

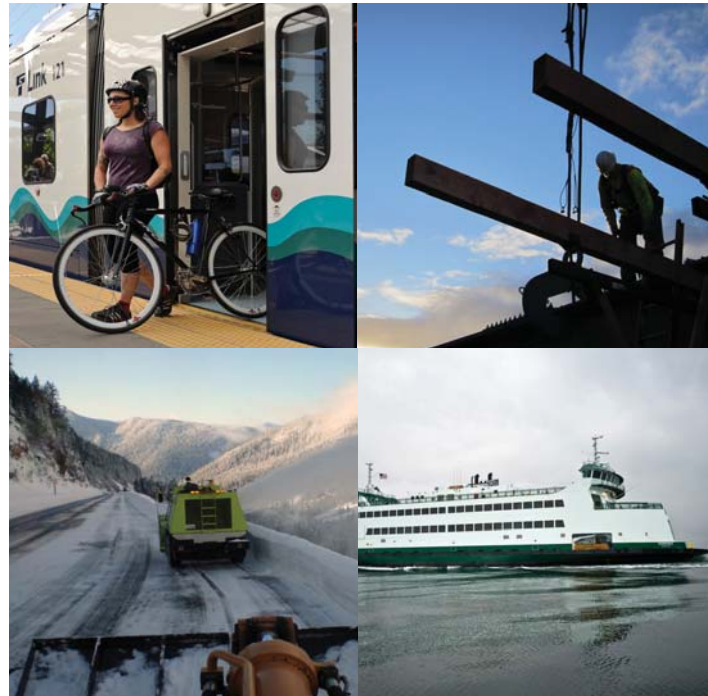


**Washington State
Department of Transportation**

The Gray Notebook Lite

**GNB excerpts for
the quarter ending
December 31, 2011**

Published
February 22, 2012



Excerpts from WSDOT's quarterly performance report on transportation systems, programs, and department management

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

Additional highlights from Gray Notebook 44

Gray Notebook 44 presents information on WSDOT's performance for the quarter ending December 31, 2011. In addition to the topics in the *Lite*, selected highlights include:

- **The final Kwa-di Tabil class ferry, the M/V Kennewick, was delivered by Vigor Shipyards to WSDOT on October 31, 2011, ahead of the contract delivery date of January 2012.** The vessel is scheduled to begin service in February 2012. (*New Ferry Construction Update*; p. 67).
- **By the end of 2011, many of the economic sectors that influence WSDOT's business had yet to emerge from the lingering economic downturn.** Construction sector employment in Washington fell from a peak of 220,440 in August 2007 to 148,500 in August 2011. (*Transportation Economic Update*; p. 42)
- **Fourth quarter Amtrak Cascades on-time performance was up slightly over the same quarter in 2010,** (*Amtrak Cascades Quarterly Update*; pp. 33-34).

Other articles in GNB 44 include the Research annual report, the Construction Cost Trends and Utilities semi-annual reports, and updates on worker safety and workforce level and training.

The *Gray Notebook* and *GNB Lite* are publications of the Washington State Department of Transportation. For more information, contact:

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2001-2011
A decade of transparency

In this edition of the Gray Notebook Lite

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All pages referenced in the *Lite* are to the full edition of *Gray Notebook 44*, available online at www.wsdot.wa.gov/Accountability

Preservation

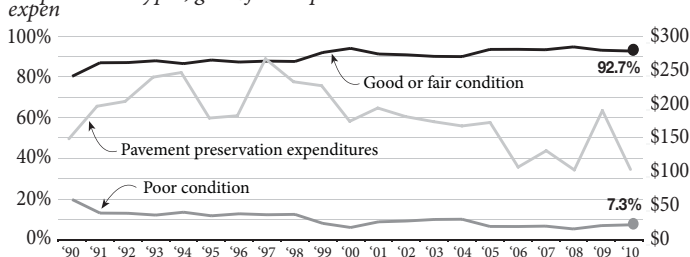
Pavement Conditions

According to the 2010 pavement condition survey, 92.7% of all state-owned pavements rated as fair, good, or very good. The percentage of all pavements in poor or very poor condition increased slightly from 7.0% in 2009 to 7.3% in 2010. In 2010, 1,260 lane miles were in poor or very poor condition.

WSDOT has observed a drop in the very good category, from 43.2% in 2008 to 31.5% in 2010. Most of this change is balanced by increases in the good category, which is still an acceptable condition rating, but could be an indicator of an expected drop in pavement condition in the future as investments continue to decline.

