Washington State
Department of Transportation

The Gray Notebook

GNB 33

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

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In this edition

Annual Reports
- Asset Management: Safety Rest Areas
- Maintenance Post-Winter Report
- Freight/CVISN
- Aviation
- Commute Options
- Wetlands Protection
- ESA Documentation

Quarterly Reports
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http://www.wsdot.wa.gov/accountability

Executive Summary

Performance highlights in this edition of the *Gray Notebook*

This edition of the *Gray Notebook* presents information on WSDOT's performance in the quarter ending March 31, 2009, as well as eight annual and five semi-annual reports. Highlights from this edition include:

- The Beige Pages present a quarterly report of WSDOT's **Capital Project Delivery Program.** As of March 31, 2009, WSDOT has delivered a total of 186 Nickel and Transportation Partnership Account (TPA) projects valued at $1.934 billion, on target with the funding provided in the 2007-09 Transportation Budget. At quarter end, March 31, 2009, WSDOT had completed 186 projects, 79 projects were under construction, and 65 projects advertised for construction bids. An additional 16 projects are scheduled to be advertised by September 30, 2009. 90% of Nickel and TPA projects combined are early or on time, 86% are under or on budget, and 78% are both on time and on budget. (pp. 66-88)
- A special note on the **American Recovery and Reinvestment Act (Recovery Act)**: With this edition of the *Gray Notebook*, WSDOT begins its reporting on the estimated $492 million for transportation stimulus projects received under the Recovery Act. Of that amount, $345 million will fund state transportation priorities, while the remaining $148 million will fund city and county transportation projects. Projects are expected to be "shovel ready." WSDOT will assure the same level of accountability for these projects as it has for Nickel and TPA projects in its new Recovery Act-funded project reporting. (pp. 62-65)
- **Before and After Studies** As directed by the Governor, WSDOT continues to expand its Before and After evaluations of projects and activities. This edition includes one article with Before and After results:

  Safety Rest Areas Preliminary analysis shows evidence that the three newest SRAs reduced fatigue-related collisions. Most SRAs (95%) are in good or fair condition, but 22 out of 42 SRAs (52%) have multiple deficiencies. (pp. 5-6 and 8-9)
- **Post Winter Highway Maintentance Report** Record-setting winter weather caused approximately $34 million in damage to the state tranpsortation system. In a formal session, the Senate honored WSDOT and WSP for heroic efforts in response. (pp. 10-14)
- **Ferries** Overall trip reliability improved to 99.6% of scheduled trips completed, versus 98.4% a year ago. This quarter's preservation article introduces reporting on the new 64-vehicle ferry now under construction. (pp. 15-16 and 44-47)
- **Freight** Truck volumes on Washington highways decreased from 2007 to 2008, likely due to the economic downturn. The Legislature funded a pilot project to study the usefulness of commercially available GPS truck-tracking data to study bottlenecks and quantify delays in truck freight mobility. (pp. 18-24)
- **Special Report: The Economic Recession and Travel Demand** This special report reveals that travel times during peak periods improved on 15 of 18 surveyed commute routes during the second half of 2008 and average commute times improved by one to seven minutes. Rising unemployment due to the economic recession contributed to reduced peak period travel. (pp. 27-31)
- **Special Report: NEPA** This in-depth article explains the NEPA process and WSDOT's activities in preparing 33 project-level documents between 1999 and 2008. Included is the success story of the NEPA process for the I-90–Snoqualmie Pass East project. (pp. 58-60).

On this quarter's cover (from top):

WSDOT's workforce.

Avalanche control helicopter prepares to bring down controlled avalanche through aerial blasting.

River otter – just one beneficiary of WSDOT's wetlands preservation activities across the state.

WSDOT crews clear mudslide debris from US 12 after January storms, as trucks wait for permission to proceed.

WSDOT prepares to act on Recovery Act-funded projects.

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Post-Winter Annual Report 10
Discusses maintenance activities during the 2008-2009 winter and a timeline of weather events.

Ferries Preservation Update 15
Announces future reporting using condition ratings and construction activities on the new 64-auto ferry.

Trucks, Goods & Freight Annual Report 18
Introduces a pilot project to study commercially available GPS truck-tracking data to evaluate truck freight mobility.

Special Report: The Economic Recession and Travel Demand 27
Reveals improved travel times and reduced volumes on key commute routes over the last six months of 2008.

Special Report: Federal Recovery Act-funded Projects 27
Introduces WSDOT accountability reporting for stimulus projects.

Capital Project Delivery Programs 27
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Navigating the WSDOT Information Stream

Linking performance measures to strategic goals

The Gray Notebook is the basis for WSDOT performance reporting that links performance measures for the strategic plan, legislative, and executive policy directions, as well as federal reporting requirements.

Statewide transportation policy goals

In 2007, the Governor and Legislature enacted a law establishing five policy goals for transportation agencies in Washington State (Chapter 516, Laws of 2007).

The five statewide transportation policy goals are:

- **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 (Congestion Relief):** 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; and
- **Stewardship:** To continuously improve the quality, effectiveness, and efficiency of the transportation system.

The Transportation Progress Report

Under this law, the Washington State Office of Financial Management (OFM) is responsible for setting objectives and establishing performance measures for each of the goals. OFM must report on the attainment of the goals and objectives to the Governor and Legislature each biennium. In January, 2008, OFM published a "baseline" report to get feedback from the Governor and Legislature on draft objectives and performance measures. The second report will be published in March 2009.

The Attainment Report is available on OFM's performance and results website: http://www.ofm.wa.gov/performance/.

WSDOT Strategic Plan

WSDOT's 2009-2015 strategic plan Business Directions summarizes WSDOT's work plan based on the programs and budgets authorized by the State Legislature and the Governor. The plan describes the agency strategic directions and initiatives to address critical programs and service delivery mandates. The table on pages viii-ix illustrates this alignment. WSDOT's 2009-11 strategic plan is available online at: http://www.wsdot.wa.gov/Accountability/PerformanceReporting/StrategicPlan.htm.

About WSDOT's Performance Dashboard

The 'dashboard' of performance measures on the facing page offers readers a snapshot glance at WSDOT's progress against the five statewide policy goals and WSDOT's strategic plan. Some results are discussed in depth within this edition of the Gray Notebook, while others are in previous editions or will be updated in coming editions based on established reporting cycles. Turn to the Subject Index (pp. 113-122) to find earlier coverage; all previous editions are available online at www.wsdot.wa.gov/accountability.

Other performance reporting requirements

Priorities of Government (POG)

POG is an investment prioritization process used to help the Governor and Legislature develop agency budgets. Every biennium, workgroups composed of government agency and private sector representatives identify results that citizens expect from government, and evaluate the performance of state agency activities and services against those expected results. Information about the 2009-11 POG process is available at: http://www.ofm.wa.gov/budget/pog.

Government Management Accountability and Performance program (GMAP)

GMAP is a management tool that promotes the sharing and evaluation of current performance to improve results. Under GMAP, the Governor and her leadership team meet in "GMAP forums" with agency directors to review results and develop action plans to improve results. These meetings provide an opportunity for candid conversations about what is working, what is not, and how to improve results.

WSDOT regularly reports to the Governor during the Transportation GMAP forums. WSDOT's GMAP reports can be found at: http://www.wsdot.wa.gov/Accountability/PerformanceReporting/GMAP.htm.

Performance Dashboard

✓ Goal has been met. ↑ Performance is trending in a favorable direction. ↔ Trend is holding. ↓ Performance is trending in a unfavorable direction.

Policy goal/Performance measure	Previous reporting period	Current reporting period	Goal	Goal met	Progress	Comments
Safety						
Number of **traffic fatalities** per 100 million vehicle miles traveled (VMT) in Washington State (annual measure, calendar years 2006 & 2007)	1.0	0.86	1.0	✓	↑	Highway fatalities continue to decline, unknown if related to drop in statewide VMT.
Yearly **OSHA-recordable injury and illness rate** per 100 WSDOT maintenance & engineering workers (annualized: FY08 Q4, FY09 Q1[6])	4.9	5.2	6.0	✓	↓	Continuing to aggressively improve worker safety despite recent rise in annualized OSHA injury and illness rate
Preservation						
Percentage of state **highway pavements** in fair or better condition (annual measure, calendar years 2006 & 2007)	93.5%	93.3%	90.0%	✓	↔	Performance level exceeds goal - challenges ahead
Percentage of **state bridges** in fair or better condition (annual measure, calendar years 2006 & 2007)	97.4%	97.0%	97.0%	✓	↔	Performance level meets goal - trending downward
Mobility (Congestion Relief)						
Average clearance times for **major (90+ minute) incidents** on key Puget Sound corridors (quarterly: FY09 Q2, FY09 Q3[6]))	156 minutes	153 minutes	5% reduction	✓	↑	Quarterly performance improved despite challenging winter weather conditions
Percentage of **Washington State Ferries** trips departing on-time[2] (year to year: FY08 Q3, FY09 Q3[6])	94%	97%	90%	✓	↑	Quarterly performance improved over previous quarter
Percentage of **Amtrak *Cascades*** trips arriving on-time[3] (year to year FY08 Q3, FY09 Q3[6])	58%	66%	80%	---	↑	Year over year performance has improved, making continual progress towards goal
Annual weekday **hours of delay** statewide on highways compared to maximum throughput (51 MPH)[1] in thousands of hours (annual measure, calendar years 2006 & 2007)	23,330	25,490	N/A	---	↓	Growth in delay slowed from 35% to 8% between 2005 and 2007's recorded delay hours
Environment						
Cumulative number of WSDOT **stormwater treatment facilities** constructed or retrofitted[4] (annual measure, calendar years 2007 & 2008)	809	850	N/A	---	↑	New stormwater facilities permit will expand WSDOT's responsibilities
Cumulative number of WSDOT **fish passage barrier improvements** constructed since 1990 (annual measure, calendar years 2007 & 2008)	205	225	N/A	---	↑	More then 400 linear miles of habitat restored (estimated)
Stewardship						
Cummulative number of Nickel and TPA **projects delivered, and percentage of on-time and on-budget delivery performance** (quarterly: FY09 Q2, FY09 Q3[6])	185/ 79%	186/ 78%	90% on-time and on-budget	---	↔	On-time and on-budget delivery performance declined slightly from last quarter.
Variance of total project costs compared to **Legislative budget expectations**[5] (quarterly: FY09 Q2, FY09 Q3[6])	0%	0%	0%	✓	↔	Overall program delivered on or under budget
Percentage of **completed contracts** final costs within 10% of the original award amount (annual measure, state fiscal years 2007 & 2008[6])	80.1%	85.5%	100%	---	↑	Performance has improved with better estimates and contract documentation

[1] 'Maximum throughput' is defined as the optimal traveling speed, where the greatest number of drivers can occupy the highway at the same time; usually measured as 51 MPH. The data represents the year prior to the year in which it was reported.

[2] 'On-time' departures for Washington State Ferries includes any trip recorded by the automated tracking system as leaving the terminal within 10 minutes of the scheduled departure time.

[3] 'On-time' arrivals for Amtrak *Cascades* are any trips that arrive at their destination within 10 minutes or less of the scheduled time.

[4] Facilities in Clark, King, Pierce, and Snohomish counties.

[5] Budget expectations are the figures established by the Legislature annually for major projects under construction.

[6] WSDOT's fiscal year begins on July 1 and ends on June 30. There are eight fiscal quarters in the biennium, and are organized as follows: Quarters 1 & 5: July 1 - September 30, Quarters 2 & 6: October 1 - December 31, Quarters 3 & 7: January 1 - March 31, Quarters 4 & 8: April 1 - June 30

Navigating the WSDOT Information Stream

Linking performance measures to strategic goals

This table illustrates the alignment of WSDOT's performance measures with the five statewide transportation policy goals and the WSDOT strategic plan, *Business Directions*. (See also page vi.)

State policy goal	WSDOT business direction	Key WSDOT performance measures	Reporting cycle	Last Gray Notebook report
1. Safety: To provide for and improve the safety and security of transportation customers and the transportation system	Vigilantly reduce risks and increase safety on all state-owned transportation modes; reduce fatalities and serious injuries; assist local communities in identifying effective solutions to transportation safety needs.	Number of traffic fatalities	annual	GNB 30 pp. 4
		Rate of traffic fatalities per 100 million miles traveled	annual	GNB 30 pp. 4
		Percent reduction in collisions before and after state highway improvements	annual	GNB 30 pp. 6-7
		Number of recordable workplace injuries and illnesses	quarterly	GNB 33 pp. 2-4

State policy goal	WSDOT business direction	Key WSDOT performance measures	Reporting cycle	Last Gray Notebook report
2. Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services.	Catch up with all necessary maintenance and preservation needs on existing highways, bridges, facilities, ferry vessels, airports, and equipment, while keeping pace with new system additions.	Percent of state highway pavement in fair or better condition	annual	GNB 32 pp. 12-16
		Percent of state bridges in fair or better condition	annual	GNB 30 pp. 13
		Percent of targets achieved for state highway maintenance activities	annual	GNB 32 pp. 17-20
		Number of ferry vessel life-cycle preservation activities completed	quarterly	GNB 33 pp. 15-16
		Percent of ferry terminals in fair or better condition	quarterly	GNB 32 pp. 21-22

State policy goal	WSDOT business direction	Key WSDOT performance measures	Reporting cycle	Last Gray Notebook report
3. Mobility (Congestion Relief): To provide for the predictable movement of goods and people throughout the state.	Move people, goods, and services reliably, safely, and efficiently by adding infrastructure capacity strategically, operating transportation systems efficiently, and managing demand effectively.	Travel times and hours of delay on the most congested state highways	annual	GNB 31 pp. 18-31
		Reliable travel times on the most congested state highways around Puget Sound	annual	GNB 31 pp. 32-37
		Percentage of commute trips while driving alone	annual	GNB 27 pp. 92
		Average length of time to clear major incidents lasting more than 90 minutes on key highway segments	quarterly	GNB 33 pp. 38
		Ferry ridership	quarterly	GNB 33 pp. 44
		Ferry trip reliability	quarterly	GNB 33 pp. 46-47
		Percent of ferry trips on-time	quarterly	GNB 33 pp. 46-47
		Amtrak *Cascades* ridership	quarterly	GNB 33 pp. 48
		Percent of Amtrak *Cascades* trips on time	quarterly	GNB 33 pp. 48

Linking performance measures to strategic goals

State policy goal	WSDOT business direction	Key WSDOT performance measures	Reporting cycle	Last Gray Notebook report
4. Environment: Enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.	Protect and restore the environment while improving and maintaining Washington's transportation system.	Conformance of WSDOT projects and programs with environmental legal requirements	annual	GNB 30 pp. 36
		Number of fish passage barriers fixed and miles of stream habitat opened up	annual	GNB 30 pp. 39
		Number of WSDOT stormwater treatment facilities constructed or retrofitted	annual	GNB 32 p. 40-41
		Number of vehicle miles traveled	annual	GNB 31 pp. 41
		Transportation-related greenhouse gas emissions (measure to be developed)	n/a	n/a

State policy goal	WSDOT business direction	Key WSDOT performance measures	Reporting cycle	Last Gray Notebook report
5. Stewardship: To continuously improve the quality, effectiveness and efficiency of the transportation system	Enhance WSDOT's management and accountability processes and systems to support making the right decisions, delivering the right projects, and operating the system efficiently and effectively in order to achieve the greatest benefit from the resources entrusted to us by the public.	Capital project delivery: on-time and within-budget	quarterly	GNB 33 pp. 66-89
		Recovery Act-funded project reporting	quarterly	GNB 33 pp. 62-65

Navigating the WSDOT Information Stream

Organization of the Gray Notebook

Through more than 30 editions, in fact eight years, WSDOT has published a quarterly performance report titled *Measures, Markers & Milestones*, but known far and wide by its informal moniker, the *Gray Notebook*. Between its gray covers, it was organized in two sections:

- the Beige Pages, so-called for the color of paper they were printed on, which covered project delivery on the Nickel, Transportation Partnership Account (TPA), and Pre-Existing Funds project programs, and
- the White Pages, which presented quarterly and less frequent reports on a wide variety of transportation-related topics.

With the 30th edition, the *Gray Notebook* (now its formal title) made a host of other changes. This page will help you find the information and reports you are looking for.

How is the Gray Notebook organized?

The *Gray Notebook* (GNB) presents articles in a way that makes the topics' relationship to the five Legislative policy goals – and WSDOT's own strategic goals – more clear. (These goals are discussed in detail on page vi.)

The *Gray Notebook* is organized into five sections devoted to those strategic goals, each marked by a page that recaps WSDOT's goals for Safety, Preservation, Mobility/Congestion Relief, Environment, and Stewardship. Each section divider carries a mini-directory to the topics covered within the section, and points to other articles within the GNB that contain information relevant to that goal.

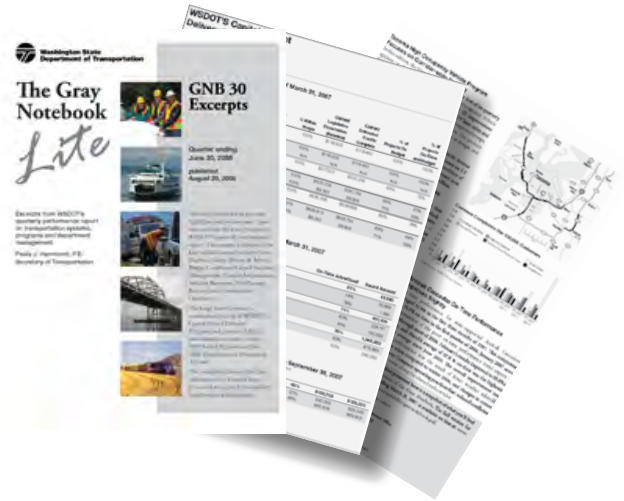
The first four sections primarily feature quarterly and annual reports on key agency functions, providing regularly updated system and program performance information that was previously covered in the White Pages. Annual system performance updates are rotated over four quarters based on data availability and relevant data cycles, to provide in-depth analysis of topics such as capital facilities, aviation, freight, and a post-winter report on highway maintenance. Quarterly topics, such as worker safety, incident response, Amtrak *Cascades*, and Washington State Ferries, are featured in each edition since data is generally available more frequently.

The Beige Pages are still beige; reporting on the delivery of the projects funded in the 2003 Transportation Funding Package (Nickel), 2005 Transportation Funding Package (TPA), and Pre-Existing Funds (PEF), they appear in the Stewardship section. They contains summary tables, detailed narrative project summaries, and financial information supporting WSDOT's "no surprises" reporting focus. The Stewardship section also presents articles covering finance, workforce, and similar issues. With GNB 33, this section will also contain pages dedicated to the reporting of WSDOT's Federal Recovery Act-funded projects.

More easily tracked business plan results

By aligning the Gray Notebook's articles with WSDOT's business goals as outlined in the strategic plan, *Business Directions*, WSDOT hopes to make tracking performance results against specific strategic actions more simple.

Business Directions reflects WSDOT's program and project delivery responsibilities with the goal of demonstrating the best possible return for taxpayers' dollars. For a copy of *Business Directions*, please visit: http://www.wsdot.wa.gov/Accountability/PerformanceReporting/StrategicPlan.htm.



Publication frequency and archiving

The *Gray Notebook* is published quarterly in February, May, August and November. This edition and all past editions are available online at http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm.

A separate detailed navigation folio is available at http://www.wsdot.wa.gov/Accountability/GrayNotebook/.

Gray Notebook Lite

WSDOT publishes a quarterly excerpt of selected performance topics and project delivery summaries from the *Gray Notebook*, called *Gray Notebook Lite*. The folio-style *Lite* allows for a quick review of WSDOT's most important activities in the quarter. It can be accessed at http://www.wsdot.wa.gov/Accountability/GrayNotebook/navigateGNB.htm.

Online capital project reporting and using the website

WSDOT prepares information for legislators, state and local officials, interested citizens, and the press on the progress of the state's three capital delivery programs. The Gray Notebook, in the Beige Pages section, highlights each quarter's progress and reports on financial and other program management topics, but much more detailed information can be found on-line at the WSDOT website.

WSDOT's on-line project reporting uses several different tools, including the Gray Notebook (as a downloadable PDF), web-based Project Pages, and Quarterly Project Reports (QPRs). There is a Project Page on the website for each major WSDOT project, and QPRs for Nickel-funded projects in the 2003 Transportation Funding Package.

Navigating the WSDOT website

The WSDOT home page (shown at left; www.wsdot.wa.gov) offers several ways to find information on projects. The Projects tab on the top navigation bar links to the WSDOT's Projects page; there, you'll find information and links to detailed descriptions of all WSDOT projects. The Accountability navigation menu offers links to several important topics (including Congestion Relief, Safety, and Preservation) and the most recent edition of the Gray Notebook.

Project Pages

Project Pages (found at www.wsdot.wa.gov/projects/, typical page shown below) report on virtually all WSDOT capital delivery program construction projects.

Project Pages provide details on overall project vision, funding components, financial tables, milestones, status description, problem discussions, risks and challenges, forecasting, maps, photos, links and more, all updated regularly.

Project Pages cover:
Overall project vision
Financial table, funding components
Roll-up milestones
Roll-up cash flow, contact information
Maps and Links to QPRs.

Quarterly Project Reports

The Quarterly Project Reports (QPRs) are reached by a link on the Project Page. They summarize quarterly activities:
Highlights
Milestones
Status description
Problem statement
Risks and challenges
Project costs, cash flow
Contact information.

Contributors

The work of many people goes into the writing, editing, and production of the Gray Notebook every quarter. This list of contributors reflects the efforts of data analysts, engineers, project leads, and many more individuals behind the scenes. Information is reported on a preliminary basis as appropriate and available for internal management use; it is subject to correction and clarification. On-line versions of this publication are available at www.wsdot.wa.gov/accountability

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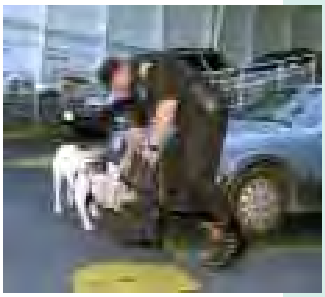
Safety



Statewide policy goal:

To provide for and improve the safety and security of transportation customers and the transportation system.

WSDOT's business goal:

To vigilantly reduce risks and improve safety on all state-owned transportation modes; reduce fatalities and serious injuries; assist local communities in identifying effective solutions to transportation safety needs.

In this section

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See also

Safety Rest Areas Annual Preservation Report 8

Incident Response 38

Workforce Training 107

Earlier safety-related articles

Highway Safety, GNB 30, 32

Worker Safety Quarterly Update

Improving the safety of WSDOT employees

Worker Safety Highlights

- WSDOT has significantly reduced worker injuries, claims rates, and costs since 2006.
- New wellness and return to work programs have been created to manage claims and promote worker safety.

WSDOT has reduced injuries and illnesses by 28% since 2006

In 2006, WSDOT established a goal of zero workplace injuries by 2019. Significant progress has been made toward this goal. The number of recordable worker injuries and illnesses declined from 525 in fiscal year 2006 to 376 in fiscal year 2008, a decrease of 28%. Injured workers are returning to work sooner and with fewer restrictions on the type of jobs they can perform. In addition, the cost of insurance paid by both workers and the department has been reduced. WSDOT's strong management commitment to safety, as well as renewed emphasis on hazard awareness and control, safety education and training, individual accountability, and improved data management and analysis, have resulted in a safer workplace.

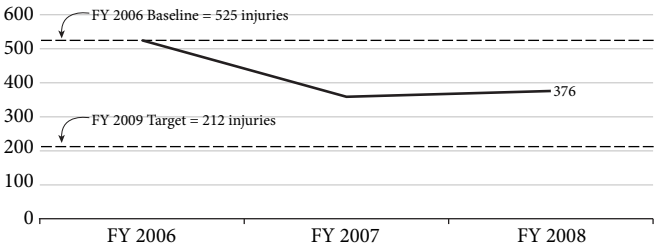
Worker compensation costs and claims rates have gone down significantly

In addition to the number of recordable injuries, WSDOT tracks the cost of worker compensation claims and the claims rate per 100 employees to provide an expanded picture of overall performance.

Since 2004, the cost of compensable claims has gone down by 70%, and the claims rate has gone down 44%. Workers are experiencing less-severe injuries and are returning to work more quickly.

OSHA-recordable worker injuries have declined significantly since FY 2006

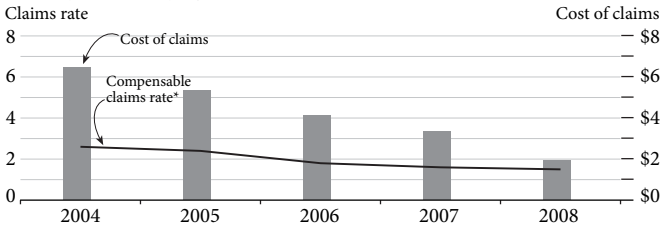
Fiscal years 2006 to 2008



Data Source: WSDOT Safety Office.

WSDOT worker compensation claims rates and costs have declined significantly since 2004

Claims per 100 employees; Dollars in millions



Data Source: WSDOT Safety Office.

* Compensable Claim - a claim for which a worker is entitled to receive compensation.

WSDOT will not achieve 2009 worker safety goal

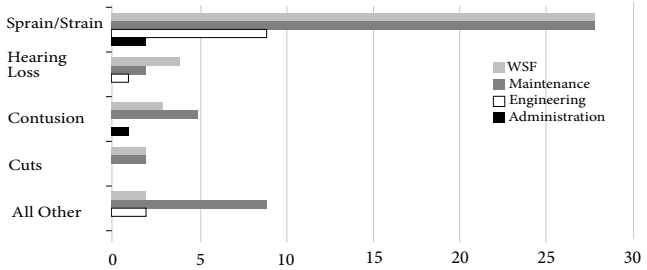
While there has been substantial progress since 2006, WSDOT will not achieve its 2009 goal to reduce the number of recordable injuries and illnesses to 212, 60% fewer than the 2006 baseline. Between July and March 2009, 285 injuries and illnesses were recorded statewide. Only one region, the Urban Corridors Office, is on track to meet the 2009 goal. Musculoskeletal disorders, including sprains and strains, have presented the largest challenge. Hearing loss, contusions, bruises, and lacerations also continue to be of concern. See table on the next page for details.

Employees sustained 100 OSHA-recordable injuries and illnesses, January–March 2009

There were 100 injuries and illnesses recorded this quarter. This is an increase of one from the previous quarter and 14 from the same period last year. The most common injuries are sprains and strains: 67 were recorded this quarter, an increase of 28 from the previous quarter and 19 from the same time period last year. Contusions, crushes, and bruises (9%), and hearing loss (7%), were the second and third most common injury categories this quarter.

Number of work injuries by type

January 1 through March 31, 2009



Data Source: WSDOT Safety Office and Washington State Ferries (WSF).

Injury rates up from FY 2008

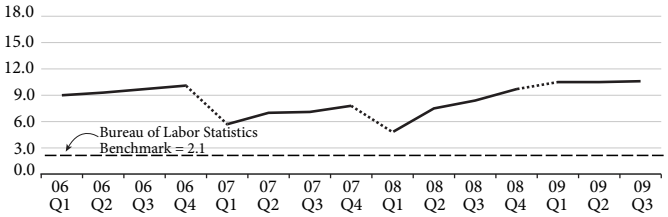
The annualized injury rate[1] for WSDOT's highway, street, and bridge construction workers grew by 6% this quarter, from 4.9 to 5.2 per 100 workers. This is lower than the Bureau of Labor Statistics benchmark of 5.9 per 100 workers, but 11% higher than last year's corresponding rate. The annualized injury rate for ferry workers grew by one percent this quarter, from 10.5 to 10.6 per 100 workers. This is significantly higher than the Bureau of Labor Statistics benchmark for inland water transportation workers – 2.1 injuries per 100 workers – and is 26% higher than last year's corresponding rate.

Ferry workers

Ferry workers reported 39 injuries and illnesses this quarter, one less than the previous quarter. Sprains and strains accounted for 72% of these injuries, and injured workers spent 475 days away from work.[2]

Yearly OSHA-recordable injuries and illnesses rate for ferry system workers

FY 2006 to March 31, 2009; OSHA-recordable injury rate per 100 workers



Data Source: WSDOT Safety Office and WSDOT Ferry System.
[1]Rates are cumulative and annualized for each fiscal year.

Progress towards achieving OSHA-recordable injury reduction goal (by region)

FY 2009 through quarter 3 (July 2008 - March 2009); Goal: 60% reduction in OSHA-recordable injuries from FY 2006 baseline.

WSDOT region	FY 06 baseline	FY 07 total	FY 08 total	FY 08 through Q3	FY 09 Q1	FY 09 Q2	FY 09 Q3	FY 09 through Q3	FY 09 injury types through Q3	FY 09 target	Achieve FY 09 target?
Northwest	122	77	78	46	16	19	9	44	52% sprain/strain	49	No
North Central	33	20	17	9	4	0	7	11	64% sprain/strain	13	TBD
Olympic	71	45	41	38	9	13	19	41	32% sprain/strain	28	No
South Central	33	29	22	16	2	12	10	24	46% sprain/strain	13	No
Southwest	31	17	14	10	3	4	3	10	50% sprain/strain	12	TBD
Eastern	56	23	28	11	8	6	8	22	59% sprain/strain	22	No
Urban Corridors[1]	N/A	N/A	7	4	0	0	0	0	No injuries.	4	TBD
Headquarters	23	28	19	11	3	5	5	13	38% sprain/strain.	9	No
Ferry System	156	120	150	98	41	40	39	120	51% sprain/strain.	62	No
WSDOT total	**525**	**359**	**376**	**243**	**86**	**99**	**100**	**285**	**54% sprain/strain**	**212**	**No**

Data Source: WSDOT Safety Office.
[1]WSDOT started tracking OSHA-recordable injuries for Urban Corridors (UCO) as a separate region in FY 2008; it was initially part of the Northwest region.
[2] As a result of rounding by regions, the goal of 212 total injuries/illnesses for FY 2009 is slightly more than a 60% reduction of the WSDOT baseline.

[1]OSHA-recordable Injuries and Illnesses is a standard measure that includes all related deaths and work-related illnesses and injuries which result in death, loss of consciousness, days away from work, days of restricted work, or medical treatment beyond first aid. The U.S. Bureau of Labor Statistics provides the selected 2006 national average benchmark. One worker equals 2,000 hours a year.
[2]The ferry system operates a ship repair facility, urban transit system, and an inland water transportation system with numerous boardings and unloadings daily. These diverse activities make it difficult to identify relevant worker injury benchmarks. On the recommendation of BLS, the Ferry System measures workers under the NAICS code Inland Water Transportation. The Inland Water Transportation normally incorporates far fewer boardings and unloadings than the Ferry System requires.

Worker Safety Quarterly Update

Preventing worker injuries

Highway maintenance workers

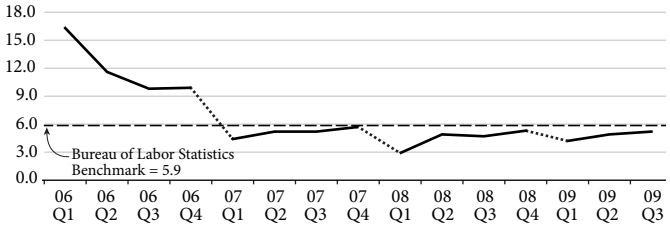
Highway maintenance workers reported 46 injuries and illnesses this quarter, five more than the previous quarter. Sprains and strains accounted for 61% of these injuries, and injured workers spent 494 days away from work.

Highway engineering workers

Highway engineering workers reported 12 injuries and illnesses this quarter, two less than the previous quarter. Sprains and strains accounted for 75% of these injuries, and injured workers spent 49 days away from work.

Yearly OSHA-recordable injuries and illnesses rate for maintenance and engineering workers

FY 2006 to March 31, 2009; OSHA-recordable injury rate per 100 workers



Data Source: WSDOT Safety Office.
[1]Rates are cumulative and annualized for each fiscal year.

Administrative workers

Administrative workers reported three injuries and illnesses this quarter, one less than the previous quarter. Sprains and strains accounted for 67% of these injuries, and injured workers did not miss any work.

Addressing sprains and strains

WSDOT is intensifying its efforts to reduce sprains and strains through a multi-pronged approach that includes:

- Requiring workers to take personal responsibility for being physically and mentally ready for work
- Encouraging warming up, stretching, and flexing routines.
- Educating and training workers on safety risks and mitigation approaches.
- Creating a work atmosphere that promotes and rewards safe performance.
- Implementing a new ergonomics program and providing ergonomic evaluations and interventions in both office and field settings.

Wellness Program

In February 2009, WSDOT conducted a statewide survey to determine interest in a workplace wellness program. More than 1,600 employees responded; 86.3% of respondents indicated their interest in participating.

As a result of the survey, WSDOT has initiated a new workplace wellness campaign: "We Work Well." The campaign encourages workers to take health risk assessments, adopt healthy behaviors such as eating nutritious foods and being physically active, and avoiding tobacco use as a way to prevent or control chronic disease. Wellness Program activities include a webpage, newsletters, health fairs, promotion of healthier vending machine and cafeteria food choices, fitness club discounts, and participation in local and national physical activities and challenges. Wellness program coordinators have been established in each region.

Return to Work

WSDOT recently established a return to work program to help workers recover from their injuries and return to work more quickly. Goals of the program include:

- Improving communication with the injured worker to ensure that the right medical care is provided,
- Working with medical providers and vocational counselors to monitor recovery,
- Developing return-to-work options when appropriate,
- Informing supervisors about the status of recovery and the prognosis for the future, and
- When appropriate, conducting independent medical exams to facilitate claim closures and to confirm the validity of claims.

WSDOT is also developing a Job Bank to help injured workers return to work more quickly as well as to reduce claims costs. The Job Bank identifies jobs that injured workers can perform as they heal and prepare to return to their original position.

Safety Benefits of Rest Areas

Safety rest areas (SRAs or rest areas) provide a place for travelers to rest and refresh themselves in order to make their trips safer and more pleasant. This article provides information on rest area visitor use and safety benefits. Information on the maintenance, preservation, and improvement of rest areas can be found on pages 8-9.

WSDOT operates 47 safety rest areas statewide, 28 on the interstate system and 19 on state highways. The primary purpose of rest areas is to improve highway safety by allowing fatigued drivers to get off the roadway and rest before continuing their travels. Rest areas support the objectives and strategies of Washington's Strategic Highway Safety Plan, *Target Zero*. (For more about Target Zero, see the WSDOT web page: http://www.wsdot.wa.gov/planning/SHSP.htm .) Fatigued drivers pose risks to all highway users. In 2008, there were 1,104 collisions in Washington due to fatigued driving, with an estimated societal cost of $83 million.

20 million travelers visit safety rest areas annually

The number of rest area visitors has been steady since 2005, averaging about 20 million annually. Construction at some of the busiest rest areas, as well as decreased travel due to high gas prices, may have contributed to a 3% decrease in visitors between 2007 and 2008 (see table on page 6). WSDOT surveys indicate that about 75% of visitors stop at rest areas to use rest rooms, while about 25% stop because they are tired.

Preliminary analysis shows that safety rest areas are improving highway safety

As requested by the Governor, WSDOT recently examined the before-and-after effectiveness of three rest areas in reducing collisions: Iron Goat on SR 2, Dusty-Mader on SR 26, and Price Creek on SR 90. These three newest rest areas are the only ones with enough data to support detailed analysis. WSDOT compared the number of collisions attributed to fatigue within 30 miles of each rest area for at least 24 months before and 24 months after they opened. Preliminary analysis indicates that fatigue-related collisions declined between 2% and 42% after the rest areas opened. It is important to note that reductions may not be entirely attributable to rest areas, though there is likely a strong correlation. WSDOT will continue to examine their effectiveness in improving highway safety as part of its ongoing safety work.

Reduction in fatigue-related collisions Before and After opening of newest safety rest areas

	Price Creek – SR 90 (opened July 2004)	Dusty-Mader – SR 26 (opened July 2006)	Iron Goat – SR 2 (opened August 2006)
Before period	66	19	22
After period	65	11	13
Percent change	**-2%**	**-42%**	**-41%**

Source: WSDOT Facilities Office

Truck drivers request more parking opportunities.

Truck drivers need parking for federally required 10-hour rest periods after 11 hours of driving. In 2008, WSDOT surveyed more than 450 truck drivers and nearly 100 trucking companies to get feedback on truck parking in Washington. Overwhelmingly, the industry reported a lack of safe parking. WSDOT will use the feedback to improve truck parking along the major truck corridors of I-5, I-90, and I-82.

More information about the survey is available in the Freight Annual Report on page 22.

Safety Rest Areas Safety Highlights

WSDOT operates 47 safety rest areas.

20 million travelers visited safety rest areas in 2008.

Preliminary analysis shows that the three newest rest areas reduced fatigue-related collisions an average of 17%.

Safety Rest Areas
Annual Safety Report

Number of annual visitors

Safety rest area visitor data

Number of visitors by rest areas

Safety rest area	County	2007 Annual visitors	2008 Annual visitors
Gee Creek [1]	Clark	532,331	608,439
Toutle River [1]	Cowlitz	1,546,682	1,451,406
Scatter Creek NB	Thurston	1,099,552	988,047
Maytown SB	Thurston	813,193	667,401
SeaTac NB	King	940,832	883,962
Silver Lake SB	Snohomish	387,788	474,919
Smokey Point [1]	Snohomish	686,394	758,152
Bow Hill [1]	Skagit	949,015	1,004,522
Custer [1]	Whatcom	331,255	377,593
Selah Creek [1]	Yakima	335,954	304,714
Prosser	Benton	637,746	618,479
Indian John Hill [1]	Kittitas	808,344	749,581
Ryegrass [1]	Kittitas	375,817	413,720
Winchester [1]	Grant	220,050	152,766
Schrag [1]	Adams	890,061	749,452
Sprague Lake [1]	Lincoln	667,592	579,282
Traveler's Rest	Kittitas	NA	NA
Price Creek	Kittitas	NA	NA
Nason Creek	Chelan	453,696	447,592
Telford	Lincoln	352,225	287,884
Elma EB	Grays Harbor	336,859	315,929
Bevin Lake	Lewis	270,446	162,963
Alopwa Summit [1]	Garfield	NA	NA
Chamberlain Lake	Klickitat	147,151	249,674
Blue Lake [2]	Grant	5,728	6,377
Keller Ferry	Lincoln	NA	NA
Vernita	Benton	105,663	96,042
Hatton Coulee	Adams	172,037	275,953
Quincy Valley	Grant	123,489	119,350
Horn School	Whitman	167,248	184,410
Dismal Nitch	Pacific	88,786	103,833
Forest Learning Center [2]	Cowlitz	95,173	91,367
Iron Goat	King	NA	NA
Mader	Whitman	NA	NA
Total visitors		**20,884,596**	**20,273,427**

Source: WSDOT Maintenance & Operations Division, Facilities Office.

Notes: Water use data for each month (used in the calculation of visitors) is not available for all rest areas due to equipment malfunction or other record-keeping errors. In these cases, WSDOT extrapolated water use figures from historical data.

[1] These rest areas have two facilities, one on each side of the highway. For this table, the annual user numbers have been combined and the rate averaged for the two sites.

[2] These rest areas have seasonal closures.

NA (Not available): These rest areas do not generate visitor data because they are not set up to track water usage as it relates to traveler visits.

Wireless internet service terminated

In 2006, WSDOT partnered with a private vendor to provide wireless internet access at 28 safety rest areas to give visitors access to information that could enhance their traveling experience and make it safer. Few visitors used the service, which was terminated in August 2008 after the vendor dissolved the corporation. Installation costs for the internet equipment as well as monthly maintenance costs were paid by the vendor during the term of the contract. WSDOT had no financial investment in the project and inherited the equipment after service ended.

