes in traffic flow statewide from 2013 to 2015, showed congestion increased dramatically on I-5 in Tacoma and Fife.

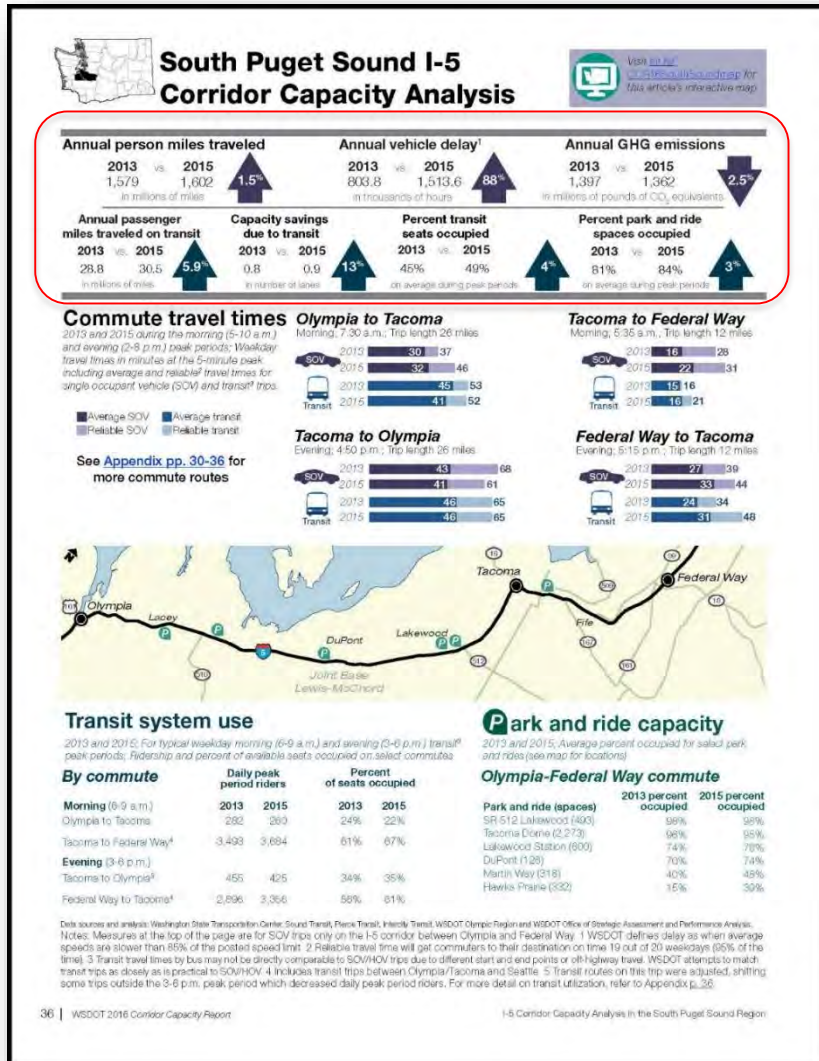
"From 2013 to 2015, the Tac-

SEE TRAFFIC, 16A

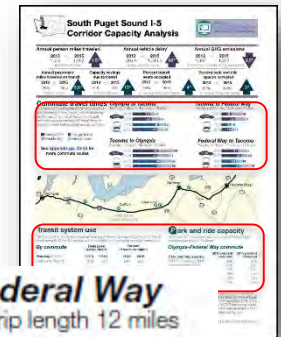
# Corridor Analysis Example: I-5 South Puget Sound

## Between 2013 and 2015:

- Person miles traveled increased 1.5%
- Vehicle delay increased 88%
- GHG emissions decreased 2.5%
- Annual passenger miles traveled on transit increased 5.9%
- Capacity savings due to transit increased 13%
- Percent of transit seats occupied increased 4%
- Percent of park and ride spaces occupied increased 3%



# Digging Deeper: Commute Trip Measures



## Commute travel times

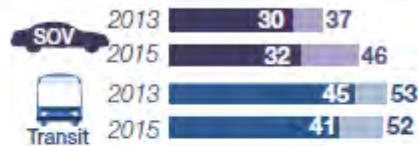
2013 and 2015 during the morning (5-10 a.m.) and evening (2-8 p.m.) peak periods; Weekday travel times in minutes at the 5-minute peak including average and reliable<sup>2</sup> travel times for single occupant vehicle (SOV) and transit<sup>3</sup> trips.

