

A Transportation System for the 21st Century

The decade behind us, the road ahead

Paula J. Hammond, P.E.
Secretary of Transportation

Beyond Oil: Transforming Transportation in Century 21
Seattle, Washington

September 7, 2012



Who are we?

Washington State Department of Transportation own, manages and maintains:

- 18,500 state highway lane miles (carry 86 million vehicle miles/day)
- 3,600 state bridges
- 23 ferry vessels and 20 terminals (carry nearly 23 million passengers/year)
- Partner in Amtrak Cascades state passenger rail (carry 847,700 passengers/year)
- 16 general aviation airports
- Grain Train program runs 118 cars
- 326 miles of short-line railroad



Where are we?

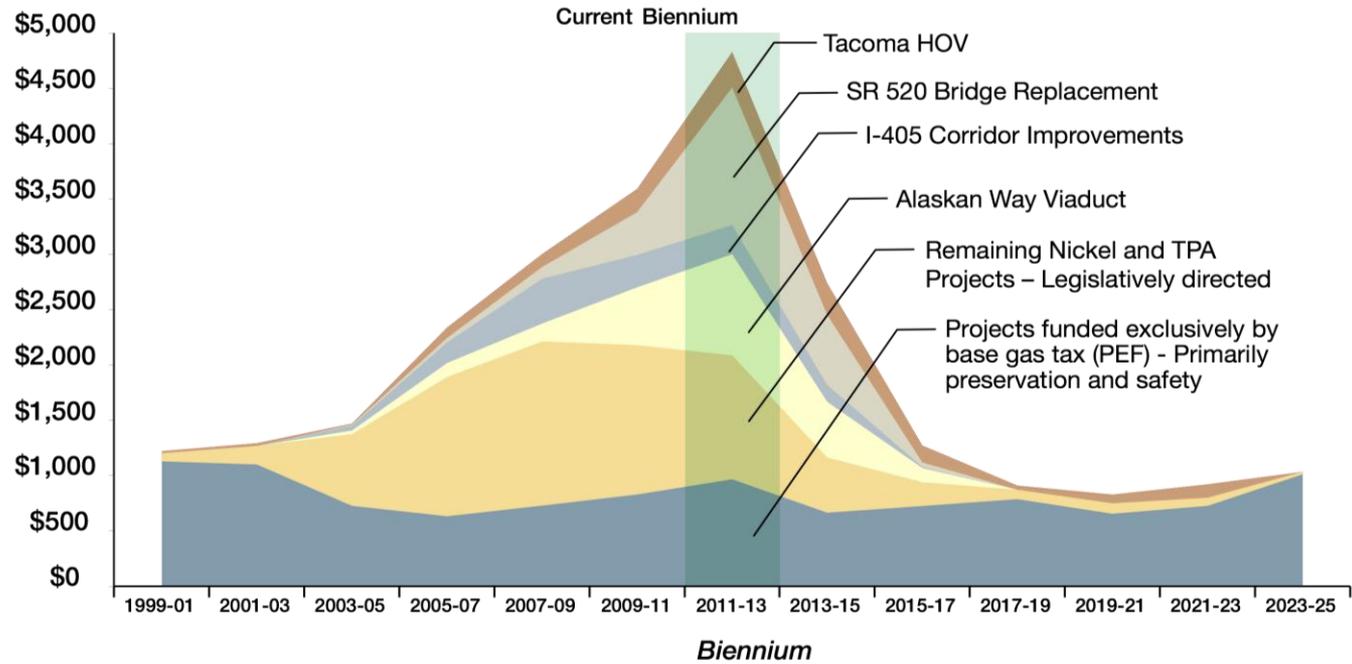
State of our transportation system

2003 and 2005 revenues are committed and projects are nearly complete

Project benefits will decline in the public and private sector; no new projects in the pipeline

Major projects are in construction phase

Dollars in Millions



- 75% of highway program dollars are contracted to the private sector.
- 54% of the design effort for Nickel and TPA was delivered by the private sector.
- \$6 billion of the \$16.3 billion in Nickel and TPA is delivered through our design-build program.
- 421 Nickel and TPA projects, 88% are complete or under way by the end of 2012.

Rebuilding the system

Mega projects are under construction on state economic corridors



Above: Chetzemoka inaugural sailing
Below: AWV, Taking down the old to make way for the new



144-car ferries under construction



North Spokane corridor construction



Pierce county HOV



Mega projects

- I-5 Pierce County HOV lanes
- I-405 corridor
- SR 520 corridor
- SR 99 Alaskan Way Viaduct deep bore tunnel
- US 395 North Spokane corridor
- I-90 Snoqualmie Pass

Investments deliver benefits – WSDOT delivers results

Projects enhance safety, mobility, economy and environment

- **Safety:** Between 2005 and 2010, annual traffic fatalities declined 29%, resulting in lowest fatality rate in state's recorded history.
 - Low-cost improvements: Cable median barrier and centerline rumble strips together reduced serious and fatality collisions up to 56%.
 - Washington State Ferries has the best pedestrian safety record in the world*.
- **Highways:** 95% bridges and 93% of pavements are in fair or good condition in 2011.
- **State ferry terminals:** 86% are in fair or good condition.
- **Mobility:** In 2010, 45 out of 48 HOV lane segments provided better reliability compared to general purpose lanes.
- **Travel options:** In 2011, Washington's statewide transit-operated vanpool program added 160 vanpools, for a total of 2,971.
- **Environment:** Since 1991, investments have restored 258 fish passages, improving access to 850 lineal miles of habitat.