Preservation

Legislative policy goal:

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

WSDOT's strategic goal:

To catch up with all necessary maintenance and preservation needs on existing highways, bridges, facilities, ferry vessels and terminals, airports, and equipment, while keeping pace with new system additions.

In this section

Asset Management: Safety Rest Areas Annual Report 8
Highway Maintenance Post-Winter Report 10
Washington State Ferries Preservation & Construction 15

See also

Washington State Ferries (Mobility) 44
Special Report: Federal Recovery Act-funded Projects 62
Capital Projects Quarterly Report (Beige Pages) 66

Previous GNB reports

Capital Facilities, GNB 30
Bridge Assessment, GNB 30
Pavement Condition, GNB 32
Highway Maintenance, GNB 32

Safety Rest Areas
Annual Preservation Report

Safety Rest Area Preservation Highlights

Most safety rest areas were constructed in the 1960s and 1970s.

Twenty-two out of 42 safety rest areas (52%) have multiple deficiencies.

Surveys show that more than 90% of users are satisfied with safety rest area facilities.

Safety rest areas (SRAs or rest areas) provide a place for travelers to rest and refresh themselves in order to make their trips safer and more pleasant. This article provides information on the maintenance, preservation, and improvement of safety rest areas. Information on visitor use and safety benefits can be found on page 5-6.

Overview of safety rest area facilities

- 47 safety rest areas (28 Interstate, 19 non-Interstate), most constructed in the 1960s and 1970s
- 694 acres
- 93 buildings
- 30 on-site drinking water systems
- 40 on-site sewage treatment systems
- 20 RV dump stations
- 576 truck parking stalls

Safety Rest Area maintenance performance holds steady at "B"

WSDOT's Maintenance Accountability Process (MAP) measures the outcomes of safety rest area maintenance activities. As part of the MAP process, WSDOT inspects all safety rest areas semi-annually to determine the Level of Service (LOS) delivered. Levels of Service are based primarily on operations and are only based in small part on facilities condition.

WSDOT has maintained interstate safety rest areas at a rating of "good condition" (LOS B) since 1999. This means that all the features of the rest area, such as soap dispensers and recreational vehicle dump stations, are in working condition, landscaping is maintained, and only a small amount of litter, weeds, or minor defects in sidewalks or parking areas are present.

User satisfaction with Safety Rest Area facilities

	2007	2008
Very good	34%	49%
Good	56%	43%
Satisfactory	8%	7%
Unsatisfactory	<1%	<1%

Source: WSDOT Facilities Office.

Safety rest area condition ratings

Number of safety rest areas in each category

Condition	Number of rest areas
Good (meets standards)	8
Fair – High (minimal deficiencies)	6
Fair – Mid (adequate condition)	6
Fair – Low (multiple deficiencies)	20
Poor (multiple major deficiencies)	2
Total	42

Source: WSDOT Facilities Office.

Users are generally satisfied with rest area facilities

Surveys show that over 90% of users are satisfied with rest area facilities. Comment cards collected at safety rest areas in 2008 confirm this: 66% of users ranked their experiences as good to excellent. However, 27% of comment cards indicated concern with aging buildings and sites, along with a desire for additional rest rooms, and 7% indicated dissatisfaction with parking and pet areas.

Most rest areas are in good or fair condition

WSDOT conducts safety rest area facility condition assessments every two years. In 2007-08 WSDOT assessed 42 rest areas. Eight (19%) were in good condition, 32 (76%) were in fair condition, and two (5%) were in poor condition. Buildings at the two rest areas in poor condition, Vernita and Selah Creek (both located in WSDOT's South Central Region), are scheduled for replacement during the 2009-11 biennium (see page 9).

Safety Rest Area preservation and improvement projects

In 2008, WSDOT published a new Safety Rest Area Strategic Plan. Key elements of the plan address infrastructure deficiencies, opportunities for program expansion, and computerized maintenance management system implementation. Rest area preservation and improvement projects are identified and prioritized in a long term capital plan. Upcoming preservation projects include:

SR 24 Vernita Safety Rest Area – Building replacement

The main building at this rest area was constructed in 1967 and partially renovated in the late 1990s address new accessibility requirements. The building is rated in 'poor' condition and will be reconstructed to current standards.

I-82 Selah Safety Rest Area – Building replacement

The main building at this rest area was constructed in 1967 and has not been renovated. The building is rated in 'poor' condition and will be reconstructed to current standards.

Statewide roof renovations

These roof projects will fix potentially unsafe conditions created when snow slides off rest area roofs and makes the sidewalks around the buildings slippery for users.

SR 7 Elbe Safety Rest Area – New facility

The right-of-way for this new safety rest area will be purchased in June 2009. The site currently has a historic structure that will be preserved and renovated into a rest area facility with historic and nature interpretative signs, picnic and pet areas, and passenger vehicle parking.

US 101 NE Peninsula Safety Rest Area – New facility

This new safety rest area is being developed in partnership with Clallam County, and will convert an existing roadside park into the Northeast Peninsula Safety Rest Area.

Iron Goat, the state's newest safety rest area, was constructed in 2006. It is located at MP 58 on State Route 2.

Toutle River safety rest area, located at MP 54 on Interstate 5, is WSDOT's busiest rest area.

Safety Rest Area conditions rating scale

Good Facility is new construction and/or meets current standards.
Fair-High Facility meets current standards and/or is in adequate condition with minimal component deficiencies
Fair-Mid Facility is functional, and is in adequate condition with minor component deficiencies.
Fair-Low Facility has multiple system deficiencies.
Poor Facility is at or beyond its service life, with multiple major deficiencies.

Maintenance: Annual Post Winter Report

WSDOT's Response to Winter 2008-2009

Maintenance winter operations performance:

- The December – January series of events caused $36 million in damage to the state highway system.
- Pass closures for avalanche danger and avalanche control missions created 178 hours of closure on Snoqualmie Pass and 50 hours on Stevens Pass.
- Snow and ice material usage approached record levels once again with 81,000 tons of deicer products applied compared to 100,000 tons used in the winter of 2007–08.
- In response to the 2008-09 Winter, the Legislature granted WSDOT $16.5 million in funds to cover the continuing cost overruns occurring in the Snow & Ice Program due to the severe winter weather.

I-5 submerged in Lewis County.

Record-setting winter weather provided major impacts to Washington State highways from December 12, 2008 through January 12, 2009. Heavy snowfalls in the mountain passes were followed by cold temperatures and snow accumulation at the lower elevations. Warm winds and heavy rains later swept across the state, causing high water and flooding in several areas. These events disrupted public transit, closed freeways, and impacted commercial freight between urban centers. In several cases detours were not available around impacted areas on major interstate routes, resulting in entire sections of the state being cut off for freight or public travel.

WSDOT was forced to close all three major east–west mountain passes (Snoqualmie, Stevens, and White) due to avalanches, avalanche hazards, and heavy snows at times during the month-long event. The longest pass closure was on Snoqualmie Pass, lasting three days, from January 6 to January 9, 2009.

Fortunately, there was no loss of life. Due to the extent of damages from massive snow followed by severe flooding, Washington State was granted two Presidential Declarations of Emergency spanning December 12, 2008 to January 5, 2009, and January 6 to January 16, 2009. A detailed time line of winter weather-related events faced by WSDOT maintenance crews from December to March is shown in greater detail on pages 13-14.

WSDOT response to the severe winter weather

This past winter was notable for the amount and duration of storm activity. Due to the severity of the weather, WSDOT winter operations were over budget at the end of March, with April snows still falling in the passes and eastern Washington. This winter, combined with the winter of 2007–08 has produced a biennial over-expenditure for the Snow and Ice maintenance program. In response to the 2007-08 Winter, the Legislature granted WSDOT $3.25 million for cost overruns and $2 million for increased deicer costs. In 2008-09, the Legislature once again granted funds to cover the continuing cost overruns occurring in the Snow & Ice Program due to the severe storms: $13.3 million to balance winter expenditures for the biennium, $700,000 towards winter equipment repairs, and $2.5 million for unfunded disaster maintenance resulting from winter storms.

Despite the growing cost of winter operations due to the severity of storms, WSDOT maintenance crews were able to respond effectively to keep drivers safe and moving. Highlights of the 2008-09 winter include:

- The December–January series of severe weather events caused $36 million in damage to the state highway system.
- Pass closures for avalanche danger and avalanche control missions closed Snoqualmie Pass for 178 hours and Stevens Pass for 50 hours.
- Snow and ice material usage approached record levels once again with 81,000 tons (and counting) of deicer products applied compared to 100,000 tons used in the winter of 2007–08.

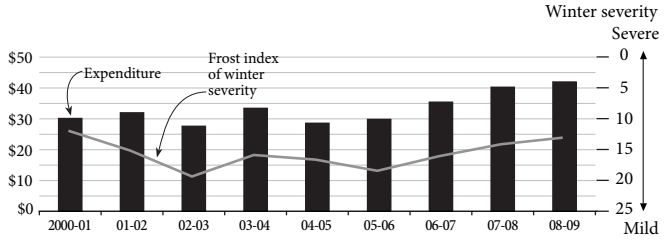
Weather severity and snow- and ice-removal expenditures

The frost index, measures winter severity based on daily temperatures. This year's index indicates that Washington had another more severe than average winter. Frost index data is gathered from 29 weather stations around the state. A lower numerical rating means more sub-freezing temperatures.

Winter Operations Performance

Winter severity vs. snow and ice expenditures

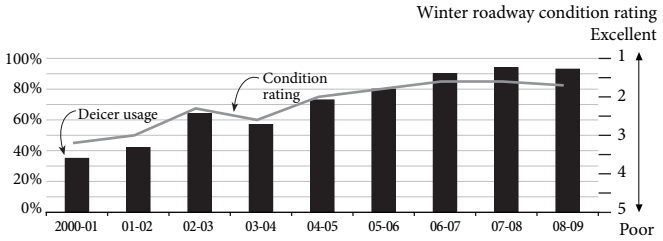
Dollars in millions; Winter severity (Frost Index) is measured November 1 to March 31



Data Source: WSDOT Maintenance.

Statewide deicer use and winter roadway conditions

Percentage of deicer use by winter season (November to March)



Data Source: WSDOT Maintenance.

The lower temperatures increase the likelihood of snow and ice. Higher accumulations of snow and ice require more labor, equipment and materials to provide safer road conditions, which translates to a higher overall cost to deliver the winter maintenance program.

Measuring the performance of winter operations: Roadway conditions and deicer use

Performance for winter operations is measured by assessing road conditions after chemical or sand applications are made. These observations are documented directly on the Snow & Ice Application records, using a scale of one (best traction) to five (least traction). Increased use of deicers, combined with improved application techniques and technology, have resulted in a higher level of service for snow and ice control.

While this winter equaled or surpassed the severity of last winter in many ways, overall material usage was reduced by almost 20,000 tons, while winter roadway conditions remained high. This is due in large part to the more efficient usage of snow and ice materials, improved technology in material controllers and application equipment, and better deicer materials. WSDOT crews receive training every year on material applications and equipment operation. This training is paying dividends in terms of better practices in winter operations leading to reduced material use, while maintaining excellent service levels. The graph to the left shows that the 2008-09 winter roadway condition rating was an almost perfect score of 1 or "Excellent." The condition rating is measured by assessing road conditions after chemical or sand applications are made.

Senate Recognition for WSDOT Response

Following the events in December and January, Washington received two Presidential Disaster Declarations (1817-DR-WA & 1825-DR-WA), making 24 counties eligible for full public assistance and 27 counties eligible for snow removal assistance. Both December and January proved challenging, with more than 141 incidents that affected the transportation system. WSDOT employees worked 24 hours a day, seven days a week, for more than three weeks. The state transportation system sustained about $36 million worth of damage.

WSDOT maintenance staff and troopers from the Washington State Patrol (WSP) were recognized by the Washington State Senate with the adoption of Senate Resolution 8634 during a formal session on February 2, 2009. The Senate resolution honored WSDOT and WSP for heroic efforts and tireless dedication in response to the December 2007 floods, December 2008 holiday snowstorm, and the January 2009 floods. WSDOT and WSP responders from all over the state were in the gallery of the Senate chamber to be recognized and hear the formal reading of the resolution. Nine senators took the time to testify in support of the resolution.

WSDOT maintenance crews help drivers as a mud slide blocks U.S. 12 on White Pass.

Maintenance:
Annual Post Winter Report

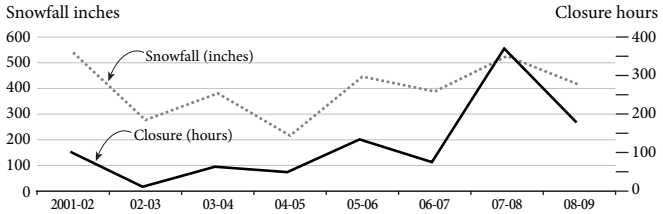
Pass Closures and Avalanche Control

Pass closure hours less than last winter

All of the major passes were impacted this year by snow coupled with avalanche danger and flooding. While this year's seasonal snowfall accumulations are not extraordinary, the mountain passes did receive their fair share of snow. As of April 9, the total snowfall on the ground at White Pass was 460 inches, Snoqualmie Pass 414 inches, and Stevens Pass rounding out the mountain passes with a total snow depth of 407 inches.

Snoqualmie Pass I-90 winter closure hours

Accumulated annual hours and inches of snow (November to March)



Data Source: WSDOT Maintenance.

Avalanche control at Snoqualmie and Stevens Passes

Winter 2008–09

	Missions	Detonations	Artillery rounds	Pounds of explosives
Snoqualmie	58	108	52	5,220
Stevens	24	161	60	2,375
Totals	**82**	**269**	**112**	**7,595**

Source: WSDOT Maintenance

Automated data collection project in second year

The use of automated data collection devices to capture material delivery amounts and locations, and road and weather conditions expanded into more areas in the second year of this ambitious program. Approximately 80 WSDOT trucks are now equipped with precision material controllers and data modems capable of transmitting this data through wireless means to a central database. Additionally, trucks, material applications, and road and weather information can be displayed on WSDOT computer monitors so managers can determine if resources need to be redistributed or if additional material applications are needed.

WSDOT continues to work with vendors to improve hardware and software technology in this program. The ultimate goal is to have all winter response equipment set up with this technology, and to expand this technology into other aspects of the Maintenance program. All material applications which are made with WSDOT equipment are captured through this means, or by manual input onto Personal Digital Assistants (PDAs).

Maintenance crews clear I-90 Snoqualmie Pass of snow following avalanche control operations.

WSDOT web resources help drivers this winter

WSDOT continued to help drivers plan their routes by placing accurate, detailed and timely information on the WSDOT website, www.wsdot.wa.gov. This site experienced abnormally high usage during the winter, mostly on days during which the majority of the Puget Sound was faced with floods or snow and ice events. The WSDOT website topped 6.2 million views on Thursday, December 18, 2008.

WSDOT's most important innovation during the recent round of mountain pass closures was the use of the newer social media tools to communicate weather related traffic conditions. Flickr (www.flickr.com/wsdot), YouTube (www.youtube.com/wsdot), and Twitter (www.twitter.com/wsdot) were invaluable in giving travelers accurate, up-to-the minute news. The usage was a bit higher for the website overall in the December snow storms compared to the January floods, but the pictures were viewed much more during the January flooding event. The highest viewing for each of the social media in winter 2008-09 was:

- Blogger: All time high on January 8 with 18,600 page views. WSDOT's main site went down, so users were forwarded to the blog for a short time.
- YouTube: January 8 had 8,000 hits to video files.
- Flickr: December 19 had 18,000 hits; January 7 had 25,401 views.

For more information on these and other travel information resources, please see pp. 36-37.

Winter 2008-2009: Time Line of Events

December snows impact roadways statewide

The first major weather event of the winter season arrived in the lower elevations of Washington state on Saturday, December 13, 2008. WSDOT was geared up for battle with full stockpiles of deicers, and all the various kinds of equipment required for snow fighting. WSDOT Maintenance crews worked around the clock in most areas to respond to heavy snows while attempting to keep roads open.

On December 20, Snoqualmie Pass was closed for blizzard conditions and remained closed for 13 hours. In eastern Washington, it continued to snow, and after numerous days of record snowfall, maintenance crews encountered extreme difficulties in removing the many feet of snow.

On December 27, the rain-and-snow mix required avalanche control operations on Snoqualmie Pass where 14 avalanche control missions were conducted encompassing 30 detonations using over 1,318 pounds of explosives.

WSDOT was contacted by the State Emergency Operations Center with a request for support from Spokane County on Sunday, December 28. Resources were shifted and on Tuesday December 30, five trucks and ten employees from western Washington were sent to assist in snow removal efforts in Spokane for five days.

Charter buses break through guardrail above I-5 in Seattle.

WSDOT's Wandermere maintenance facility collapsed under a heavy snow pack in Spokane.

New Year's Day avalanches

As the year ended, the severe weather did not. Washington's mountain passes experienced continued heavy snowfall which greatly increased the avalanche risk through the mountains. On January 1, 2009, Snoqualmie, Stevens, and White passes were all closed due to natural snow slides and avalanche control. Throughout the closures, WSDOT avalanche crews monitored the snow pack, and conducted avalanche control missions.

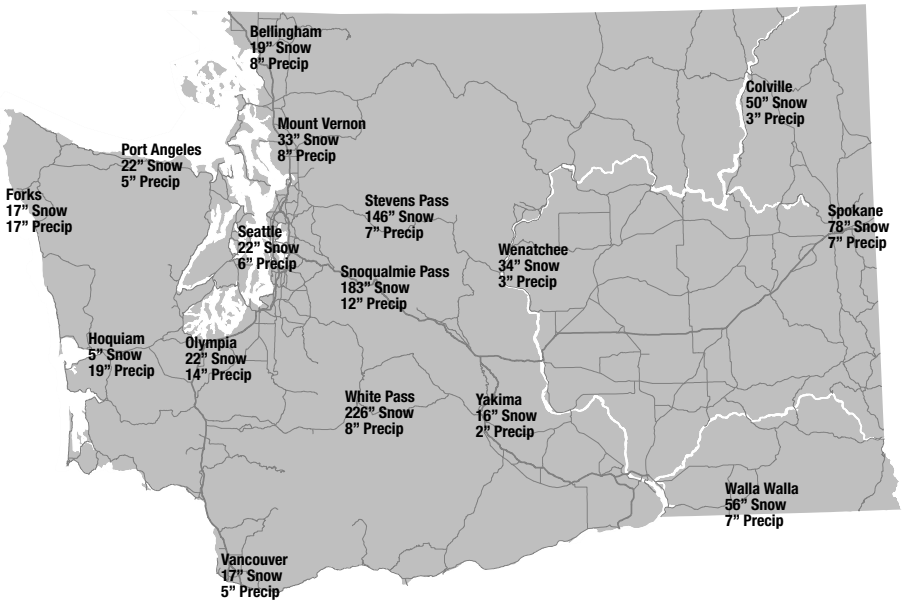
January storm brings more snow and flooding

The next wave of severe weather hit Washington state on January 5, 2009. Road closures occurred due to blowing and drifting snow, poor visibility, and extreme avalanche danger. Deep drifting snow and compact snow and ice existed on nearly every state route that was able to remain open in eastern Washington. All available equipment and personnel were on duty and working around the clock.

Warmer temperatures and substantial rainfall closely followed the snow events in the mountains and across the state. This prompted the National Weather Service to increase the avalanche hazard warning to the highest level: "extreme."

Continued on page 14

Map: Statewide precipitation totals
December 12, 2008 – January 8, 2009



Data Source: WSDOT Maintenance Office.
Note: Snowfall information gathered from outside sources, WSDOT is not responsible for the accuracy of this content.

Maintenance:
Annual Post Winter Report

Winter 2008-2009: Time Line of Events

Maintenance crews clear snow slide on US 2 Stevens Pass.

I-5 in Lewis County closed due to floods.

Flooding on SR 539 in Whatcom County.

Mud slide at Hyak on I-90 Snoqualmie Pass.

Continued from page 13

By January 7, weather forecasts throughout Washington indicated a strong potential for flooding that could impact major highways, including I-5 in Lewis County. WSDOT staff in the field kept a close watch on all rivers that posed a threat to the state transportation system.

The Traffic Office worked with the regions to establish criteria for possible detour routes. WSDOT hydrologists provided detailed analysis of USGS hydrographs and aided in identifying the rivers of concern. WSDOT crews reported that the Chehalis River was rising at close to one foot an hour, and by mid-evening on January 7, I-5 was closed between exits 68 to 88 due to water on the road.

Snoqualmie Pass, Stevens Pass, and State Route 20 near Newhalem were also closed due to the occurrence of natural avalanches, and continued avalanche danger. Blewett Pass was closed due to heavy snow and mud slides over the roadway. US 12 was closed due to mud slides on both sides of White Pass. Avalanche danger, washouts, roadway erosion, unstable slopes, and mudslides continued to threaten the roadways forcing crews to temporarily abandon clearing efforts. These pass closures occurred nearly simultaneously, and in combination with the I-5 closure, western Washington was isolated from the rest of the state.

WSDOT had 1,250 crew members working with the Washington National Guard and the Washington State Patrol in an effort to keep drivers safe. WSDOT crews worked through the night of January 7 to assess the status of major routes in Washington, and the next morning, their reports indicated that all major passes and I-5 in Lewis County would have to remain closed due to avalanche danger or flooding. Throughout the day WSDOT crews worked to reopen highways to get travelers and freight moving through Washington again.

Early on January 9, 68 highway sections had reopened, 49 sections remained closed, and 18 sections had restricted travel access. I-5 through Lewis County and I-90 over Snoqualmie Pass remained closed. On Snoqualmie Pass, WSDOT and emergency contractor crews worked around the clock to redirect water into ditches, as well as remove snow and debris from the roadway. Personnel from WSDOT and the US Army Corps of Engineers assessed the flood situation on I-5. At daybreak the inspection showed that the dike was holding and it was safe to open I-5. Snoqualmie Pass opened later the same day, restoring full functionality to the freeway system.

Winter continues in February and March

February and March brought little relief to already over-burdened mountain pass and eastern Washington maintenance crews. Heavy snows and cold temperatures continued to plague those areas. Between February 1 and April 3, Snoqualmie Pass accumulated another 212 inches of snow, Stevens received another 190 inches, and White Pass added another 180 inches. Frequent pass closures for avalanche control and avalanche danger were necessary during this time. On Sunday April 5, rapidly warming temperatures created an extreme avalanche danger on Snoqualmie Pass. The dangerous conditions made it too risky to allow westbound traffic past the avalanche areas, which resulted in a 13 mile back-up at Snoqualmie Pass due to the eight hour closure.

Ferries Preservation Update

Vessel Preservation / Ferries Construction Program

Future *Gray Notebooks* will report terminal and vessel condition ratings

WSDOT will soon publish terminal and vessel asset preservation data using condition ratings in accordance with recent statutory and budget direction. The reporting schedule will be changed to align with the annual frequency of reporting used with other capital asset preservation programs. The *Gray Notebook* will next report on ferries preservation using these measures in the September 30, 2009, edition, and will move to an annual reporting cycle beginning with the March 31, 2010, edition. The terminals condition ratings used in past *Gray Notebooks* will be modified slightly to incorporate more detail and a rating for vessel condition is under development.

Ferry vessel life-cycle preservation work

WSF uses a life-cycle preservation system that includes two system classifications (Category 1 and Category 2 systems). Each vessel has components that are classified as either being a Category 1 or Category 2 system. Category 1 systems are those components that are considered by regulatory agencies (such as the U.S. Coast Guard) as "vital" to the protection of people, the environment, and infrastructure. These include systems necessary to start, keep in motion, stop, land, and unload a vessel. The Category 2 systems are all other vessel components that are refurbished as part of a life-cycle preservation program.

For the 2007-2009 biennium, WSF planned on refurbishing or replacing 43 Category 1 systems and 50 Category 2 systems. So far this biennium, WSF has replaced 29 Category 1 and 34 Category 2 systems. This includes the replacement of 13 Category 1 and seven Category 2 systems during the third quarter of FY 2009. Work done during the third quarter of FY 2009 included hull steel replacement, structural preservation, piping replacement, and the replacement of navigation equipment.

WSF will not meet its target of preserving all of the 93 items originally planned for this biennium. The sudden retirement of the four Steel Electric vessels and the number of unplanned emergency dry-dockings for hull steel replacement on older vessels disrupted the initial schedule. Closer inspection of some scheduled elements, notably piping replacements, found that the condition of the systems did not warrant replacement at this time.

WSF construction program update

The WSF construction program for 2007-09 provides for capital investments throughout the ferry system. This program preserves and builds new ferry terminals and vessels. The 2009 Legislature decreased the Ferries capital program biennial spending authority from $250 million to $190 million.

The two graphs for this program have been modified from previous Gray Notebooks. Previously, planned expenditures for months prior to enactment of a supplemental appropriations act were adjusted to actual expenditures.

Ferries Preservation Highlights:

Twenty vessel preservation activities were conducted this quarter, bringing the biennial total to 63 systems preserved.

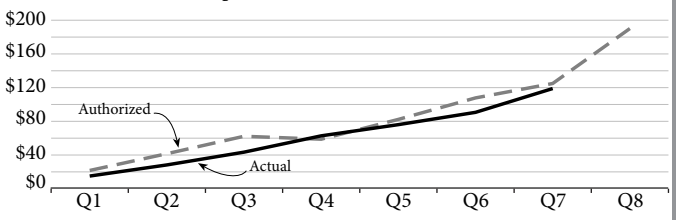
Work on the new 64 auto class vessel has begun and is progressing toward its completion date of June 30, 2010.

Vessel preservation activities
January-March, Q3 of FY 2009, 2007-09 biennium

System	Systems preserved [1]	Planned number of preservations [2]
Category 1 Systems	29	43
Category 2 Systems	34	50
Total	**63**	**93**

Data Source: WSDOT Ferry System.
[1] Cumulative to date.
[2] For the 2007-09 biennium.

Construction program expenditures for Washington State Ferries
Through March 31, 2009, 2007-2009 biennium
Authorized vs. actual expenditures, cumulative dollars in millions [1]



Data Source: WSDOT Ferry System.
[1]Authorized figures were revised in the September 30, 2008 edition of the *Gray Notebook*. See the March 31, 2008 edition of the *Gray Notebook* for more previous figures.

Ferries Preservation Update

New Vessel Construction update

These graphs make the adjustment of planned expenditures in the month that the supplemental appropriations became effective. This is the same methodology used in WSDOT's Monthly Financial Report.

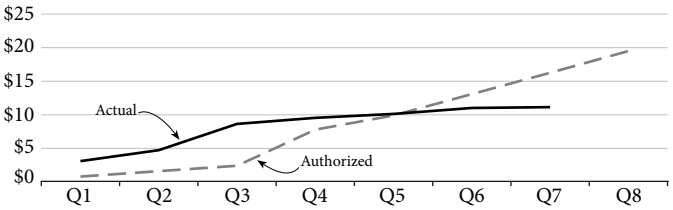
Vessel construction biennium-to-date

At the end of the third fiscal quarter, vessel construction expenditures were overspending by $2.10 million, a 3.0% variance greater than the authorized funds ($69.15 million) for the quarter ending March 31, 2008.

During this quarter, WSF put five auto-passenger ferries in the shipyard for preservation work. They included the *MV Cathlamet*, the *MV Elwha*, the *MV Kitsap*, the *MV Rhododendron*, and the *MV Walla Walla*.

Emergency expenditures for Washington State Ferries

Through March 31, 2009, 7th fiscal quarter of 2007-2009 biennium
Authorized vs. actual expenditures; cumulative dollars in millions[1]



Data Source: WSDOT Ferry System.
[1]Authorized expenditures were revised in the September 30, 2008 edition of the *Gray Notebook*. See March 31, 2008 *Gray Notebook* for older figures.

Terminal construction biennium-to-date

Terminal construction expenditures were under-spending by $2.91 million, a 7.4% variance from the authorized funds ($39.45 million) for the quarter ending March 31, 2009. The majority of the variance for the terminal construction program can be attributed to delay of the Port Townsend wingwall and tie-up pilings projects.

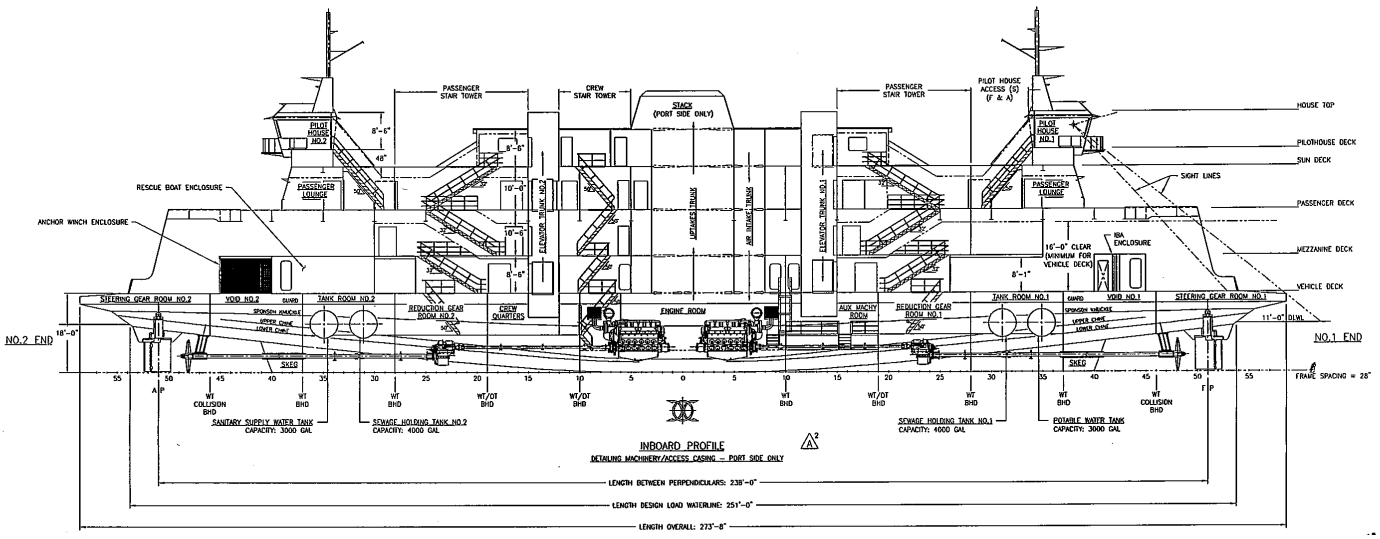
New 64-auto class ferry now under construction

Work on the new vessel (64-auto class) has begun and is progressing toward its completion date of June 30, 2010. The Notice to Proceed was given to Todd Pacific Shipyard on January 5, 2009 and the project is now completing the vessel's detail design using Guido Perla & Associates as their design agent. This effort takes the contract drawings and converts them to level of detail needed to construct the vessel.

Materials that need a longer acquisition time are on order including the steel and aluminum for the hull and superstructure. The materials will begin arriving at the shipyard in late May 2009. The steel will arrive already preconditioned and cut to the various shapes needed.

The illustration below is a schematic, cutaway representation of the new ferry. Future editions of the *Gray Notebook* will show the progress of the vessel's construction on a graphic outline visual without detailing.

Schematic of new 64 auto class ferry now under construction



Source: Washington State Ferries.

Mobility
(Congestion Relief)

Statewide policy goal:

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

WSDOT's business goal:

To move people, goods, and services reliably, safely, and efficiently, by adding infrastructure capacity strategically, operating transportation systems efficiently, and managing demand effectively.

In this section

Trucks, Goods & Freight Annual Report 18
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Special Report: The Economic Recession and Travel Demand 27
Commute Options Annual Report 32
Travel Information Semi-Annual Update 36
Incident Response Quarterly Update 38
Aviation Annual Report 41
Washington State Ferries Quarterly Update 44
Rail Quarterly Update 48

See also

Special Report: Federal Recovery Act-funded Projects 62
Quarterly Report on Capital Projects (Beige Pages) 66

Earlier mobility-related articles

Congestion Report, GNB 31

Trucks, Goods, & Freight Annual Report

Freight in Washington State

Freight Highlights

- A pilot program to study the usefulness of GPS truck-tracking data is underway.
- Truck volumes on Washington highways have decreased from 2007 to 2008.
- There has been a 2.4% increase in commercial truck registrations from 2007 to 2008.
- The 2009 Marine Cargo forecast is now complete; international containers handled at Washington seaports are expected to triple by 2030.
- Total freight rail traffic has increased from 2005-2007 and this trend is expected to continue.
- Air cargo volumes through Sea-Tac airport decreased 9% from 2007 to 2008.

Efficient, safe, and secure freight transportation is crucial to the economic strength of Washington State. Washington's freight system is a multimodal, interconnected network of highways and local roads, mainline and branch line railroads, navigable waterways and deepwater ports, and air cargo facilities.

WSDOT supports Washington's freight systems by providing planning for all state freight investments and directly managing the state's rail programs.

Washington's freight system

There are three components to Washington's freight system that support our national and state economies. First, Washington is a global gateway, connecting Asian trade flows to the U.S. economy, Alaska to the lower 48 states, and Canada to the U.S. West Coast. Second, the state's manufacturers and farmers rely on the freight system to transport their products to customers worldwide as well as in-state customers. Third, Washington's distribution system is a fundamental local utility, critical to the state's economy.

Freight system performance measures

Detailed truck, goods, and freight performance data – both statewide and nationally – is very limited due to its proprietary nature. Transportation agencies throughout the country are beginning to respond to the need for performance measures, and develop independent data collection methods. WSDOT needs accurate freight performance measures to evaluate public investments and strategies to deliver the level of performance desired by the state's freight customers.

Research project launched to study truck freight movement

In 2008, the Washington Legislature, with the support of the Washington Trucking Associations (WTA), funded a $448,000 pilot project to study the usefulness of commercially available GPS truck-tracking data to the public sector. The TransNow Regional Center at the University of Washington, which contributed $190,000 to the project, will serve as the principal investigator, including building the systems needed to present the data in a usable format, such as GIS maps. They will also help WSDOT analyze the data to assess how investments in freight highway projects affect system performance.

WSDOT's Freight Systems Division's project team has signed contracts with multiple telecom companies which provide global positioning satellite (GPS) services to trucking companies. Millions of on-board truck GPS transmissions on Central Puget Sound routes are received every week.

WSDOT expects the research will help:

- Prioritize truck freight bottlenecks in the central Puget Sound region by quantifying delay;
- Measure travel times and trip reliability between origins and destinations; and
- Quantify the benefits of freight projects by comparing "Before and After" performance to evaluate reductions in travel times and increased trip reliability.

Other potential uses for truck freight data include:

- Development of truck travel-speed adjustment factors for loop data by comparing GPS data for trucks and cars.
- Communication of real-time truck travel information on WSDOT's website.

Freight Performance Measure Research/Truck Freight

- Verification of truck-trip travel times, origins, and destinations currently used in state and regional freight models.
- Providing input for air quality models and safety studies.

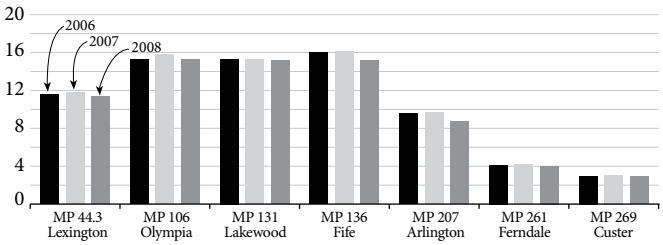
The project team is working with the WTA, the Puget Sound Regional Council (PSRC), and other private and public entities to map 'important/famous truck routes' in Central Puget Sound, for both highways and local roads. The data will be used to improve models of truck movements. WSDOT will use the 'famous truck routes' information to focus department and division resources on these important freight corridors, while researchers will evaluate zone-to-zone travel time and reliability. This pilot project is scheduled for completion at the beginning of April, 2010 when a final report will be provided to the legislature.

Truck volumes decrease on Washington highways from 2007 to 2008

Truck volumes in Washington show steady, long-term increases, although 2008 saw the first annual decrease. Data on truck volumes by selected mileposts show the locations with the greatest activity, as well as growth trends; the graphs show average daily truck traffic at select mileposts on three north-south routes – I-5, US 97, and SR 18 – and I-90 east-west.

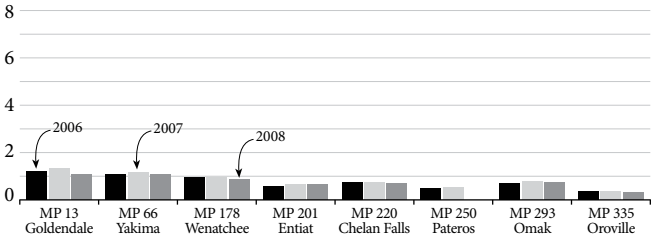
At most locations where truck data is collected, there was a decrease in average daily truck volume from 2007 to 2008. On I-5 near Olympia, annual daily truck traffic decreased 3% from 15,777 trucks per day in 2007 to 15,263 trucks per day in 2008. On I-90 near Cle Elum, the number of trucks decreased 10% from about 6,828 trucks a day in 2007 to 6,130 trucks a day in 2008. Decreases in average daily truck volumes are likely due to the recent economic downturn.

I-5 average daily number of trucks by milepost
2006-2008 (south to north)
Number in thousands



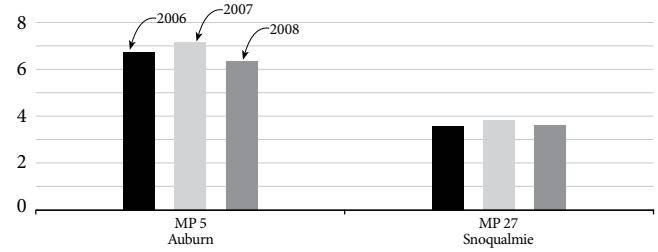
Data Source: WSDOT Transportation Data Office.

US 97 average daily number of trucks by milepost
2006-2008 (south to north)
Number in thousands



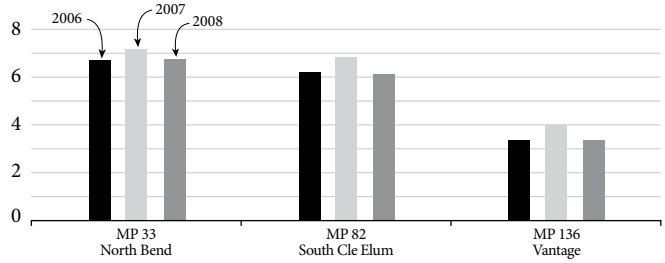
Data Source: WSDOT Transportation Data Office.
Data for 2008, MP 250 Pateros is unavailable.

SR 18 average daily number of trucks by milepost
2006-2008 (south to north)
Number in thousands



Data Source: WSDOT Transportation Data Office.

I-90 average daily number of trucks by milepost
2006-2008 (east to west)
Number in thousands



Data Source: WSDOT Transportation Data Office.

Commercial trucks registered in Washington State increase by 2.4%

The number of commercial trucks registered and paying state taxes in Washington has increased 2.4%, from 250,957 in 2007 to 257,068 in 2008. Commercial truck registrations have generally decreased from much higher levels in the mid-1980s, a trend which has leveled off since 2001. Recent spikes in diesel prices do not appear to have significantly impacted truck registration levels, though a significant 4% decrease in truck registrations from 2008 to 2009 is forecast, due to the economic downturn.