Average SOV   
  Average transit  
 Reliable SOV   
  Reliable transit

See [Appendix pp. 30-36](#) for more commute routes

### Olympia to Tacoma

Morning; 7:30 a.m.; Trip length 26 miles



### Tacoma to Olympia

Evening; 4:50 p.m.; Trip length 26 miles



### Tacoma to Federal Way

Morning; 5:35 a.m.; Trip length 12 miles



### Federal Way to Tacoma

Evening; 5:15 p.m.; Trip length 12 miles



## Transit system use

2013 and 2015; For typical weekday morning (6-9 a.m.) and evening (3-6 p.m.) transit<sup>3</sup> peak periods; Ridership and percent of available seats occupied on select commutes

### By commute

By commute	Daily peak period riders		Percent of seats occupied	
	2013	2015	2013	2015
<b>Morning (6-9 a.m.)</b>				
Olympia to Tacoma	282	260	24%	22%
Tacoma to Federal Way <sup>4</sup>	3,493	3,684	61%	67%
<b>Evening (3-6 p.m.)</b>				
Tacoma to Olympia <sup>5</sup>	455	425	34%	35%
Federal Way to Tacoma <sup>4</sup>	2,896	3,356	56%	61%

## Park and ride capacity

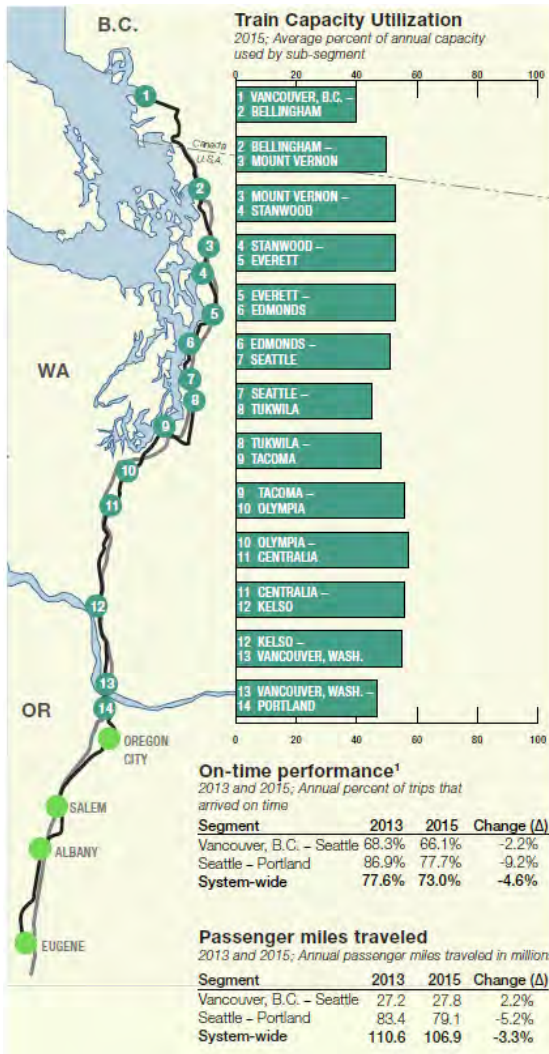
2013 and 2015; Average percent occupied for select park and rides (see map for locations)