State highway pavement trends, 1990–2010

All pavement types; good/fair or poor condition



Data source: WSDOT Materials Lab.

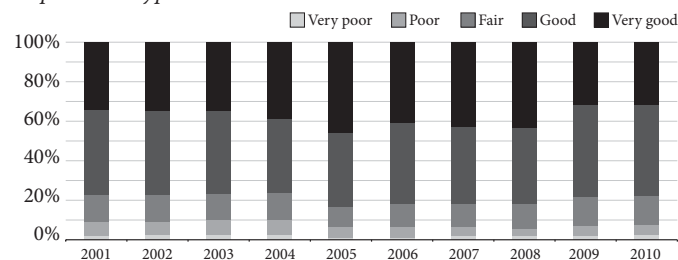
WSDOT is evaluating cost savings from converting asphalt roads to chip seal (BST)

Bituminous Surface Treatments (BST), also known as chip seals, are being implemented by WSDOT as a cost saving method of resurfacing flexible pavements. The construction cost of an asphalt resurfacing is roughly five to seven times the cost of a chip seal; however, asphalt pavements can last up to two and a half times the life of a chip seal. From the perspective of life-cycle costs, the relative cost-to-performance ratio for a chip seal over an asphalt pavement is roughly a factor of three.

More information about pavement asset conditions and performance management is on pages 10-16.

Detailed state highway pavement trends, 2001–2010

All pavement types



Data source: WSDOT Materials Lab.

Preservation

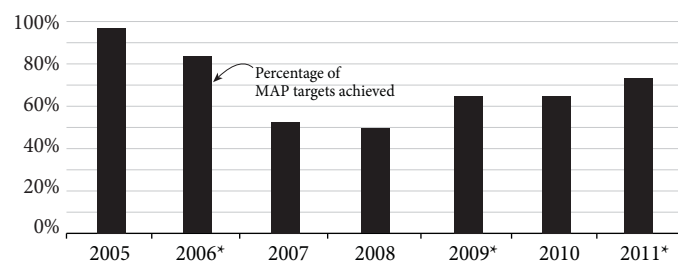
Highway Maintenance: 73% of maintenance targets achieved in 2011

WSDOT increased the number of maintenance asset condition targets achieved from 65% in 2010 to 73% – or 22 of 30 – in 2011. The increase was a direct result of increased funding to catch up with the backlog of selected maintenance activities. See pages 17-20 for more information on the Maintenance Accountability Process.

The annual report includes a statewide survey of the maintenance program. Respondents ranked road surfaces the top priority.

Statewide maintenance targets achieved

As a percentage of total, 2005 - 2011



Data source: WSDOT Maintenance Office.

*Note: Targets are adjusted periodically based on funding levels and other maintenance priorities. In 2006, Paving & Crack Seal was merged into one activity, changing the total number of activities from 33 to 32. In 2009, in addition to targets being adjusted to better reflect funding levels, the Safety Patrol activity was removed from reporting, changing the total number of activities from 32 to 31. In 2012, the Pavement Patching & Repair activity was removed from reporting, changing the total number of activities from 31 to 30.

Safety

Improving safe routes to schools

Since 2005, Washington's Safe Routes to School program has funded projects that are increasing the number of children walking and bicycling safely to 168 schools across the state. These projects improve conditions for about 67,000 children: the number of children walking and bicycling has increased by over 20%, with an increase in pedestrian and bicycle facilities and a reduction in motorist speeds. To achieve these improvements, about \$29 million was awarded to 90 projects.

All elementary schools are required to have walk to school route plans. Currently, 177 or 60% of all Washington school districts have or are creating school walk route plans for their students, specifically for a one-mile walking distance to the school. In 2011, WSDOT worked with over 90 school districts and local jurisdictions to create walk route maps and is committed to providing the information electronically for all schools in 2012.

Annual count notes 50,000 pedestrians and bicyclists

WSDOT conducted the fourth annual statewide Bicycle and Pedestrian Documentation Project to collect a statistically valid sample of walking and bicycling in 30 communities across the state. Volunteers counted over 17,000 bicyclists and 33,000 pedestrians at 217 unique locations. The highest bicycle counts were observed on trails and bridges and in downtown areas. Pedestrian counts were highest near universities, in downtowns, near transit stations, and in mixed-use neighborhoods.