Trucks, Goods, & Freight Annual Report

Truck Freight

Truck parking survey indicates shortage

During the first quarter of 2008, WSDOT surveyed more than 450 truck drivers and nearly 100 trucking companies to get feedback on truck parking in Washington. Overwhelmingly, the industry reported a lack of safe legal truck parking spaces where truckers need them. WSDOT will use this feedback to improve truck parking along the major truck corridors of I-5, I-90, and I-82.

Truck drivers need off-road parking to comply with federal laws requiring a 10-hour rest period after 11 hours of driving, and also for shorter stops while waiting to deliver or pick up loads. When truck drivers can't find designated parking, they park on freeway ramps, along the road shoulder, and at weigh stations.

Highlights of the survey results include:

- 95% reported overcrowding as the major barrier to using existing truck parking.
- The top three places truck drivers and companies want additional truck parking are the cities of Seattle, Tacoma, and Federal Way.
- The trucking industry would like to see expanded chaining areas on both sides of I-90 on Snoqualmie Pass.
- The top five desired parking amenities are: easy access to the Interstate, rest rooms, paved lots, separate truck parking, and lighting.

Improved truck parking will improve overall roadway safety by providing truck drivers a safe and legal place to park as they become fatigued. Additional information about safety rest areas can be found on page 5.

Although no funding is currently available, WSDOT plans to use the survey responses, and the results of a 2005 parking study, to make truck parking improvements, make investment decisions on additional parking, and to explore partnerships with other agencies and private commercial truck stop operators. WSDOT's Truck Parking Study is available at: www.wsdot.wa.gov/freight/publications.

WSDOT conducts study to determine freight-related economic impact of I-5/I-90 closures

The storm-related closures of I-5 and I-90 in the winter of 2007-2008 came as a result of severe weather that overwhelmed the roadways, disrupting freight and passenger movement across the state and West Coast.

To obtain a more complete picture of the economic impacts of the four day closures on the state's freight sector, WSDOT contracted with Washington State University's Social and Economic Sciences Research Center (SESRC) to conduct survey research and economic analysis of the two storm-related events. The Freight Transportation Economic Impact Assessment Report was completed in September 2008.

The report indicated that the total economic loss from freight delay due to the two corridor closures was almost $75 million. More than $47 million was attributable to the I-5 closure, with almost $28 million attributed to the I-90 closure. Employment loss, defined as estimated job loss for one year following the economically disruptive event, was 460 jobs. Sales tax revenues lost were estimated at $3.81 million, and reduction in personal income was estimated at $23.15 million.

Distributional impacts by region were also examined. Findings indicate that businesses in all regions of the state were affected by the highway closures to a similar degree. Coastal counties experienced relatively more severe impacts to businesses and the economy during the I-5 closure, including the effects of the closures of 65 other roads in the area. For details, see the Post Winter report on pages 10-14.

Truck parking at a rest area.

Truck Freight

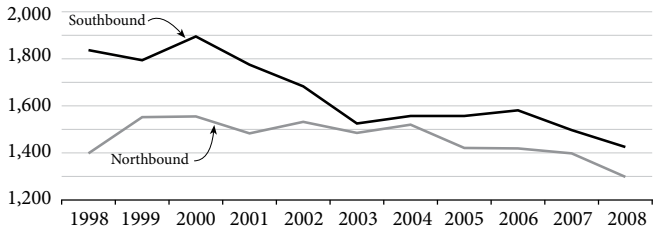
Truck crossings decrease approximately 6% at western Washington border crossings

At western Washington border crossings, which handle almost 80% of all cross-border trade along Washington's northern border, total truck traffic has doubled since 1990. The number of trucks crossing at these points decreased 6% from a combined average of 2,895 northbound and southbound trucks a day in 2007 to an average of 2,722 trucks a day in 2008.

For all Washington commercial truck crossings, the number of trucks entering Washington from Canada decreased 17% from 738,647 total truck crossings in 2007 to 612,061 total truck crossings in 2008. This decrease is likely due to the recent economic downturn.

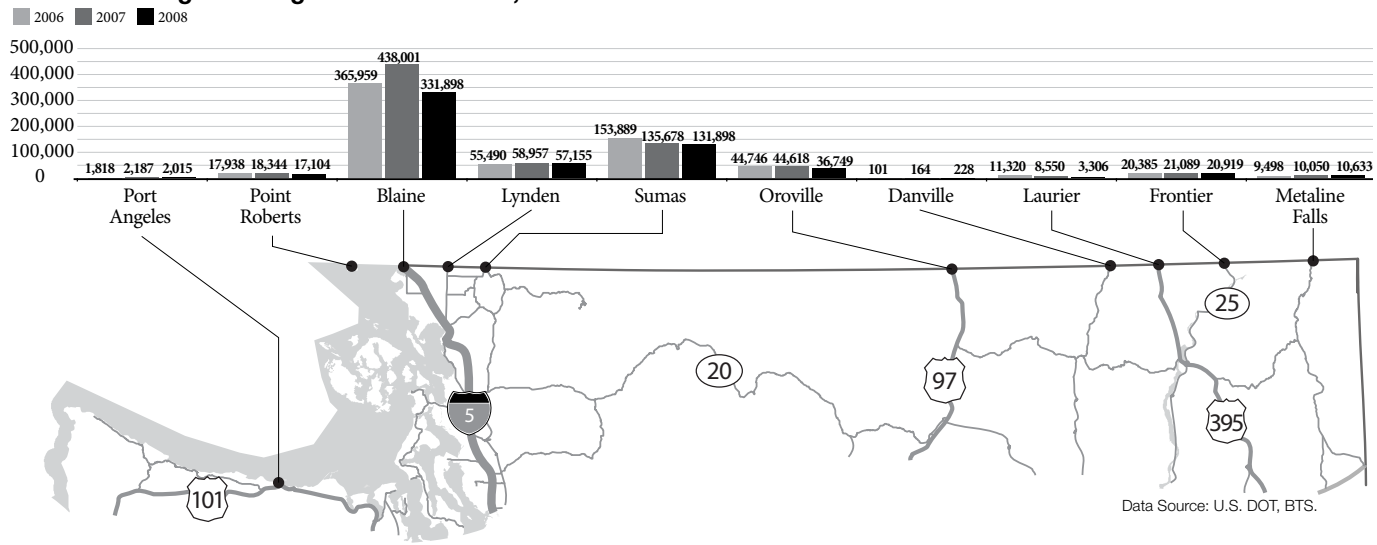
Western Washington truck border traffic

(Blaine, Lynden, and Sumas Crossings)
Average daily number of trucks



Data Source: U.S. Customs and Border Protection and Statistics Canada. Data compiled by Whatcom Council of Governments (2008).

Trucks entering Washington from Canada, 2006-2008



Data Source: U.S. DOT, BTS.

Sumas border crossing.

Freight-Related Projects and Reports

WSDOT is working with the freight community and freight-dependent businesses

WSDOT understands the role and importance of the transportation system for freight-dependent businesses and has developed targeted communications tools for reaching the freight community.

Messages are sent several times a week to provide road conditions, construction updates, overweight and flammable cargo restrictions, and information on safe and legal detours for trucks. The e-mail alert system provides reliable, robust, real-time information to communicate to the freight community which helps ensure safe and efficient mobility of freight. To sign up for freight alerts, go to: https://service.govdelivery.com/service/user.html?code=WADOT.

For more information, refer to Traveler Information, pp. 36-37.

WSDOT examines transportation system freight benefits

Proposed freight corridor classification system and freight data program to support freight investment decisions

For the last two years, WSDOT has been developing a draft state Freight Corridor Classification System and companion Freight Data Program to help state leaders and transportation professionals evaluate the economic importance of major freight corridors to Washington. Developed in close consultation with state and national partners, the Freight Data Program is the first proposal for an ongoing, systematic approach to collecting freight data across the state.

The combined Freight Corridor Classification Criteria and Freight Data and Analytic Program are planned as a ten-year phased program that is currently unfunded. Each component will provide stand-alone value to decision makers and transportation professionals.

WSDOT reports to the Legislature on freight project priorities and prioritization process

As directed by the Legislature, WSDOT submitted a report with the Freight Mobility Strategic Investment Board (FMSIB) to the Legislature and OFM in September 2008. The report describes the different and complementary roles of WSDOT and FMSIB in supporting freight-dependent industries in the state. It lists proposed freight projects and describes the analytic methodology used for selecting such projects. The report can be found online at: www.wsdot.wa.gov/freight.

Projects from 2003 and 2005 transportation packages now rated for level of freight benefit

WSDOT evaluated the level of freight benefit (high, medium, or low) incorporated in the 432 transportation projects – 102 of which were complete as of August 2008 – funded by the 2003 and 2005 transportation packages.

WSDOT has determined that more than 300 of these construction projects have high or medium freight benefits. The level of projected freight benefit was determined by examining:

- The 2007 Freight and Goods Transportation System (FGTS) classification, which is the state's method for designating strategic freight corridors.
- Problems identified by freight shippers and carriers through hundreds of one-on-one industry interviews conducted from 2004 to 2008, freight shipper and carrier focus groups, and surveys of truck companies in partnership with the Washington Trucking Associations.
- Problems identified in the Washington Transportation Plan Freight Report and the Highway Systems Plan.

The final list was vetted and approved by WSDOT Regional Administrators and the Washington Trucking Associations. It can be found online at: http://www.wsdot.wa.gov/Freight/publications/FreightProjects.htm.

Truck traveling a Washington State road.

Highway System Plan Update / Marine Freight

WSDOT incorporates freight needs and priorities into the Highway System Plan update

WSDOT produced the Highway System Plan Technical Update 2007-2026 in December 2008. The Highway System Plan (HSP), which is updated every two years, provides a comprehensive assessment of existing and projected 20-year deficiencies on Washington's highway system and lists potential solutions.

The HSP technical update includes an expanded focus on economic vitality and the freight transportation network. Recommendations include:

- New analytic methods to quantify the economic output associated with freight corridors.
- A state Freight Corridor Classification System and companion Freight Data Program.
- New high-priority and low-cost freight project proposals.
- A list of the 2009-2028 HSP projects and strategies with freight benefit for future evaluation.
- A list of highway projects in the 2003 and 2005 Legislative funding packages with high or medium freight benefit.

WSDOT compared performance gaps from the market analysis against currently programmed highway projects to identify the remaining high priority issues. WSDOT is working towards predicting future freight transportation network demand by assessing emerging strategic economic opportunities for freight-dependent industries, the probability of markets declining or remaining stable, and associated freight transportation needs.

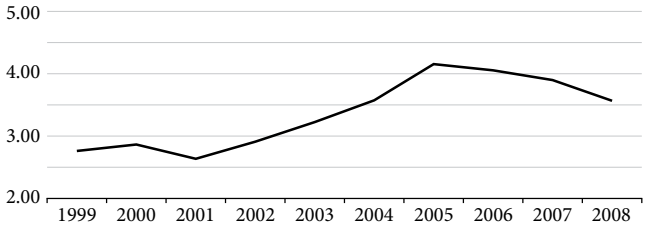
Port of Tacoma.

Container freight through Washington's seaports decreases from 2007 to 2008

The Central Puget Sound seaports, which include the Port of Seattle and Port of Tacoma, serve as gateways for international imports, handling 99.9% of the state's international container traffic. These two ports combined handled a total of 3.6 million TEUs (twenty-foot equivalent units: international and domestic) in 2008. Although container volumes were 8.5% lower in 2008 compared to 2007, a 2.9% average annual growth rate from 1999 to 2008 demonstrates a long-term upward growth trend. The recent decline in container volumes is likely due to the global economic downturn.

Waterborne container traffic: Port of Seattle Harbor and Port of Tacoma

Number of containers (TEUs: twenty foot equivalent units) in millions (full and empty, international and domestic)



Data Source: Port of Seattle and Port of Tacoma.

All seaport activity in Washington, measured by volume of freight handled in tons, increased from 2006 to 2007. Washington's seaports handled 124.0 million metric tons of freight in 2007, compared to 121.2 million metric tons in 2006. Due to processing time, 2008 is not yet available. Since 1999, freight tonnage handled at Washington's seaports has averaged an annual growth rate of 1.3%. Port activity continues to be especially strong for international goods imported in containers from the Pacific Rim. Most of these containers move east by rail to large consumer markets in the Midwest and East Coast. Seaport activity was especially strong in 2007 for goods exported in containers.

2009 Marine Cargo Forecast completed

WSDOT and the Washington Public Ports Association completed the 2009 Marine Cargo Forecast in March. The study forecasts the future marine cargo flows through the state's global gateway system and assesses the infrastructure needs at port terminals and the transportation system that serves the ports. According to the report, the quantity of international containers handled at Washington's seaports is projected to nearly triple from 2.9 million containers in 2007 to 9.7 million containers in 2030.

Trucks, Goods, & Freight Annual Report

Rail/Air Freight

Growth in rail freight is projected

Rail traffic continues to grow in Washington. The Association of American Railroads (AAR) report, based on STB Waybill data, shows that although shipments originating in Washington and moving within Washington have decreased slightly over the last two years, shipments terminating in Washington have grown considerably. Farm products continue to be the primary commodity terminating in Washington; the state led the nation in terminated rail freight of grain and other field crops.

Washington State rail freight by tonnage
2005–2007
Thousands of tons

	Rail tons originating in state	Rail tons terminating in state	Rail tons moving within / through state	Total rail freight	%Δ Total rail freight
2005	27,870	51,862	29,308	109,040	*
2006	26,228	56,860	29,290	112,378	+ 3.06%
2007	25,536	59,403	28,535	113,474	+ 0.98%

Source: Association of American Railroads.

* This data not available.

WSDOT completes rail benefit/impact methodology

The Legislature requires that WSDOT develop and implement the benefit/impact evaluation methodology recommended in the Statewide Rail Capacity and System Needs Study. WSDOT completed the development of the methodology while working with various stakeholder groups. This tool has been used to evaluate freight rail projects in Rail Bank and Rail Assistance programs. Upon legislative request, WSDOT also used this tool to assess benefit/impact of several state and local freight projects.

Freight rail plan development

WSDOT is developing a new freight rail plan to meet federal and state requirements. The plan will evaluate the conditions of current freight rail systems in Washington, including active, inactive, and preserved railroads. It will evaluate mainline capacity, port-to-rail access, congestion, and other current issues; identify rail traffic densities, commodity flows, and grade crossings; and document needs and related projects, providing further analysis of eligible projects for funding priority. The plan will also be an integral part of WSDOT's multimodal plan.

Air cargo volumes remain concentrated at a few Washington airports

In 2005, air cargo handled at Washington airports totaled 601,435 tons (including air freight and mail). Between 2004 and 2005, air cargo tonnage increased 18%, from 508,000 tons to 601,435 tons, marking the second consecutive year of growth in air cargo since 1999. Air cargo activity is concentrated at a small number of Washington airports: about 83% of all air freight tonnage is handled at the Seattle-Tacoma International Airport and Boeing Field/King County International Airport. Spokane International Airport, the third largest airport for air cargo tonnage, handled 16% of air cargo tonnage in 2005. At Seattle-Tacoma International Airport, where air cargo tonnage handled is reported annually, total tonnage decreased 9% from 2007 to 2008, from 319,013 in 2007 to 290,653 metric tons in 2008. This decline can be partially attributed to the weakening economy through 2008.

Washington's exporter and importer distribution facilities, logistics service providers, freight forwarders, and consolidators are concentrated in the South Puget Sound region. Shippers rely on this integrated network to deliver door-to-door service that is fast and reliable. Freight forwarders and consolidators must be able to consolidate multiple shipments to reduce shipping costs and obtain economies of scale. Sea-Tac and Boeing Field offer frequent flights to multiple destinations, established support networks, and strong local demand.

Washington's Long-Term Air Transportation Study forecasts continued growth of air cargo

In 2005, the Washington Legislature required WSDOT to implement a state aviation plan to determine long-term air transportation needs, as well as address needs related to air cargo. The first two phases of the study, called the Long-Term Air Transportation Study (LATS), are complete and the final phase is underway. For more information, see Aviation Annual Report on pages 41-43.

During Phase II of LATS, air cargo forecasts were developed for the top ten cargo airports in Washington based on 2005 air cargo volume. These ten airports handle 99.8% of all air cargo in the state. Overall, Washington's air freight volume is expected to grow at 3.5 percent per year through 2030, from approximately 600,000 tons in 2005 to 1,410,000 tons in 2030. This growth will occur across the freight and express categories, with mail remaining constant at about 61,000 tons.

Commercial Vehicle Information Systems & Networks (CVISN): Annual Report

As part of the Intelligent Transportation Systems program, the Commercial Vehicle Information Systems and Networks (CVISN) program allows known safe and legal carriers that are properly licensed to bypass weigh stations using transponders. CVISN has helped improve the efficiency, safety, and security of truck freight movement throughout Washington. CVISN uses weigh-in-motion scales to electronically screen trucks as they approach a weigh station. (For more information on how the scales work, please see the June 30, 2007, *Gray Notebook*, p. 79.) WSDOT and the Washington State Patrol (WSP) manage CVISN jointly, WSP by enforcing laws associated with the regulation and safety of commercial trucks, and WSDOT by developing, installing, and maintaining CVISN equipment and infrastructure.

Transponder-equipped trucks save time and money for industry

Pre-cleared trucks equipped with CVISN transponders received more than 843,000 green lights to bypass Washington weigh stations in 2008. This 6% decrease in number of green lights from 2007 is probably due to the overall drop in commercial vehicle traffic that has occured as a result of the economic downturn.

Estimated money and hours saved by the trucking industry through the use of CVISN transponders
Dollars in Millions

	2005	2006	2007	2008
Number of green lights	850,000	948,000	896,000	843,000
Hours of travel time saved	70,000	79,000	75,000	70,000
Amount of money saved*	$5.25	$5.9	$5.6	$5.25

Data Source: WSDOT CVISN Office and Washington Trucking Associations.

* The amount of money saved is a rough estimate based on the estimated cost of operating a commercial vehicle, $1.25 a minute.

For more information see the Freight Annual Report, pages 18-24.

WSDOT estimates that an average stop at a weigh station is five minutes. The Washington Trucking Associations estimate that the operating cost of a commercial vehicle is $1.25 a minute, based on a poll of private trucking companies. In 2008, the savings CVISN contributed to the trucking industry were about 70,000 hours of travel time and approximately $5 million.

Near real time updates of licensing infomation planned

WSDOT is currently working to achieve near real time (twice an hour) updates of truck registration and license information from the Department of Licensing to the computer systems at weigh stations. Currently, this information is received daily. More frequent updates will mean fewer delays for trucks that are properly licensed.

Number of trucks using CVISN transponders decreases slightly

In 2008, 18.3% of all trucks moving through the state had CVISN transponders, a 2.4% decrease from 2007. The percent of vehicles using transponders to bypass weigh stations also decreased slightly, from 81.5% in 2007 to 81.2% in 2008. This drop was due in part to fewer trucks on the road, likely as a result of the economic downturn. Another contributing factor may be the 27% increase in retail diesel prices between 2007 and 2008. The busy Everett weigh station continued to be out of commission throughout 2008

Trucks equipped with transponders, 2004 - 2008
Percentage of trucks with transponders and percentage of transponder-equipped trucks bypassing weigh stations

	Number of trucks with transponders	Percent with transponders	Percent bypassed stations
2008	1,072,507	18.34%	81.20%
2007	1,099,432	20.72%	81.50%
2006	1,155,255	20.24%	82.12%
2005	1,058,843	18.72%	81.83%
2004	915,486	13.33%	85.96%

Data Source: WSDOT CVISN Office.

CVISN Highlights

Trucks equipped with CVISN transponders received more than 843,000 green lights in 2008.

In 2008, CVISN saved the trucking industry in Washington an estimated $5 million.

WSDOT is working to coordinate near real time truck registration and license updates with the Department of Licensing to prevent truck delays.

The first Automatic License Plate Reader (ALPR) camera will be installed at the Fort Lewis weigh station by early fall 2009.

The ALPR system will read 80% of commercial vehicle license plates, enabling WSP to electronically screen four times more commercial vehicles.

due to replacement of the station's damaged CVISN roadside equipment; this continued to depress the percentage of trucks bypassing weigh stations.

License plate readers will help WSDOT and WSP move freight traffic more efficiently

In 2009, WSDOT and WSP will be implementing new technology – Automatic License Plate Readers (ALPRs) – to electronically screen commercial vehicles at weigh stations. An ALPR camera, mounted over the right lane of the freeway, can read the tractor's commercial vehicle license plates while the truck travels at freeway speeds. The ALPR transmits the license plate data to the computer inside the weigh station, where the truck's weight, size, registration, and safety records will be checked automatically. If the checks are satisfactory, the roadside Changeable Message Sign (CMS) will direct the driver to bypass the weigh station. If there is a problem with the vehicle or load, or if the ALPR cannot scan a plate because it is dirty, bent, or otherwise unreadable, the WSP could direct the vehicle into the weigh station.

The ALPR system is funded via a federal grant that specifies equipment be installed, tested, and accepted at one weigh station before being installed at any other CVISN-equipped weigh station. WSDOT will install the first ALPR camera at the Fort Lewis weigh station by early fall 2009.

Roughly 18% of commercial vehicles use transponders for electronic screening today. The ALPR system will read 80% of commercial vehicle license plates, enabling WSP officers to electronically screen four times more commercial vehicles than they do now. This will allow freight to travel more quickly, and allow WSP to focus on the trucks that are more likely to have problems. The ALPR technology will improve the safety, security, effectiveness, and productivity of roadside operations.

Fort Lewis weigh station, I-5 northbound.

Automatic Vehicle Identifier (AVI), weigh-in-motion scale (WIM), and camera, near Fort Lewis weigh station.

Special Report: The Economic Recession and Travel Demand

Economic Downturn Reduces Travel Demand in the Central Puget Sound

Travel times improved on major Puget Sound commute routes as economic conditions worsened

This is an analysis of patterns of travel times and vehicle volumes on freeways in the greater Seattle area during the second half of 2008 and the first two months of 2009. This report complements a previous study published in November 2008, concerning high fuel prices and improved travel times in the first half of 2008 (please see September 31, 2008, *Gray Notebook*, pages 12-16).

Rising unemployment and eroding consumer confidence have contributed to a continued overall decline in travel demand in the central Puget Sound, which in turn has led to improving travel times and decreasing vehicle volumes. WSDOT worked with the University of Washington's Transportation Center (TRAC) to conduct a preliminary study of the impacts of the economic downturn on a sample of 18 key commute routes across the central Puget Sound.

Travel trends 2008-2009

January-June 2008

- Due in part to high fuel prices, travel times improved by one to two minutes on eight of 18 key commutes, with 10 relatively unchanged.
- Peak period volumes grew despite high fuel costs; discretionary travel and daily volumes declined.

July-December 2008

- Economic conditions deteriorated in the central Puget Sound; fuel prices drop.
- Travel times improved between one and seven minutes on 15 of 18 key commutes, with three unchanged.
- Peak period volumes declined; discretionary travel continued to drop.

January-February 2009

- Based on preliminary data, travel times were consistently down on the 18 surveyed commute routes.
- Tukwila to Bellevue morning commute improved by 12 minutes in part due to new WSDOT auxiliary lane on I-405.
- Changes to peak period volumes mixed – some up and some down.

Travel times improved on 15 of 18 commute routes during the second half of 2008

Overall, travel times for the 18 major commute routes examined in this study were lower for most trips during the July-December 2008 time period. Compared to the same time period in 2007, 15 of the 18 trips had improved travel times, while the other three trips showed little or no change. This distribution is similar to the overall pattern of results from WSDOT's analysis of the first six months of 2008 vs. 2007, when eight of 18 trips had lower travel times and the other 10 trips had small or near-zero changes during a period of high fuel prices. However, the second half of the year showed a more pronounced shift toward faster travel times than was seen in the first half of the year.

Travel times improved in late 2008.

Travel conditions and the economic downturn

Travel times during peak periods improved on 15 of 18 surveyed commute routes during the second half of 2008.

Average commute times improved by one to seven minutes.

Overall, peak period traffic volumes declined during the second half of 2008.

Tukwila to Bellevue morning commute improved by 12 minutes during January and February 2009, in part due to new auxiliary lane on I-405.

Highway serious injury and fatality collisions decline as driving decreases, statewide and in the central Puget Sound.

Special Report: The Economic Recession and Travel Demand

July-December 2008: Travel Times Improved on 15 of 18 Commute Routes

The largest change in average travel times was on the Federal Way to Seattle commute during the AM peak period, which showed an estimated trip time improvement of seven minutes. A review of the Federal Way trip data indicates that 2007 was a culmination of several years of steadily increasing travel times. The more recent trend suggests that 2008 could be a year of transition. A review of travel times in successive months showed that 2007 monthly peak travel times were consistently higher than those in 2008.

Also notable were the Everett to Bellevue (AM) commute, the Bellevue to Everett (PM) commute, and the Everett to Seattle (AM) commute, each of which showed a six minute improvement in the average peak period travel time. A possible contributing factor to travel time changes on the two trips between Everett and Bellevue was the Kirkland Nickel Stage 1 project, which provided capacity and merging improvements on I-405 in the Kirkland area between NE 85th and NE 124th to help mitigate the "Kirkland Crawl." Stage 1 was completed in November 2007. In the case of the Everett to Seattle (AM) commute, some of this travel time improvement can be attributed to a higher number of outlier days with much higher than average travel times during the second half of 2007, compared to the same period in 2008.

Changes in average travel times during peak periods: July-December 2007 compared to 2008[1]

Travel times in minutes

		Average travel time			Volume change	
		2007	2008	Δ from 2007	Peak Period	Daily
Peak direction – Morning commutes						
I-5	Federal Way – Seattle	42	**35**	**-7**	+2.7%	-2.9%
I-5	Everett – Seattle	41	**36**	**-5**	+2.1%	-3.3%
I-405	Everett – Bellevue	42	**37**	**-5**	-1.8%	-4.9%
I-405	Tukwila – Bellevue	35	**33**	**-2**	-0.6%	-3.2%
SR 167	Auburn – Renton	17	**14**	**-3**	+6.2%	+1.2%
I-90	Bellevue – Seattle	14	**12**	**-2**	-2.5%	-3.4%
I-90	Seattle – Bellevue	14	**13**	**-1**	-5.0%	-4.9%
SR 520	Bellevue – Seattle	14	**13**	**-1**	-2.2%	-3.1%
SR 520	Seattle – Bellevue	16	**15**	**-1**	-3.4%	-3.9%
Peak direction – Evening commutes						
I-5	Seattle- Federal Way	31	**29**	**-2**	+0.6%	-3.7%
I-5	Seattle - Everett	38	**34**	**-4**	-0.5%	-4.3%
I-405	Bellevue - Everett	41	**35**	**-6**	+4.1%	-2.1%
I-405	Bellevue - Tukwila	31	**31**	0	-1.8%	-4.0%
SR 167	Renton - Auburn	16	**14**	**-2**	+2.3%	-6.7%
I-90	Bellevue - Seattle	22	**20**	**-2**	-2.6%	-3.4%
I-90	Seattle - Bellevue	13	**13**	0	-1.8%	-4.9%
SR 520	Bellevue - Seattle	23	**21**	**-2**	-1.9%	-3.1%
SR 520	Seattle - Bellevue	16	**16**	0	-1.8%	-3.9%

Source: Washington State Transportation Center (TRAC).

[1] Travel time and volume data for weekdays only; peak periods are 6-9 AM and 3-7 PM.

Peak period volumes declined during the second half of 2008

While trends can vary by the specific location chosen, the overall pattern of peak period vehicle volume change appears to have shifted significantly over the course of 2008. The first six months of 2008 saw a general trend toward higher peak period volumes compared with the first six months of 2007, with 10 of 14 trips showing volume growth between +0.5% to +5.5%. Increasing peak period volumes during the first half of 2008 had suggested that despite rising gas prices, employment growth was still influencing travel growth during that time period.

During the second half of 2008, however, volume trends moved noticeably in the other direction, with 12 of 18 sampled locations showing reduced volumes compared to the second half of 2007. Decreases in volumes ranged between -0.5% and -5.0%. The *Seattle to Bellevue* spot location on I-90 featured the largest volume drop (-5%).

While 12 of the sampled locations showed drops in peak period volumes, six locations showed volume growth during the second half of 2008. The largest change was on the SR 167 trip between *Auburn and Renton* (AM), which showed an estimated growth in volume of more than 6%. One factor which may have contributed to changing volume was the SR 167 HOT Lanes pilot project: it began construction in the second half of 2007, and was operationally complete in May 2008.

January-February 2009: Travel Times Consistently Down

Preliminary 2009 analysis: Average travel times down consistently in Jan-Feb

Preliminary data suggest that for the most part, travel time trends during the first two months of 2009 were consistent with those in the previous six-month comparison, but with less pronounced changes. However, unlike the July-December comparison, there were two trips in particular that showed relatively large increases in travel times: *Everett to Seattle* (AM), and *Everett to Bellevue* (AM). These trips both had travel time changes of +4 minutes. In both cases, this represented a noticeable change from the pattern of lower travel times in the previous six months. The limited two-month sample and the resulting susceptibility of average values to the effect of outlier days (such as those due to winter weather) make it difficult to determine the significance of this pattern until more data are analyzed.

The most notable improvements in travel times seen during the first two months of 2009 were *Federal Way to Seattle* (AM), and *Tukwila to Bellevue* (AM). The Federal Way trip time was seven minutes shorter than the year before, a continuation of the pattern seen for this trip during the second half of 2008. WSDOT ran multiple tests to confirm the reliability of the data for these two routes.

Tukwila to Bellevue morning commute improved by 12 minutes

This route improved by 12 minutes, in part due to completion of a new auxiliary lane on I-405. The *Tukwila to Bellevue* (AM) commute showed the greatest travel time reduction during the first two months of 2009, with average AM peak period times 12 minutes faster than the year before. The preliminary data suggest that an important contributor to this trip-time reduction was the completion of a supplementary lane near the I-90 interchange which opened in mid-January, 2009. Peak period travel times dropped noticeably immediately following the opening, and generally stayed at a lower level in the weeks following.

Changes to peak period volumes mixed for January–February 2009

The preliminary data from the first two months of 2009 showed a mix of trends concerning peak period volumes, with six locations showing decreases in volumes, 11 locations showing increases in volumes, and one location remaining unchanged. Most notable was *Tukwila to Bellevue* (AM), which saw vehicle volumes increase by as much as 23%, primarily due to improved throughput efficiency related to the completion of the auxiliary lane on I-405. *Bellevue to Everett* (PM) showed volume growth of just over 5%. *Federal Way to Seattle* (AM) had a volume increase of just over 4% (to go with a 7 minute drop in travel times), while the *Auburn to Renton* morning commute saw 4% volume growth (when adding GP plus HOV volumes). Trips with notable drops in volume were *Everett to Seattle* (AM), and *Everett to Bellevue* (PM), with -3% and -4% respectively (these two trips had the greatest increases in travel times as well).

Changes in average travel times during peak periods: January-February 2008 compared to 2009[1]

Travel times in minutes

		Average travel time			Volume changes	
		2008	2009	Δ from 2008	Peak Period	Daily
Peak direction – Morning commutes						
I-5	Federal Way – Seattle	40	**33**	**-7**	+4.3%	-0.1%
I-5	Everett – Seattle	37	**41**	+4	-3.1%	-1.5%
I-405	Everett – Bellevue	36	**40**	+4	-4.3%	-3.0%
I-405	Tukwila – Bellevue	35	**23**	**-12**	+22.9%	+3.9%
SR 167	Auburn – Renton	16	**15**	**-1**	+6.9%	+3.1%
I-90	Bellevue – Seattle	13	**13**	0	+0.1%	-0.2%
SR 520	Bellevue – Seattle	14	**14**	0	-1.0%	+0.6%
I-90	Seattle – Bellevue	14	**14**	0	-6.9%	-2.3%
SR 520	Seattle – Bellevue	17	**17**	0	-0.6%	-0.7%
Peak direction – Evening commutes						
I-5	Seattle- Federal Way	31	**29**	**-2**	+1.1%	-1.2%
I-5	Seattle - Everett	37	**36**	**-1**	0.0%	-1.3%
I-405	Bellevue - Everett	37	**34**	**-3**	+5.2%	+0.6%
I-405	Bellevue - Tukwila	29	**29**	0	+0.1%	-1.7%
SR 167	Renton - Auburn	14	**13**	**-1**	+0.4%	-3.7%
I-90	Bellevue - Seattle	18	**16**	**-2**	-1.9%	-0.2%
SR 520	Bellevue - Seattle	22	**20**	**-2**	+0.8%	+0.6%
I-90	Seattle - Bellevue	12	**13**	+1	+0.6%	-2.3%
SR 520	Seattle - Bellevue	16	**15**	**-1**	+0.7%	-0.7%

Source: Washington State Transportation Center (TRAC).

[1] Travel time and volume data for weekdays only; peak periods are 6-9 AM and 3-7 PM.

Special Report: The Economic Recession and Travel Demand

Economic Downturn Impacting Travel Conditions

Drops in daily vehicle volumes highlight continued decline in discretionary travel

Like peak period vehicle volumes, the overall pattern of daily vehicle volume change also appeared to shift over the course of 2008 at the selected spot locations. In January-June 2008, volumes were generally stable, with a marginal trend toward slightly lower volumes compared to the first six months of 2007, depending on the corridor. By the second half of 2008, however, daily volumes were almost universally lower on a year-to-year basis, regardless of corridor.

Nearly every location sampled showed a drop in volumes, ranging from -2.1% to -6.7%. The only exception to this pattern was the Auburn to Renton trip on SR 167, which showed a 1.2% increase in daily volume, although the AM peak period showed a 6.2% increase, which may be attributable to the construction of the HOT Lanes in 2007 as discussed earlier.

Preliminary data showed that the trend toward lower volumes continued during the first part of 2009. However, the rate of decline slowed at every location compared to July-December 2008. At some locations, volumes increased. Two locations showed a slight increase in volume, while two other locations had volume increases of over 3%. The Tukwila to Bellevue route on I-405 had a 3.9% volume increase, possibly associated with the opening of a supplementary lane near I-90, while the Auburn to Renton route on SR 167 had a 3.1% increase.

Volumes continue to decline statewide

Statewide, volumes continue to decline. According to monthly year-over-year comparisons, since December 2007, daily traffic volumes on state highways have declined each month with drops ranging from -0.3% and -4.2%. This excludes the drop in volumes related to the severe weather events seen in December 2008, which helped reduce volumes statewide by 15.7%. See the Post-Winter Report on pp. 10-14 for more about highway conditions this past winter.

Driving forces: Economic recession affects travel conditions

Unemployment rose sharply in the second half of 2008, reducing peak period travel demand

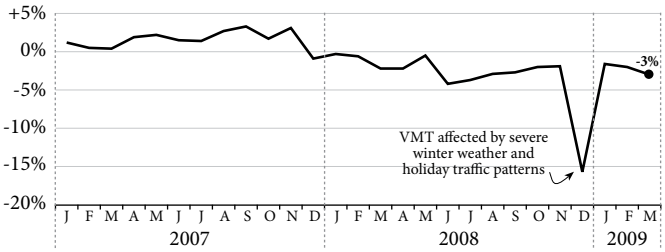
In the Seattle-Everett-Bellevue area, the size of the employed labor force grew from 1.35 million in January 2007, to 1.39 million in January 2008, then dropped to an estimated 1.36 million in January 2009. The average unemployment rate was at 4.3% at the beginning of 2007, and hovered near 4% (varying from 3.4% to 4.3%) until mid-2008, then rose sharply to 7.1% as of January 2009. The annual number of persons employed in the region dropped by approximately 34,000 during calendar year 2008.

Eroding consumer confidence likely contributing to declines in discretionary driving

A number of national consumer confidence indicators show a sharp deterioration in consumers' views of the economy. An ongoing weekly national survey suggests that consumer confidence has dropped significantly in the past year. The survey asks respondents three questions regarding the state of the national economy as well as their own personal finances. At the beginning of 2007, survey results were at a near-neutral level (the equivalent of a 50-50 split between respondents with positive vs. negative views about the economy); by January 2009, responses had reached an all-time 23-year low for the survey. An effect of this decrease in consumer confidence is reduced spending, which leads to less discretionary travel, and less freight travel to restock inventories or make deliveries.

Statewide vehicle miles traveled continues to decline

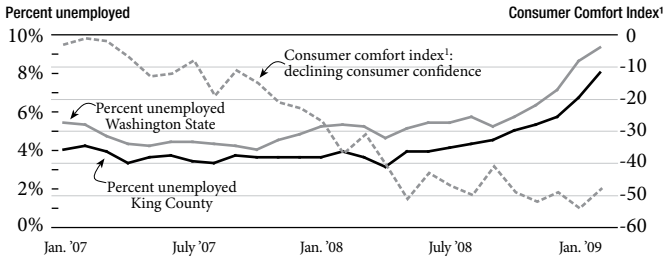
Monthly percent change in VMT compared to the previous year [1]



Data Source: Transportation Data Office.
[1] March 2009 is preliminary data.

Unemployment on the rise as consumer confidence declines

Monthly data, January 2007 – February 2009



Data Sources: Washington State Employment Security Department and ABC News-Washington Post Consumer Comfort Survey.
[1] Consumer comfort index ranges from +100 (100% of survey respondents with a positive view of the economy) to -100 (100% of survey respondents with a negative view of the economy).

Driving Forces: Fuel Prices, Transit Ridership, and Collisions

To go along with the decline in consumer confidence was the rapid decline in taxable retail sales during the second half of 2008. According to the Washington State Department of Revenue, taxable retail sales in King County dropped nearly 9% from July to December 2008, as compared to the same time period in 2007. By contrast, during the first half of 2008, taxable retail sales in King County increased by about 1% compared to the first six months of 2007. Statewide, taxable retail spending dropped roughly 8% during the second half of 2008 as compared to 2007.

Gas prices drop sharply following record high in 2008

Since the beginning of 2007, gas prices rose from $2.66 a gallon to a high of $4.35 a gallon in mid-2008, continuing a generally upward trend of the previous several years. During the second half of 2008, however, gas prices dropped to a low of $1.77 a gallon in December 2008, levels that had not been seen since January 2005. Prices rose again to $2.18 a gallon in early March 2009.

Considering the sharp drop in fuel prices during the second half of 2008, it appears reasonable that gas prices are no longer influencing driver behavior as they did in the first half of the year.

Transit ridership expands in the Puget Sound region

Sound Transit's Express Bus and Commuter Rail programs showed growth in their ridership during the second half of 2008. Boardings on Sound Transit buses went from approximately 5.5 million during the second half of 2007 to 6.6 million in the second half of 2008, an increase of 21%.

Sound Transit ridership grows by roughly 20%

July - December, 2007 and 2008

	2007	2008	Difference	% Δ
Express Bus	5,509,559	6,648,912	+1,139,353	+21%
Sounder Rail	1,183,070	1,408,513	+225,443	+19%

Source: Sound Transit.

Commuter rail, which runs from Tacoma-Seattle and Everett-Seattle, has grown from roughly 1.2 million to 1.4 million over the same period, a 19% increase. These increases continue the trend noted in the earlier report looking at the first six months of 2008.

Collisions continue to decline

Collisions declined around the state and in King County during the second half of 2008. A reduction in collisions, in addition to being a boon for public safety, also improves mobility on state highways. This drop in collision rates began in 2007 and accelerated in 2008. Statewide, collisions were down about 10% during the second half of 2008 as compared to the same time period in 2007. King County showed a drop of 8.2% in all collisions, and a drop of 6.0% for serious and fatal injury collisions, when comparing the second halves of 2007 and 2008.