### Olympia-Federal Way commute

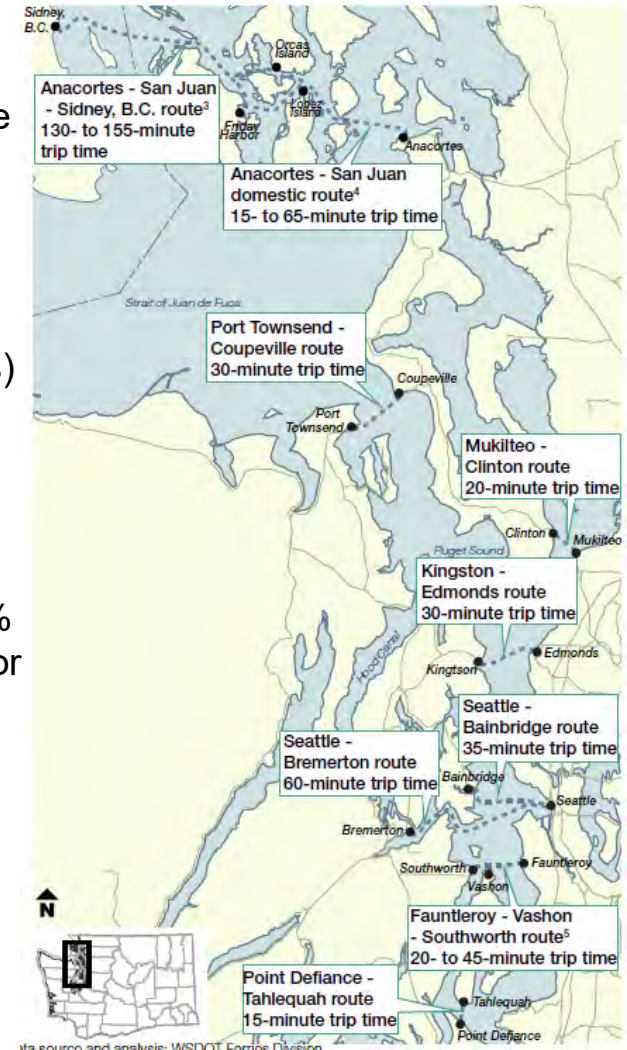
Park and ride (spaces)	2013 percent occupied	2015 percent occupied
SF 512 Lakewood (493)	98%	98%
Tacoma Dome (2,273)	96%	95%
Lakewood Station (600)	74%	78%
DuPont (126)	70%	74%
Martin Way (318)	40%	48%
Hawks Prairie (332)	15%	39%

# Apples to Apples? Not Quite Yet

## Multimodal Corridor Analysis



- Olympia to Tacoma AM
  - Reliable Transit Travel Time down by one minute
  - Percent of Seats Occupied down 2 percentage points
- Washington State Ferries
  - Reliability (actual sailings) steady at 99.5%
  - On-time performance at 94.4% (departures)
  - Ridership up 6%
  - Capacity utilization up 2% for vehicles, no change for drivers+passengers
- Amtrak Cascades
  - On-time performance at 73% (arrivals)
  - Ridership down 3.2%
  - Capacity utilization down 3% (passengers)



Note: Statistics are for 2015, changes are for 2013 to 2015

# Serving a Variety of Customers



Target Audience	Report Components
Policymakers: Legislators, WSDOT executives	Executive Summary (1), Dashboard (1)
Media	State and Regional Indicators (1), Press Release
Stakeholders, general public	Story maps (4), Corridor Analysis (1)
Planners, Engineers, other transportation professionals	Main report (1), handbook (3), appendix (2), corridor analysis (1)
Universities and Researchers	Main report (1), handbook (3), appendix (2)

# Multiple, High-Level Indicators at a Glance: Dashboard

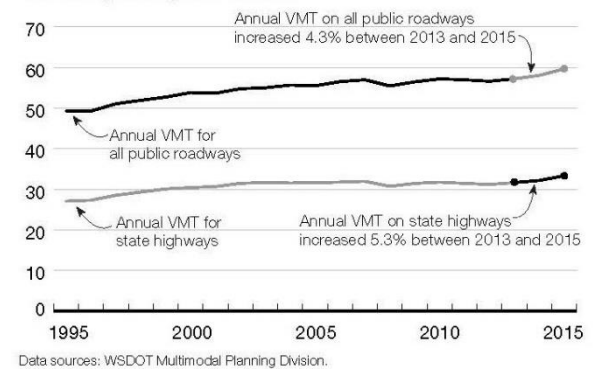
2016 Corridor Capacity Report Dashboard of Indicators	2011	2012	2013	2014	2015	Difference '13 vs. '15'
<b>Demographic and economic indicators</b>						
State population (in millions)	6.77	6.82	6.88	6.97	7.06	2.6%
Gasoline price per gallon (annual average) <sup>2</sup>	\$3.92	\$3.96	\$3.71	\$3.56	\$2.70	-27.2%
Washington total employment (in thousands of workers) <sup>3</sup>	2,872	2,919	2,986	3,065	3,154	5.6%
Taxable retail sales (in billions of dollars) <sup>2</sup>	\$109.3	\$112.6	\$119.2	\$125.0	\$135.4	13.5%
<b>Statewide multimodal performance measures</b>						
Drive alone commuting rate <sup>4</sup>	73.3%	72.2%	72.7%	72.4%	72.4%	-0.3%
Carpool commuting rate <sup>4</sup>	10.2%	10.7%	10.1%	10.1%	9.8%	0.3%
Bicycling and walking commuting rate <sup>4</sup>	4.2%	4.5%	4.3%	4.5%	4.7%	0.4%
Public transit commuting rate <sup>4</sup>	5.6%	5.8%	6.3%	6.3%	6.2%	-0.1%
Transit ridership <sup>5</sup> (in millions)	195.1	218.1	221.2	227.2	N/A	N/A
WSDOT Ferries ridership <sup>5</sup> (in millions)	22.3	22.2	22.5	23.2	23.9	6.2%
Amtrak Cascades ridership <sup>6</sup> (in thousands)	742	725	694	700	672	-3.2%
<b>Statewide congestion indicators</b>						
<b>Per person, total vehicle miles traveled on all public roads, state highways only</b>						
All public roads vehicle miles traveled (VMT) (in billions)	56.965	56.607	57.211	58.060	59.653	4.3%
All public roads per person VMT (miles)	8,417	8,303	8,313	8,332	8,448	1.6%
State highways VMT (in billions)	31.455	31.214	31.649	32.177	33.335	5.3%
State highways per person VMT (miles)	4,648	4,578	4,599	4,618	4,721	2.7%