See the annual report on pages 5-8 for more information.

Highway Construction: Nickel and TPA Project Delivery Performance Overview

WSDOT completed 15 Nickel and TPA projects in the quarter

WSDOT completed 15 Nickel and Transportation Partnership Account (TPA) projects in the quarter ending December 31, 2011. To date, WSDOT has completed 325 of the 421 Nickel and TPA projects funded by the 2003 and 2005 transportation tax packages.

The 2010 Transportation Budget signed into law by Governor Gregoire on March 30, 2010, directs WSDOT to develop and construct a specified list of projects in the course of the biennium. Most of these line-item projects were itemized in the original 2003 and 2005 Nickel and TPA programs. The 2011-2013 Transportation Budget was approved and signed into law on May 16, 2011.

The *Gray Notebook* shows individual "unbundled" projects from programmatic budget items (such as the Bridges Seismic Retrofit Program), as well as subprojects within mega-projects (such as the Alaskan Way Viaduct project). The total combined number of projects in WSDOT's capital project delivery program through December 31, 2011, is 421.

On time delivery performance declined in the quarter

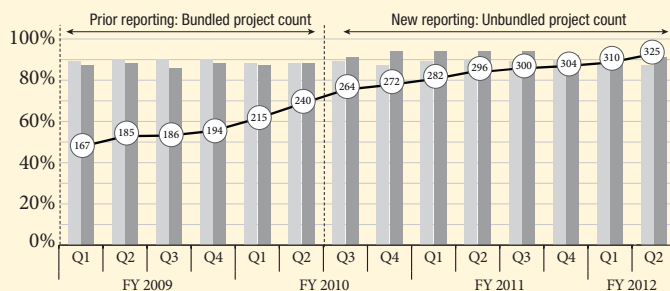
As of December 31, 2011, the cumulative capital program delivery performance, including 76 projects completed in earlier biennia, shows 87% of projects completed early or on time and 91% completed on or under budget. The schedule performance is down from 89% and the budget performance is unchanged from September 30, 2011. As of December 31, 2011, 81% of completed projects were both on time and on budget.

For the projects completed in the current transportation budget, 85% of projects are on time and 92% are on budget. More information about budget performance is on page 47.

Of the 15 projects completed in the quarter (the second quarter of fiscal year 2012), 13 were delivered on or under budget, and nine were early or on time. More information on completed projects is on page 50 and pages 60-65.

Cumulative on time and on budget performance of Nickel and TPA projects

325 of 421 projects as of December 31, 2011



Data source: WSDOT Capital Program Development and Management.

Recovery Act project update

Washington projects receive \$25 million in TIGER III grants

In December, WSDOT and Sound Transit received \$25 million in the third round of Transportation Investments Generating Economic Recovery (TIGER) grants. The 2009 Recovery Act created TIGER grants to fund projects and boost the economy.

WSDOT received a \$15 million TIGER III grant toward a \$34 million project that will manage demand and add capacity on I-5 near Joint Base Lewis McChord in Pierce County. Sound Transit received \$10 million toward a \$238.4 million project that will construct 1.6 miles of double track and light rail between SeaTac Airport and the South King neighborhood, and build a new station at South 200th Street.

Washington state and local governments have received seven competitive grants under the TIGER program, totaling \$135 million. First funded with \$1.5 billion in the Recovery Act, the program has received \$500 million or more in the last three federal transportation budgets. Criteria for the next grant competition, TIGER IV, were released in January 2012.

Washington's TIGER and TIGER II projects under way

Four of the five TIGER and TIGER II grant projects are currently under construction.

WSDOT – The \$35 million TIGER grant for WSDOT's North Spokane Corridor is funding two projects. The Francis to Farwell Southbound lanes project is under construction and expected to be complete in spring 2012. The Parksmith Interchange project, which is also funded by the grant, is under construction and expected to be complete in October 2012.

Seattle – A \$30 million TIGER grant helped pay for Seattle's Mercer Corridor Improvement project, which is currently under way. The project is planned for completion in fall 2013.

King County – A \$34 million TIGER II grant is helping King County pay for the construction of the South Park Bridge over the Duwamish River. The project is under way and planned for completion in winter 2013.

Port of Vancouver – The port received a \$10 million TIGER II grant to help pay for two projects that will improve freight movement and port access. The grade separation project was advertised in September and the extended rail siding project will be advertised in early 2012.