Collisions declined in the second half of 2008

July - December, 2007 and 2008[1]

Fatal and serious injury collisions	2007	2008[1]	Difference	% Δ
Statewide	1,556	1,397	-159	-10.2%
King Co.	384	361	-23	-6.0%
All collisions	**2007**	**2008[1]**	**Difference**	**% Δ**
Statewide	68,045	61,218	-6,827	-10.0%
King Co.	22,693	20,830	-1,863	-8.2%

Data Source: WSDOT Transportation Data Office and Traffic Office.

[1] 2008 data is preliminary.

WSDOT continues to track changes to traffic conditions

WSDOT will continue to assess changes to Seattle-area travel conditions. The 2009 Congestion Report will analyze a full year of congestion data on a broad array of routes in the September 30, 2009, *Gray Notebook*.

Commute Options Annual Report

Managing Demand Through Commute Options

Commute Options Highlights:

- The goal of the Growth & Transportation Efficiency Centers (GTEC) program is to reduce 12,980 daily drive-alone trips and 103 million annual vehicle miles traveled by 2011.
- Within GTECs, employees commuting to work sites participating in Commute Trip Reduction (CTR) programs drove alone at a 22% lower rate than those to non-CTR participating work sites.
- Washington's vanpool program is one of the most successful in the U.S. with 2,610 vanpools in operation as of December 2008.
- In 2008, vanpooling resulted in a reduction of 8.4 million passenger trips, eliminating an estimated 203.3 million drive-alone miles.

Commute options help WSDOT manage demand as part of the *Moving Washington* program to fight congestion

As part of its *Moving Washington* initiative to fight congestion, WSDOT invests in and promotes a variety of strategies for managing demand on our highway system. Using strategies that increase the carrying capacity of the system—such as enabling greater use of high-occupancy vehicles, shifting trips out of rush hours, and eliminating the need for a trip altogether—helps WSDOT get the most out of the state's transportation investments.

Providing different commute options, apart from driving alone, is key to managing demand effectively. WSDOT's public transportation and transportation demand management programs help local agencies and businesses provide such options to commuters across the state, including Commute Trip Reduction (CTR), vanpools, Growth and Transportation Efficiency Centers (GTEC), among other programs.

Commute option strategies

WSDOT's goal for managing demand is to create an integrated state transportation system where innovative solutions are developed and implemented to maximize the efficiency and effectiveness of individual, community, and system-wide mobility. To achieve these goals, WSDOT has developed a series of transportation demand management and public transportation strategies that fall under five basic categories:

- *Expand* the availability of demand management programs and tools on key congested corridors (pp. 32-34).
- *Improve* the effectiveness of demand management programs and tools, and existing planning and grant programs that support intercity, rural, and special needs transportation (p. 35).
- *Promote* expansion of transit service in key congested corridors by developing and deploying transit planning tools (p. 35).
- *Continue* to work with state agencies, regional transportation planning organizations, and other partners to create a range of climate change mitigation options for transportation (p. 35).
- *Evaluate* and implement strategies to reduce WSDOT's greenhouse gas emissions (p. 35).

Performance measures that evaluate the effectiveness of a number of these strategies are under development and will be reported in future editions of the *Gray Notebook*.

Comparison of drive-alone rates

Commuters in Growth and Transportation Efficiency Centers: Employees commuting to commute trip reduction (CTR) participating worksites vs. those commuting to non-CTR participating worksites

	Commuters to Non-CTR Worksites	Commuters to CTR Worksites	Percent Difference
Bellevue	71%	59%	17%
Olympia	73%	75%	-3%
Seattle	41%	27%	35%
Spokane	79%	65%	18%
Tacoma	85%	79%	7%
Vancouver	88%	81%	8%
Total*	**59%**	**46%**	**22%**

Source: WSDOT Public Transportation Division.
*Total is weighted by number of employees.
Data Note: Redmond is not included in the table above because its GTEC is only collecting baseline data for CTR worksites.

Expand | Improve | Promote | Continue | Evaluate

Expanding the availability of demand management programs and tools on key congested corridors: Growth and Transportation Efficiency Centers

During the 2006 legislative session, the Legislature passed the Commute Trip Reduction (CTR) Efficiency Act based on recommendations from the CTR Task Force's 2005 Legislative report. To help expand the availability of demand management programs, Growth and Transportation Efficiency Centers (GTECs) became a part of the new law. A GTEC is a defined area of dense mixed land uses with major employers, small businesses and residential units, within an established urban growth area. GTECs serve as multi-modal hubs giving commuters a greater

Growth & Transportation Efficiency Centers Baseline Survey Results

variety of integrated transit options when commuting to and from the urban core of a city, whether they choose to use high-speed buses, vanpools, light rail, or other commute alternatives.

The GTEC program is part of the *Moving Washington* strategies for reducing traffic congestion by managing demand. The goal of the program is to provide greater access to employment and residential centers while decreasing the proportion of commuters driving alone during peak periods on the state highway system. The program also helps communities meet their local goals for growth and economic development, reduce their carbon footprint, and improve air quality and public health. In 2008, after completing a plan and successfully competing for state funds, seven cities around the state began implementing their GTECs.

The GTEC program is expected to reduce drive-alone vehicle trips by nearly 13,000 each day and annual vehicle miles traveled (VMT) by 103 million by 2011. About 212,000 employees who were not a part of CTR are now eligible to participate through GTECs. Statewide, about 570,000 employees are eligible for the CTR program. Together, the CTR and GTEC programs provide nearly 800,000 commuters with the opportunity to be a part of a commute options program.

Growth and Transportation Efficiency Centers baseline survey results show that a market for the program exists

The GTEC survey was conducted in 2008 to act as a baseline study to measure the performance of the program on a regular basis. The results from the initial baseline survey indicate that the market for the program exists. Looking at commutes within GTECs, employees commuting to CTR participating work sites drive alone at a 22% lower rate than employees commuting to non-CTR participating work sites. This means that there is room for the GTEC program participants to grow to catch up to the successes of the CTR participating employers in the same areas. As employees at the non-CTR employers within GTECs use new information and services (such as ride matching services, incentives to walk or bike, or subsidized transit passes) WSDOT expects the overall drive-alone rate in GTECs to decline.

Other survey results include:

- **Flexible Work Options**: The surveys indicated that very few (6%) of GTEC employees use telework on a weekly basis, but nearly 50% said they were likely to try the option if available. Respondents also indicated that 35% of them would be likely to try a compressed workweek if available.
- **Commute Times**: More than half (55%) indicated that their commute duration was unchanged in the last year, while 24% said their commute times increased; 45% of respondents in Bellevue indicated that commute times had increased from a year ago.
- **Travel Behavior**: The survey asked commuters about errands they ran before work, on their lunch break, and after work. Most respondents indicated that they ran the vast majority of their errands after work. Types of errands included:
    - Roughly 70% picked up groceries
    - 36% attended social events
    - 27% went to medical appointments
    - 12% picked up their children
- **Parking**: Over half (55%) of respondents indicated that they typically were able to park at their worksite or on the street for free. Fifteen percent said they paid for parking, but their employer reimbursed them. These figures represent significant barriers to demand management strategies and parking management will be a significant focus for the program.

Annual drive-alone trips at Growth and Transportation Efficiency Centers and reduction goals

	Baseline annual drive-alone trips	Annual drive-alone trips reduced by 2011*	% Reduction goal by 2011
Bellevue	5,251,724	-563,125	-10%
Olympia	1,262,201	-118,705	-10%
Seattle	11,649,924	-1,091,076	-10%
Spokane	3,729,857	-358,882	-10%
Tacoma	6,937,802	-663,339	-10%
Vancouver	1,837,783	-264,627	-14%
Total	**30,669,291**	**-3,059,754**	

Source: WSDOT Public Transportation Division.

*Reduction numbers based on expected employment in 2011; annual reductions by 2011 do not reflect a straight percent decrease from baseline data.

Data Note: Redmond is not included in the table above because its GTEC is only collecting baseline data for CTR worksites.

Annual vehicle miles traveled at Growth and Transportation Efficiency Centers and reduction goals

	Baseline annual VMT	Annual VMT reduction goal*	% Reduction goal by 2011
Bellevue	128,950,425	-19,526,417	-13%
Olympia	27,620,300	-3,668,315	-13%
Seattle	297,030,866	-39,507,298	-13%
Spokane	69,361,756	-9,424,891	-13%
Tacoma	160,354,040	-21,754,523	-13%
Vancouver	41,943,002	-7,972,417	-16%
Total	**725,260,388**	**-101,379,424**	

Source: WSDOT Public Transportation Division.

*Reduction numbers based on expected employment in 2011; annual reductions by 2011 do not reflect a straight percent decrease from baseline data.

Data Note: Redmond is not included in the table above because its GTEC is only collecting baseline data for CTR worksites.

Commute Options Annual Report

Vanpool Investment Program

Growth & Transportation Efficiency Centers: Strengthening the transportation and land use connection

The GTEC program provides incentives and tools to strengthen the transportation and land use connection. GTECs help guide local governments toward more effective land use policies, such as parking management, which in turn can produce longer-term benefits for congestion relief, air quality and greenhouse gas emissions, and economic development.

Growth & Transportation Efficiency Centers aim to cut vehicle miles traveled by at least 10%

Each funded GTEC is implementing strategies to reduce drive-alone commuting by at least 10% and VMT by at least 13%. These goals represent an initial step toward achieving the climate change VMT reduction goals set forth by the Legislature. More information on commute option strategies and programs that help reduce greenhouse gas emissions can be found on the next page.

If funding is provided, WSDOT plans to perform measurement surveys again in 2010 in each of the GTECs. The data will be compared to the benchmarks in 2008 to determine what progress each GTEC has made toward its established goals to reduce drive-alone trips and VMT.

Expand Improve Promote Continue Evaluate

Expanding demand management programs: Vanpool investment program targets congested corridors

The majority of vans purchased by WSDOT in 2007-2009 targeted congested urban areas. From January 2003 through the 2007-2009 biennium, WSDOT has purchased about 980 vans statewide, contributing to a statewide reduction of over 47 million gallons of gasoline over that period. In addition, the vanpool program's impact on emission reductions has exceeded 912 million pounds of carbon dioxide, and has saved participants over $124 million in gas costs versus drive alone miles since the state investment program began in 2003.

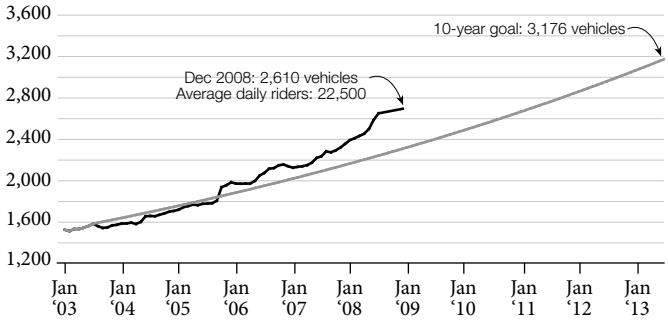
Public vanpools eliminated 203 million drive-alone miles statewide in 2008

With 2,610 vanpools in operation as of December 2008, Washington's vanpool program remains one of the largest and most successful in the U.S. The number of commuters in vans has increased to over 23,000 average daily riders, an increase of 82% since 2003.

In 2008, vanpools resulted in 8.4 million annual passenger trips, which eliminated an estimated 203.3 million annual drive-alone miles, conserved 10 million gallons of fuel over the year and reduced 180 million pounds of carbon dioxide emissions throughout the state (estimates based on VMT reduction averages).

Public vanpools operating in Washington

Number of vehicles in operation compared to 2013 goal trend line



Data Source: WSDOT Public Transportation Division.

Ben Franklin Transit vanpool fleet increases to 295

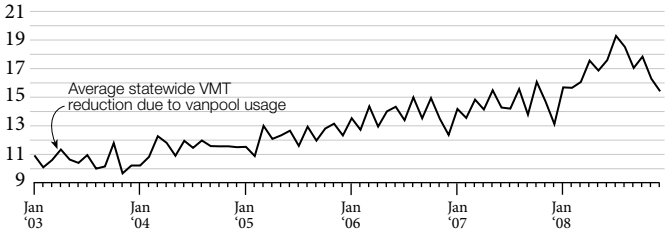
As of December 2008, 295 vanpools operated in Ben Franklin Transit's (BFT's) fleet representing an increase of over 152% since January of 2003. These vanpools serve customers over a five county radius, and 18 cities in Washington and Idaho. The program has demonstrated growth rates of 124% increase in passenger trips exceeding one million in 2008, 164% in total riders and 170% in VMT reductions since 2003. Overall, since 2003, BFT has contributed to the saving of over 5.4 million gallons of gasoline, 111 million vehicle miles traveled, and 103 million pounds of carbon dioxide emissions removed.

Intercity Transit vanpool program reduced vehicle miles traveled by 67.9 million miles since 2003

As of December 2008, Intercity Transit was operating 193 vanpools, an increase of 175% since January 2003. The 2003-08 VMT reduction was 67.9 million miles, with 3.3 million gallons of gasoline conserved, and 63 million pounds of carbon dioxide emissions reduced.

Average statewide vehicle miles traveled reduced due to vanpool usage

In millions



Data Source: WSDOT Public Transportation Division.

Strategic Direction and Future Performance Reporting

Expand **Improve** Promote Continue Evaluate

WSDOT is improving the effectiveness of demand management programs and tools

WSDOT will be conducting market assessments and developing plans and policies to integrate and improve the cost effectiveness of transportation demand management strategies, including commute and non-commute alternatives, park and ride lots, GTECs, flexible work schedules, telework programs, and vanpools. In addition, WSDOT will seek to improve the effectiveness of demand management programs through the following:

- Evaluating and redesigning the Rural Mobility Grants Program to support achievement of economic development and rural mobility goals.
- Evaluate and redesign the Intercity Bus program based on recommendations from Grants Program Accountability Committee, and modified policies for the 09-11 biennium. The Intercity study and plan have been completed and the first three routes have been awarded and are currently operating.
- The Center for Urban Transportation Research at the University of South Florida is conducting research on integrating demand management into transportation modeling. This will be used as a framework for modification to data collection in the CTR program. Initial research will be completed in June 2009.

Results of these efforts will be reported in future *Gray Notebooks*.

Expand Improve **Promote** Continue Evaluate

WSDOT is promoting the expansion of transit service in key congested corridors

WSDOT continues to promote the expansion of transit services in key congested corridors as part of the *Moving Washington* program to fight congestion. For instance, in 2007-2009 WSDOT in coordination with the Puget Sound Regional Council (PSRC) funded the development of a Transit Competitive Index and Sketch Planning Tool that provides a better understanding of transit markets within the Puget Sound region. These tools will help to evaluate the feasibility of expanding transit in key corridors.

Expand Improve Promote **Continue** Evaluate

WSDOT continues to work with state, regional, and local partners to target climate change

Apart from helping to fight congestion, expanding transit services along these corridors will help reduce emissions as well. WSDOT continues to work with other state agencies, regional transportation planning organizations, and other partners to create a range of climate change mitigation options for transportation. WSDOT is working with partners to identify and prioritize other potential strategies and actions to reduce greenhouse gas emissions across all transportation modes, and to better understand what the requirements are and what data is needed in order to begin reporting in 2010.

Expand Improve Promote Continue **Evaluate**

WSDOT is beginning to evaluate and implement strategies to reduce greenhouse gas emissions

In future editions of the *Gray Notebook*, WSDOT will be evaluating and monitoring strategies identified by state and regional partnerships to reduce VMT and GHG emissions. WSDOT is the co-lead and provides staff for the Climate Action Team's Transportation Implementation Workgroup. The CAT workgroup developed a report outlining a range of strategies to meet the state's vehicle miles traveled benchmarks and greenhouse gas reduction limits.

Targeting climate change by reducing vehicle miles traveled

In Washington, transportation accounts for 47% of the total greenhouse gas emissions (including emissions from cars, trucks, planes, and ships). In 2008, the Washington State Legislature established targets requiring the state to reduce VMT by 18% by 2020.

As stated earlier, each funded GTEC is implementing strategies to reduce drive-alone commuting by 10% and VMT by 13%. These goals represent an initial step toward achieving the goals set forth by the Legislature.

Programs like GTECs are in a good position to effectively respond to the Governor's climate change initiative. The state's 10 GTECs have set drive alone and VMT reduction goals which are more aggressive than those for CTR employers, and more aggressive than the new statutory VMT per capita reduction goals. By integrating business and residential development decision-making with mode split goals for transportation, the GTEC program can help centers with sizeable travel markets implement policies that reduce VMT per capita. As the program grows, there will be new opportunities to expand and support demand management and transportation-efficient land use policies along more of the state's key corridors.

Traveler Information Semi-Annual Update

5-1-1 Usage

Traveler information performance highlights:

- 5-1-1 during Winter 2008-09: 1.65 million calls.
- January 2009 experienced the highest-ever monthly calls to 5-1-1 (535,086 calls).
- Travel and traffic information website: 224 million page views total (1.2 million average per day).

WSDOT provides real-time traffic and travel information to the public through several systems: the 5-1-1 telephone information system, the Traffic and Travel Information website, online communication services such as Twitter, highway advisory radio broadcasts, and variable message signs. Using these tools, the public can access a broad range of products, from traffic camera images and road closure notifications to rest area locations and weather information. Because traveler information demand is overwhelmingly driven by weather-related events, WSDOT has moved this semi-annual performance report to correlate with the end of the winter and summer seasons.

Severe winter weather arrived later this season compared to last year, beginning in mid-December, with several back-to-back snow storms in both Eastern and Western Washington. The bad weather resulted in an increased number of incidents and multiple road closures around the state, and began a several week period of intense public demand for up-to-the-minute traveler information. In early January, a second major snowstorm hit the state, followed by warm weather and heavy rainfall which caused rapid snow melt and flooding. I-5 flooded between Centralia and Chehalis in Lewis County, closing the road for three days until waters receded. This occurred while the three major mountain passes were experiencing multi-day avalanche related closures, effectively cutting off highway access to the Puget Sound for a period of time. In total, there were more than 140 closures on roads around the state between mid-December and mid-January. See the Post-Winter Report on pages 10-14 for more information on 2008-09 winter weather conditions and WSDOT's response.

5-1-1 system experiences record call volumes this winter

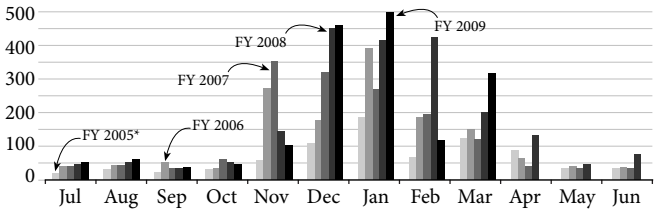
Updated every few minutes, the 5-1-1 system allows callers to access a variety of information such as mountain pass conditions, traffic conditions, ferry information, and contact numbers for airlines, local transit agencies, and passenger rail services.

Because of the multiple road closures and severe weather events, January 2009 experienced the highest-ever monthly number of calls to 5-1-1 (535,086 calls), and produced the four highest-volume call days in the 5-1-1 system's history. As soon as I-90 Snoqualmie Pass and I-5 in Chehalis were re-opened, call volumes dropped by over 80%. December 2008 recorded the second-highest monthly volume of calls. See the sidebar on the next page for more details on these high-volume call days.

Although December and January brought intense weather to Washington, unusually mild weather occurred during the months of November 2008 and February 2009, compared to the same months during the 2007-08 Winter. March 2009 experienced heavy call volumes, related to a series of late-season weather events. Overall, calls to 5-1-1 for October 2008-March 2009 were down by 8.5% over the same period in 2007-2008.

Total calls to travel information

In thousands, July 2005 – March 2009



Data Source: BCMS, WSDOT Traffic Office.

Data Note: Since January 2005, 1-800-ROAD and 206-DOT-HWY numbers have connected directly to 5-1-1 and are reported in 5-1-1 call total.

Website use peaks in December

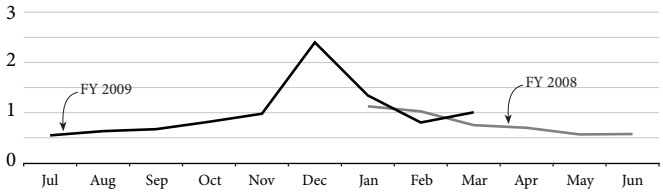
In January 2008, WSDOT began using a new tool to track website usage to provide a more accurate picture of how users interact with the site. The new tool counts page views alone, excluding camera image views and pages that automatically refresh. Because of the new system, data for

Website Usage

page views begins in 2008. Data published in the June 30, 2008, *Gray Notebook* was under-counted for monthly page visits due to a calculation error. This data has been recalculated and the corrected information is presented in this report.

The graph below shows a lull in website visits from spring through fall, rising with winter weather beginning in November, and peaking in December-January, when public interest in information about the mountain passes and road closures was at its highest.

WSDOT traffic and travel website: average daily page views
In millions



Data Source: WSDOT Communications Office.
Note: Traffic and travel data comes from the traffic, choices (commute and travel info), aviation webcams, ferries, ferries schedules, and ferry cams sections of the site.

WSDOT uses Twitter and other services to meet growing demand for traveler information

New communication services have allowed WSDOT to reach more people through varied means. Currently, WSDOT uses Twitter to provide instantaneous text message and online updates for travelers. WSDOT also posts photos to Flickr, videos to YouTube, and stories to the WSDOT blog, all to provide a more comprehensive story about how weather and other events are affecting the transportation system. Many people who contacted WSDOT after the storms described how much they appreciated connecting to their government on a more personal level via Twitter and the other electronic tools used by the agency.

Because Twitter users often have their account tied to their mobile phones, WSDOT not only able to provide updates to the Twitter audience but can use the community's input to learn about conditions in members' local areas. WSDOT received numerous reports via Twitter of conditions statewide, with photos accompanying many of those reports.

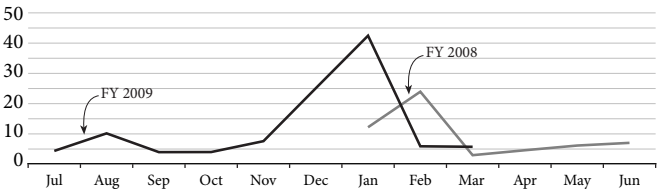
WSDOT maintains several accounts on Twitter, depending on individual interests. Travelers can get mountain-pass-specific updates, or traffic updates for Seattle or Tacoma.

From October 2008 through March 2009:

- WSDOT's YouTube account averaged nearly 900 views per day, with over 8,000 views on January 8, 2009.
- WSDOT's Flickr account had 841,828 views.
- WSDOT sent out over 2 million e-mails notifying travelers of road closures and conditions.
- WSDOT's Twitter Accounts have over 5,200 followers.[1]

[1] The term "followers" does not imply unique individuals. Some followers might be signed up for multiple accounts.

WSDOT blog page views
In thousands



Data Source: WSDOT Communications Office.

Five days with the highest one-day call volumes

The top five days for calls to 5-1-1 have all occurred within 2008 and 2009, for several reasons. First, in January and October 2008, WSDOT upgraded the computer and phone lines for 5-1-1, which expanded the capacity of the phone lines and allowed more callers to connect to the system at once. In addition, the 2008-2009 increases reflect both the growth in popularity of the 5-1-1 service and the impact of recent major weather events. Road closures, especially on the mountain passes, create an enormous demand for up-to-date information through the 5-1-1 system.

1. 1/8/2009 (64,405 calls): I-90 and U.S. 12 passes closed. I-5 closed in Lewis County due to flooding (mileposts 68 through 88). I-5 near Fife in Pierce County experienced flooding and a partial closure.

2. 1/1/2009 (56,161 calls): Three major mountain passes (I-90, U.S. 12, U.S. 2) closed for avalanche control.

3. 1/7/2009 (54,002 calls): All east-west mountain passes closed. I-5 closed in Lewis County due to flooding. Over 140 highway closures around the state.

4. 1/5/2009 (52,324 calls): I-90/Snoqualmie Pass closed for avalanche control and windy conditions. Several Eastern Washington highways closed for wind and snow.

5. 2/9/2008 (51,552 calls): I-90/Snoqualmie Pass closed for avalanche control. U.S. 12, U.S. 2 passes closed for heavy snowfall and avalanche risk.

Incident Response Quarterly Update

Average Clearance Times

Incident Response Highlights

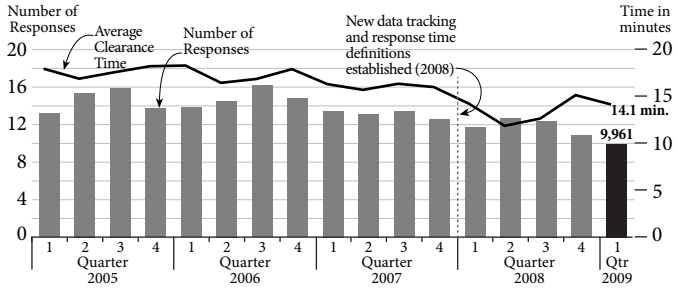
- The number of incidents cleared was down 7.8% to 9,961.
- The average response time improved 6.6% to 14.1 minutes.
- The over 90-minute clearance time average decreased to 153 minutes.

Number of incidents responded to by Incident Response
For calendar quarters, January 08-January 09

Quarter	# of incidents
Q1 2009	9,961
Q4 2008	10,843
Q3 2008	12,383
Q2 2008	12,707
Q1 2008	11,686

Source: WSDOT Traffic Office's Washington Incident Tracking System.

Number of responses and overall average clearance time
January 2005 - March 2009
Number of responses in thousands, clearance times in minutes



Data Source: Washington Incident ResponseTracking System, WSDOT Traffic Office.

Note: Program-wide data is available since January 2002. Prior to Q3 of 2003, the number of responses by IRT are shown. From Q3 2003 to Q2 2007, responses by Registered Tow Truck Operators and WSP Cadets have been reported in the total. From Q1 2002 to Q4 2007, Average Clearance Time do not include "Unable-to-Locate" (UTL) responses into calculation. Average number of responses does include UTLs, because this represents work performed on behalf of the Incident Response Program. In Q1 2008, WSDOT's Incident Response Program moved to a new database system and began calculating average clearance time in a different way. This accounts for the apparent decrease in the average clearance time value.

The mission of WSDOT's Incident Response (IR) program is to safely and quickly clear traffic incidents on state highways. A quick clearance minimizes congestion and dangerous traffic blockages that can lead to secondary collisions. IR roving units, which operate during peak traffic periods, also offer a variety of free assistance that reduces motorists' exposure to risk, such as providing fuel, jump starts, changing flat tires, and moving blocking vehicles safely off the roadway. IR units are trained and equipped to assist Washington State Patrol (WSP) troopers at collisions and other traffic emergencies. Available for call out 24 hours a day, seven days a week, IR units assist WSP with traffic control, mobile communications, clean-up, and other incident clearance functions as needed during major incidents. More information on the IR program can be found at www.wsdot.wa.gov/Operations/IncidentResponse/.

First quarter of 2009 clearance times are down 6.6%

In the first quarter of 2009, WSDOT's IR program cleared 9,961 incidents with an average clearance time of 14.1 minutes. This clearance time is down 6.6% from last quarter's clearance time of 15.1, and down .7% at 14.2 minutes from the first quarter of 2008. The number of incidents responded to is down 7.8% from last quarter's 10,803 incidents, and down 14.8% from the 11,868 incidents attended in the first quarter of 2008.

The first quarter total of 9,961 incidents is the lowest number of incidents attended by WSDOT since the IR program was expanded to its current capacity in the first quarter of 2003. WSDOT's Northwest and Olympic Regions account for the largest portions of this decrease. The Northwest Region, which includes Seattle and the northern Puget Sound, declined 10% compared to the first quarter of 2008, going from 7,733 responses to 6,924. The Olympic Region, which includes Tacoma, Olympia, and the Olympic Peninsula, declined 30% during the same time period, from 1,274 responses to 887. Statewide, the IR program is experiencing a drop in number of incidents since the second quarter of 2008.

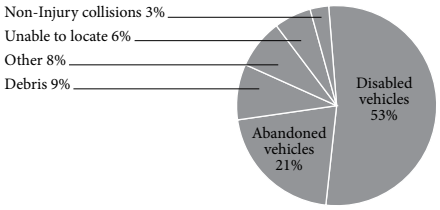
Traffic volumes, staff levels, fuel conservation, affecting number of responses

One reason suspected for this trend is decreased traffic volumes. Statewide traffic volumes declined 2.2% for first quarter of 2009, resulting in fewer vehicles on the road and likely fewer incidents overall. The drop in responses is also likely being affected by a combination of fluctuating staffing levels and responders' efforts to conserve fuel by reducing the amount of time they are in roving status. This policy began in the third quarter of 2008, when fuel prices were much higher, and has continued throughout the economic downturn and Washington state's revenue decrease (See the special report on the Economic Recession and Travel Demand on pp. 27-31). WSDOT's Olympic Region also lost one part-time responder this quarter, the Freeway Hero Mobile Assistance Van (MAV), which was a joint project between WSDOT and Mixx 96 FM, a local radio station. The MAV provided traffic reports for traveler information and offered some limited assistance to travelers with minor vehicle problems.

Over-90 Minute, Fatality, and Extraordinary Incidents

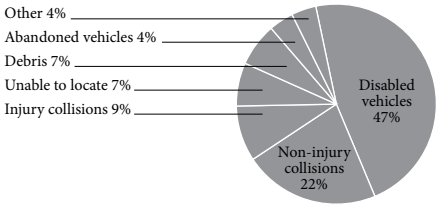
Incidents lasting less than 15 minutes (7,267)

Fatality, Injury and Police Activity were less than 1% (not shown). There were 12 Fires, 2 Hazardous Materials events involved incidents in addition to or as a result of above incidents. 19 incidents involved WSDOT property damage, and 275 were located in work zones.



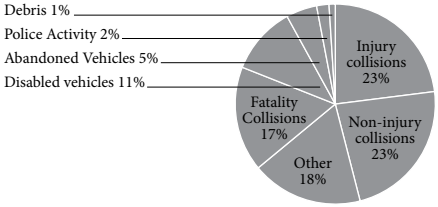
Incidents lasting 15 to 90 minutes (2,562)

Fatality and Police Activity were less than 1% (not shown). There were 95 Fire involved incidents as a result of above incidents. 114 incidents involved WSDOT property damage, and 176 were located in work zones.



Incidents lasting 90 minutes and longer (132)

There were 10 Hazardous Materials and 20 Fire involved incidents in addition to or as a result of above incidents. 51 incidents involved WSDOT property damage, and 6 were located in work zones.



Data Source: Washington State Patrol and WSDOT Traffic Office.

Weighted average based on monthly vehicle miles traveled (VMT)[1]

Showing change from the normal November traffic volume-plus

Month	Change in VMT compared to November
January	-1.6%
February	-2.0%
March	-3.0%
Average[1]	-2.2%

Data Source: Transportation Data Office, Permanent Traffic Recorder (PTR) Sites.

[1] The first quarter overall average change was obtained as an average of three-month weighted averages.

Data Note: Traffic Volume Trend is a weighted average of traffic volume changes among all reportable Permanent Traffic Recorder (PTR) sites. Weights are calculated proportional to the amount of monthly vehicle miles traveled (VMT, 2007) based on highway functional class and volume. Normal Traffic Volume is the expected level of volume for the month, which was forecasted by the average of the past three years of traffic volume. Unit of volume measurement is monthly average daily traffic (MADT). 2009 data is preliminary (unvalidated or partially validated) and it is subject to revisions.

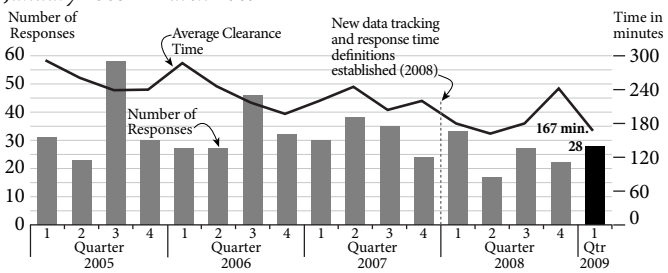
Fatality incident clearance times return to previous levels

In the first quarter of 2009, WSDOT's IR program attended to 28 fatality events around the state. The average clearance time of these 28 incidents was 167 minutes, down 31% from a peak of 242 minutes from the previous quarter. This value is in line with the 162-180 minute clearance time range from the first quarter through the third quarter of 2008.

WSDOT will continue to monitor this measure. It appears that the previous quarter was not the beginning of a trend towards higher fatality clearance times as previously thought.

Number of responses and average clearance time of fatality collisions

January 2005 – March 2009



Data Source: Washington Incident Tracking System, WSDOT Traffic Office.

Note: In Q1 2008, WSDOT's Incident Response Program moved to a new database system and began calculating average clearance time in a different way. This accounts for the apparent decrease in the average clearance time value.

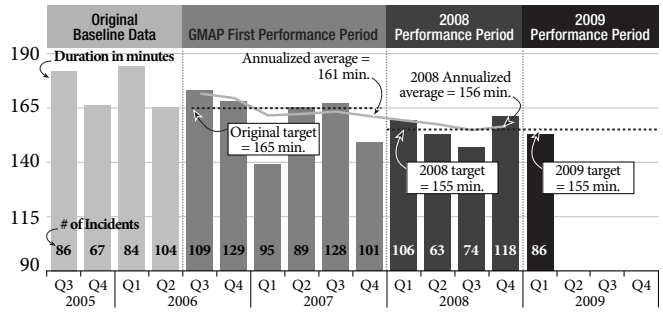
2009 begins with agencies achieving clearance time goal of under 155 minutes

The first quarter of 2009 was a difficult one, with several weather events stretching agency resources (see the Post-Winter Report on pp. 10-14). Despite the severe winter events, WSP and WSDOT are pleased to report a first-quarter average duration of 153 minutes for 86 incidents, which is below the 155-minute annualized average target.

Progress toward the goal for reducing average clearance time for over-90 minute incidents on nine key western Washington highway segments

July 2005 – March 2009

Average duration in minutes



Data Source: Washington State Patrol and WSDOT Traffic Office.

Incident Response Quarterly Update

Over-90 Minute, Fatality, and Extraordinary Incidents

The Governor's 90-minute-and-over Incident Response goal for WSDOT and WSP

In 2006, Governor Gregoire charged WSDOT and the WSP with reducing the average duration of 90-minute-and-longer blocking incidents on nine key highways in western Washington. WSDOT and WSP accepted that challenge and exceeded the 5% reduction goal at the end of 2007, coming in at 159 minutes. In 2008, the agencies agreed to a 7% reduction towards an average of 155 minutes, but missed that goal by one minute. The two agencies are working towards reaching the 155 minute goal in 2009.

Two extraordinary incidents in the first quarter

WSP and WSDOT experienced two extraordinary (six hours-and-over) incidents in the first quarter of 2009. The cause of the first incident was a partial semi-truck rollover; the second was a fatality with many complicating factors. Semi-truck rollovers and fatalities are common reasons for extraordinary incidents.

Extraordinary (six hours plus) incidents on nine key western Washington routes
First quarter of 2009, duration in minutes

Date	Duration	Location	Description
March 3	367	I-5, MP 65 (North Clark county)	Partial rollover of semi-truck carrying paper towels, with the truck coming to rest 30 feet off the road. Incident resulted in a fuel spill. A lane was closed to provide access for tow truck to remove the semi-truck.
March 28	509	512, 104th St. (East Pierce County)	A complex fatality collision resulting in a vehicle fire, responders searching vicinity for survivors, damage to WSDOT property, and a large amount of debris on the road. Further complicated by removal of the vehicle from a steep embankment alongside SR 512.

Source: Washington State Patrol and WSDOT Traffic Office.

Multiple-part closure incidents are part of traffic management strategy

Under some circumstances, WSP and WSDOT clear incidents from the road and return later to remove vehicles or debris from the shoulder, resulting in a multiple-stage incidents. It allows both agencies to relieve pressure on heavy traffic by re-opening lanes sooner, and is one of many strategies used in incident clearance to mitigate significant impacts to traffic.

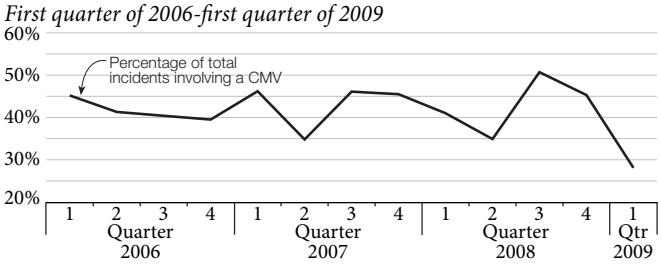
About once a quarter, WSP and WSDOT need to manage an over-90-minute incident with a multiple-part closure. On January 27 at 6:11 am, a car rolled over on SR 512 at Waller Road. The initial incident closed both westbound lanes for 68 minutes. WSDOT and WSP reopened the road for 45 minutes after clearing the wreckage to the shoulder, but when the tow arrived, they closed the road again for 40 minutes to remove the damaged vehicle. For data analysis purposes, this was considered a 108 minute closure: 68 minutes for the first part and 40 minutes for the second part, and was included in the Governor's over-90-minute incident response quarter average.

Proportion of incidents involving commercial motor vehicles drops

Typically, commercial motor vehicles (CMVs) have accounted for approximately 35%-50% of all over-90-minute incidents in a quarter for the nine key routes, averaging 43% for all incidents between 2006 and 2008.

This quarter, CMVs were only involved in 28% of over-90-minute incidents. Although complete data on CMV volumes is not yet available for the first quarter of 2009, WSDOT is able to use diesel tax revenues as one proxy (estimate) for CMV mileage, since the majority of diesel sales in Washington state are for CMVs. Diesel sales are down 67% compared to the first two months of 2007 and 15% with the first two months of 2008. Meanwhile, the trend of freight leaving major seaports is likely down as well, based on 2008 trends: the number of containers coming through the Seattle and Tacoma Ports is down 10% from 2007 to 2008.

Frequency of commercial motor vehicle involvements in over-90 minute incidents on nine key western Washington routes
First quarter of 2006-first quarter of 2009



Data Source: Washington State Patrol and WSDOT Traffic Office.

Airport Pavement Conditions and Projects

Washington State's aviation system provides a critical link between the local, state, national, and international transportation systems. With 138 public-use airports, the statewide system efficiently connects people to goods and services across municipal, state, and international boundaries. WSDOT is responsible for preserving the aviation system through airport aid grants, land-use planning, air search and rescue, and maintaining 17 backcountry emergency airports.

Preservation

77% of Washington's airport pavement infrastructure is in "good" or "fair" condition

In 2005, WSDOT completed a system-wide study of pavement (Airport Pavement Management System) to assess the existing condition of runways, taxiways and aprons. Ninety-six of Washington State's 139 public-use airports, located across the state, were included in the analysis, comparing a total of 113 million square feet. The 43 airports not included in the study are those with unpaved landing strips. Also excluded were Sea-Tac, Tri-Cities, Spokane, and Bellingham airports, which conduct their own pavement studies. The study also estimated the funding needed to maintain the system at an acceptable level.

As of 2005, 23% of Washington State's 113 million square feet of pavement infrastructure had deteriorated to "Poor" condition, a point where costly rehabilitation or even reconstruction is needed. The usable life of the remaining pavement can be prolonged with preventive maintenance actions such as crack sealing, joint sealing, and surface treatments. The cutoff level between a pavement that can be sustained through maintenance and one that will need major rehabilitation varies depending on the type of distress present and the rate of deterioration. Pavements generally require major rehabilitation with a Pavement Condition Index (PCI) rating of between 70 to 60.

The table below right presents pavements condition ratings as of 2005. The rating analysis is completed (typically) on a three year cycle, in support of WSDOT's Airport Pavement Management System and the Federal Aviation Administration's (FAA) National Plan of Integrated Airport Systems. Due to budget limitations, the FAA decided not to fund the statewide pavement management update, scheduled for 2008. The next scheduled survey is in 2010, and the condition of the statewide system of pavements will not be available to report until 2011.