# Comparing Statewide Trends

## In 2015 compared to 2013,

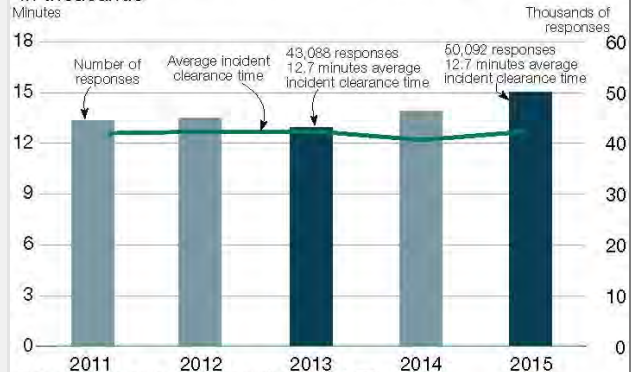
- Vehicle Miles Traveled increased 4.3%
- Passenger vehicle registrations increased 8.3%
- The number of licensed drivers in Washington increased 4%
- The drive-alone commuting rate decreased 0.3%
- Washington State Ferries ridership increased 6%
- Amtrak Cascades ridership decreased 3.2%
- Transit passenger miles traveled on urban commute corridors during peak periods increased 6%
- Emissions on high-demand urban commute corridors decreased 2.9%
- WSDOT's Incident Response crews provided an economic benefit of \$80.2 million

**Record high statewide vehicle miles traveled in 2015**  
1995 through 2015; Miles in billions



**Number of incidents up while average clearance time remains level**

2011 through 2015; Clearance time in minutes; Responses in thousands



Data source: Washington Incident Tracking System (WITS)

Notes: Data is only for incidents to which a WSDOT Incident Response team responded

# Comparing Regional Trends

- **In the Central Puget Sound Region:**

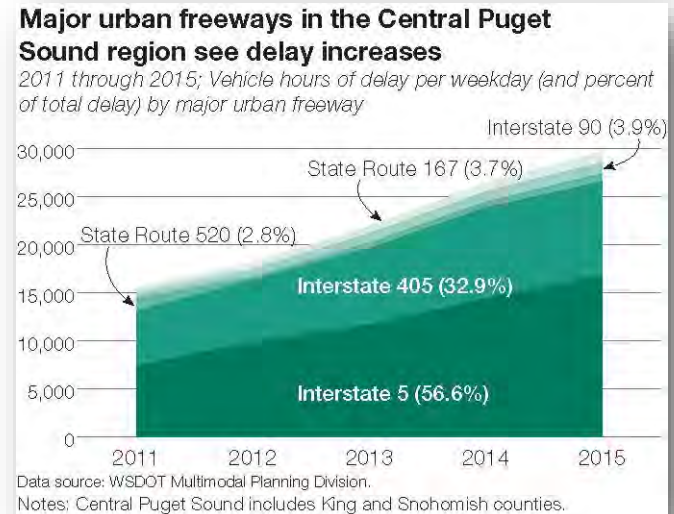
- Congestion on the five monitored freeway corridors (I-5, I-405, I-90, SR 520, SR 167) increased 35.7% between 2013 and 2015
- High Occupancy Vehicle (HOV) lanes accounted for 38% of person miles traveled on the five monitored freeways in 2015