Franklin County – A \$1.01 million TIGER II grant is helping Franklin County extend East Foster Wells Road. Construction is under way and planned for completion in the winter of 2012.

Current 2011 Legislative Transportation Budget

Performance Dashboard: Highways

Highway construction performance dashboard

As of December 31, 2011; Dollars in thousands

Combined Nickel and TPA programs	Number of projects	Value of program
Projects completed in earlier biennia that <i>are not</i> included in the current Transportation Budget	76	\$343,051
Projects completed that <i>are</i> included in the current Transportation Budget	249	\$4,077,213
<i>Subtotal of completed projects</i>	325	\$4,420,264
Projects included in the current Transportation Budget but not yet completed	96	\$10,909,780
Total number of projects¹ in Improvement & Preservation budget	421	\$15,330,044

Schedule and Budget Summary: Results of completed projects in the current Transportation Budget and prior budgets. Completed projects are detailed on pages 50 and 60-65.	Combined Nickel & TPA	
	Current Budget	Total program
Number of projects completed to date: 2003 – December 31, 2011	249	325
Percent completed early or on time	85%	87%
Percent completed under or on budget	92%	91%
Percent completed on time and on budget	80%	81%
Baseline estimated cost at completion	\$4,077,213	\$4,420,264
Current estimated cost at completion	\$4,015,242	\$4,360,096
Percent of total program over or under budget	1.5% under	1.3% under
Total number of projects completed in 2011-2013 biennium to date	21	
Percent completed early or on time	62%	
Percent completed under or on budget	81%	
Percent completed on time and on budget	57%	
Baseline estimated cost at completion this biennium	\$294,472	
Current estimated cost at completion this biennium	\$284,721	
Percent of total program under or over budget	3.3% Under	

Advertisement Record: Results of projects entering into the construction phase or under construction detailed on pages 51-54.	Combined Nickel & TPA	
	Current Budget	Total program
Total cumulative number of projects in construction phase to date, 2003– December 31, 2011	29	
Percent advertised early or on time	72%	
Total number of projects advertised for construction in 2011-2013 biennium to date	1	
Percent advertised early or on time	100%	

Projects To Be Advertised: Results of projects now being advertised for construction or planned to be advertised, detailed on page 55.	Combined Nickel & TPA	
	Current Budget	Total program
Total projects being advertised for construction bids January 1, 2012 - June 30, 2012	14	
Percent on or better than anticipated advertisement schedule	93%	

Budget status: 2011-2013 biennium		WSDOT biennial budget
Dollars in thousands		
Budget amount for 2011-2013 biennium		\$3,866,050
Actual expenditures to date 2011-2013 biennium		\$605,731
Total 2003 Transportation Funding Package (Nickel) expenditure		\$70,511
Total 2005 Transportation Partnership Account (TPA) expenditure		\$209,050
Total Pre-Existing Funds (PEF) expenditure ²		\$326,170

Data source: WSDOT Capital Program Development & Management.

1. This project total has been updated to show "unbundled" projects which may have been previously reported in programmatic construction program buckets (such as Roadside Safety Improvements or Bridges Seismic Retrofit). See the June 30, 2010, *Gray Notebook* 38, page 55, for more details.

2. For full details of the PEF program, see pages 71-74.

Mobility

Incident Response teams attend 10,500 incidents

WSDOT IR teams responded to 10,457 incidents statewide during the fourth quarter of 2011, with an average incident clearance time of 13.1 minutes. The IR teams are scheduled to work during peak commute periods, and are also available 24/7 for call out. By reducing time and gas spent idling in traffic, WSDOT's program saved citizens and businesses about \$9.8 million in the quarter, see page 29.

21% of incidents blocked traffic

Of all incidents statewide between October 1 and December 31, 2011, 21% (2,220 incidents) blocked traffic, while 79% (8,237 incidents) were non-blocking. WSDOT distinguishes between blocking and non-blocking incidents, by region and statewide, so adequate resources are made available to handle incident response.