Creating a reliable, responsible and sustainable transportation system of the future



Operating roadways efficiently



Managing demand



Adding capacity strategically

Maximizing the use of the existing system and using available technology to communicate with and direct traffic, improves the system's performance and generates revenue through variable pricing and other traffic management tools.

Providing more travel choices and options for people and freight helps improve the efficiency and effectiveness of our system.

Adding new capacity to our currently over-stressed transportation system removes choke points and bottlenecks, completing critical corridors; improve reliability, throughput for freight, commuters and transit partners.



RELIABLE · RESPONSIBLE · SUSTAINABLE
MOVING WASHINGTON

Using 21st century technology advancements

Making our transportation systems work better, more efficient, safer

Innovations provide greater efficiency and benefits

WSDOT is using technology for optimum freeway operations and efficiency throughout the transportation system:

- Smarter Highways / Active Traffic Management
- Electronic Tolling
- HOT Lanes
- Ramp Metering
- Real-time Traveler Information
- Variable Message Sign traffic alerts and travel times
- Mobile Apps
- GPS for Ferries Vessel Watch

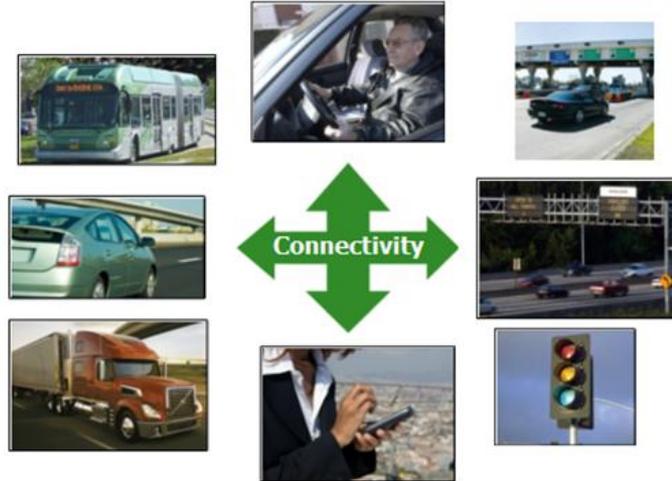


Supporting national transportation efforts for “Connected Vehicles”

Serving on the U.S. Department of Transportation Intelligent Transportation Systems (ITS) Program Advisory Committee to review a suite of technologies and applications that use wireless communications to provide connectivity:

- among all types of vehicles;
- among vehicles and roadway infrastructure;
- among vehicles, infrastructure and wireless consumer devices.

Vehicles and Fleets



Infrastructure

Wireless Devices



 U.S. Department of Transportation

Connecting Washington Task Force develops 10-year strategy and an investment proposal of \$21 billion

Promotes principle-based investments critical to Washington's economic future

Estimated needs for the statewide system are \$50 billion
Investment principles: 10-year strategy will focus on transportation investments that strengthen the economy and provide community benefits.

- Preserve existing transportation systems and services.
- Improve mobility for people and commerce.
- Enhance safety and efficiency of transportation system.
- Provide community and environmental improvements that help attract, keep and expand private businesses and a highly skilled workforce.



Washington's transportation system future

Our need for a functioning transportation system continues to grow while revenue stream declines

We can start by treating the transportation system like the utility it is

- Gas taxes built the transportation system of the past.
- We need to look at new and different revenue sources to keep up with today's changing technology:
 - Fuel-efficient vehicles
 - Electronic vehicles and charging stations
- User-based fees are here today and are likely in our future
 - Tolling
 - Mileage-based fees
 - Other sources

Supporting regional vision for innovation and sustainable transportation

Pacific Coast Collaborative

Established in 2008 to provide a framework for:

- cooperative action;
- a forum for leadership and sharing of best practices;
- a common voice on issues facing coastal jurisdictions.

The governments of British Columbia, California, Oregon and Washington have a **shared vision** of Pacific North America as a model of innovation and sustainable living that creates jobs and new economic opportunities for all our citizens.

Pacific Coast Collaborative priority areas are:

- Clean energy;
- Emergency management;
- **Regional transportation;**
- Research and innovation;
- Sustainable regional economy.