Left: Airport pavement in "Good" condition.
Right: Airport pavement in "Poor" condition.

Airport pavement condition rating by type 2002-2005
Average pavement condition index (PCI) rating (out of 100), target =78

Pavement Type	2002	2005	Change
Overall System	73.12%	77.39%	+4.27
Runways	76.09%	80.22%	+4.13
Taxiways	72.34%	77.17%	+4.83
Aprons	71.07%	74.58%	+3.51

Data source: WSDOT Aviation.
Data note: Data is updated on a three year cycle, with the next evaluation cycle commencing in 2010. Ratings include state-managed public use airports with paved runways.

Aviation Highlights

77% of Washington's airport pavements are in good or fair condition based on the most recent survey, conducted in 2005.

The next statewide pavement condition assessment is planned for 2010.

WSDOT continues to target pavement rehabilitation projects for its grant funding, and awarded over $700,000 for 22 projects in 2009.

WSDOT has exceeded its aircraft registration goal for the sixth straight year, registering 5,705 aircraft so far in 2009.

WSDOT's search and rescue program was involved in 283 operations in 2008, a 30% increase over 2007.

Airport Pavement Conditions and Projects

WSDOT awarded $1.1 million towards airport improvement projects in 2008

In its second round of grants during the 2007-2009 biennium, WSDOT has targeted 69% of its grant awards to pavement projects. In this second round of grants, WSDOT awarded more than $1.1 million to 34 airports for 56 different projects. Of that $1.1 million, WSDOT is using approximately $477,000 to leverage $16.7 million in federal funds. Airports also contribute a required 2.5% local match to federal funds for their specific projects. The combination of state, federal, and local matching funds brings the program total for this round of grants to $18.8 million.

WSDOT's fiscal year 2009 aviation grants by funding source

Funding Source	Value
State	$1,127,996
Federal	$16,768,720
Local Match	$904,375
Total	**$18,801,091**

Data Source: WSDOT Aviation.

WSDOT's fiscal year 2009 aviation grants by category

Category	Number of Projects	Total Funds
Pavement	22	$781,030
Safety	10	$186,268
Maintenance, Planning & Other	7	$89,125
Security	12	$60,000
Runway Safety	5	$11,573
Total	**56**	**$1,127,996**

Data Source: WSDOT Aviation.

Consistent with other grant rounds, WSDOT focused most of its funds, $781,030, towards pavement projects. As revealed in the most recent Airport Pavement Management System report, 23% of Washington airport pavements have deteriorated to the point where costly reconstruction or even rehabilitation is needed. For the rest of the airport pavements, preventative maintenance is required to avoid such costly repair. Through its grant program, WSDOT aims to fund pavement projects that have the greatest benefit to the state's overall air transportation system.

Other WSDOT-funded projects are in the areas of safety, maintenance, planning, security, and runway safety. Overall, the 2009 grant program was able to fund 32% of requested projects ($1.1 million funded/$3.5 million requested), which includes 34 airports (76% of the total number of airports (45) that applied), and funded 69% of all proposed project (56 projects awarded funding/81 project applications).

In 2008, with the assistance of WSDOT's aviation grants, 13 pavement rehabilitation projects were completed, valued at over $14.5 million. Seventeen airport security projects were completed in 2008 with grant funding, valued at $74,750. And so far in 2009, six additional airport security grants were completed by March 31, 2009, valued at $34,500. A list of completed pavement, runway safety, and airport security projects is available online by going to www.wsdot.wa.gov/Accountability/Publications/PerformanceDocuments.htm#graynotebook.

WSDOT does not anticipate that a third round of grants will be offered this biennium, as has been the standard practice for the previous two biennia. The department will next solicit applications for the 2009-2011 biennium's first round of grants during April/May 2009.

2009 Anticipated airport pavement projects
WSDOT's local airport aid grant program 2009 - 2011 biennium

Airport sponsor	Project description	Value	Anticipated completion
Auburn Municipal Airport: City of Auburn	Taxiway alterations and improvements	$63,952.50	Dec-09
Grand Coulee Dam Airport: Grant County Port District Nº. 7	Access road relocation and taxiway construction	$13,158.00	Dec-09
Pullman-Moscow Regional Airport: City of Pullman	Taxiway & taxi-lane rehabilitation and access road paving	$12,216.00	Dec-09
Tonasket Municipal Airport: City of Tonasket	Crack and fog seal all paved surfaces and markings	$95,000.00	Dec-09
Waterville Municipal: Port of Douglas County	Taxiway reconstruction	$250,000.00	Dec-09

Data Source: WSDOT Aviation.

Aircraft Registrations, Search and Rescue Program

Aircraft registration program

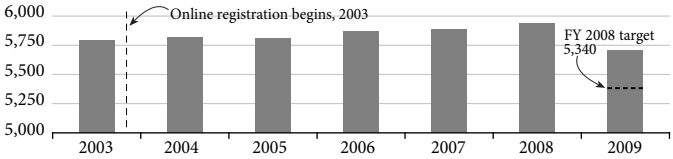
State law requires that all airworthy general aviation aircraft be registered with WSDOT. Aircraft registration fees directly support WSDOT's airport preservation, maintenance and improvement programs. Aircraft registration is due annually in January.

In 2003, the Legislature changed the law regarding aircraft registrations to include penalties for late registrations. WSDOT mails two reminder letters to each aircraft owner and attempts to contact individuals via email or telephone, if possible, as a final reminder before issuing penalties.

WSDOT continues to exceed aircraft registration goals

WSDOT ended the 2008 aircraft registration year with 5,933 active aircraft in need of registration. WSDOT's goal was to register at least 90% of active aircraft for FY 2009, or 5,340 aircraft. As of March 31, 2009, 5,705 aircraft (96% of active aircraft) have been registered to date, exceeding the goal well before the close of the fiscal year on June 30, 2009.

Number of aircraft registrations, 2003-2009



Data Source: WSDOT Aviation.

Over the last ten years, WSDOT has slowly increased aircraft registration numbers, and continues to work hard at increasing them further. Registrations increased nearly 23% in 2003 over 2002 totals when WSDOT introduced its online registration payment system. Since November 2005, WSDOT has also devoted efforts to ensuring its registration database is updated and accurate. The division has sent letters to every aircraft owner in its registration database, as well as to those that are new to the FAA database, to determine the status of their aircraft and urge them to either file an exemption or register with WSDOT.

Search and rescue

The mission of WSDOT's Air Search/Aviation Emergency Services program is to aid individuals who are in distress. WSDOT is tasked with the responsibility of managing all air search and rescue operations within the state as well as coordinating the use of aviation assets for disaster relief efforts. This is accomplished by the close coordination of all available resources including the Civil Air Patrol, Washington Air Search and Rescue, and other agencies like the Washington Emergency Management Division, Washington State Patrol and county Sheriff's offices. This program is staffed by a volunteer force consisting of pilots and non-pilots who are trained and certified by WSDOT.

WSDOT 2008 search and rescue operations

Type of response	Number of responses
Emergency locator transmitters	183
Full scale search and rescue missions	0
Overdue aircraft	5
Aircraft accidents	60
Fatality responses	19
Total incidents	**283**

Data Source: WSDOT Aviation.

Long-Term Aviation Study (LATS) examines capacity and future demand

In 2005, the Legislature authorized a long-term air transportation planning study for the state's general aviation and commercial airports. The LATS's purpose is to understand what capacity currently exists in aviation facilities and what will be needed to meet future demand for air transportation.

Since the March 31, 2008, *Gray Notebook*, Governor Gregoire appointed a 10-member Aviation Planning Council. The Council's purpose is to use LATS Phases I and II findings, and include public input, to determine:

- How best to meet commercial and general aviation capacity needs;
- Which regions of the state are in need of improvement regarding the matching of existing or projected airport facilities and the long-range capacity needs at airports within the region expected to reach capacity before 2030;
- Recommendations regarding the placement of future commercial or general aviation facilities to meet the need for improved aviation planning in the region.

Final recommendations are due to the Governor, Legislature, Transportation Commission, and regional transportation planning organizations by July 1, 2009. More information about LATS is available at: www.wsdot.wa.gov/aviation/LATS.

Washington State Ferries Quarterly Update

Ridership and Farebox Revenue

Washington State Ferries Highlights

- Ridership was 4.5% below expected levels for fiscal quarter three.
- Farebox revenue was 4.6% below projected levels for fiscal quarter three.
- The system-wide on-time performance average improved to 96.7%, vs. 94% one year ago.
- The system-wide average sailing delay was 2.5 minutes, vs. 3.3 minutes one year ago.
- Overall trip reliability improved to 99.6% of scheduled trips completed, vs. 98.4% one year ago.
- The average number of 'missed trips' was 1.7, per year vs. 6.5 one year ago.
- Customer complaints increased to an average of 3.1 per 100,000 riders.

Washington State Ferries (WSF) serves as both an extension of the state's highway system and as a regional mass-transit provider. It provides a critical link to communities separated by water or longer driving distances, and is essential to the movement of goods and people in the Puget Sound region. It is the largest operating auto-ferry fleet in the world, carrying over 10 million vehicles and 23 million passengers each year.

Ridership levels remain below projected levels

For the third fiscal quarter, 4.8 million people traveled on the ferry system. For this quarter, WSF ridership was 4.5% below projected levels, or 226,496 fewer riders. Generally, the decline in ridership levels reflects the current national trends of reduced discretionary travel. The gap in projected vs. actual ridership increased consistently during the quarter, with 35,000 fewer riders in January than projected, and 112,000 fewer riders in March. Until the regional economy improves, WSF expects that ridership will continue to lag behind projected levels.

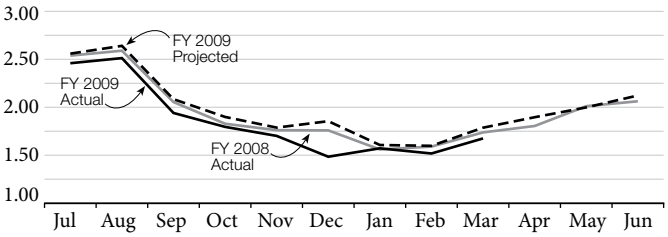
Farebox revenue below projections for second consecutive quarter

Mirroring ridership trends, WSF farebox revenue was 4.6% below projected levels for the quarter, or $1,318,952 less then expected. Year-to-date WSF farebox revenue is 2.2% below projected levels, or $2,453,401 less then expected. As compared to the same quarter one year ago, WSF farebox revenue is 2.7% lower. As with ridership, it is expected farebox revenue will continue to lag behind projected levels until the regional economy improves.

The ferry system had a 99.6% overall service reliability rating for the quarter, despite challenging winter operational conditions.

Ferries ridership by month

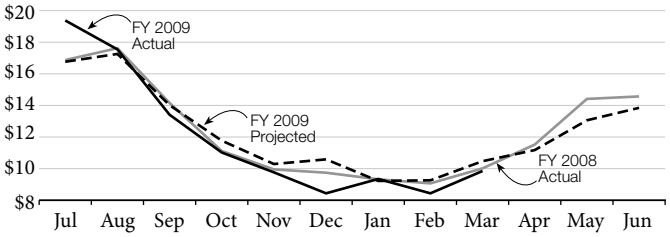
Actual ridership vs. projected ridership for fiscal year 2009
Ridership in millions



Data Source: WSDOT Ferry System.

Ferries farebox revenues by month

Actual revenues vs. projected revenue for fiscal year 2009
Dollars in millions



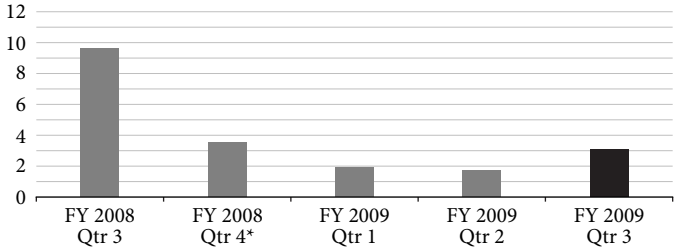
Data Source: WSDOT Ferry System.

Customer Feedback

Customer complaint rate increases for first time in three quarters

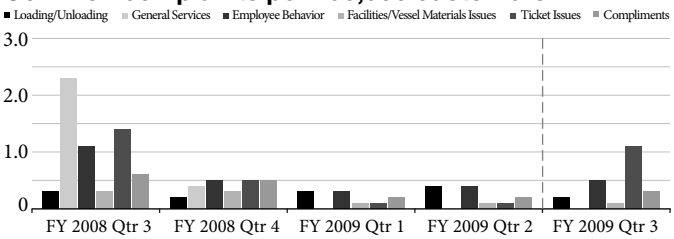
After three consecutive quarters of declining rates of customer complaints, the rate of complaints in the third fiscal quarter increased to 3.1 complaints per 100,000 riders compared to the previous quarter, which had 1.7 complaints per 100,000 riders (an increase of 1.4 complaints). However, customer complaints during the quarter were 66% fewer than the historical high rate of 9.6 complaints per 100,000 riders in the third quarter of FY 2008. Complaints related to ticketing issues were relatively high during the quarter (53 complaints), the cause for the increase is believed to be related to additional steps taken to verify eligibility for discounted fares and to the discontinuation of accepting checks as payment for ferry fare media.

Average number of complaints per 100,000 customers



Data Source: WSDOT Ferry System.
* Data Note: Beginning FY 2008 Quarter 4, WSDOT added four new complaint categories to its inventory. They are Advertising, Vendors, Noise, and Reservations.

Common complaints per 100,000 customers

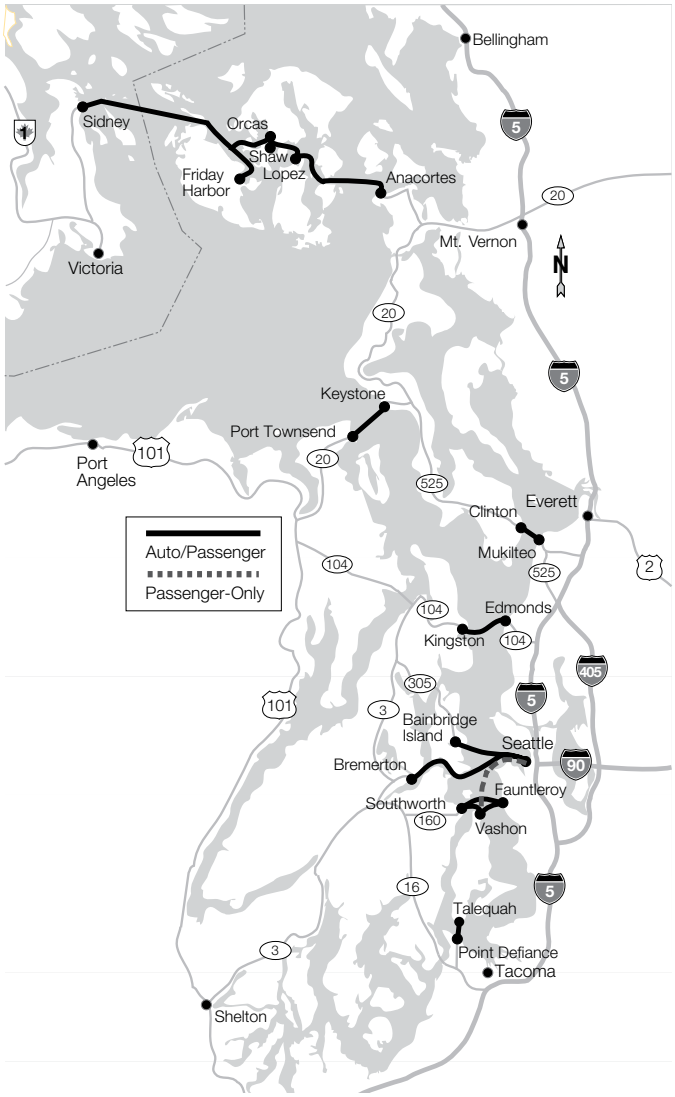


Data Source: WSDOT Ferry System.

WSF's customer complaint methodology

WSF monitors customer complaints, comments, and compliments in order to evaluate its services within 30 categories. The department uses a quality ratio to measure the number of service complaints per 100,000 customers. This measure is used to make accurate performance comparisons over time and against other transportation service providers.

Washington State Ferries Route Map



Jumbo Mark II class ferry M/V Tacoma with the snow-capped Olympic mountain range in the background.

Washington State Ferries Quarterly Update

Service Reliability

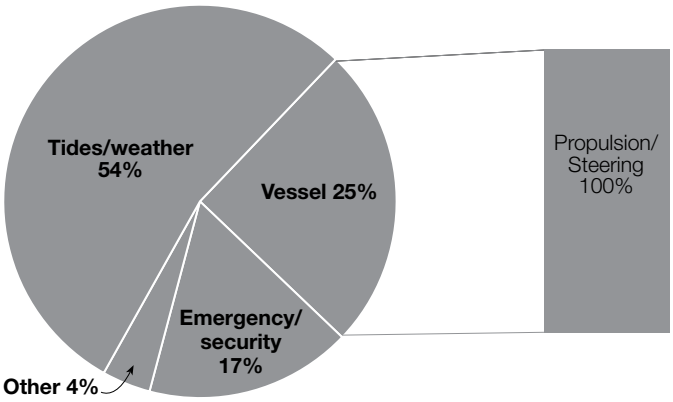
Number of missed trips decreases from the previous quarter

The 'missed trip reliability' average for the third fiscal quarter was 1.7 missed trips a year, an improvement of 4.8 fewer missed trips a year over the same quarter one year ago. Last year, the system averaged 6.5 missed trips annually, as a result of significant service disruptions on the Southworth-Vashon-Fauntelroy and Pt. Defiance-Tahlequah ferry routes.

WSF's missed trip index measures trip reliability averages, and is annualized based on quarterly data, assuming 400 trips a year for each commuter. In the third quarter of FY 2009, 38,863 sailing trips were scheduled. Of those trips, 179 were canceled and 14 were replaced, resulting in a total of 38,698 trips during the quarter (38,863 scheduled trips – 179 cancelled trips + 14 replacement trips = 38,698 net trips).

The ferry system had a 99.6% overall service reliability rating for the quarter, despite challenging maritime conditions that occur during the winter. The operationally-difficult Port Townsend-Keystone route posted a missed trip reliability average of 20.1, a 5% improvement from last year during the same quarter, and a 24% improvement over the previous quarter (annualized average of 26.4 missed trips). The Port Townsend–Keystone route encounters some of the strongest tidal conditions in Puget Sound in addition to the challenging weather conditions (heavy fog and wind) that can overcome the operational abilities of the smaller M/V *Steilacoom II* ferry that has been operating on this route. The M/V *Steilacoom II* was leased from Pierce County shortly after the Steel Electric vessel class was pulled from service due to safety concerns in November, 2007. The M/V *Steilacoom II* is scheduled to be leased for use on this route through FY 2010 (June 30, 2010), when the first 64-auto class ferry is scheduled to be delivered for service (see page 16 for more information).

Reasons for trip cancellations
January-March, Q3 of 2009 FY



Data Source: WSDOT Ferry System.

Missed-trip reliability comparison

	January-March, Q3 of 2008 FY			January-March, Q3 of 2009 FY		
Route	**Number of missed trips[1]**	**Missed trip index (average)[2]**	**Overall reliability average[3]**	**Number of missed trips[1]**	**Missed trip index (average)[2]**	**Overall reliability average[3]**
San Juan Domestic	3	0.2	99.9%	18	1.2	99.7%
International Route (Sidney, BC)	0	0.0	100%	0	0.0	100%
Edmonds - Kingston	5	0.4	99.9%	0	0.0	100%
Seattle - Vashon (Passenger Only)	0	0.0	100%	0	0.0	100%
Fauntleroy - Vashon - Southworth	304	12.7	96.9%	19	0.8	99.8%
Keystone - Port Townsend	91	21.2	94.9%	86	20.1	95.2%
Mukilteo - Clinton	21	1.3	99.7%	3	0.2	99.9%
Pt. Defiance - Tahlequah	184	25.3	94.1%	13	1.7	99.6%
Seattle - Bainbridge Island	0	0.0	100%	9	0.9	99.8%
Seattle - Bremerton	22	3.5	99.1%	17	2.7	99.3%
TOTAL	**630**	**6.5**	**98.4%**	**217**	**1.7**	**99.6%**

Data Source: WSDOT Ferry System.
[1] 'Number of missed trips' is the difference (net) between the number of cancelled trips and the number of replaced trips.
[2] 'Missed trip index' is based on the number of missed trips per year for one commuter making 400 trips per year, including a departure and return trip on the same day, or 200 days per year. In previous editions of the *Gray Notebook*, this measure was referred to as the 'trip reliability index'.
[3] The overall reliability average is calculated by dividing the recorded number of net trips (scheduled trips - cancelled trips + make-up trips) divided by the number of scheduled trips.

Service Reliability

On-time performance improves for second consecutive quarter

WSF's system-wide on-time performance rating for the third fiscal quarter improved 2.9% from the same quarter one year ago, and a 1.5% improvement over the previous quarter. The average sailing delay improved 24% for the third fiscal quarter, with 2.5 minutes average delay past the 'scheduled sailing window' compared with 3.3 minutes one year ago. Performance improved 10.7% over the second quarter as well, during which the average delay was 2.8 minutes.

A trip is considered delayed when a vessel does not leave the terminal within 10 minutes of the scheduled departure time. The average delay is the (quarterly average of) time experienced 10 minutes after the departure time. WSF calculates its on-time performance rating using an automated tracking system on each of its terminals that records when a vessel leaves the dock. If a vessel is recorded as leaving the dock within 10 minutes of the scheduled departure time, then the trip is considered 'on-time'.

WSF's on-time performance rating is calculated on the number of trips recorded by its automated tracking system; however, marine and atmospheric conditions may prevent all trips from being detected when a vessel leaves a terminal. This quarter's system-wide on-time performance rating and average sailing delay does not include completed trips on the Port Townsend-Keystone route. The leased vessel from the Pierce County ferry system is not equipped with an automated tracking system to report on-time performance.

How does WSDOT evaluate performance?

Several variables can affect the analysis of WSF quarterly performance measures in the *Gray Notebook*. For example, for some measures, WSDOT compares quarter-to-quarter to determine WSF performance, and for others, year-to-year performance.

Why different comparison standards?

When weather or sailing conditions might contribute to the performance of WSF, WSDOT will typically measure performance year-to-year. This way, a winter season is not compared to a summer season when there are a greater number of sailings but much less dramatic weather conditions. Where these conditions matter less, WSDOT will primarily compare quarter-to-quarter.

Thus, most service reliability measures (on-time performance, missed-trip index) are measured year to year. As a reference point, WSDOT will include the previous quarter's performance rating where it has historically been given.

For other measures, such as customer comments, WSDOT will perform quarter-to-quarter comparisons to evaluate trends over the course of a fiscal biennium.

On-time performance comparison

	January-March, Q3 of 2008 FY			January-March, Q3 of 2009 FY		
Route	Number of actual trips[1]	Percentage of trips 'on-time'[2]	Average delay from scheduled sailing time[3]	Number of actual trips[1]	Percentage of trips 'on-time'[2]	Average delay from scheduled sailing time[3]
San Juan Domestic	5154	92%	3.3 minutes	5,872	94.1%	2.6 minutes
International Route (Sidney, BC)	12	100%	0.9 minutes	8	87.5%	4.5 minutes
Edmonds - Kingston	4,359	96%	2.9 minutes	4,493	95.9%	3.0 minutes
Seattle - Vashon (Passenger Only)	231	89%	3.4 minutes	222	96.4%	3.1 minutes
Fauntleroy - Vashon - Southworth	7,716	92%	3.8 minutes	9,693	97.1%	2.6 minutes
Keystone - Port Townsend	98	22%	28.7 minutes	N/A[4]	N/A[4]	N/A[4]
Mukilteo - Clinton	6,238	99%	2.0 minutes	6,429	98.2%	2.1 minutes
Pt. Defiance - Tahlequah	2,749	96%	3.0 minutes	1,162	97.7%	2.8 minutes
Seattle-Bainbridge Island	3,957	98%	1.5 minutes	3,936	97.8%	1.3 minutes
Seattle - Bremerton	2,239	92%	3.9 minutes	2,473	96.1%	3.2 minutes
TOTAL	**32,743**	**94%**	**3.3 minutes**	**34,288**	**96.7%**	**2.5 minutes**

Data Source: WSDOT Ferry System.
[1]Number of actual trips represents trips detected by the automated tracking system. It does not count all completed trips during the quarter.
[2]The 'Percentage of trips on-time' category is rounded to the nearest (whole) percentage point for this table.
[3]The 'Average delay from the scheduled sailing time' is the duration between the 10 minute "window" and when a vessel is detected as leaving the terminal.
[4]The Port Townsend - Keystone route is currently being serviced by a non-WSDOT ferry system vessel on loan from Pierce County. It is not equipped with the automated tracking system and can not report on-time performance.

Rail
Quarterly Update

Amtrak *Cascades*

Rail Performance Highlights:

- There were 150,112 Amtrak *Cascades* riders in the first quarter of 2009, which represents a 9% decrease over the same period in 2008.
- On-time performance for Amtrak *Cascades* trains was 66.3% this quarter—an 8.7% increase when compared to the same period in 2008.
- There were 317 carloads shipped via the Grain Train in the first quarter of 2009 compared to 345 in the first quarter of 2008.
- The utilization rate of the Produce Rail Car Program has increased from 38% in 2006, when the program began, to 65% as of 2008.

The economic vitality of Washington State requires a strong rail system capable of providing its businesses, ports, and farms with competitive access to North American and international markets. WSDOT is responsible for managing and directing the state's capital freight and passenger rail programs, which includes Amtrak *Cascades* passenger rail, the Washington State Grain Train, the Produce Rail Car program, and freight rail grant and loan programs. For more information on rail freight please see page 24.

State-supported Amtrak *Cascades*

Washington is one of 13 states to provide operating funds to Amtrak for intercity passenger rail service. Amtrak *Cascades* train operations span 466 miles of rail between Eugene, Oregon and Vancouver, BC. Amtrak uses five European-designed, Talgo trains for daily operations. Three are owned by Washington, and the other two are owned by Amtrak.

Amtrak *Cascades* service is jointly funded by Amtrak, and the states of Washington and Oregon. Amtrak provides operating funds for one daily round trip route, Oregon provides for two routes, and Washington, through WSDOT, provides for four round trips.

WSDOT completed Amtrak *Cascades* Mid-Range Plan with scalability for funding opportunities

WSDOT has recently completed the Amtrak *Cascades* Mid-Range Plan requested by the state legislature. The plan has identifies four investment options for increasing Amtrak *Cascades* services under different scenarios of funding opportunities for the next eight years. The plan provides detailed analysis about infrastructure improvement and on-time-performance enhancement. The detailed cost benefit analysis for four funding options provides the state policy makers information for various budget scenarios. This plan, together with the Long-Range Plan released in 2006, has positioned Washington State for better opportunities for federal stimulus funds for high-speed passenger rail. The Amtrak *Cascades* service is one of 11 routes that are eligible to receive grants under the high-speed rail stimulus package announced by the federal government in February 2009. For more information on the Recovery Act, please see pp. 62-65.

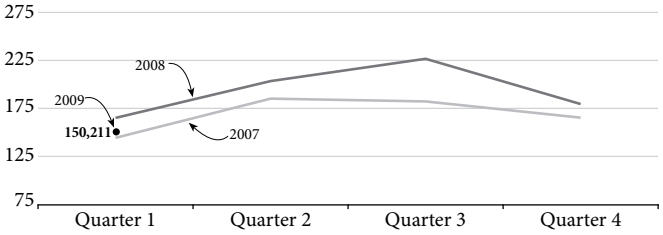
Amtrak *Cascades* first quarter ridership down 9% from previous year

The economic downturn has affected the Amtrak *Cascades* service. After demonstrating record growth in ridership during 2008, ridership decreased in the first quarter of 2009. There were 150,112 riders in the first quarter of 2009, a 9% decrease over the same period in 2008. Even though there was a decline from 2008, this quarter's ridership total is still higher compared with the same period in 2007.

While high gasoline prices have helped contribute to some ridership growth, customer feedback indicates that passengers perceive the service to be a great value and appreciate the fact that they are avoiding traffic.

Amtrak *Cascades* quarterly ridership

Number of passengers per quarter, calendar year 2007 through 2009
Riders in thousands



Data Source: Amtrak and WSDOT State Rail and Marine Office.

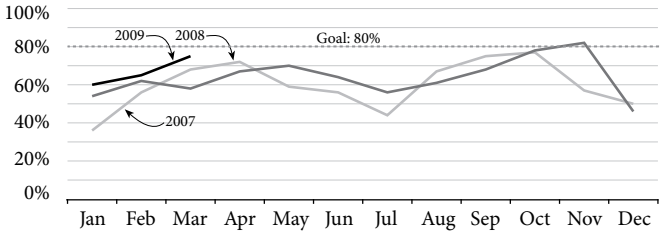
On-time performance increased 8.7% this quarter compared to the same quarter in 2008

On-time performance for Amtrak *Cascades* trains was 66.3% for the quarter, a 8.7% increase when compared to the same period in 2008. In particular, March on-time performance was approximately 16% better than March 2008.

Amtrak *Cascades*

State supported Amtrak *Cascades* on-time performance

Percent on time



Data Source: Amtrak and WSDOT State Rail and Marine Office.

Note: The on-time performance goal for Amtrak *Cascades* is 80% or better. A train is considered on-time if it arrives at its final destination within 10 minutes or less of the scheduled arrival time. For example: If a train is traveling over 250 miles, it is considered on-time if it arrives at its final destination within 15 minutes or less, such as Eugene to Seattle or Portland to Bellingham.

Amtrak *Cascades* ridership by funding entity

There are 11 daily Amtrak *Cascades* trains that connect major cities along the I-5 corridor. Washington, Oregon and Amtrak jointly fund their operation. The table below shows how many people are riding trains that are funded by each entity.

Amtrak *Cascades* by funding entity

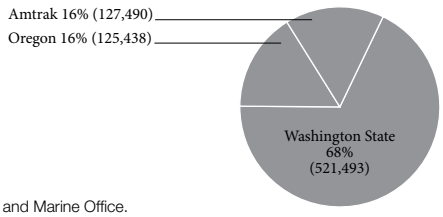
Ridership by funding entity

Funding partner	Jan-Mar, 2008	Jan-Mar, 2009
State of Washington	111,552	100,833
State of Oregon	27,610	24,957
Amtrak	25,842	24,322
Total ridership	165,004	150,112

Source: WSDOT State Rail and Marine Office.
Washington-funded trains: Amtrak *Cascades* 501, 506, 507 (Seattle/Portland), 508, 510, 513, 516, and 517.
Oregon-funded trains: Amtrak *Cascades* 500, 504, 507, and 509 between Portland and Eugene.
Amtrak-funded trains: Amtrak *Cascades* 500 and 598 between Seattle and Portland.

Amtrak *Cascades* ridership by funding entity

Calendar year 2008



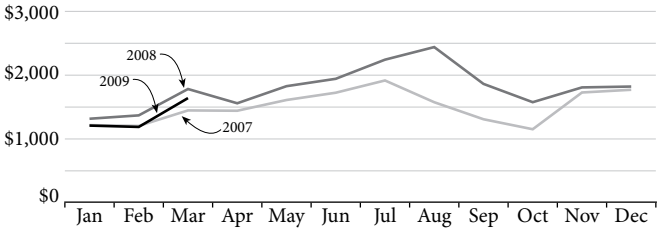
Data Source: WSDOT State Rail and Marine Office.

Ticket revenue decreased slightly this quarter

Ticket revenue was impacted by the weak economy. First quarter ticket revenue was $4.04 million, compared to $4.47 million over the same period in 2008. However, this is still a 4% increase over the same period in 2007.

State supported Amtrak *Cascades* revenues by month

October 2007 – January 2008 (Federal fiscal years 2006-2008)



Data Source: Amtrak and WSDOT State Rail and Marine Office.

Freight rail grant and loan programs

The state has two separate programs for grants and loans. Both programs are designed to support the improvement of freight rail infrastructure that is of public interest. In 2008 WSDOT developed and implemented the benefit/impact evaluation methodology that reflects the legislative priorities under ESHB 1094. The tool has been used to evaluate freight rail projects in Freight Rail Grant and Loan Programs.

The Freight Rail Assistance Program (FRAP), also known as the Emergent Freight Rail Program, provides $2.75 million of funds each biennium in grants for freight rail projects. In the current biennium there were 27 applicants, of which six were funded by the legislature. For the upcoming 09/11 biennium there were 12 applications and the prioritized projects list is being considered by the legislature for funding.

The State Rail Investment Bank provides $5 million of loans per biennium for rail projects that seek state assistance. WSDOT received 11 applications in the current biennium, of which only six could be funded. In the 09-11 biennium, only one project was submitted. The legislature has yet to issue its approved list.

WSDOT is monitoring performance of these programs and exploring ways to increase the effectiveness of these programs.

Amtrak Cascades speeding along.

Rail
Quarterly Update

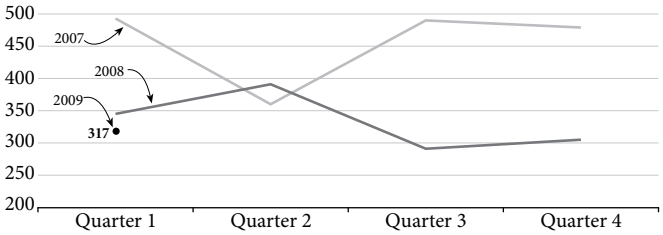
The Washington State Grain Train and the "Cold" Train

Grain train usage declines slightly

The Washington State Grain Train is a financially self-sustaining, transportation program supporting the state's agricultural community while helping short-line railroads maintain a sufficient customer base for long-term financial viability.

The economic downturn impacted Washington's agriculture and grain shippers. Use of the WSDOT grain train cars was slightly lower compared to the first quarter of 2008. There were 317 carloads shipped in the first quarter of 2009 compared to 345 in the first quarter of 2008. The result indicates that Washington's agricultural sector, which is supported by the State Grain Train program, is resilient.

Washington State Grain Train carloads
Carloads per quarter, 2007–2009



Data Source: WSDOT State Rail and Marine Office.

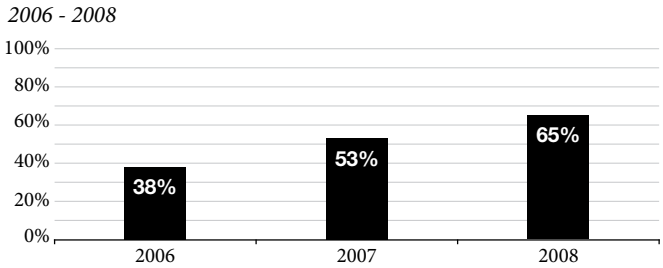
The Grain Train: At work for Washington State.

Produce rail car program use on the rise

In 2006, the Legislature authorized WSDOT to provide a pool of refrigerated rail cars to haul perishable agricultural commodities. The program began operation in 2006 using a federal grant and state funds. The produce cars are used by shippers in Washington State to transport produce throughout the U.S.

A total of 448 shipments have been made since the program began in 2006. This has resulted in an average utilization ratio of 56%. Since 2006, the utilization rate has been increasing. The utilization ratio increased from 38% in 2006 to 65% in 2008.

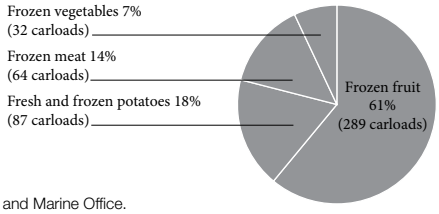
Produce rail car average annual utilization rate
2006–2008



Data Source: WSDOT State Rail and Marine Office.

The produce rail cars are used to ship frozen fruits, fresh onions and potatoes, frozen vegetables and potatoes, and frozen food. Frozen fruit has been the most heavily shipped product through this program (61% of all produce types).

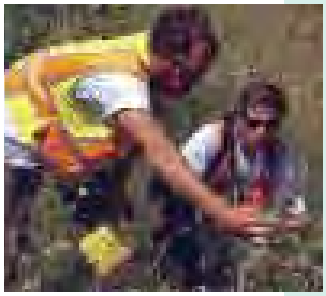
Produce rail car shipment by product
2006–2008



Data Source: WSDOT State Rail and Marine Office.

The produce rail car program, also known as the "Cold Train," provides a necessary transportation service for producers of perishable agricultural products to customers in Washington State and beyond.

Environment



Statewide policy goal:

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

WSDOT's business goal:

To protect and restore the environment while improving and maintaining Washington's transportation system.

In this section

Wetlands Preservation Annual Report 52

Endangered Species Act Annual Report 55

Special Report: NEPA 58

See also

Quarterly Report on Capital Projects (Beige Pages) 66

Earlier Environment-related articles

Air Quality, GNB 31

Noise Quality, GNB 31

Programmatic Permits, GNB 30

Fish Passage Projects, GNB 30

Environmental Documentation, GNB 32

Environmental Compliance Assurance, GNB 32

Stormwater Treatment Facilities, GNB 32

Erosion Control, GNB 32

Construction Site Water Quality, GNB 32

Special Report: SR 530 Phase I Project, GNB 32

Wetlands Protection Annual Report

Wetlands Protection Highlights

- Twenty-two acres of wetlands were preserved, established, restored, or enhanced in 2008
- Wetland monitoring shows that WSDOT is exceeding requirements for mitigation acreage.
- 98% of wetland site management activities were successfully implemented in 2008.

Wetlands are transitional areas between land and water, and are either saturated with water or covered by shallow water part of each year. Wetlands are important elements of watersheds. They help regulate the amount of water moving through a watershed by soaking up water during wet periods and slowly releasing it during dry periods. They also reduce peak flood levels, recharge groundwater, improve water quality, and provide habitat for fish and wildlife.

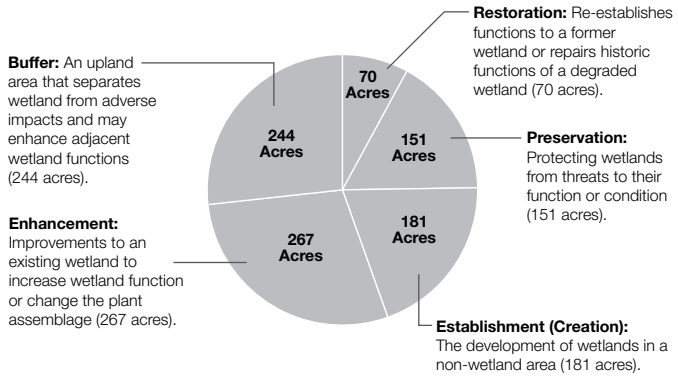
WSDOT projects are designed to avoid and minimize wetland disturbance. When transportation projects create unavoidable disturbances, other wetlands are established, enhanced, restored, or preserved in accordance with state and federal 'no net loss' policies. Since 1988, WSDOT has established 167 wetland mitigation sites covering 913 acres. Nine new sites covering 22 acres were constructed and added to the inventory in 2008.

Wetland monitoring and federal concurrence

After construction, most wetland mitigation sites are monitored every other year to evaluate their progress. The usual monitoring period is 10 years; it can be as little as three years for streamside replanting or as much as 30 years for mitigation banks. WSDOT has been working with the US Army Corps of Engineers (USACE) since 2005 to get concurrence on completion of permit obligations. As of December 31, 2008, the USACE has reviewed 28 mitigation sites and has concurred with 25.