Sixty-two vehicles dedicated to IR

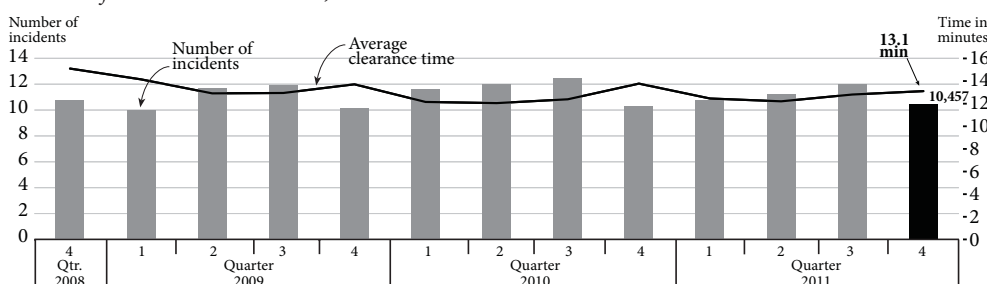
The IR program is active in all six WSDOT regions and teams rove in urban, congested areas. WSDOT's IR team has about 47 Full Time Equivalent (FTE) jobs and operates 62 dedicated vehicles.

More information on incident response is on pages 25-29.

Statewide IR responses and average overall clearance time

October 1, 2008 – December 31, 2011

Number of incidents in thousands, Clearance time in minutes



Data source: Washington Incident Tracking System (WITS), WSDOT Traffic Office.

Note: IR data for quarter 4 2011 is current as of January 23, 2012 and is subject to future revision.

Mobility

Seattle area travel time trends: Modest changes in second half of 2011 compared to 2010

The second half of 2011 saw modest changes in travel times and volumes compared to the same time periods in 2009 and 2010. Fourteen out of 18 commute routes showed little to no change in 2011 compared to 2010, while two routes on I-5 and two routes on I-405 showed changes of more than two minutes.

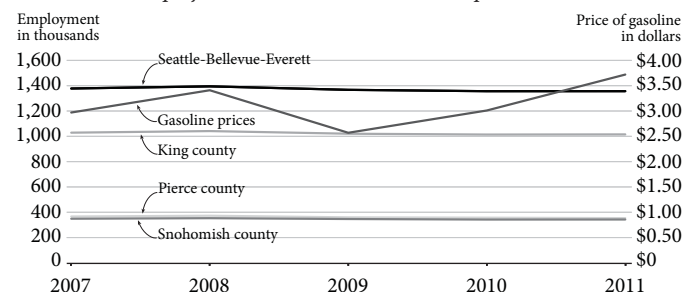
Peak period and daily traffic volumes have not changed significantly compared to the same period in 2010, as 15 of 18 spot locations showed changes of 2% or less. However, traffic volumes appear to be increasing, with slight increases at a majority of daily and peak period spot locations.

Other factors that influence travel trends

During 2011, employment conditions in the region did not change significantly from 2010, while the average gas price was 23% higher than in 2011. See pages 22-24 for more information.

Five year trend for annual Puget Sound regional employment and gasoline prices

2007 – 2011; Employment in thousands, Gasoline prices in dollars



Data source: Washington State Employment Security Department; US Department of Energy - Energy Information Administration (EIA)

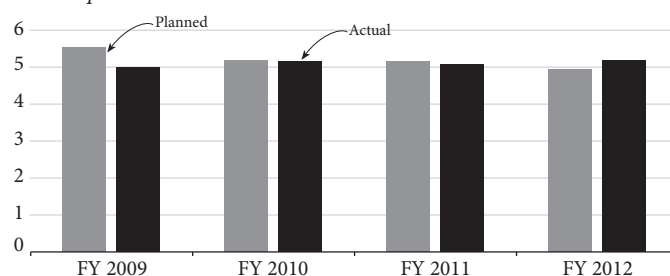
Washington State Ferries: Ridership and revenue up for quarter, above expectations

In the quarter ending December 31, 2011, 5.2 million people traveled on the ferry system, about 239,000 (4.8%) above projected levels. WSF served 113,000 (2.2%) more riders compared to the same quarter a year ago. See pages 30-32 for more information.

WSF planned and actual ridership levels by fiscal year

Second quarter (October 1 - December 31), fiscal years 2009 - 2012

Ridership in millions



Data source: WSDOT Ferries Division.

Farebox revenue was also higher at \$32.8 million, \$380,000 (1.2%) above projected levels. Farebox revenues were approximately \$1.5 million (4.8%) above the same quarter last year, in part due to a fare increase. Starting October 1, 2011, the Washington State Transportation Commission adopted two items effective that affected revenue; a 2.5% fare increase and a new fare category for small vehicles under 14 feet long.