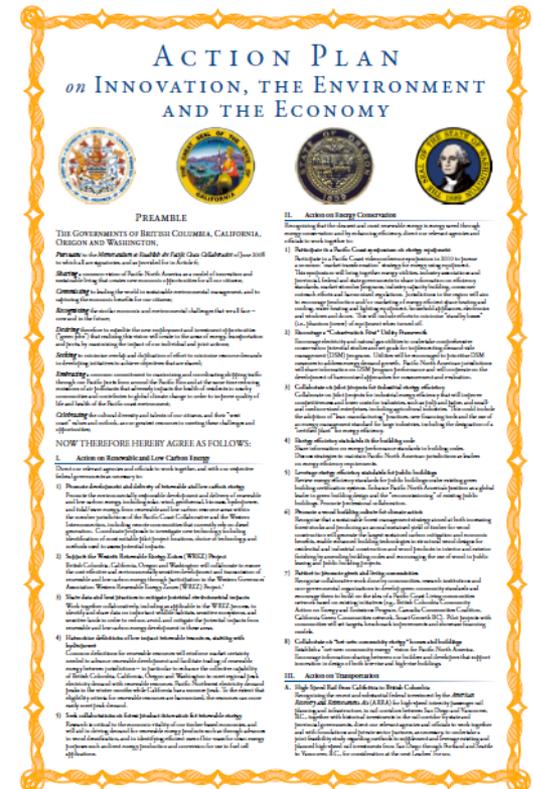


Pacific Coast Collaborative

Action on Transportation

Through the **2010 Action Plan on Innovation, the Environment and the Economy**, Governors and Premier agree to direct relevant agencies and officials to work together to:

1. Coordinate investment in **high-speed rail** from California to British Columbia.
2. Build a Pacific **“Green Highway”** to establish infrastructure for alternative fuels, including hydrogen, bio-fuels, natural gas, charging stations for electric vehicles and other emerging technology not based on fossil fuel.
3. Cooperate on air quality for a **green ports** system.

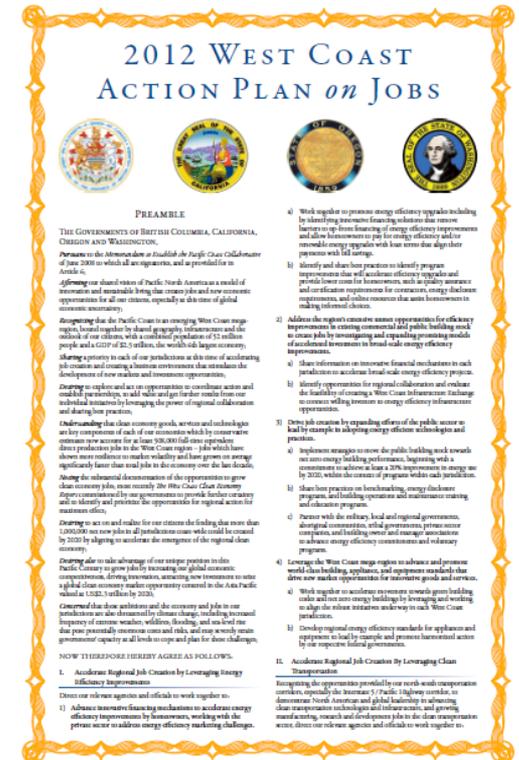


Pacific Coast Collaborative

Accelerate regional job creation by leveraging clean transportation

Through the **2012 West Coast Action Plan on Jobs**, Governors and Premier agree to direct relevant agencies and officials to work together to:

1. Accelerate development of the **green highway** to make Interstate 5 / Highway 99 a model, clean-transportation corridor from Baja California to British Columbia (BC to BC).
2. Advance deployment of low-carbon, alternative fuels and clean-energy vehicle technologies.
3. Identify opportunities to leverage joint purchasing power and work with fleet managers to drive growth and demand for clean energy vehicles.





Building the Electric Highway

Creating a network of electric-vehicle, fast-charging stations along major roadways.

The West Coast Electric Highway is the nation's most extensive, multi-state network of electric-vehicle, fast-charge stations.

The network currently spans 585 miles through Washington and Oregon along Interstate 5 from Canada to California with fast-charging stations every 20 - 35 miles.



Benefits of Electric Highway



The Electric Highway is a public-private partnership among government agencies, private retailers, utilities, equipment manufacturers, and EV drivers. The state's electric highway:

- provides mobility choices for drivers;
- connects communities;
- reduces greenhouse gas emissions;
- advances energy independence;
- creates green jobs and supports a green economy;
- meets state EV legislation (HB 1481);
- helps support the federal goal of 1 million EVs by 2015.

Advancing mass commercialization of electric vehicles



Washington's Electric Highway



In Washington, the state's electric vehicle charging network includes fast public charging locations in critical recharge zones outside of The EV Project.

At each private retail location, electric vehicle drivers will find both fast and Level 2 charging equipment operated and maintained by AeroVironment.

- **Along I-5**, six fast-charging stations are open, with two locations north of Everett and four locations south of Olympia.
- **Along US 2**, four fast-charging stations are open, reaching out to Wenatchee and creating the nation's first EV-friendly scenic byway.
- **Along I-90**, construction is planned for two fast-charging stations reaching east to Cle Elum.

The electric highway project was made possible by a \$1.5 million grant through the Washington State Department of Commerce, State Energy Program, with U.S. Department of Energy Recovery Act funds.