- **In the South Sound, Vancouver and Spokane areas:**

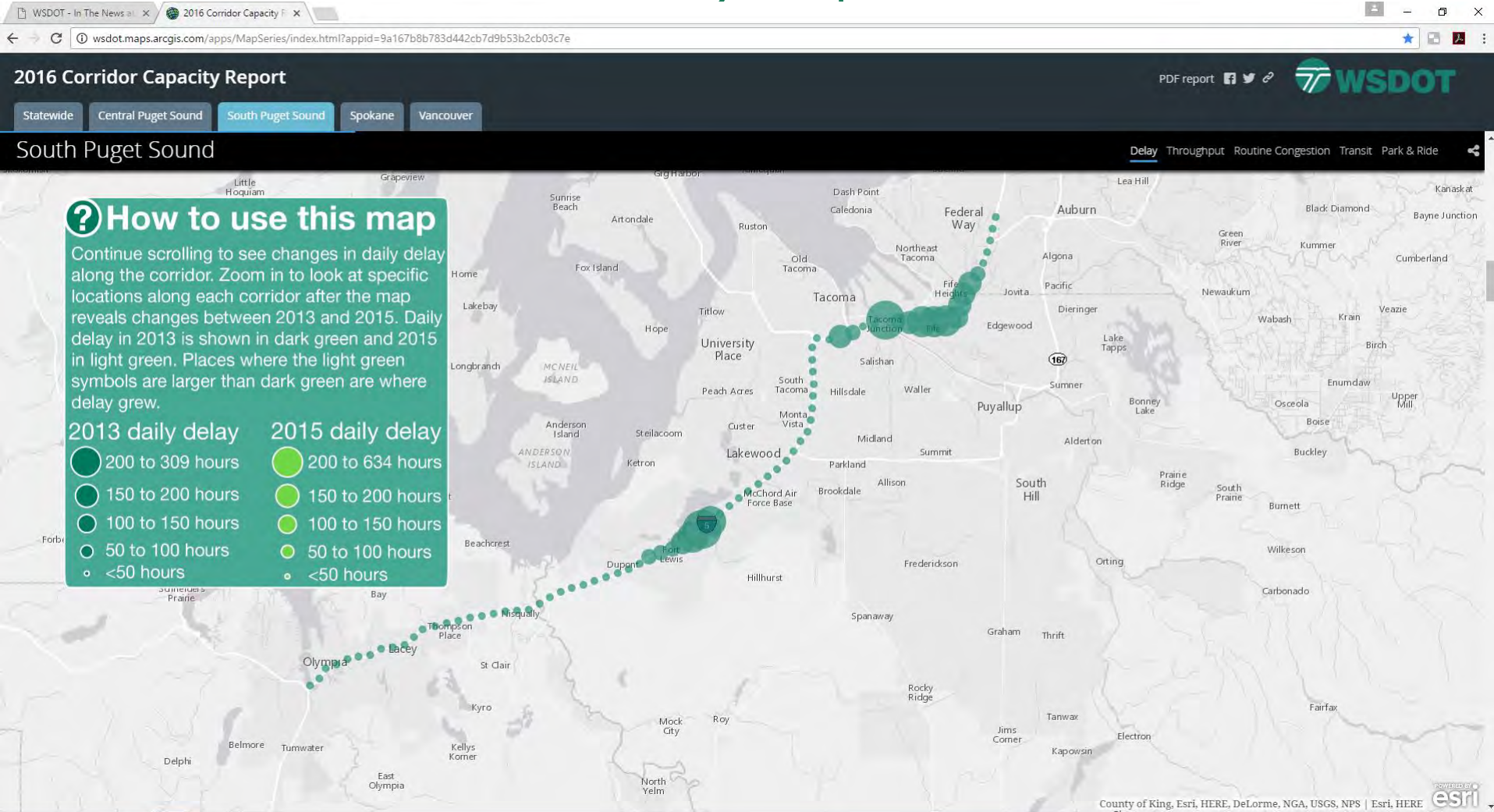
- Delay on urban corridors increased by up to 90% between 2013 and 2015
- I-5 southbound morning commute into Portland is the worst commute in the state; it takes over four times as long as it would at maximum throughput speed (in comparison, the second-worst commute in the state, the morning commute from Tukwila to Bellevue on I-405, takes 2.6 times longer than it would at maximum throughput speed)

- **In the Tri-Cities Region:**

- Annual vehicle delay increased by 7.6% between 2013 and 2015



# Data Anyone Can See: Interactive Online Story Maps



<http://www.wsdot.wa.gov/accountability/congestion/>

[bit.ly/CCR16statewidemap](http://bit.ly/CCR16statewidemap)

# Questions?

For additional information on the 2016 *Corridor Capacity Report*, please contact:

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