On-time performance improved

On-time performance was 97.1% and average sailing delay was 1.9 minutes for the quarter ending December 31, 2011, a significant improvement over the same quarter a year ago.

Environmental compliance reports similar to 2010

In 2011, WSDOT recorded 122 reportable events, two less than in 2010. Federal and state regulatory agencies issued 21 formal violations to WSDOT in 2011, also two fewer than last year. Of these 21 formal violations, the Washington State Department of Ecology (Ecology) issued 10 correction notices for violating construction stormwater permit conditions.

WSDOT completed most EIS work in the 2009-2011 biennium

WSDOT completed nine EISs during the 2009-2011 biennium, including four mega project EISs: I-5 Columbia River Crossing project, SR 520 Pontoon Construction project, SR 520 I-5 to Medina Bridge Replacement and HOV project, and SR 99: Alaskan Way Viaduct Replacement Project.

WSDOT receives fewer civil penalties in 2011

WSDOT received only one civil penalty in 2011, three less than in 2010. The penalty was \$2,000 and was issued by Ecology. The violation occurred when a WSDOT contractor allowed concrete to enter Sinclair Inlet, exceeding state water quality standards. In 2010, WSDOT received four civil penalties totaling \$30,374.

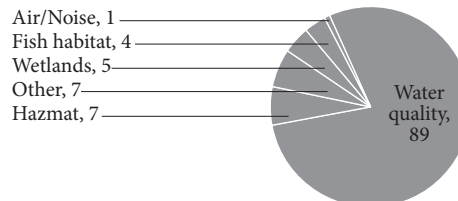
Projects acknowledged for innovative management

Several WSDOT construction projects were acknowledged by Ecology for innovative and proactive compliance management.

WSDOT's reportable events by category, 2009-2011

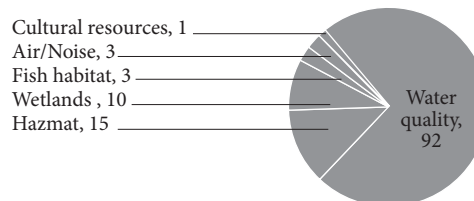
2009

113 reportable events



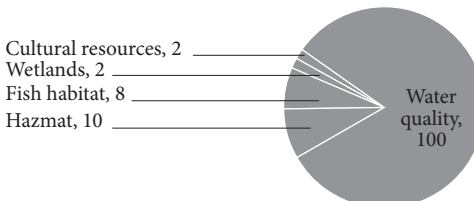
2010

124 reportable events



2011

122 reportable events



Data source: WSDOT Environmental Services Office.

Environmental

Barrier inventory update

The statewide fish passage inventory of over 6,500 stream crossings throughout the highway system began in 1991 and was completed in the fall of 2001. Currently, WSDOT and WDFW's prioritized list of corrections identifies 1,521 barriers that, if corrected, offer the potential for significant habitat gain. As of December 31, 2011, WSDOT has completed 258 fish passage correction projects, improving access to about 850 miles of potential upstream habitat.

2011 projects add miles of habitat

Eleven projects completed in 2011 added 38 miles of potential upstream habitat to the total statewide habitat gain.

The 16 projects planned for construction in 2012 will collectively improve access to about 58 miles of potential habitat. See pages 36-37 for more information.



A 5-foot culvert was a barrier on the South Branch of Big Creek on SR 101. It was replaced with this new 21-foot culvert, improving access to fish habitat.

Stewardship

WSDOT gears up for *Lean* pilot projects

Lean is a process improvement approach that can help improve delivery of services and programs to the state. Based on the Toyota Production System, *Lean* provides methods and tools that encourage creativity and problem-solving skills. In December 2011, the Governor directed all executive cabinet agencies throughout state government to use *Lean* principles and methods to improve value for taxpayers' money.

Three *Lean* WSDOT projects

The Statewide Travel and Collision Data Office (STCDO) is working to implement *Lean* practices through a project to further streamline WSDOT's process for inputting collision data into the Collision Location and Analysis System (CLAS).

The Procurement and Materials Management Office is using a *Lean* project to improve the payment processes and supply management, including improvements for small purchases.

WSDOT Maintenance is using a *Lean* project called Automated Data Collection on Highway Maintenance Equipment. This project's goal is to determine if program efficiencies can be gained through the improved standardization of controllers, data devices, and vendors.

More information on the *Lean* process and WSDOT's pilot projects is on pages 82-83.