WSDOT replacement wetlands, 1988-2008

Total acreage of wetland projects, 167 sites, 913 acres



Data Source: WSDOT Environmental Services.

Completion of wetland mitigation

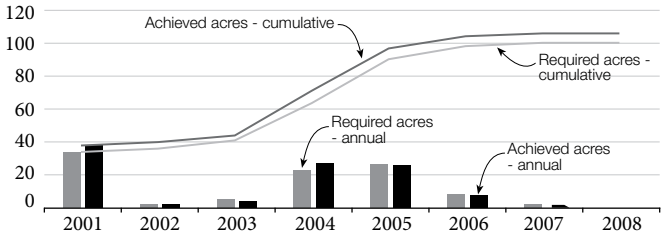
As of December 31, 2008

Status	Number of sites
Concurrences requested by WSDOT	35
Requests reviewed by USACE	28
Concurrences received by WSDOT	25
Sites with additional wetland work requested by USACE	2
Concurence decision pending	1

Data source: WSDOT Environmental Services Office.

Wetland mitigation acres achieved, 2001-2008

Number of acres achieved vs. required



Data Source: WSDOT Environmental Services.

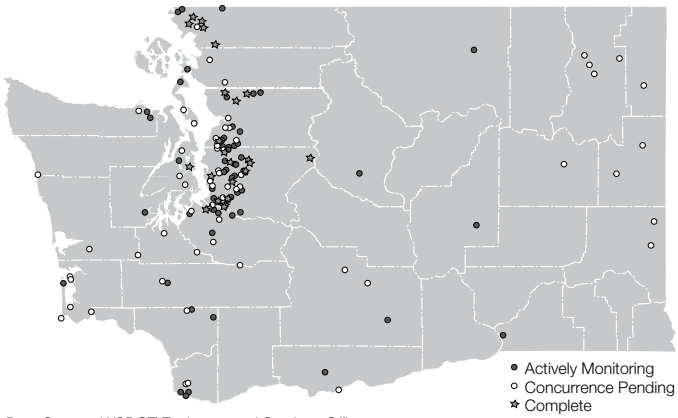
WSDOT succeeds in attaining 'no net loss' goals

Wetland acreage is measured twice during the monitoring period. The first measurement, typically taken in the third year of monitoring, provides an early indication of the amount of potential wetland developing. Final measurements at the end of the monitoring period determine the acreage achieved.

Under federal policy, 'no net loss' of wetlands is measured on a program scale, not on a project-by-project basis. Collectively, the 47 wetland sites where final acreage has been determined produced six percent more wetland acreage than required (106 acres achieved compared to 100 required acres).

WSDOT replacement wetlands statewide

1998-2009



Data Source: WSDOT Environmental Services Office.

New wetland sites monitored in 2008

Location	Wetland area (in acres)	Buffer area (in acres)
Enhancement		
SR 500 Thurston Way Interchange	3.25	0.75
US 101 Sandridge Road Safety Improvement and SR 103 Pedestrian Path	1.00	0.00
Establishment		
State Route 142, Bowman Creek Fish Passage Barrier Removal	0.05	0.14
Restoration		
SE 8th to I-90 (South Bellevue) Project 112th Ave SE to I-90 Project Bellevue Braids Project	0.33	0.00
Wetlands using multiple approaches		
SR 167 -- 15th Street SW to 15th Street -- Stage 3	4.75	2.58
I-5/ SR 532 Interchange Improvements	0.34	0.79
I-405, SR 520 to SR522 Stage 1 Forbes Lake East	2.20	1.49
I-405, SR 520 to SR522 Stage 1 Forbes Lake West	2.17	0.05
I-405, SR 520 to SR522 Stage 1 Thrasher's Corner	4.15	0.00
Total acres	**18.24**	**3.96**

Data Source: WSDOT Environmental Services Office.

WSDOT completes 98% of recommended site management activities in 2008

Active wetland management, such as weed control, irrigation, mulching, and supplemental plantings, can improve long-term environmental outcomes. WSDOT implements management activities in response to site needs identified during monitoring visits. For those sites monitored in 2007, 98% of recommended management activities (114 out of 116) were implemented in 2008. Replanting activities at two sites in the Northwest Region that were recommended for 2008 were delayed until spring 2009.

WSDOT site management practices by region 2008

WSDOT region	Sites	Recommended	Implemented	Rate
Northwest	52	75	73	97%
Southwest	11	16	16	100%
Olympic	9	14	14	100%
South Central	3	5	5	100%
North Central	4	5	5	100%
Urban Corridors	1	1	1	100%
Total	**80**	**116**	**114**	**98%**

Data Source: WSDOT Environmental Services Office.

The SR 9 Pilchuck River mitigation site wetland (August 2008).

New federal rules

In May 2008, the USACE and the U.S. Environmental Protection Agency issued new rules for concurrent mitigation (wetlands constructed as part of a project) and advance mitigation (wetlands constructed prior to a project). WSDOT's approaches to wetland protection are consistent with the new federal rules. These include:

- Using a watershed approach to identify potential wetland mitigation sites that will provide functions that contribute to the aquatic resources of the entire watershed.
- Completing wetland mitigation before project construction begins when possible.
- Developing mitigation banks to establish credits that can be applied to future construction projects within the same watershed. WSDOT currently has certified mitigation banks at Moses Lake, the North Fork of the Newaukum River, and Springbrook Creek.
- Actively managing and monitoring wetland mitigation sites.
- Providing legal protection for wetland mitigation sites in perpetuity. After mitigation is complete, management responsibility is assigned to WSDOT maintenance crews or transferred to another state agency or a non-profit land management entity for ongoing management.
- Providing a financial commitment to manage wetland mitigation sites to ensure long-term success.

More information about WSDOT's wetland mitigation work can be found at: http://www.wsdot.wa.gov/Environment/Biology/Wetlands/wetlands.htm

North Fork Newaukum mitigation bank, Aug 2008, reforestation in year five of 30.

Recording data at I-405 Forbes Lake east wetland, a new mitigation site.

New monitoring site: I-5/ SR 532 Interchange Project, Aug 2008. This small site used multiple approaches to mitigation including enhancing 0.01 acre of existing wetlands, establishing 0.33 acre of new wetlands, and planting 0.79 acre of buffer around the wetlands. Wetland mitigation sites often provide habitat and food for deer, elk, and other wildlife. However, grazing may severely damage young plants, making replanting necessary.

Endangered Species Act Annual Report

Construction Projects with ESA Components

The *Gray Notebook* has reported quarterly on the status of capital projects requiring documentation related to the US Endangered Species Act (ESA). ESA documentation will now be covered annually in the March 31 edition to allow the report to focus on the effects of species listings and other topical concerns.

Section 7 of the Endangered Species Act (ESA) requires that all federal agencies consult with the Department of Interior's US Fish and Wildlife Service (USFWS) and/or the Department of Commerce's National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA Fisheries), if it determines that a project it funds, authorizes, or carries out may affect listed species or designated critical habitat. WSDOT is required to comply with Section 7 of the ESA as a result of federal funding or authorization, most commonly from the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE) or the US Department of Agriculture Forest Service (USFS). The USFWS and NOAA Fisheries, commonly collectively referred to as the "Services," review the project description and effects to species and habitat during consultation and provide concurrence to the federal agency.

WSDOT has completed 99.5% of ESA reviews and consultations for 2007-2009 Nickel, TPA and PEF-funded projects

For projects scheduled to be advertised in the 2007-2009 biennium, WSDOT has completed ESA reviews and consultations for 100% of the Nickel- and PEF-funded projects. Only two TPA-funded projects scheduled for advertisement in the 2007-09 biennium await ESA review. For the 2009-11 biennium, almost half of TPA- and Nickel-funded projects have completed an ESA review, along with about 30% of PEF-funded projects. Most of the balance of required reviews will be finalized within the next six to nine months.

Efforts to reduce duration pay off with quick approval of Recovery Act projects in early 2009

To aid in timely project advertisements, WSDOT has worked hard to develop ways to make the ESA review process more effective and more efficient. By using programmatic Biological Assessments (BAs; see page 57), WSDOT was able to advance seven projects in eastern Washington through the review process for ESA within the first week of February 2009. These projects were able to qualify for Recovery Act funding for construction in the spring. The efficiencies of programmatic BAs and guidance documents have saved WSDOT projects both time and money without sacrificing the well-being of federally protected species and their habitat.

Endangered Species Act Highlights

WSDOT's consultations with 'the Services' for ESA Documentation are 103%-106% longer then the mandated time frames for both informal (30 days) and formal (135 days).

There are now over 40 species in Washington listed as endangered or threatened, along with seven plant species that require reviews for future projects that may affect their viability.

Because review times at 'the Services' are out of WSDOT's control, the department has developed new programmatic agreements and biological assessments to reduce or eliminate review times to help expedite projects, off-setting the longer review times at the two federal agencies.

Endangered Species Act compliance for all projects

Project status	2007-09 Nickel projects	2009-11 Nickel projects	2007-09 TPA projects	2009-11 TPA projects	2007-09 PEF projects	2009-11 PEF projects
Projects under review at the Services	0	0	0	1	0	1
ESA review or Biological Assessment (BA) under way	0	6	2	22	0	48
Projects without sufficient information to start the BA[1]	0	0	0	2	0	16
ESA review complete[2]	24	4	89	23	258	30
Total number of projects	**24**	**10**	**91**	**48**	**258**	**95**

Data Source: WSDOT Environmental Services.

[1]This means that WSDOT does not yet have enough information regarding design to begin an ESA review.

[2]Projects that have completed an ESA review include those requiring consultation with the Services and those that did not require consultation (no effect reviews or programmatic BAs).

Endangered Species Act Annual Report

Analysis of ESA Consultations with the Services

Consultations with the Services can occur in two formats: informally, when a project's impacts may affect listed species or critical habitat but in a way that is insignificant or discountable, and formally, when the project will likely result in adverse impacts. WSDOT conducts an ESA review on all projects to ensure compliance with Section 9 of the ESA, which prohibits take of listed threatened and endangered species. Based on that review, projects may require an informal or formal consultation with the Services or no consultation at all. The request for consultation and the analysis of impacts is submitted to the Services through BAs.

WSDOT tracks the performance of ESA documentation to improve processes

The ESA mandates that a formal consultation be completed within 135 days. Timelines for informal consultations are not specified under the ESA; however, WSDOT and the Services have been working under an agreed-upon timeline of 33 days. In practice, formal timelines are rarely met, which can affect planning and project delivery schedules. To improve the predictability of ESA consultations, in 2003 WSDOT began formally tracking the number of days (duration) the Services were taking to complete consultations. The timelines are calculated using the average number of days between submittal of the BA and the receipt of a signed concurrence letter or Biological Opinion (BO) from the Services.

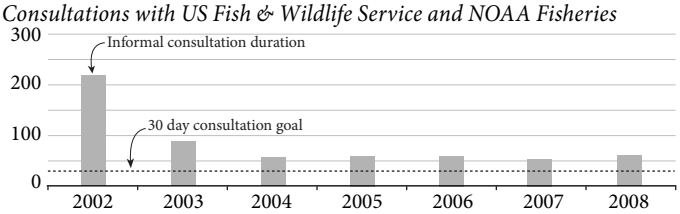
Although tracking didn't begin until 2003, a small amount of data was collected for projects not advertised or constructed until after 2003. For the data in 2001 and 2002, the average informal consultation at the Services was 219 days based on 26 informal consultations. The average formal consultation took 309 days to complete based on four formal consultations. However, WSDOT is unable to draw a usable statistical inference from these two years based on the limitations of data collection.

Between 2003 and 2004, both consultation timelines decreased significantly as a result of the implementation of several new streamlining methods, guidance documents, and training. Informal consultation timelines dropped to an average of 50-55 days. Formal consultation timelines also dropped during that period to 200 days.

Informal consultation timelines appeared to level out between 2005 and 2008. The number of informal consultation projects ranged from 55 to 84 each year over that period. Formal consultations demonstrated more variability between 2004 and 2008. For example, 2006 and 2008 demonstrated noticeable spikes in timeline length, even though there was a relatively constant number of consultations (10-14) completed each year. Through analysis, it became clearer that any change in processes or consultation complexity, resulted in a change to the formal timelines (processing duration).

Average annual ESA consultation durations: informal consultations

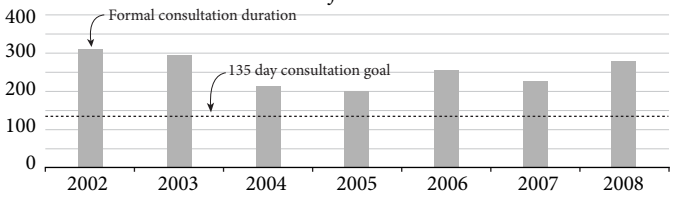
Consultations with US Fish & Wildlife Service and NOAA Fisheries



Data Source: WSDOT Environmental Services.

Average annual ESA consultation durations: formal consultations

Consultations with US Fish & Wildlife Service and NOAA Fisheries



Data Source: WSDOT Environmental Services.

Species listings over time affect number and duration of consultations

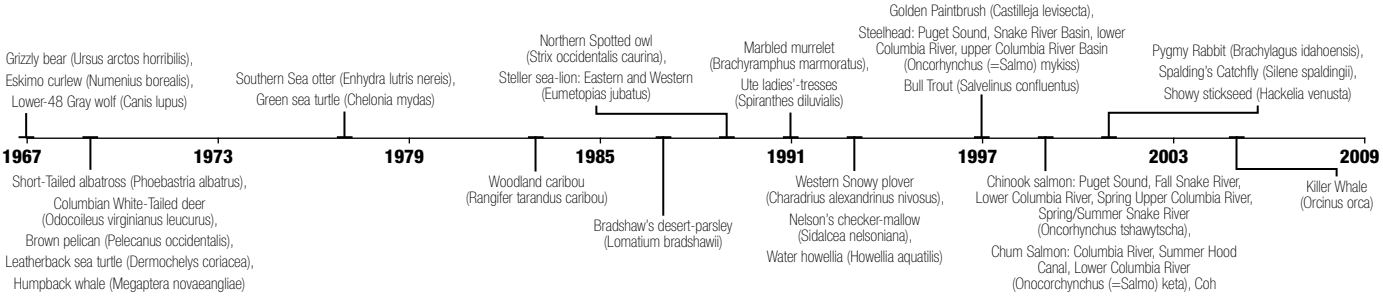
In the early years of the ESA, species such as gray wolves, grizzly bears, humpback whales, sea turtles, bald eagles, and peregrine falcons were all listed as endangered, but interaction with highway project activity was limited. Both gray wolves and grizzly bears are found in remote, mountainous back-country, while humpback whales and sea turtles reside in marine environments where there are no highways. The limited likelihood of interactions with most early-listed species kept consultations to a minimum.

The situation for both bald eagles and peregrine falcons was different, however. With nesting sites common around transportation projects and right-of-way, WSDOT needed to develop alternate construction schedules around their nesting periods to avoid completing formal consultations. WSDOT continued the scheduling practice for the listing of the northern spotted owl and marbled murrelet in 1992.

It was not until the 1990s with the listing of several Pacific Ocean salmon species that WSDOT began to encounter more complicated formal consultations. The presence of species endemic to the Puget Sound, the Columbia River, and their many tributaries led to unavoidable conflicts between their aquatic

Analysis of ESA Consultations with the Services

Timeline of endangered species listings that impacted Washington State
1967-2009



Data Source: US Fish and Wildlife Service (USFWS).

habitats, their year-round presence, and existing transportation corridors. The result was a need for better documentation of WSDOT's impact on their environment.

Following the 1998 salmon listings, the number of WSDOT's formal consultations increased to ten or more annually from less than one. Informal consultations increased to more than 50 annually. Consultations also became more complicated. In late 2005, salmon-critical habitat was designated for all of the listed populations of chinook, chum, steelhead, and bull trout. The new listing and critical habitat designations led WSDOT to reassess and re-initiate many projects in the pre-construction phase.

Under the ESA, projects are not grandfathered; therefore when there is a new species listing, new critical habitat designation or a change in the project design, the project must be re-evaluated and in these cases, a new consultation must occur. New requirements place procedural and work load strains on both WSDOT and the Services. The latter must develop and administer new guidance while the former is faced with learning those rules and determining which projects they apply to. Both entities experience increased workloads – and turnaround times – as new and re-initiated consultations are processed. The after-effect of the 2005 designation of the critical habitat for salmon and the 2007 listing of Puget Sound steelhead can be clearly seen in the larger consultation times in 2006 and 2008 (see page 56).

WSDOT is improving ESA processes with agreements, better documentation

To combat lengthy timelines and improve the predictability of consultations, WSDOT has created in conjunction with FHWA and the Services, several guidance or streamlining documents over the years, including three in the last year. These guidance documents address:

- Indirect effects (finalized May 2009). A transportation project may prompt additional development in the area served by the improvement; the document details a consistent approach to analyzing the potential for long-term development.
- Stormwater discharges (finalized November/December 2008). A project may produce stormwater run-off from the finished project site; the document provides technical direction for biological assessment authors as they document the likely effects of stormwater discharges.
- Noise assessment (finalized August 2008). All projects with pile driving activities that may impact fish will be required to use new criteria when assessing potential impacts to fish.

Programmatic Biological Assessments help WSDOT avoid longer consultations with the Services

Another streamlining technique applied to ESA consultations is the programmatic BA. A programmatic BA describes certain types of projects, typical impacts associated with project construction and methods to reduce potential impacts. The Services review the programmatic BA, agree on detailed conditions under which it may be applied with WSDOT and issue authorization for its use. Those pre-agreed conditions ensure consistency and predictability within WSDOT, and between WSDOT and the Services.

The programmatic BA reduces document preparation time from months to weeks by using a form instead of a detailed report. Because conditions, project elements and potential impacts are effectively pre-approved, the review time at USFWS is also significantly shortened.

Since 2004, WSDOT has had a programmatic BA in use in eastern Washington. The document covered nine project categories, and was applied to roughly 70% of WSDOT projects in the region. One measure of its success was its reauthorization in January 2009.

National Environmental Policy Act Special Report

NEPA Highlights

In the 2005-2007 biennium, 98% of WSDOT projects were covered by FHWA's list of categorical exclusions under NEPA.

Only 2% of projects required formal NEPA documentation, either as an Environmental Assessment of Environmental Impact Statement.

WSDOT's study concluded that the primary reasons for longer NEPA processing periods are project complexity, inconsistent funding flow, changes to project program or scope, and regulatory changes and new requirements. This evaluation concurs with a 2005 Joint Legislative Audit Review Committee study (see sidebar on page 59).

In the December 31, 2008, *Gray Notebook*, WSDOT reported on the average duration of National Environmental Policy Act (NEPA) Environmental Impact Statements (EISs) and Environmental Assessments (EAs) prepared for the most environmentally complex projects. This article provides follow-up analysis on what the department learned upon examining the processes and activities involved in preparing 33 project-level documents between 1999 and 2008.

Both national and state environmental policy acts (NEPA and SEPA) require agencies to integrate environmental considerations into their decision-making. Disclosing and reducing environmental impacts, and ensuring public participation in governmental decision-making, are central to both laws. Complying with NEPA is a joint effort between the federal lead agency (typically the Federal Highways Administration or Federal Transit Administration), WSDOT (as a co-lead agency), and local agencies.

Identifying what drives NEPA processing durations

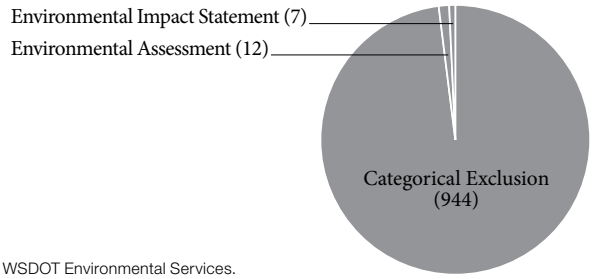
The environmental review process for WSDOT's transportation projects varies with the scope of the individual project. Of the 33 NEPA documents examined, 21 were EAs, involving moderate levels of study, and 12 were EISs, prepared for some of WSDOT's most complex projects. The most straightforward projects the agency constructs comply with NEPA through a simplified process (known as categorical exclusions; see sidebar on page 59). The following analysis discusses some of the issues driving the duration of EA or EIS processing. While some of these drivers are within WSDOT's control, many are not, and must be addressed in different ways.

The first and foremost driver in the duration of the NEPA process is project complexity: the larger the area covered, the more – and more diverse – activities a project will require for completion, the more elements affecting the environment will require examination and study. A related issue is the individuality of the project: many highway improvement and other construction projects that WSDOT undertakes affect a unique combination of the built and natural environments.

A secondary factor in the duration of NEPA processes is the consistent flow of funding to a project. Funding allows WSDOT to prepare EAs and EISs without interruption and allows a project to move forward to permitting and construction while all its documentation is fresh. Additionally, changes to a project's design that require new or additional research and study – for example, if a Value Engineering study recommends an alternative design that reroutes the construction project into a previously unexamined area.

Number of projects by environmental documentation type

Total number of WSDOT project-level categorical exclusions, and active EISs or EAs in the 2005-2007 biennium



WSDOT Environmental Services.

Managing the challenges in the EA or EIS process

WSDOT works hard to balance the state's transportation needs with the demands of environmental stewardship and compliance with the many environmental protection laws (such as the federal Endangered Species Act, the Clean Water Act, Clean Air Act, and others). WSDOT conducts its environmental analysis so that its work informs solid decision-making; and conducts fair, open, and accountable reviews. WSDOT has a good record of environmental compliance, and intends to continue that record in the future.

Addressing complex environmental investigations

As noted in the sidebar to the right, not all projects require the same level of environmental analysis. The majority of projects fall under NEPA exclusions. These exclusions may be reviewed by FHWA or only by WSDOT, based on the signature agreement between the two agencies. The most complex projects are likely to require either an EA or EIS.

In preparing an EA or EIS, WSDOT examines the project area for elements that might be affected by its work, which might include:

- Water quality, resources, erosion
- Wetland alteration or restoration
- Endangered or threatened species, known or suspected in the area
- Hazardous materials
- Native American or other cultural resources
- Environmental justice issues

The review period of a project-level EIS is when the most productive engagement between WSDOT, the local communities, and partner agencies occurs, as all groups work together to identify both the transportation need and the proposed solutions. The goal is to find 'win-win' situations in which WSDOT can improve a road or transportation facility while also improving water quality or fish habitat, to name just two possibilities.

At all stages in the process, WSDOT engages with its partners by keeping them informed regarding its activities. The process of creating a high quality EA or EIS takes time, information, negotiation, and documentation; it is an iterative process affected by external and internal forces. The agency's intention is to build confidence at local, state, and federal levels that it has a clear process to engaging with regulatory agencies, resource agencies, tribes, and the public as its projects move forward to completion.

How is WSDOT doing?

NEPA (and the state-based SEPA) documentation plays an important role in public and agency decision making, and WSDOT takes compliance with these requirements very seriously. Two measures of its success are positive reviews by the Joint Legislative Audit Review Committee (JLARC) and the Federal Highway Administration (FHWA).

In 2005, JLARC completed two reviews of the environmental review process as it relates to transportation project delivery (http://www.leg.wa.gov/JLARC/Audit+and+Study+Reports/2005/05-14.htm). This review concluded that NEPA documentation process was not the cause of delay to the reviewed projects; the major contributing causes were funding uncertainties, design changes, lack of adequate federal and state resource agency staffing, changes to or new regulation.

In 2008, the Washington division of FHWA reviewed WSDOT's performance on the simplest project-level environmental reviews. These straightforward projects are categorically exempt under NEPA when federal actions are involved, and excluded under SEPA when state actions are involved. Since 1999, Washington State has very effectively applied an administrative delegation of authority from FHWA that allows WSDOT to administer NEPA.

Upon examining 944 projects classified as categorical exclusions under NEPA during the 2005-2007 biennium, FHWA was pleased with WSDOT's performance. Of those 944, 566 were signed by FHWA and 388 were completed by WSDOT without FHWA signature under our joint agreement. Following their review, FHWA reiterated their support for the agreement that allows WSDOT to expedite NEPA approval for the simplest projects.

NEPA Process Success Story: the I-90 - Snoqualmie Pass East Project

The ***I-90 Snoqualmie Pass East*** project is a great example of a successful collaborative NEPA process. The project presented many unique environmental and design challenges due to its location along a mountain pass in the Central Cascades.

The project area receives high levels of rain and snow, requiring specialized designs to manage storm water runoff and snow storage. In some parts of the project area, the highway exists in a narrow corridor between the eastern shore of Keechelus Lake and steep cliffs, making the area susceptible to rock fall and avalanches. I-90 bisects large areas of protected state, federal, and conservation lands that support a broad range of habitats with a diverse array of plants and wildlife.

Success takes time

To meet projected traffic demands and improve public safety on I-90, WSDOT began evaluating, through public scoping, a 15-mile section of the corridor between Hyak and Easton in late 1999. By 2000, interdisciplinary teams were formed and preliminary engineering and environmental analysis had begun. Although WSDOT's project partners were identified and meetings set, work on the project was intermittent between 2000 and 2005. When the 2005 Transportation Partnership Account (TPA) finance package was passed in 2005, WSDOT received enough funding to ramp up the design effort, finish NEPA, and prepare construction documents. The project team faced complex issue identification and resolution processes that involved a diverse set of stakeholders. Through monthly meetings, newsletters, and email, WSDOT worked with cities, counties, tribes, and community groups as well as state and federal agencies to develop consensus for a long-term vision for the I-90 corridor between Hyak and Easton. Numerous design changes were incorporated into the project's alternatives to accommodate changes to federal and state regulations that occurred since the start of the project.

WSDOT works with partners

When the Transportation Partnership Account (TPA) finance package was passed in 2005, WSDOT received enough funding to move forward on the tasks necessary to complete the environmental document (EIS). By the summer of 2006, WSDOT published the Draft EIS for public review and comment.

By involving stakeholders early in the environment process, WSDOT was able to respond to their diverse needs by incorporating a landscape-level, watershed-based mitigation strategy. This strategy allowed the department to consider multiple ecological needs in the project design, including connecting habitat and hydrological corridors across I-90 at various bridge and culvert locations. This approach helped to secure the necessary agency and citizen approval when the draft EIS was presented for public comment. The collaborative effort culminated in the release of a final EIS in 2008 that ultimately outlined the improvements to meet projected traffic demands, improve public safety, and meet identified ecological needs along this 15-mile stretch of I-90.

The success of the ***I-90 Snoqualmie Pass East*** project is a great example that there is more to the NEPA story than a black bar across a timeline graph.

Above left: WSDOT staff meets with interested community members during a local presentation on the (then) proposed EIS to gather feedback before submitting to FHWA.

Above right: Avalanche damage near the I-90 snow-shed. The I-90 Snoqualmie Pass project will help to minimize future road closures and improve corridor safety due to avalanches.

Stewardship

Statewide policy goal:

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

WSDOT's business goal:

To enhance WSDOT's management and accountability processes and systems to support making the right decisions, delivering the right projects, and operating the system efficiently and effectively in order to achieve the greatest benefit from the resources entrusted to us by the public.

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Special Report on Federal Recovery Act-funded Projects

State Projects

Recovery Act Highlights

179 state and local highway projects have been identified and certified by Governor Gregoire as of May 8, 2009.

16 construction contracts have been awarded to date.

The state is required to obligate 50% of funds by June 29 to be eligible for additional highway funding. Washington has already met this requirement.

State projects will address key priorities, including preservation, congestion, and safety.

For additional information on Recovery Act-funded projects and their benefits, please visit http://www.wsdot.wa.gov/Funding/stimulus/ProjectList.htm

On February 17, 2009, President Obama signed the American Recovery and Reinvestment Act (Recovery Act) into law to spur an economic recovery. Washington received $492 million for highway projects, and is using federal dollars to put people to work in a way that stimulates our economy and also helps maintain our transportation system. WSDOT, along with cities and counties, leveraged the $492 million for highway projects into nearly $1.4 billion in projects by combining federal dollars with partially funded, ready-to-go projects.

The tables on page 63 track WSDOT's progress in key areas of Recovery Act project activities, including:

- the number of projects certified and obligated for funding;
- project status from advertisement through construction and completion;
- the percentage of federal funds obligated (see note on page 63) to date against the target deadlines set by the Recovery Act;
- the number of jobs created or preserved through WSDOT's Recovery Act-funded projects.

The totals will be updated monthly on line at http://www.wsdot.wa.gov/funding/stimulus/

State highway projects

The Governor and Washington State Legislature allocated the state's $340 million in federal stimulus dedicated for state highways to 32 individual projects (Tier One projects) and two programmatic funding buckets to address safety priorities. Another 12 projects were identified that could be ready to go should additional funding became available (Tier Two projects). These dollars are expected to support over 3,700 direct jobs spread across several skilled trades (such as masons, concrete workers, carpentry, iron workers), indirect jobs such as materials suppliers, and other jobs in local communities.

In prioritizing projects for funding, WSDOT emphasized:

- Advancing projects and jobs that would have otherwise been delayed due to funding shortfalls;
- Advancing projects and jobs that would address high priority highway preservation needs
- Projects that can be completed within 3 years
- Projects to assist communities most impacted by the recession

The projects that were selected will address key state transportation priorities that reflect the policy goals set for the Department of Transportation and provide benefits for Washington drivers. Most of these projects provide benefits beyond the categories described on the following pages.

continued on page 64

Secretary of Transportation Paula Hammond spoke at the site of the first federal stimulus contract in the state to start construction, committing WSDOT to high standards of accountability reporting.

Recovery Act-funded Projects Overview

Recovery Act-funded highway projects

Number of projects by jurisdiction; dollars in millions

Project information	State	Local	Total	Notes
Individual Tier 1 highway projects	32	147	179	State projects specified in the Legislative Evaluation & Accountability Program (LEAP) list.
Certified by Governor	32	147	179	Governor must certify that projects were reviewed and represent an appropriate investment of taxpayer dollars.
Projects advertised	24	31	55	
Contracts awarded/Under construction	9	7	16	
Projects completed	0	0	0	
Financial information	**State**	**Local**	**Total**	**Notes**
Recovery Act dollars provided	$340	$152.1	$492.1	
Recovery Act dollars obligated to date	$175.3	$67.1	$242.4	Obligated dollars represent projects approved by the federal government with an executed project agreement. The state must obligate 50% of funds by June 29. This requirement has been met. Local jurisdictions must obligate 100% of funds by March 2010.
Total cost of obligated projects	$556.2	$344.6	$900.8	Also includes non-Recovery Act leveraged fund sources; represents total project funds positioned to enter the economy.

State data as of May 15, local data as of May 18, 2009. Source: WSDOT Project Control & Reporting Office, Highways & Local Programs Office.

Recovery Act-funded state highway 'bucket' projects

Number of bucket projects by type; dollars in millions

	Rumble strips	Cable median barrier	Total
Project status			
Certified by Governor	27	6	33
Projects advertised	2	0	2
Contracts awarded / Under construction	0	0	0
Projects completed	0	0	0
Financial information			
Funds available for buckets	$3.1	$9.2	$12.3
Recovery Act dollars obligated	$0.27	$0.70	$1.0
Total cost of obligated projects	$0.27	$0.80	$1.1
Recovery Act funds spent	$0.0	$0.0	$0.0

Source: WSDOT Project Control & Reporting Office, Highways & Local Programs Office.

Construction begins on the Yakima River to West Ellensburg paving project, funded by Recovery Act dollars.

Recovery Act project definitions

Tier 1 Priority shovel-ready projects selected for Recovery Act funding.

Tier 2 The projects selected for funding with Recovery Act savings and/or additional Recovery Act funds.

Bucket projects State projects using Recovery Act funds to address programmatic safety priorities statewide.

Obligated funds An obligation is a commitment—the Federal government's promise to pay the State for the Federal share of a project's eligible cost. This commitment occurs when the project is approved and the project agreement is executed. Obligated funds are considered "used" even though no cash is transferred.

Transit projects information

Reporting timeline Transit agency projects differ from highway projects in that agencies usually wait until their grant is approved by Federal Transit Administration to issue requests for proposals (RFPs) or go out to bid on projects or purchases. As such, there may not be significant activity to report until August/September.

Process The projects in urbanized areas were selected locally. Metropolitan planning organizations usually have an established process for distribution of Federal Transit Administration funding.

Rural projects The projects for the rural areas were selected by the state using a competitive process. In December 2008 and January 2009, WSDOT developed a capital project list in anticipation of the Recovery Act. WSDOT identified over $45 million in projects that met the definition of "ready to go" in the rural areas. An independent Grants Review Team prioritized projects. The final list of projects was added to the State Transportation Improvement Program and submitted to the FTA.

Special Report on Federal Recovery Act-funded Projects

State and Local Projects

continued from page 62

Congestion relief

A top priority was assuring that key projects- that would have been delayed due to funding shortfalls - could move forward. The Recovery Act provided $180 million to assure that five large mobility projects and an economic development project in Yakima stayed on schedule.

Highlights include:

- Two projects on the ***I-405 Corridor***
  - NE 8th St to SR520 Braided Ramps, which would have been delayed by one year, is expected to reduce congestion by four to six hours a day on northbound I-405 in Bellevue near the I-405/SR 520 interchange.
  - NE 195th St to SR 527, which would have been pushed out to July 2011, and is expected to increase speeds by 25 to 30 mph during peak travel times.
- Widening I-5 for HOV lanes in each direction between the Port of Tacoma Road and the King/Pierce County line as part of the ***Tacoma/Pierce County I-5 HOV*** system.

Preservation

Pavement and Hot Mix Asphalt Rehabilitation: The December 31, 2008, *Gray Notebook* highlighted the state's rising backlog of hot mix asphalt due for rehabilitation as well as aging concrete pavement, 60% of which is over 30 years old. More than $130 million in Recovery Act funding will address the highest priority projects for rehabilitating and preserving the transportation system. State projects address critical freight and transportation corridors, including multiple projects on I-90, as well as projects on I-5, US 2, SR 82, US 395 and other highways. Collectively, these projects are planned to rehabilitate 195 lane miles of hot mix asphalt, 158 lane-miles of chip seal pavement, 52 lane-miles of Portland cement concrete, and dowel-bar retrofit 23 lane-miles of concrete.

Bridge Painting: The Recovery Act also offered the chance to fund the state's highest unfunded priority bridge preservation project—painting the Lewis and Clark Bridge, last painted in 1984. Painting will help prevent corrosion that can reduce the steel's capacity to carry truck loads. This bridge is a key connection between Oregon and Washington, and carries more than 2,500 trucks daily.

Safety

Included in the $14.8 million in Recovery Act funds dedicated to safety improvements is a project to install traffic cameras, electronic message signs, and traffic sensors on a 10-mile stretch of northbound I-5 in the Marysville area.

This will complement another project replacing the existing low-tension cable median barrier on with a concrete barrier. Also included was $9 million to install cable median barriers and $3 million for rumble strips. Both have proven effective in reducing collisions and their severity.

- A 2008 Before & After assessment found that on the 177 miles where cable median barriers were installed, serious injury and fatal collisions declined by 62%. A similar analysis of the state highways' 960 miles of centerline rumble strips found a 28% reduction in serious and fatal collisions.

Local highway projects

Local cities, counties, and tribes received $152 million in federal Recovery Act funds for highway and road construction. Utilizing Washington State's process for federal transportation funding allocations, 147 local city and county projects were selected.

The three largest urban areas used Transportation Management Areas organization (Puget Sound, Spokane, and Vancouver) to select $97.5 million in projects. Local governments outside the TMA areas used Metropolitan Planning Organizations and County Lead Agencies to prioritize their respective projects, with a review and endorsement by a Local Oversight and Accountability Panel comprised of representatives from WSDOT, Transportation Improvement Board, Association of Washington Cities and Counties, Tribal Governments, and the Washington Public Ports Association.

In order to be consistent with the spirit of the stimulus package of creating jobs and getting people to work, the project selection processes at the state level reinforced the need for early projects by including requirements that projects be under way within 120 days.

Key priorities that the local dollars will address include:

Preservation Over $65 million in Recovery Act funds are planned to be spent on 70 preservation projects. Examples of these improvements include reconstruction and strengthening of roadways to resist damage due to freeze and thaw cycles and to allow movement of freight during all seasons, replacement and rehabilitation of deficient bridges.

Congestion Relief Approximately $28 million in Recovery Act funds are dedicated to 13 projects to provide congestion relief. Including projects to increase capacity and reduce at grade conflicts between trains and auto traffic.

Freight A highlight includes a Port of Tacoma will remove an at-grade conflict between rail activities and heavy truck

Transit Projects

traffic on a key arterial connecting I-5 and the Port of Tacoma. Currently, rail switching operations and mainline trains cause traffic delays of up to 30 minute every two hours.

Bicycle and pedestrian safety The 39 bicycle and pedestrian projects selected by local jurisdictions will address 13% of the priority projects highlighted in the statewide Bicycle and Pedestrian Plan submitted to the legislature in November 2008.

Transit projects

Washington State received $179 million in Recovery Act funds to support transit projects at a time when public transportation use has increased following the high gas prices in 2008. The projects will help expand bus fleets (including hybrid and natural gas vehicles), upgrade maintenance facilities, build commuter parking lots, preserve ferry terminals and vessels, extend light rail service, and develop a new streetcar system, among other efforts. The state's Transportation Management Areas and Regional Transportation Planning Organizations selected most of the transit projects.

- $142 million for larger urban areas including the Puget Sound, Spokane and Vancouver areas
- $16.5 million for small urban areas such as Bellingham, Tri-Cities, Wenatchee, Yakima, Olympia/Lacey and Mt. Vernon
- $14 million for rural public transportation
- $6.5 million for Fixed Guideway modernization, including ferry and lightrail systems.

Accountability

WSDOT is committed to accountability and transparency, and has made performance reporting a high agency priority central to the 2003 and 2005 Nickel and TPA highway funding programs.

The public can find information on every state and local Recovery Act highway project on the agency's website, www.wsdot.wa.gov/funding/stimulus, featuring regular updates on the progress advancing new projects toward construction and completion.

WSDOT is providing detailed reports on how American Recovery and Reinvestment Act funds are invested and the results citizens can expect. Washington State has submitted accountability reports to the Federal Highway Administration and U.S. House Transportation and Infrastructure Committee.

Columbia Asphalt worker and family are grateful for the work generated by the American Recovery and Reinvestment Act

A note on estimating job numbers

WSDOT is working closely with OFM economists to determine the appropriate method to estimate the number of jobs created or saved. Project expenditures will be broken out by fiscal year and construction phase (preliminary engineering, right of way acquisition, and highway construction), each of which carry different job creation multipliers. The highest year of expenditure will then be used with the respective fiscal year and phase multipliers to estimate the number of jobs created or saved. This number will represent the peak expenditure year job estimate, and will be used to avoid over- or double-counting jobs.

The estimate produced by the multiplier will include more than just direct, on-the project jobs. While it will include direct jobs, it also includes indirect and induced jobs.

- **Direct jobs** The actual jobs created or saved from the new investment in highway construction. Examples of these types of jobs include highway construction workers and project engineers.
- **Indirect jobs** These are jobs created or saved in industries supporting the direct spending, such as workers in industries supplying asphalt and steel.
- **Induced jobs** These are jobs created by the respending of worker income on consumer goods and services, including food, clothing, and recreation.

WSDOT's Capital Project Delivery Program

Highway Construction: Nickel and TPA Project Delivery Performance Overview

Project Delivery Highlights for Nickel and TPA combined:

- Both Nickel and TPA programs are 100% on or under their total legislative baseline of $1.934 billion to date.
- 90% of Nickel and TPA projects combined are early or on time, unchanged from last quarter's results.
- 86% of Nickel and TPA projects combined are under or on budget, a 1% decline from last quarter.
- 78% of Nickel and TPA projects combined were both on time and on budget, a 1% decline from last quarter.

Since 2003, WSDOT has delivered a total of 186 Nickel and Transportation Partnership Account (TPA) projects for $1.934 billion, on target with the Legislative budget expectation.

WSDOT delivers one project during the third quarter of FY 2009

WSDOT's capital program delivery performance dipped by one percent to 78% of projects delivered both on-time and on-budget through the third quarter of FY 2009, as another TPA project was completed during the slow winter construction season.

On-time and on-budget performance on individual projects declined slightly

For the 186 highway projects completed through March 31, 2009, changes from the previous quarter are:

- On-time delivery performance remained steady at 90%;
- On-budget performance declined slightly to 86%;
- On-time and on-budget project delivery performance also declined slightly to 78%.

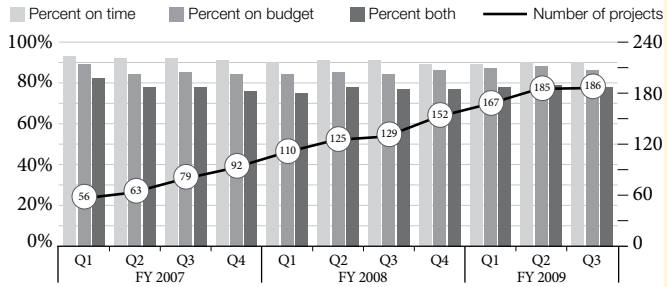
79 Nickel and TPA projects under construction or advertised for construction

This quarter, 20 new projects were advertised for construction. One project advertised earlier than scheduled, seven projects were advertised late, and the rest were on time. Thirteen projects are pending contract award amount, but the remaining projects have been awarded for a cumulative construction contract total of $16.2 million.

16 projects totaling an estimated $861 million at completion are scheduled to advertise by September 30, 2009

Five significantly sized projects have budgets of $20 million or more, while another two mega-projects have budgets between $172.7 and $426 million. All but five are on their original schedule, and three have been advanced to advertise earlier.

Cumulative performance of Nickel and TPA projects
As of March 31, 2009



Data Source: WSDOT Project Control and Reporting.

Project information in the Schedule, Scope and Budget tables

The beige pages report the agency's project delivery performance against the most recent Legislative baseline (for the quarter reported, this is the 2008 supplemental budget). The next quarter, ending June 30, 2009, not only ends the fiscal year but also the 2007-2009 biennium; the beige pages for the next *Gray Notebook* will include biennial roll-up reporting, and will set out the 2009 budgetary information used to benchmark the next biennium's progress.

Accountability reporting on Federal Recovery Act-funded projects

For details of WSDOT's progress on and management of projects funded by American Recovery and Reinvestment Act ("Recovery Act"), turn to pages 62-65.

Highway Construction: Nickel and TPA Performance Dashboard

Each quarter, WSDOT provides a detailed update on the delivery of the highway capital programs in the *Gray Notebook* and on the web (at www.wsdot.wa.gov) through the Project Pages and Quarterly Project Reports. The *Gray Notebook*'s Beige Pages generally do not include planning studies or projects that do not have a construction phase. Pre-Existing Funds (PEF) projects are budgeted by program for the improvement and preservation of the highway system, and the delivery of the work is reported programmatically in six categories.

Each of the 153 Nickel and 238 TPA projects has a line item budget, and are reported at an individual project level. Budgets for PEF, Nickel, and TPA in this edition of the *Gray Notebook* are based on the 2008 Supplemental Budget.

Highway construction performance dashboard
Dollars in thousands

	Nickel (2003)	TPA (2005)	Combined Nickel & TPA	Pre-Existing Funds (PEF)
Total number of projects	**153**	**238**	**391**	**766**
Total program budget *	**$3,946,466**	**$9,415,872**	**$13,362,338**	**$4,676,341**
Schedule, Scope, and Budget Summary: Results of completed projects				
Cumulative to date, 2003 – March 31, 2009	For Nickel and TPA details, see pages 69-75			See pages 97-99
Total cumulative number of projects completed	108	78	186	
% Completed early or on time	89%	91%	90%	
% Completed within scope	100%	100%	100%	
% Completed under or on budget	90%	82%	86%	
% Completed on time and on budget	81%	74%	78%	
Baseline estimated cost at completion	$1,699,976	$245,053	$1,945,029	
Current estimated cost at completion	**$1,699,594**	**$234,871**	**$1,934,461**	
% of total program over or under budget	0.0% under	4.2% under	0.5% under	
Biennium to date, 2007-09				
Total number of projects completed in 2007-09	**39**	**54**	**93**	**283**
% Completed early or on time	85%	91%	88%	-
% Completed within scope	100%	100%	100%	-
% Completed under or on budget	87%	85%	86%	-
% Completed on time and on budget	77%	78%	77%	-
Baseline estimated cost at completion	$946,073	$230,134	$1,176,207	$1,568,794
Current estimated cost at completion	$947,100	$220,157	$1,167,257	$1,569,211
Advertisement Record: Results of projects entering into the construction phase or under construction				
Cumulative to date, 2003 – March 31, 2009	For Nickel and TPA details, see pages 76-81			See pages 99-102
Total number of projects in construction phase	**20**	**59**	**79**	**N/A**
% Advertised early or on time	85%	83%	83%	-
Total award amounts to date	$580,446	$778,456	$1,358,902	-
Biennium to date, 2007-09				
Total advertised	**14**	**50**	**64**	**214**
% Advertised early or on time	93%	82%	84%	90%
Total award amounts to date	$311,885	$419,804	$731,689	N/A
Advertisement Schedule for projects in the pipeline: Results of projects now being advertised for construction or planned to be advertised				
January 1, 2009 through June 30, 2009	For Nickel and TPA details, see pages 82-83			See pages 100-102
Total projects being advertised for construction bids	**3**	**13**	**16**	**47**
% on or better than schedule	33%	77%	69%	–

Data Source: WSDOT Project Control & Reporting. * per 2005-2007 Transportation Budget, Section 603.

Rail and Ferries Construction: Nickel and TPA Performance Dashboard

A total of six Nickel projects and four Transportation Partnership Account (TPA) rail construction projects have been delivered on time and on budget as of March 31, 2009 (100% on-time, 100% on-budget) for 30 million. Eight projects (four Nickel-funded, four TPA-funded) in construction have total award amounts of $39 million. One rail project is planned to advertise prior to September 30, 2009.

To date, ferries has not completed any construction projects using Nickel or TPA funding, but four projects (three Nickel-funded and one TPA-funded) are in construction.

Rail performance dashboard *As of March 31, 2009; dollars in thousands*	**Nickel (2003)**	**Transportation Partnership Account**	**Combined Nickel & TPA**
Schedule, scope and budget summary: completed projects			
Cumulative to date, 2003 – March 31, 2009	6	4	10
% Completed early or on time	100%	100%	100%
% Completed within scope	100%	100%	100%
% Completed under or on budget	100%	100%	100%
% Completed on time and on budget	100%	100%	100%
Baseline estimated cost at completion	$23,090	$14,965	$38,055
Current estimated cost at completion	$23,090	$14,965	$38,055
% of total program on or under budget	100%	100%	100%
Advertisement record: projects under construction or entering construction phase			
Biennium to date, 2007-09			
Total advertised	4	4	8
% Advertised early or on time	75%	50%	63%
Total award amounts to date	$27,801	$11,565	$39,366
Advertisement schedule: projects now being advertised or planned to advertise			
March 1, 2009 through September 30, 2009			
Total being advertised for construction	1	0	1
% On schedule or earlier	0%	0%	0%
Ferries performance dashboard *As of March 31, 2009; dollars in thousands*			
Advertisement record: projects under construction or entering construction phase			
Cumulative to date, 2003 – March 31, 2009			
Total number of projects in construction phase	3	1	4
% Advertised early or on time	25%	100%	40%
Total award amounts to date	$10,712	$49,196	$59,908
Advertisement schedule: projects now being advertised or planned to advertise			
March 1, 2009 through September 30, 2009			
Total being advertised for construction	0	0	0
% On or better than schedule	N/A	N/A	N/A

Data Source: WSDOT Project Control and Reporting Office.

Schedule, Scope and Budget Summary

186 Highway projects completed as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, costs estimated at completion, dollars in thousands

Project description	Fund type	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost	On budget	Completed on time, on budget
Cumulative to date								
2003-05 Biennium Summary See Gray Notebook for quarter ending Sept 30, 2006, for project listing. May be accessed at http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm.	19 Nickel	4 early 15 on time	6 early 13 on time	19	$118,575	$118,450	9 under 8 on budget 2 over	17 on time and on budget
2005-07 Biennium Summary See Gray Notebook for quarter ending June 30, 2007, for project listing. May be accessed at http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm.	50 Nickel 23 TPA	20 early 48 on time 5 late	49 early 16 on time 8 late	73	$650,986	$652,896	27 under 33 on budget 13 over	53 on time and on budget

Project description	Fund type	Original appro-priation & year	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost at completion	On budget	Completed on time and on budget
Biennium to date (2007-09)									
Adams and Franklin Co — Roadside safety improvements (Adams, Franklin) Advertisement date was delayed to complete cultural resource survey and environmental permits. The operationally complete date was delayed until spring due to the time required for contractor to purchase and receive steel components for the guardrail system.	TPA	$1,000 *2005*	Late	Late	√	$1,000	$901	Under	
SR 14/Benton Co — Roadside safety improvements (Benton)	TPA	$800 *2005*	√	Early	√	$1,691	$1,518	Under	√
SR 24/SR 241 to Cold Creek Rd — Add passing lanes (Benton, Yakima)	TPA	$3,800 *2005*	√	Early	√	$5,145	$4,434	Under	√
US 2/Wenatchee — Build trail connection (Chelan)	TPA	$1,000 *2005*	Early	√	√	$1,835	$1,835	√	√
US 2/US 97 Peshastin East — New interchange (Chelan)	Nickel	$25,350 *2003*	√	Early	√	$21,935	$21,934	√	√
US 2/Roadside safety improvements — Safety (Chelan) The operationally complete date was incorrenctly reported in the September 2008 Gray Notebook as October 2008. The correct completion date is August 2008.	TPA	$800 *2005*	√	Early	√	$800	$800	√	√
US 2/Dryden — Install signal (Chelan)	Nickel	$320 *2003*	√	√	√	$498	$498	√	√
East Olympic Peninsula — Roadway safety improvements (Clallam, Jefferson, Kitsap, Mason, Pierce) Delays to both materials procurement and the ad date contributed to a delayed operationally complete date.	TPA	$2,900 *2005*	√	Late	√	$2,900	$3,147	Over	
West Olympic Peninsula — Roadway safety improvements (Clallam, Grays Harbor, Jefferson)	TPA	$2,000 *2005*	√	√	√	$2,000	$1,141	Under	√
US 101/Blyn vicinity — Add passing lanes (Clallam)	Nickel	$2,085 *2003*	√	√	√	$4,381	$3,510	Under	√
SR 112/Neah Bay to Sekiu — Roadside safety improvements (Clallam)	TPA	$10,373 *2005*	√	√	√	$10,373	$9,234	Under	√

WSDOT's Capital Project Delivery Programs

Schedule, Scope and Budget Summary

186 Highway projects completed as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, costs estimated at completion, dollars in thousands

Project description	Fund type	Original appro-priation & year	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost at completion	On budget	Completed on time and on budget
SR 112/Seiku vicinity to US 101 — Install guardrail (Clallam)	TPA	$1,800 *2005*	√	√	√	$1,800	$1,386	Under	√
SR 112/Hoko and Pysht rivers — Erosion control (Clallam)	TPA	$250 *2005*	Early	Early	√	$250	$146	Under	√
This project is now closed after a lengthy evaluation subsequent to state forces repair work completed in December 2006 that corrected the deficiencies at the time.									
I-5/SR 502 interchange — Build interchange (Clark)	Nickel	$34,730 *2003*	√	Early	√	$51,748	$52,652	√	√
SR 14/Lieser Rd interchange — Add ramp signal (Clark)	TPA	$1,000 *2005*	Early	Early	√	$973	$833	Under	√
SR 500/I-205 Interchange — Extend merge lane (Clark)	TPA	$975 *2005*	Early	Early	√	$1,002	$690	Under	√
SR 502/10th Ave to 72nd Ave — Safety improvements (Clark)	TPA	$1,215 *2005*	Early	√	√*	$736	$434	Under	√
* Project scope reduced to low-cost operational enhancements after TPA program funded a widening project in the same corridor.									
SR 503/Gabriel Rd Intersection (Clark)	TPA	$773 *2005*	√	Early	√*	$501	$501	√	√
* Presence of potential hazardous waste site raised construction costs to a point exceeding the projected benefits of building the right turn lane. Project scope reduced to low-cost operational enhancements during the 2007 legislative session.									
I-5/Lexington vicinity — Construct new bridge (Cowlitz)	Nickel	$5,000 *2003*	√	√	√	$5,000	$5,000	√	√
SR 432/Roadside safety improvements (Cowlitz)	TPA	$600 *2005*	Early	Early	√	$616	$470	Under	√
SR 260, 263, and 278 — Upgrade guardrail (Franklin, Spokane, Whitman)	Nickel	$1,025 *2005*	Late	Late	√	$1,054	$883	Under	
Advertisement date was delayed to complete cultural resource survey and environmental permits. The operationally complete date was delayed until spring due to the time required for contractor to purchase and receive steel components for the guardrail system.									
US 12/Waitsburg to SR 127 — Roadside safety improvements (Garfield, Columbia, Walla Walla)	TPA	$166 *2006*	√	Early	√	$266	$106	Under	√
US 12/SR 127 to Clarkston — Roadside safety improvements (Garfield, Columbia)	TPA	$1,900 *2005*	√	Early	√	$307	$115	Under	√
SR 17/Pioneer Way to Stratford Rd — Widen to four lanes (Grant)	TPA	$15,215 *2005*	√	Early	√	$20,989	$20,985	√	√
US 12/Clemons Rd vicinity — Intersection improvements (Grays Harbor)	TPA	$2,500 *2005*	√	Early	√	$1,455	$1,044	Under	√
US 12/Wynoochee River Bridge — Upgrade bridge rail (Grays Harbor)	Nickel	$43 *2005*	Late	√	√	$257	$202	Under	√
Advertisement date delayed to tie this project with another for efficiency.									
US 101/Quinault River Bridge — Upgrade bridge rail (Grays Harbor)	Nickel	$51 *2005*	Late	√	√	$268	$229	Under	√
Advertisement date changed to balance with Nickel bridge rail retrofit allocation.									
SR 105/Johns River Bridge — Upgrade bridge rail (Grays Harbor)	Nickel	$68 *2005*	Late	√	√	$338	$263	Under	√
Advertisement date changed to balance with Nickel bridge rail retrofit allocation.									

Schedule, Scope and Budget Summary

186 Highway projects completed as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, costs estimated at completion, dollars in thousands

Project description	Fund type	Original appro-priation & year	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost at completion	On budget	Completed on time and on budget
US 101/Mt Walker — Add passing lane (Jefferson)	TPA	$2,500 *2005*	Late	√	√	$3,550	$2,073	Under	√
Advertisement date delayed for possible redesign of structural elements. Redesign was deemed unnecessary and the project was advertised in 4/07.									
SR 116/SR 19 to Indian Island — Upgrade bridge rail (Jefferson)	Nickel	$154 *2005*	Late	Late	√	$475	$570	Over	
Advertisement date delayed due to Dept of Archaeology & Historic Preservation (DAHP) review required for this project.									
I-405/Bridges — Seismic (King)	TPA	$1,265 *2007*	√	Early	√	$1,580	$1,521	√	√
I-5/Pierce County Line to Tukwila interchange — Add HOV lanes (King)	Nickel	$55,100 *2003*	Early	Late	√	$142,593	$139,836	√	
The delay in operationally complete date, from May 2007 to July 2007, was due to poor weather that reduced the number of workable contract days.									
I-5/S Seattle Northbound Viaduct — Bridge paving (King)	TPA	$11,389 *2005*	√	Early	√	$14,360	$16,072	Over	
Project was over budget due to increased quantities for polyester concrete, project security, and additional contractor incentive payment.									
SR 410 and SR 164 — Roadside safety improvements (King)	TPA	$1,200 *2005*	√	Early	√	$1,200	$1,188	√	√
I-5/Southbound Viaduct, S Seattle vicinity — Bridge repair (King)	TPA	$3,910 *2005*	√	Early	√	$1,108	$1,266	Over	
Project was over budget due to increased traffic control and additional contractor incentive payment.									
I-90/Two Way Transit — Transit and HOV, Stage 1 (King)	TPA	$15,000 *2003*	Late	Early	√	$20,504	$17,658	Under	√
Advertisement date delayed to obtain Agreement of Access with Mercer Island.									
I-90/Eastbound Ramps to SR 18 — Add signal and turn lanes (King)	Nickel	$3,354 *2003*	√	Early	√	$5,012	$5,012	√	√
I-90/Eastbound Ramps to SR 202 — Construct roundabout (King)	Nickel	$932 *2003*	√	√	√	$1,832	$1,843	√	√
SR 99/S 284th to S 272nd St — Add HOV lanes (King)	Nickel	$13,304 *2003*	√	√	√	$15,404	$15,153	√	√
SR 99/Alaskan Way Viaduct Yesler Way vicinity — Stabilize foundation (King)	TPA	$4,472 *2008*	√	√	√	$4,637	$4,637	√	√
SR 167/15th St SW to 15th St NW — Add HOV lanes (King)	Nickel	$39,600 *2003*	√	Early	√	$41,491	$45,044	Over	
Operational completion was expected in December 2007, based on an accelerated schedule submitted by the contractor. The contractor was unable to complete the paving operations in 2007 due to bad weather in November and December; further, harsh winter weather damaged remaining ramps, which required roadway and paving repairs. In addition, electrical work meshed more efficiently with the adjacent HOT lane project. WSDOT asked OFM for funds to cover the higher costs.									
SR 167 HOT Lanes Pilot Project — Managed lanes (King)	TPA	$13,780 *2005*	Early	Early	√	$17,877	$18,816	Over	
The project is operationally complete but over budget due to higher than expected construction costs for sign bridges, retaining walls and environmental work. Traffic control costs were higher than initially estimated: contractor used night lane closures during summer 2008 in order to meet construction schedule.									
SR 169/SE 291st St vicinity (formerly SE 288th Street) — Add turn lanes (King)	TPA	$1,600 *2005*	√	√	√	$2,606	$2,701	√	√
SR 202/Jct SR 203 — Construct roundabout (King)	Nickel	$2,803 *2003*	√	Late	√	$3,950	$3,950	√	
Operationally complete date was delayed when project was shut down due to severe weather conditions.									

WSDOT's Capital Project Delivery Programs

Schedule, Scope and Budget Summary

186 Highway projects completed as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, costs estimated at completion, dollars in thousands

Project description	Fund type	Original appro-priation & year	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost at completion	On budget	Completed on time and on budget
I-405/SR 520 to SR 522 — Widening (King)	Nickel	$163,735 *2003*	√	√	√	$87,293	$81,445	Under	√
SR 515/SE 182nd St to SE 176th St vicinity — Construct traffic island (King)	TPA	$900 *2005*	Late	√	√	$1,701	$1,530	Under	√
Advertisement date delay due to utility relocation issues.									
SR 516/208th and 209th Ave SE — Add turn lanes (King)	Nickel	$1,443 *2003*	Late	Late	√	$1,881	$2,367	Over	
Delays by the utility company in turn delayed construction into late fall; heavy rains delayed the schedule further and added labor and equipment costs.									
SR 522/I-5 to I-405 — Multimodal improvements (King)	TPA	$9,681 *2003*	Early	Early	√	$22,581	$22,524	√	√
SR 3/SR 303 Interchange (Waaga Way) — Construct ramp (Kitsap)	Nickel	$15,179 *2003*	√	√	√	$24,828	$26,284	Over	
Increase was due to change orders to cover over-runs in erosion control, traffic control, and slope maintenance.									
SR 3/Imperial Way to Sunnyslope — Add lanes (Kitsap)	TPA	$2,544 *2005*	Late	Early	√	$2,911	$1,547	Under	√
Advertisement date delayed due to unresolved utilities issues.									
US 97/Klickitat County — Roadside safety improvements (Klickitat)	TPA	$1,000 *2005*	√	Early	√	$1,000	$871	Under	√
SR 7/Lewis County — Roadside safety improvements (Lewis)	TPA	$1,700 *2005*	√	Early	√	$1,680	$879	Under	√
US 101/SR 3 on-ramp to US 101 northbound — Add new ramp (Mason)	TPA	$3,000 *2005*	Early	√	√	$4,240	$3,788	Under	√
Advancement was made to complete this work prior to the scheduled closing of Hood Canal Bridge.									
US 97/Brewster vicinity — Install lighting (Okanogan)	TPA	$150 *2005*	Early	Early	√	$196	$196	√	√
SR 401/US 101 to east of Megler Rest Area vicinity — Upgrade guardrail (Pacific)	Nickel	$130 *2005*	Early	Early	√	$296	$141	Under	√
Pierce and Thurston counties — Roadside safety improvements (Pierce, Thurston)	TPA	$1,000 *2005*	√	Early	√	$1,000	$936	Under	√
I-5/S 48th to Pacific Ave — Add HOV lanes (Pierce)	Nickel	$92,987 *2003*	√	√	√	$105,546	$105,339	√	√
SR 7/SR 507 to SR 512 — Safety improvements (Pierce)	Nickel	$11,429 *2003*	√	Late	√	$20,268	$20,945	√	
The operationally complete date was delayed due to additional time needed for signal system installation, which delayed paving and sidewalk work.									
SR 161/SR 167 Eastbound Ramp — Realign ramps (Pierce)	Nickel	$2,039 *2003*	√	√	√	$3,066	$2,749	Under	√
SR 20/Thompson Road — Add signal (Skagit)	TPA	$775 *2005*	Early	√	√	$1,038	$1,025	√	√
SR 20/Ducken Rd to Rosario Rd — Add turn lanes (Skagit, Island)	Nickel	$4,393 *2003*	Late	√	√	$8,505	$8,520	√	√
Advertisement date delayed due to environmental permitting issues.									

Schedule, Scope and Budget Summary

186 Highway projects completed as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, costs estimated at completion, dollars in thousands

Project description	Fund type	Original appro-priation & year	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost at completion	On budget	Completed on time and on budget
SR 9, SR 11, and SR 20 — Roadside safety improvements (Skagit)	TPA	$1,400 *2005*	√	√	√	$1,400	$1,683	Over	
Project was completed over budget because additional elements (guardrail in several new locations, replacing two school flashing beacon signs) were added to reflect high traffic volumes and to help reduce accidents on SR 9.									
US 2 and SR 92 — Roadside safety improvements (Snohomish)	TPA	$1,200 *2005*	√	Late	√	$1,232	$1,162	Under	
The operationally complete date was delayed because project was shut down due to winter weather and unavailable materials.									
US 2/Fern Bluff to Sultan Startup — Stormwater drainage improvements (Snohomish)	TPA	$799 *2005*	√	Early	√	$1,012	$465	Under	√
US 2/10th St Intersection vicinity — Stormwater drainage improvements (Snohomish)	TPA	$441 *2005*	√	√	√	$534	$212	Under	√
US 2/Pickle Farm Road and Gunn Road — Add turn lanes (Snohomish)	Nickel	$973 *2003*	Late	√	√	$1,322	$1,346	√	√
Advertisement date delayed to address design deviations and late addition of consultant staff.									
I-5/SR 526 to Marine View Drive — Add HOV lanes (Snohomish)	Nickel	$246,286 *2003*	Early	√	√	$220,575	$221,314	√	√
I-5/41st St Interchange — Widening and rebuild ramps (Snohomish)	TPA	$40,400 *2005*	Early	√	√	$42,844	$42,844	√	√
SR 9/SR 522 to 228th St SE, Stages 1a and 1b — Add lanes (Snohomish)	Nickel	$22,250 *2003*	√	√	√	$22,840	$24,459	Over	
Project was over budget due to higher than anticipated costs associated with erosion control and water removal. Work on the project was suspended in December 2007 and moved to February 2008 to avoid adverse impacts to wetlands adjacent to the project site during winter weather.									
SR 9/228th St SE to 212th St SE (SR 524), Stage 2 — Add lanes (Snohomish)	Nickel	$22,283 *2003*	√	√	√	$31,181	$31,319	√	√
SR 9/108th Street NE (Lauck Road) — Add turn lanes (Snohomish)	Nickel	$1,353 *2003*	√	√	√	$1,846	$1,839	√	√
SR 9/Schloman Rd to 256th St NE — New alignment (Snohomish)	Nickel	$15,952 *2003*	Late	Early	√	$16,137	$16,600	√	√
Advertisement date delayed due to additional time needed to acquire environmental permits and right-of-way parcels.									
SR 9/252nd St northeast vicinity — Add turn lane (Snohomish)	Nickel	$881 *2003*	Late	Early	√	$1,731	$1,704	√	√
Advertisement date delayed due to additional time needed to acquire environmental permits and right-of-way parcels.									
SR 9/268th St intersection — Add turn lane (Snohomish)	Nickel	$2,765 *2003*	Late	Early	√	$2,833	$2,833	√	√
Advertisement date delayed due to additional time needed to acquire environmental permits and right-of-way parcels.									
SR 99/north of Lincoln Way — Construct sidewalks (Snohomish)	TPA	$931 *2005*	√	√	√	$1,557	$1,557	√	√
SR 530/Sauk River (Site #2) — Stabilize river bank (Snohomish)	TPA	$3,750 *2005*	Early	Early	√	$3,335	$4,518	Over	
Project was completed over budget after severe winter weather increased the deteriorating condition of the river embankment, and an emergency contract was awarded to prevent a section of the roadway from collapsing into the river.									
SR 531/Lakewood Schools — Construct sidewalks (Snohomish)	TPA	$460 *2005*	Early	√	√	$705	$495	Under	√

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Project description	Fund type	Original appro-priation & year	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost at completion	On budget	Completed on time and on budget
I-90/Latah Creek and Lindeke St bridges — Upgrade bridge rail (Spokane)	Nickel	$737 *2005*	√	Early	√	$813	$810	√	√
I-90/Harvard Rd Pedestrian Bridge — Construct bridge (Spokane)	TPA	$332 *2005*	√	√	√	$1,333	$1,362	√	√
SR 902/Medical Lake Interchange — Intersection improvements (Spokane)	TPA	$600 *2005*	Late	√	√	$743	$821	Over	
The current estimated cost to complete includes $187,000 of developer mitigation funding. When the developer mitigation funds are added to the current Legislative Expectation Baseline for this project, the project was actually completed within budget.									
SR 25/Spokane River Bridge — Upgrade bridge rail (Stevens, Lincoln)	Nickel	$354 *2005*	√	√	√	$369	$249	Under	√
SR 25/Columbia River Bridge — Upgrade bridge rail (Stevens)	Nickel	$448 *2005*	√	√	√	$468	$408	Under	√
SR 4/Svensen's Curve (Wahkiakum)	Nickel	$6,714 *2003*	√	√	√*	$1,637	$1,637	√	√
* Real estate and construction costs escalated to a point exceeding the projected benefits of straightening the curve. Project scope reduced to low-cost operational enhancements during the 2007 legislative session.									
US 12/Attalia vicinity — Add lanes (Walla Walla)	Nickel	$10,333 *2003*	√	Early	√	$16,201	$16,218	√	√
SR 542 and SR 547 — Roadside safety improvements (Whatcom)	TPA	$1,300 *2005*	√	√	√	$1,284	$615	Under	√
SR 542/Boulder Creek Bridge — Replace bridge (Whatcom)	TPA	$6,025 *2005*	Late	Late	√	$7,258	$7,247	√	
Advertisement date delayed due to time required to analyze alternative bridge footings, in turn delaying environmental review and permitting process. Operationally complete date delayed when demolition of the old bridge missed the 2007 fish passage window and was rescheduled to 2008: final embankments for the new bridge could not be constructed with old bridge still in place.									
SR 543/I-5 to Canadian Border — Add lanes (Whatcom)	Nickel	$33,897 *2003*	Late	Early	√	$49,013	$50,807	√	√
Advertisement date delayed due to delays in acquiring right of way.									
Whitman and S Spokane Co — Roadside safety improvements (Whitman, Spokane)	TPA	$1,000 *2005*	Late	Late	√	$1,000	$899	Under	
Advertisment date delayed to complete cultural resource survey and environmental permits. The operationally complete date was delayed until spring due to the time required for contractor to purchase and receive steel components of the guardrail system.									
SR 270/Pullman to Idaho state line — Add lanes (Whitman)	Nickel	$30,619 *2003*	Late	√	√	$31,188	$31,188	√	√
Advertisement date delayed due to environmental permitting issues and Corps of Engineers mitigation negotiations. The project was completed within budget; however, WSDOT is currently negotiating with the contractor on a significant contractor claim.									
US 12/Naches River north of Yakima — Stabilize slopes (Yakima)	TPA	$1,600 *2005*	√	√	√	$2,985	$2,976	√	√
SR 241/Rattlesnake Hills vicinity — Roadside safety (Yakima, Benton)	TPA	$250 *2005*	Late	Early	√	$2,170	$1,850	Under	√
Advertisment date delay due to environmental permitting issues.									
SR 410/Rattlesnake Creek — Stabilize slopes (Yakima)	TPA	$250 *2005*	√	Early	√	$331	$332	√	√

Schedule, Scope and Budget Summary

186 Highway projects completed as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, costs estimated at completion, dollars in thousands

Project description	Fund type	Original appro-priation & year	On time advertised	On time completed	Within scope	Baseline estimated cost	Current estimated cost at completion	On budget	Completed on time and on budget
SR 823/Goodlander to Harrison Rd — Build sidewalk (Yakima)	TPA	$376 *2005*	√	Early	√	$993	$1,163	Over	
Cost increases due to design changes for utility relocation and right-of-way easements, as well as material cost escalation and inflation. Cost increases are covered by Pre-Existing Funds.									
Current quarter									
Lincoln Co — Roadside safety improvements (Lincoln)	TPA	$1,010 *2005*	√	Early	√	$1,010	$988	√	√

Biennial totals 2007-2009

Nickel and Transportation Partnership Account (TPA) projects, costs estimated at completion, dollars in thousands

	Percent on time advertised	Percent on time completed	Percent within scope	Current Legislative expectation baseline	Current estimated cost at completion	Percent within budget	Percent on time and on budget
Totals Current Quarter (March 31, 2009)	**100%**	**100%**	**100%**	**$1,010**	**$988**	**100%**	**100%**
0 Nickel projects	0%	0%	0%	$0	$0	0%	0%
1 TPA project	100%	100%	100%	$1,010	$988	100%	100%
Totals biennium to date (2007-09)	**76%**	**88%**	**100%**	**$1,176,207**	**$1,167,237**	**86%**	**77%**
39 Nickel projects	67%	85%	100%	$946,073	$947,100	87%	77%
54 TPA projects	83%	91%	100%	$230,134	$220,137	85%	78%
Totals cumulative to date**	**85%**	**90%**	**100%**	**$1,945,029**	**$1,934,441**	**86%**	**78%**
108 Nickel projects	85%	89%	100%	$1,699,976	$1,699,590	90%	81%
78 TPA projects	86%	91%	100%	$245,053	$234,851	82%	74%

Source: WSDOT Project Control and Reporting Office

** Note: Dollars shown are for all fund types, not just Nickel or Transportation Partnership Account funds.

Definitions

On-Time Advertised
The project was advertised within the quarter as planned based on the original Legislative expectation (2003-05 Nickel, 2005-07 TPA).

On-Time Completed
The project was operationally complete within the quarter as planned in the original Legislative expectation (2003-05 Nickel, 2005-07 TPA). "Operationally complete" is the date when the public has free and unobstructed use of the facility. In some cases, the facility will be open, but minor work items may remain to be completed.

Within Scope
The project was completed within the specific functional intent of a project as last approved by the Legislature.

On-Budget
The project was within +/- 5% of the current Legislative expectation (baseline).

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79 Projects in construction phase as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, dollars in thousands

Project description	Fund type*	On time advertised	Ad date	Contractor	Operationally complete date	Award amount
Cumulative to date						
SR 518/SeaTac Airport to I-5 — Eastbound widening (King)	TPA	√	Apr-07	Tri-State Construction, Inc.	Jun-09	$26,631
SR 509/SR 518 interchange — Signalization and channelization (King)	TPA	Early	*Combined with the project above for construction efficiencies.*			
SR 509/I-5 to Sea-Tac – Freight & congestion relief (King)	TPA	Late	Jun-06	Tri-State Construction, Inc.	Sep-09	$344
The original advertisement date is November 2005, though project funding was uncertain until Initiative I-912 was decided in November 2005, requiring an update of the ad date. The original schedule update to the project list was not entered in the 2006 Legislative Budget, though the ad date was updated to June 2006 in the 2007 Legislative Budget.						
I-405/NE 10th St — Bridge crossing (King)	TPA	Early	Sep-06		Dec-09	
• I-405/NE 10th St Bridge crossing (King)	TPA		Sep-06	City of Bellevue	Apr-08	$9,772
• I-405/NE 10th St Bridge crossing Stage 2 (King)	TPA		Sep-07	Max J. Kuney Company	Dec-09	$13,866
I-405/I-90 to SE 8th St — Widening (King)	Nickel	Early	Oct-06	Guy F. Atkinson Construction LLC	Dec-09	$124,000
I-405/112th Ave SE to I-90 — Northbound widening (King)	TPA	Early	*Combined with the project above for construction efficiencies.*			
SR 167/S 180th St to I-405 — Southbound widening (King)	TPA	Early	Feb-07	Tri-State Construction Inc	Jun-10	$91,500
I-405/SR 181 to SR 167 — Widening (King)	TPA	Early	*Combined with the project above for construction efficiencies.*			
• I-405/I-5 to SR 169 Stage 1 — Widening (King)	TPA		Feb-07	Tri-State Construction Inc	Jun-10	
• I-405/Springbrook Creek wetland and habitat mitigation bank (King)	TPA		Aug-06	Scarsella Bros., Inc.	May-09	$12,539
I-405/I-5 to SR 181 — Widening (King)	TPA	Early	*Combined with the project above for construction efficiencies.*			
SR 520/W Lake Sammamish Parkway to SR 202, Stage 3 — Widening (King)	Nickel	Late	Jan-07	Tri-State Construction, Inc.	Sep-11	$9,988
The advertisement for the flyover ramp portion of this project has been delayed to January 2007 due to stormwater and wetland design changes. The flyover ramp is currently open to traffic; the widening portion of the project was advertised in October 2008.						
SR 104/Hood Canal Bridge — Replace east half (Kitsap, Jefferson)	TPA	√	Feb-03	Kiewit-General, A Joint Venture	Jun-09	$204,000
I-5/Rush Rd to 13th St — Add lanes (Lewis)	Nickel	√	Mar-07	Scarsella Bros., Inc.	Dec-09	$33,750
SR 20/Fredonia to I-5 — Add lanes (Skagit)	Nickel	√	Nov-06	Scarsella Bros., Inc.	Oct-09	$15,139
SR 20/Quiet Cove Rd vicinity to SR 20 Spur — Widening (Skagit)	Nickel	√	May-07	Marshbank	Oct-09	$6,129

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Nickel and Transportation Partnership Account (TPA) projects, dollars in thousands

Project description	Fund type*	On time advertised	Ad date	Contractor	Operationally complete date	Award amount
US 395/NSC-Francis Ave to Farwell Rd — New alignment (Spokane)	Nickel	Late	Jan-04		Aug-09	
The advertisement delay on this project was due to delays in the right-of-way acquisition.						
• NSC-Farwell Road – Lowering	Nickel		Jan-04	Max J. Kuney Company	Jul-05	$4,976
• NSC-Gerlach to Wandermere — Grading	Nickel		Nov-04	KLB Construction Inc.	Sep-06	$9,987
• NSC-Francis Avenue to US 2 – Structures	Nickel		May-06	Max J. Kuney Company	Jul-08	$17,236
• US 395/NSC-Freya to Fairview vicinity — Grading and structures	Nickel		Jan-07	Steelman-Duff	Nov-08	$10,571
• US 395/NSC-Freya St to Farwell Rd — PCCP paving	Nickel		Feb-07	Acme Concrete Paving	Mar-09	$19,490
• US 395/NSC — BNSF rail tunnel	Nickel		Sep-07	Scarsella Bros. Inc.	Aug-09	$17,295
Biennium to date (2007-09)						
SR 26/Othello vicinity — Install lighting (Adams, Grant)	TPA	Early	Dec-07	Central Washington Asphalt, Inc.	Oct-09	$5,134
Advertisement date was advanced to construct a portion of this project as a part of a larger PEF program for construction efficiencies.						
SR 17/Othello vicinity to Soap Lake vicinity — Install lighting (Grant, Adams)	TPA	Early	*Combined with the project above for construction efficiencies*			
Advertisement date was advanced to construct a portion of this project as a part of a larger PEF program for construction efficiencies.						
US 395/Columbia Dr to SR 240 — Rebuild interchange (Benton)	TPA	√	Oct-08	KLB Construction, Inc.	Nov-09	$11,520
I-205/Mill Plain Exit (112th Connector) — Build ramp (Clark)	Nickel	Early	Mar-08	Selby Bridge Company, Inc.	Dec-09	$14,875
I-205/Mill Plain interchange to NE 18th St — Stage 1 (Clark)	TPA	Early	*Combined with the project above for construction efficiencies*			
US 101/W Fork Hoquiam River Bridge — Replace bridge 101/142 (Grays Harbor)	TPA	√	Mar-08	Ross Bros. & Company, Inc.	Jun-09	$3,545
The operationally complete date has been delayed due to weather dependent paving.						
US 101/W Fork Hoquiam River Bridge — Replace bridge 101/145 (Grays Harbor)	TPA	√	*Combined with the project above for construction efficiencies*			
The operationally complete date has been delayed due to weather dependent paving.						
I-5/Boston St to E Shelby St — Southbound I-5, west side – Noise wall (King)	TPA	√	Mar-08	C. A. Carey Corp.	Apr-09	$5,376
I-5 Guardrail Retrofit — Safety (King)	Nickel	√	Dec-08	Tri-State Construction	Jun-09	$1,326
SR 9/Lake Stevens Way to 20th St SE — Improve intersection (Snohomish)	TPA	√	Apr-08		Jun-09	
This is a WSDOT project administered by Snohomish County in order to coordinate more effectively with locally managed projects, and improve cost and construction efficiency.						
I-5/Boeing Access Rd vicinity to King/Snohomish county line — Pavement repair (King)	Nickel	√	Oct-08	Interstate Improvement, Inc.	Jul-09	$9,875

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Nickel and Transportation Partnership Account (TPA) projects, dollars in thousands

Project description	Fund type*	On time advertised	Ad date	Contractor	Operationally complete date	Award amount
SR 522/University of Washington Bothell — Build interchange (King)	TPA	Late	Oct-07	Mowat Construction Company	Oct-09	$36,651
Advertisement date delay due to environmental permit issues. The project was originally advertised in January, 2007 and then pulled from ad due to budget constrains. The project was re-advertised in October, 2007 and was awarded in January, 2008.						
SR 900/SE 78th St vicinity to I-90 vicinity — Widening and HOV (King)	Nickel	√	May-08	Icon Materials, A Division of CPM	Oct-09	$19,354
Central King to South Snohomish bridges — Seismic (King, Snohomish)	TPA	√	Jul-08	Granite Northwest, Inc. dba Wilder	Dec-09	$6,734
I-5/5th Ave NE to NE 92nd St — Noise wall (King)	TPA	√	Feb-08	Wilder Construction Co.	Jun-10	$3,315
SR 519/ I-90 to SR 99 intermodal access project — Interchange improvements (King)	Nickel	Early	Jun-08	Kiewit Pacific Co.	Jun-10	$66,969
I-90/I-5 to 12th Ave S — Seismic Retrofit (King)	TPA	√	Oct-08	PCL Construction Services, Inc.	Jun-10	$5,703
I-90/Eastside Bridges — Seismic (King)	TPA	√	Oct-08	Imco General Construction, Inc.	Sep-10	$5,999
SR 11, SR 525, and SR 900 — Roadside safety improvements (King, Snohomish, Skagit)	TPA	√	Feb-08	Coral Construction Company	Dec-10	$1,463
I-405/SR 167 to SR 169 — Northbound widening (King)	TPA	√	Oct-08	I-405 Corridor Design Builders	Jun-11	$83,599
I-405/SR 167 to SR 169 — Add new southbound lane (King)	Nickel	√	*Combined with the project above for construction efficiencies.*			
I-405/SR 515 — New interchange (King)	TPA	√	*Combined with the project above for construction efficiencies.*			
SR 307/SR 104 Safety Corridor Study — Spot improvements (Kitsap)	TPA	√	Nov-08	Peterson Brothers Inc.	Jul-09	$1,081
SR 16/Burley-Olalla interchange — Build interchange (Kitsap)	Nickel	Late	Apr-08	Ceccanti, Inc.	Dec-09	$16,329
The two-week delay allowed time to address continuing design review issues including temporary erosion control and utility boring designs.						
SR 142/Roadside safety — Roadside improvements (Klickitat)	TPA	Early	Mar-08	Dirt and Aggregate interchange	Oct-10	$300
Cost increase includes pooled funds from other roadside safety projects to address high benefit locations.						
SR 6/South Fork Chehalis River Bridge — Replace bridge (Lewis)	TPA	√	May-08	Scarsella Bros., Inc.	Dec-09	$7,854
US 101/Hoodsport vicinity — Stabilize slope (Mason)	TPA	Late	Dec-08	Active Construction Inc.	Aug-09	$180
Project missed the 2008 construction season due to additional time needed for Endangered Species Act (ESA) compliance and acquiring state water quality permits.						
SR 20/W of Okanogan — Roadside safety improvements (Okanogan)	TPA	√	Dec-08	Central Washington Asphalt, Inc.	Aug-09	$5,733
SR 704/Cross Base Highway — New alignment (Pierce)	TPA	Early	Mar-08	Ceccanti, Inc	Jun-09	$7,350
Project advertised early to allow construction of the first stage at the east end of the corridor and to finish right-of-way acquisition within the 2007-09 biennium.						
I-5/SR 16 interchange — Rebuild interchange (Pierce)	TPA	√	Jul-08	Guy R. Atkinson Construction LLC	Dec-11	$119,925

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Project description	Fund type*	On time advertised	Ad date	Contractor	Operationally complete date	Award amount
SR 9/176th St southeast vicinity to SR 96 — Add signal and turn lanes (Snohomish)	Nickel	√	Jan-08	Scarsella Bros., Inc.	Mar-10	$18,878
SR 9/Marsh Rd intersection — Safety improvements (Snohomish)	TPA	√	*Combined with the project above for construction efficiencies.*			
SR 9/SR 96 to Marsh Rd — Add lanes and improve intersections (Snohomish)	TPA	√	*Combined with the project above for construction efficiencies.*			
I-5/172nd St NE (SR 531) interchange — Rebuild interchange (Snohomish)	TPA	√	Oct-08	Northwest Construction Inc.	Dec-10	$12,976
SR 532/270th St NW to 72nd Ave NW — Improve safety (Snohomish, Island)	TPA	Late	Oct-08	Parsons/Kuney Joint Venture	Dec-10	$50,416
This is a design-build project. Advertisement date delayed to allow additional time needed to acquire environmental permits and right-of-way parcels.						
SR 532/64th Ave NW to 12th Ave NW — Improve safety (Snohomish)	TPA	Early	*Combined with the project above for construction efficiencies.*			
SR 532/General Mark W. Clark Memorial Bridge — Improve safety (Snohomish)	TPA	Early	*Combined with the project above for construction efficiencies.*			
SR 532/General Mark W. Clark Memorial Bridge — Replace bridge (Snohomish)	TPA	Early	*Combined with the project above for construction efficiencies.*			
SR 532/Sunrise Blvd to Davis Slough — Improve safety (Island)	TPA	Early	*Combined with the project above for construction efficiencies.*			
US 395/NSC-US 2 to Wandermere and US 2 Lowering — New alignment (Spokane)	Nickel	√	Aug-08	Graham Construction & Management, Inc.	May-11	$42,849
I-5/Grand Mound to Maytown Stage One — Add lanes (Thurston)	Nickel	√	Dec-07	Scarsella Bros., Inc.	Jun-10	$61,495
US 12/Frenchtown vicinity to Walla Walla — Add lanes (Walla Walla)	TPA	√	Dec-07	Apollo, Inc	May-10	$33,733
I-5/Bakerview Rd to Nooksack River Bridge, Slater Rd interchange — Safety improvements (Whatcom)	Nickel	√	Oct-08	Penhall Company	Sep-09	$2,800
SR 539/Tenmile Road to SR 546 — Widening (Whatcom)	Nickel	√	Dec-07	Max J. Kuney Company	Oct-09	$53,987
Quarter ending March 31, 2009						
SR 26/Othello vicinity — Roadside safety improvements (Adams)	TPA	√	Feb-09	Frank Gurney, Inc	Oct-09	$239
SR 240/Beloit Rd to Kingsgate Way — Widen roadway (Benton)	TPA	√	Feb-09	Imco General Construction, Inc.	Nov-09	$6,764
SR 285/George Sellar Bridge — Additional eastbound lane (Chelan, Douglas)	TPA	Late	Jan-09		Jun-11	
Advertisement date was delayed one month to address additional bridge analysis, design, and detailing requirements, and to purchase railroad easements.						
US 101/Sol Duc River Bridge — Upgrade bridge rail (Clallam)	Nickel	√	Mar-09		Jul-09	
SR 4 and SR 401 — Roadside safety improvements (Cowlitz, Pacific, Wahkiakum)	TPA	√	Mar-09		Dec-09	
US 2/S of Orondo – Add passing lane (Douglas)	TPA	Late	Mar-09		Sep-09	
Advertisement date was delayed due to environmental permitting and acquisition of right-of-way.						

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SR 17/Moses Lake to Ephrata — Widening (Grant)	TPA	Late	Mar-09	Granite Northwest, Inc.	Oct-09	
Advertisement date was delayed to accommodate a design alternative change that reduces the shoulder width from eight to four feet, keeping the project on budget. These two SR17 projects will be combined with a larger PEF program (SR 17/Grant County Aiport North–Paving) for construction efficiencies.						
SR 17/N of Moses Lake — Add passing lane (Grant)	TPA	Late	*Combined with the project above for construction efficiencies.*			
Advertisement date was delayed to accommodate a design alternative change that reduces the shoulder width from eight to four feet, keeping the project on budget. These two SR17 projects will be combined with a larger PEF program (SR 17/Grant County Aiport North–Paving) for construction efficiencies.						
I-405/NE 8th St to SR 520 braided ramps — Interchange improvements (King)	TPA	√	Mar-09		Dec-12	
SR 160/SR 16 to Longlake Rd vicinity — Widening (Kitsap)	Nickel	√	Jan-09	RG Construction	Aug-09	$3,148
The operationally complete date has been delayed from 5/18/09 to 8/30/09; earlier schedule (January 2009 advertisement date and May 2009 construction start date) was not feasible. Project budget increased due to the inclusion of local funds and inflation.						
I-90/Snoqualmie Pass East, Hyak to Keechelus Dam — Corridor improvement (Kittitas)	TPA	Early	Feb-09	KLB Construction, Inc.	Oct-15	$3,298
I-5/Fisher Creek vicinity — Stormwater drainage improvements (Skagit)	TPA	√	Mar-09		Dec-09	
SR 92, SR 520, SR 530, and SR 534 — Roadside safety improvements (Snohomish)	TPA	√	Feb-09	Coral Construction Company	Jan-10	$521
SR 20 and SR 530 — Roadside safety improvements (Snohomish, Skagit)	TPA	√	*Combined with the project above for construction efficiencies.*		Oct-10	
SR 3/Jct US 101 to Mill Creek — Safety (Mason)	TPA	√	Mar-09		Jun-11	
Increase due to inflation applied in August 2008						
North Stevens and Ferry counties — Roadside safety improvements (Stevens, Ferry)	TPA	Late	Feb-09	Frank Gurney, Inc.	Sep-09	$2,355
Advertisement date was delayed due to environmental permit issues.						
Stevens, Spokane, Pend Oreille counties — Roadside safety improvements (Pend Oreille, Spokane, Stevens)	TPA	Late	*Combined with the project above for construction efficiencies.*			
Advertisement date was delayed two months; Region Traffic could not complete signing plans prior to advertisement date due to workforce constraints.						
I-5/Chuckanut Creek vicinity — Stormwater drainage improvements (Whatcom)	TPA	√	Mar-09		Dec-09	
I-5/Squalicum Creek vicinity — Stormwater drainage improvements (Whatcom)	TPA	√	Mar-09		Dec-09	
SR 542/Nooksack River — Redirect river and realign roadway (Whatcom)	TPA	Late	Jan-09	Tapani Underground, Inc.	Oct-11	$395
Ad date delay due to additional time needed to reach a settlement on a privately owned right-of-way parcel that is required for the project. The project was advertised in May 2008 and then pulled from ad. Right-of-way certification requirements were not met prior to bid opening. Advertisement was rescheduled for January 2009 to keep the in-water construction work within the July 1 to September 30th fish passage window.						

Advertisement Record

79 Projects in construction phase as of March 31, 2009

Nickel and Transportation Partnership Account (TPA) projects, dollars in thousands

Advertisement Record summary	Percent on time advertised	Award amount
Totals current quarter (March 31, 2009)	**68%**	**$14,365**
2 Nickel projects	100%	$3,148
18 TPA projects	65%	$11,217
Totals biennium to date (2007-09)	**84%**	**$731,689**
14 Nickel projects	93%	$311,885
50 TPA projects	82%	$419,804
Totals cumulative to date (projects under way)	**83%**	**$1,358,902**
20 Nickel projects	85%	$580,446
59 TPA projects	83%	$778,456

Source: WSDOT Project Control and Reporting Office.

* As established by the 2005 Legislative Evaluation and Accountability Program (LEAP) committee. However, dollars shown are for all fund types, not just Nickel or Transportation Partnership Account funds.

WSDOT's Capital Project Delivery Programs

Projects To Be Advertised

16 Projects in delivery pipeline from April 1, 2009, through September 30, 2009

Nickel and Transportation Partnership Account (TPA) projects now being advertised for construction or planned to be advertised, costs estimated at completion, dollars in thousands

Project Description	Fund type*	Original planned ad date	Current planned ad date	On schedule	Baseline estimated cost at completion	Current estimated cost at completion
I-5/SR 501 Ridgefield Interchange — Rebuild interchange (Clark) This project has been identified to receive $10M in Recovery Act funding	TPA	Jul-09	Jun-09	Advanced	$13,000	$30,000
I-5/SR 432 Talley Way Interchanges — Rebuild interchanges (Cowlitz)	TPA	Jul-09	Sep-09	√	$45,022	$45,008
SR 4/Climbing lane to Coal Creek Rd vicinity — Upgrade guardrail (Cowlitz, Wahkiakum)	Nickel	Apr-09	May-09	√	$3,601	$3,441
SR 28/Jct US 2 and US 97 to 9th St, Stage 1 — New alignment (Douglas) The advertisement date was advanced so that construction around the irrigation canal could be scheduled for 2009/10 winter when the irrigation water is shut off.	TPA	Oct-09	Apr-09	Advanced	$53,910	$58,122
US 101/Mosquito Creek tributary to North River — Fish passage barrier (Grays Harbor) The construction estimate has increased due to initial underestimation of the cost of shoring and excavation work.	TPA	May-09	May-09	√	$1,292	$1,604
SR 99/SR 518 interchange bridge crossing – Seismic retrofit (King) The original project, budgeted at roughly $9.6 million, addressed 27 bridges; this project, now managed by Urban Corridors region, addressed one bridge and is budgeted at roughly $1.4 million. The residual project is now 'SR 518/Bridges – Seismic retrofit,' managed by NorthWest region.	TPA	Mar-11	Aug-09	Advanced	$9,461	$1,381
SR 122/Harmony Resort vicinity — Fish passage barrier (Lewis) The construction estimate has increased due to inflation.	TPA	Apr-09	Apr-09	√	$651	$720
I-5/Puyallup River Bridge east and west — Add HOV lanes (Pierce) The construction estimate has increased due to new bridge substructure design standards, potential archeological impacts, and inflation.	TPA	May-09	May-09	√	$375,830	$426,095
I-5/I-705 to Port of Tacoma Interchange — Add HOV lanes (Pierce) The construction estimate has increased due to inflation	TPA	May-09	May-09	√	$153,850	$172,713
I-5/Port of Tacoma Rd to King Co Line — Add HOV lanes (Pierce) The delay in advertisement date is due to design challenges associated with stormwater and floodplain issues, and time required for formal consultation with USFWS and NOAA. The construction estimate has increased due to inflation. This project has been identified to receive Recovery Act funding	Nickel	Jan-09	Jun-09	Delayed	$66,871	$78,101
I-5/Ardena Road Bridge — Upgrade bridge rail (Pierce) The delay in advertisement date is to tie this project with another for construction efficiencies. The increased construction estimate reflects inflation.	Nickel	Jan-09	Jun-09	Delayed	$215	$237
SR 410/214th Ave E to 234th — Add lanes (Pierce) The ad and operationally complete dates have been delayed due to continued environmental compliance issues, as right-of-way plans, revised for new pond sites, have required restarting the cultural resources process.	TPA	Nov-08	Aug-09	Delayed	$29,340	$29,530
US 2/Colbert Rd Intersection — Intersection improvements (Spokane)	TPA	Jul-09	Jul-09	√	$1,052	$1,171
US 2/N Glen-Elk Chattaroy Rd intersection — Intersection improvements (Spokane)	TPA	Jul-09	Jul-09	√	$1,055	$1,174

Projects To Be Advertised

16 Projects in delivery pipeline from April 1, 2009, through September 30, 2009

Nickel and Transportation Partnership Account (TPA) projects now being advertised for construction or planned to be advertised, costs estimated at completion, dollars in thousands

Project Description	Fund type*	Original planned ad date	Current planned ad date	On schedule	Baseline estimated cost at completion	Current estimated cost at completion
US 12/Tieton River West Crossing — Replace bridge (Yakima)	TPA	Oct-08	Apr-09	Delayed	$8,123	$6,227
The scheduled advertisement date was delayed due to the extended time obtaining the JARPA permit from the county.						
US 12/Tieton River East Crossing — Replace bridge (Yakima)	TPA	Oct-08	Apr-09	Delayed	$6,213	$5,634
The scheduled advertisement date was delayed due to the extended time obtaining the JARPA permit from the county.						

Projects to be advertised	Percent advertised on schedule	Baseline estimated cost at completion	Current estimated cost at completion
Total (April 1, 2009, through September 30, 2009)	**69%**	**$769,484**	**$861,159**
3 Nickel projects	33%	$70,687	$81,779
13 TPA projects	77%	$698,797	$779,380

Source: WSDOT Project Control and Reporting Office.

* As established by the 2005 Legislative Evaluation and Accountability Program (LEAP) committee. However, dollars shown are for all fund types, not just Nickel or Transportation Partnership Account funds.

WSDOT's Capital Project Delivery Programs

Project Milestones: Nickel projects

Schedule milestone tracking for Nickel projects

Schedule milestone results for all Nickel projects with one or more milestone activities

Milestone	Scheduled milestones to date	Scheduled milestones achieved to date	Scheduled milestones not achieved	Scheduled milestone achievement rate**	Milestones achieved early
Project definition complete					
Biennium to date (2007-09)	3	7	0	233%	1
Cumulative to date	140	151	1	108%	12
Begin preliminary engineering					
Biennium to date (2007-09)	8	8	0	100%	0
Cumulative to date	148	153	0	103%	5
Environmental documentation complete					
Biennium to date (2007-09)	23	23	1	100%	1
Cumulative to date	134	133	2	99%	1
Right-of-way certification					
Biennium to date (2007-09)	23	18	4	78%	1
Cumulative to date	78	77	5	99%	4
Advertisement date*					
Biennium to date (2007-09)	24	19	4	79%	1
Cumulative to date	131	128	4	98%	1
Operationally complete					
Biennium to date (2007-09)	39	39	0	100%	5
Cumulative to date	101	108	0	107%	7

Source: WSDOT Project Control and Reporting Office

* Advertisement date includes projects that went to ad & completed in the same quarter.

** Achievement rate may be higher than 100% where the actual number of milestones achieved exceed the number of scheduled milestones. This results when milestones are achieved ahead of their scheduled dates.

Milestone definitions:

Project definition complete
Project definition is the preliminary picture of what a project will achieve and generally how it will do so. It includes deficiencies being addressed, the purpose for a project, location, and project information to the best available level. It is not a true project scope (that requires design effort) but it does support the very first preliminary cost estimate.

Begin preliminary engineering
A project schedule usually has two general phases, the pre-construction phase and the construction phase. Pre-construction involves design, right-of-way, and environmental activities. Beginning the preliminary engineering marks the start of the project design and is usually the first capital spending activity in the delivery process.

Environmental documentation complete
The National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA) require that an appropriate level of environmental assessment be prepared for almost all WSDOT projects. Depending on the project, these can take the form of an Environmental Impact Statement (EIS) or another document of lesser scale. These assessments end in the issuance of a Record of Decision (ROD) or other summary document. This milestone is the date that WSDOT will have finished and submitted to the appropriate regulatory agencies, the documentation for the ROD and/or issuance of permits.

Right-of-way certification
Often WSDOT projects require the acquisition of right of way or property rights. The right-of-way certification marks the point in time that right-of-way acquisition requirements are met and the process is complete for advertisement.

Advertisement date
The date that WSDOT schedules to publicly advertise a project for bids from contractors. When a project is advertised, it has a completed set of plans and specifications, along with a construction cost estimate.

Operationally complete
The date when the public has free and unobstructed use of the facility. In some cases, the facility will be open, but minor work items may remain to be completed.

Project Milestones: Transportation Partnership Account (TPA) projects

Schedule milestone tracking for TPA projects

Schedule milestone results for all TPA projects with one or more milestone activities

Milestone	Scheduled milestones to date	Scheduled milestones achieved to date	Scheduled milestones not achieved	Scheduled milestone achievement rate**	Milestones achieved early
Project definition complete					
Biennium to date (2007-09)	37	55	2	149%	5
Cumulative to date	208	225	4	108%	21
Begin preliminary engineering					
Biennium to date (2007-09)	47	47	4	100%	1
Cumulative to date	214	223	6	104%	15
Environmental documentation complete					
Biennium to date (2007-09)	106	107	13	101%	9
Cumulative to date	176	173	15	98%	12
Right-of-way certification					
Biennium to date (2007-09)	72	51	23	71%	5
Cumulative to date	100	87	23	87%	10
Advertisement date*					
Biennium to date (2007-09)	90	87	10	97%	9
Cumulative to date	140	139	10	99%	9
Operationally complete					
Biennium to date (2007-09)	62	54	10	87%	10
Cumulative to date	76	77	10	101%	11

Source: WSDOT Project Control and Reporting Office

* Advertisement date includes projects that went to ad & completed in the same quarter.

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The date when the public has free and unobstructed use of the facility. In some cases, the facility will be open, but minor work items may remain to be completed.

Paying for the Projects: 2003 Transportation Funding Package (Nickel) financial information

Revenue forecast update

The following information incorporates the March 2009 transportation revenue forecast. The accompanying charts compare the current projected revenue forecast to the baseline forecast used in the budget making process when the 2003 Funding Package was adopted. The 2003 Funding Package was developed as a ten-year plan from 2003 through 2013. Due to timing and funding issues, the 2007 Legislature moved projects beyond 2013. Both cumulative ten-year totals and individual biennial amounts are shown in the chart below.

Current forecasted revenues include the most recent actual revenue collection data available as well as updated projections based on new and revised economic variables.

The March 2009 forecast for gas tax receipts and licenses, permits, and fees for the Transportation 2003 (Nickel) Account is lower than the baseline forecast for the ten-year outlook by 7.8%. This reduction is due to continued lower gasoline consumption. Because Washington State's gas tax is based on gallonage rather than price, reduced consumption results in reduced revenues.

2003 Transportation Funding Package highlights

Deposited into the Transportation 2003 (Nickel) Account (established in 2003)

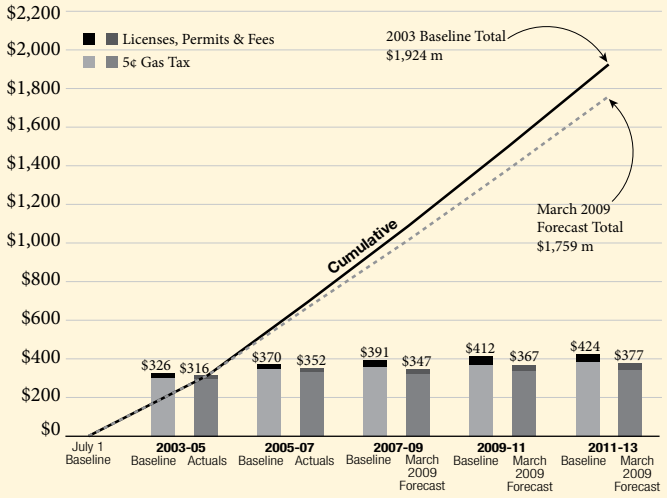
- 5¢ increase to the gas tax
- 15% increase in the gross weight fees on trucks

Deposited into the Multimodal Account (established in 2000)

- An additional 0.3% sales tax on new and used vehicles
- $20 license plate number retention

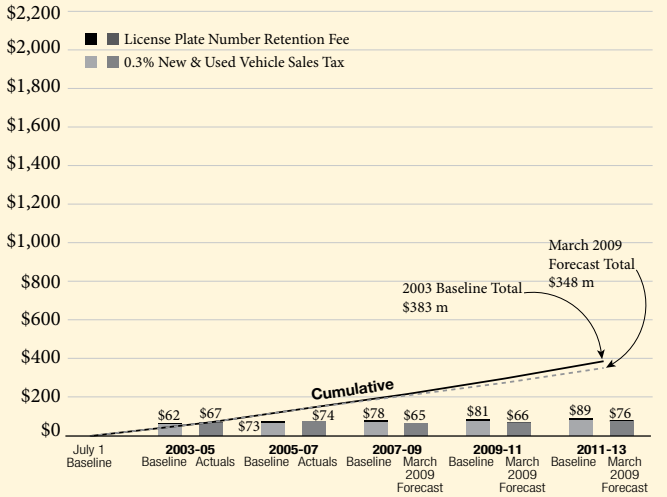
Multimodal Account projections for the vehicle sales tax is lower than the baseline forecast resulting in a decrease of 10.2% in the ten-year outlook. This decrease is due to the decline in vehicle sales.

Transportation 2003 (Nickel) account revenue forecast
March 2003 Legislative baseline compared to the March 2009 Transportation Revenue Forecast Council
Dollars in millions



Numbers may not add due to rounding.
Data source: Financial Planning.

Multimodal Account (2003 Package) revenue forecast
March 2003 Legislative baseline compared to the March 2009 Transportation Revenue Forecast Council
Dollars in millions



Numbers may not add due to rounding.
Data source: Financial Planning.

Paying for the Projects: Transportation Partnership Account (TPA) financial information

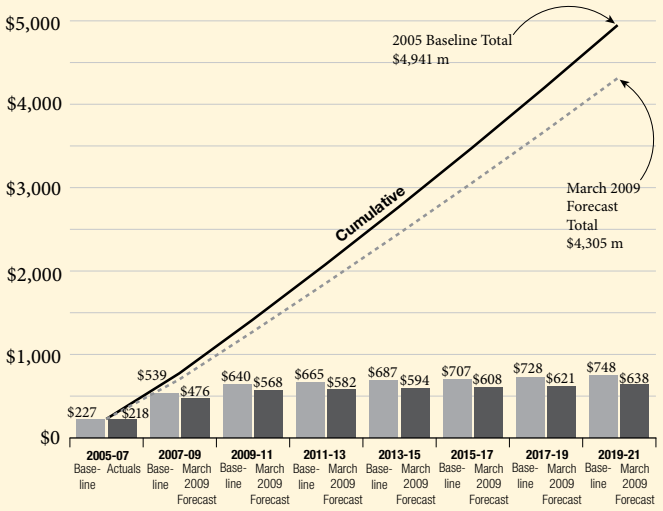
Revenue forecast update

The accompanying chart compares the current March 2009 revenue forecast to the "baseline" forecast used in the budget making process when the 2005 Funding Package was adopted. The 2005 Funding Package was developed as a 16-year plan extending from 2005 through 2021.

The March 2009 forecast for gas tax receipts over the 16 year period decreased by 13.1% from the baseline forecast. This reduction is due to continued lower gasoline consumption. Because Washington State's gas tax is based on gallonage rather than price, reduced consumption results in reduced revenues.

Transportation Partnership Account (TPA) gas tax revenue forecast

March 2005 Legislative baseline compared to the March 2009 Transportation Revenue Forecast Council
Dollars in millions



Numbers may not add due to rounding.
Data source: Financial Planning.

2005 Transportation Funding Package revenue sources

- 9.5¢ increase to the gas tax phased in over four years.
  - 3.0¢ in July 2005
  - 3.0¢ in July 2006
  - 2.0¢ in July 2007
  - 1.5¢ in July 2008
- New vehicle weight fees on passenger cars.
  - $10 for cars under 4,000 pounds
  - $20 for cars between 4,000 and 6,000 pounds
  - $30 for cars between 6,000 and 8,000 pounds
- Increased combined license fees for light trucks
  - $10 for trucks under 4,000 pounds
  - $20 for trucks between 4,000 and 6,000 pounds
  - $30 for trucks between 6,000 and 8,000 pounds
- Farm vehicles are exempt from the increase
- A $75 fee for all motor homes
- Fee increases to various driver's license services
  - Original and Renewal License Application increased to $20 (previously $10)
  - Identicards, Driver Permits and Agricultural Permits increased to $20 (previously $15)
  - Commercial Driver License and Renewal increased to $30 (previously $20)
  - License Reinstatement Fee Increased to $75 (previously $20)
- DUI Hearing increased to $200 (previously $100)
- Fee increases to various license plate charges
  - Reflectorized Plate Fee increased to $2 per plate (previously 50¢)
  - Replacement Plates increased to $10 (previously $3).

WSDOT's Capital Project Delivery Programs

Completed Projects: Delivering Performance and System Benefits

Every quarter, WSDOT reports on completed construction projects in the Schedule, Scope & Budget tables in the Beige Pages. These tables summarize all construction activities from beginning of the current biennium to the close of last quarter. Each of these projects improve travel by making roads safer, trips faster and more reliable, and improving the environment and economy. Each project also faces unique challenges in being delivered both on-time and on-budget.

Building upon the principles of performance journalism, WSDOT publishes a brief wrap-up on each project completed in a quarter, organized by county. These close-out summaries are intended to provide a better sense of the project delivery process, WSDOT's efforts to use tax dollars as efficiently as possible, and the benefits citizens can expect to see from completed projects.

Between January 1 and March 31, 2009, WSDOT completed one project. Typically, few projects are completed during the winter months due to weather.

Project delivery performance regarding budget and schedule is measured against last approved budgets in accordance with criteria established by the Legislature; for this quarter, it is the 2008 Supplemental Budget (2008 Final). This report includes the original project appropriation from the 2005 budget to explain changes in project budgets over time. The graph offers a visualization of the increases and decreases in a project's cost from year to year. The scale of the graph starts at various intervals to show the dollar range in greater detail.

More information on completed projects is available online at the projects web page at http://www.wsdot.wa.gov/projects.

Lincoln County - Roadside safety improvements

This project installed guardrail, removed roadside objects, and improved roadsides on SR 21, SR 25, SR 28 and SR 174 in Lincoln County.

Project's benefits: This project was designed to improve motorist safety by reducing the number and the severity of collisions – particularly run-off-the-road collisions – on four state highways. In the five years before the project, 39% (93 of 238) of the non-alcohol related collisions on the sections of highway involved vehicles running off the roadway.

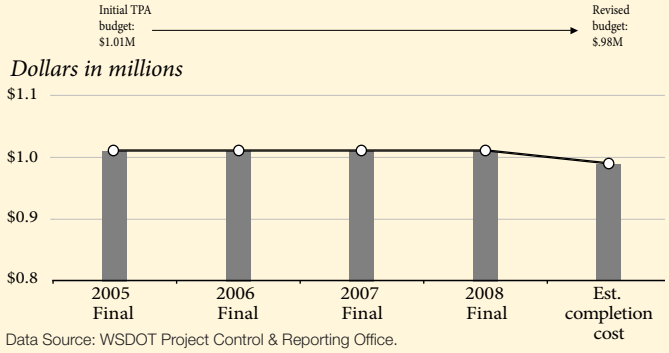
Project's highlights or challenges: Each accident location on four state highways covering 150 miles was analyzed, evaluated and prioritized to understand and then address ways to reduce fatal and serious injury collisions. This analysis determined the roadside improvements that were the best mesasures to improve safety.

Budget performance: The final project cost $988,300, which is $21,700 below the last approved budget and the 2005 enacted budget of $1.01 million.

Schedule performance: This project was completed in February, one month ahead of the last approved budget.

Lincoln County – Roadside safety improvements

Annual project budget from conception to estimated cost at completion



Data Source: WSDOT Project Control & Reporting Office.

Special Report: Tacoma/Pierce County HOV Program Quarterly Update

I-5/SR 16: Nalley Valley demolition clears path for new bridges

This safety and mobility project in Tacoma eliminates one of Pierce County's worst bottlenecks and is projected to reduce collisions by approximately 60% (16 fewer collisions a year).

Torrential downpours and flooding doused plans for a groundbreaking event in the first week of January. Crews still made significant progress on the I-5/SR 16 Westbound Nalley Valley project during the first three months of 2009.

Work included measures to control erosion and ensure that stormwater leaving the work area is clean. Access roads were built and the Sprague Avenue ramps to and from eastbound State Route 16, which were closed in February, were demolished.

With the ramps removed, workers will build temporary bridges to keep traffic moving across Nalley Valley for the duration of the project. Major work activities in the next three months include pile driving, shaft construction, and building a 35-foot-high retaining wall.

Primary contractor Guy F. Atkinson Construction of Renton and the WSDOT Lakewood Project Office will build the $183.7 million project, funded by the 2003 Nickel transportation package. WSDOT awarded the construction contract to Atkinson with a bid of $119.9 million.

I-5: Port of Tacoma Road to King County line segment construction receives $62.2 M in Recovery Act funds

The design team has been working hard to finalize the design and contract documents for the Port of Tacoma Road to King County line segment. Scheduled to advertise on June 15, this project will also upgrade the Ardena Road (70th Street) bridge rail, to bring it up to current standards.

After analyzing results from several engineering and environmental studies, WSDOT announced in February that noise walls would not be included in this project. More information on the Port of Tacoma Road to King County line segment is available at: http://www.wsdot.wa.gov/projects/piercecountyhov/i5_porttacomatoking/.

$70 M in Recovery Act funds for program

Two projects in the Tacoma/Pierce County HOV Program are scheduled to receive $70 million in Recovery Act funds for design and construction activities. About $63 million, or 90% of those funds, will support construction of the Port of Tacoma Road to King County line segment, scheduled to go to advertisement on July 15. That project will build 5.8 HOV lane-miles in the north/southbound highway median, and pave mainline I-5 between Wapato Creek and the King County line. The remaining 10%, $7 million, will fund design efforts on the I-5/SR 16: Eastbound Nalley Valley project, allowing contract documents to be prepared in time for construction to begin immediately following Westbound Nalley Valley construction. (See pages 62-65 for more discussion of WSDOT projects receiving Recovery Act funding.)

Project Highlights

- $70 million in federal Recovery Act funds have been allocated to the Tacoma/Pierce County HOV Program, primairly for the Port of Tacoma Road to King County line segment.
- The remaining Recovery Act funds will support the design effort for the I-5/SR 16 Eastbound Nalley Valley project.
- For more information: www.tacomatraffic.com.

Completed Tacoma/Pierce Co. HOV projects

Project name	On time	On budget
I-5: 38th St. interchange	✓	✓
SR 16: Sprague Ave. interchange to Snake Lake	✓	Over
SR 16: Pearl St. to Jackson Ave.	✓	✓
SR 16: 36th St. interchange to Olympic Dr.	✓	✓
SR 16: Union to Jackson Ave.	*	*
I-5: South 48th St. to Pacific Ave.	✓	✓
SR 16: Jackson Ave. to 36th St. interchange	✓	✓
Currently funded projects to be completed*		
I-5/SR 16: Westbound Nalley Valley	Under construction	
I-5: Port of Tacoma Rd. to King County line	In design	
I-5: M St. to Portland Ave.	In design	
I-5/SR 16: Eastbound Nalley Valley	In design	
I-5: Portland Ave. to Port of Tacoma Rd. - Northbound HOV	In design	
I-5: Portland Ave. to Port of Tacoma Rd. - Southbound HOV	In design	
I-5/SR 16: HOV connectors	Design to begin in 2017	

Data Source: HOV Program Office.

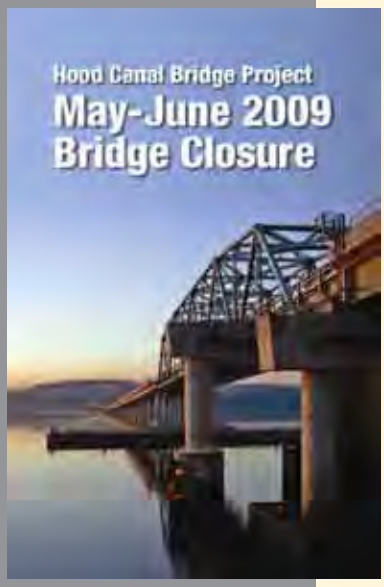
* Budget and schedule performance will be reported upon final completion.

WSDOT's Capital Project Delivery Programs

Special Report: SR 104 Hood Canal Bridge east-half replacement and west-half retrofit

Project Highlights

- The Hood Canal Bridge replacement project was 90% complete as of March 31, 2009.
- The bridge's new east and west trusses, and new roadway pontoons U, V, W, and X, were completed in March and towed to Port Gamble Bay.
- The bridge will be closed from May-June 2009. WSDOT is providing an assortment of travel options for drivers during the closure period.
- For more information on this project, visit www.HoodCanalBridge.com.



WSDOT construction activities at the Hood Canal Bridge are nearing completion. The rebuilt bridge will feature a wider roadway and state-of-the-art draw span components to improve safety, reliability, and reduce congestion. The east-half of the bridge will be replaced in May-June 2009, and the west-half retrofitting will be completed by December 2009.

Overall project completion reaches 90%

As of March 31, 2009, the bridge project was 90% complete. The bridge's new east and west trusses, and new roadway pontoons U, V, W, and X, were completed in March and towed to Port Gamble Bay near the bridge site.

In March, WSDOT completed 20 consecutive, error-free cycles of the electrical, mechanical, and hydraulic systems that raise and lower three 100-foot-long steel roadway sections, and retract and extend the bridge's 495-foot-long draw span pontoons. The operation mirrors that of the existing west half: as the lift spans are raised, the draw span is retracted underneath them to create a gap in the bridge. After the vessel has passed, the draw span extends, and the lift spans lower to become a roadway for motorists crossing the Hood Canal Bridge.

All 14 new pontoons are complete and assembled. Three existing pontoons have been retrofitted; 20 new anchors have been constructed and placed at the bottom of Hood Canal.

Temporary bridge closure

Every portion of the Hood Canal Bridge project, from design to construction, has focused on keeping the closure time as short as possible. Instead of closing the bridge for the 42-month construction cycle, only a six-week closure will be required.

WSDOT will provide alternative travel options for travelers during the six-week bridge closure in May-June 2009, as set forth in the 2009 Closure Mitigation Commitment Plan.

Alternate WSDOT-sponsored travel options include:

- A free passenger-only water shuttle between Jefferson and Kitsap counties with fare-free transit connections, and nearby park-and-ride lots.
- A Sunday-through-Thursday reservation-based car ferry between Port Townsend and Edmonds to assist freight haulers and drivers.
- A free, reservation-based medical bus service to transport people between the Olympic Peninsula, Kitsap County, and Seattle.
- WSDOT will use state-of-the-art technology and preplanning to keep traffic moving around the closure on US 101 and SR 3 with traffic control signage at key locations.

Other alternate travel options include:

- Ridesharing to encourage drivers to work with neighbors and coworkers to develop car and vanpools.
- Travel via private boats and flights on local airlines.
- Rescheduling trips or teleworking.

Project budget

The Hood Canal Bridge project is budgeted at $470 million. Recently, the project has experienced cost increases due to higher fuel and materials prices, an extended materials shortage, and problems associated with constructing bridge components at confined and congested sites: the project is $29 million over budget. WSDOT plans to cover these costs with available federal funds.

Watch List: Projects with schedule or budget concerns

WSDOT is committed to frequent and accurate "no surprises" reporting of project performance, emphasizing rigorous analysis while communicating in plain language, unencumbered by jargon or insider terminology. As part of that commitment, WSDOT regularly addresses issues that do, or potentially could, affect a project's schedule and budget: they are outlined here in the Watch List. When these issues are resolved, which may take more than one quarter, the project is removed from the Watch List. If new issues arise, an update to the project will be provided in the Update to Watch List section.

The gray box below describes some of the common problems that may affect the successful progress of a project from design through completion; they are listed in the order in which WSDOT might face them, starting in the earliest planning stages and concluding with actual construction.

The summary on pages 92-93 lists projects currently facing schedule or budget concerns with a reference to these overarching descriptions; a more detailed description of the precise problem or its resolution appears on the following pages. Still more information is presented on the individual project pages on the WSDOT website at www.wsdot.wa.gov/projects. Projects paid for through Pre-Existing Funds are discussed on page 98.

It is important to note that while the number of projects appearing on the Watch List has grown over time, so have the number of projects under way (we report on the project whether it is under construction or in planning and design phases). By tracking problem projects more closely on the Watch List, WSDOT can keep all its stakeholders informed while evaluating possible solutions.

Environmental

Archeological: Unexpected finds may require additional time for careful excavation.

Reviews & approvals: Completing state and federally required environmental studies may take longer than anticipated, may reveal unexpected problems with the project location, or prompt the involvement of community or other agencies.

Fish passage barrier: Many factors must be taken into account to design and construct 'best practice' water conduits, including negotiating with resource agencies and tribes to develop appropriate designs to ensure fish can pass through.

Geological: Studies may reveal unsuitable soil conditions for construction on the proposed route.

Mitigation: Minimizing harm to wetlands and other natural features may involve many other factors from design through construction.

Permitting: New information about a project site or changes in design can lead to the reworking of permits, causing delay or additional expense.

Coordination

Local concerns: Concerns raised by local communities may require additional design work which if not resolved might result in litigation expenses.

Inter-agency issues: Project may require more collaboration with local jurisdictions, or may require inter-local agreements, such as Memoranda of Understanding (MOUs) or Memoranda of Agreement (MOAs).

Tribal government issues: Consultation with tribes as required by Centennial Accord and specific treaties. Where treaty rights are affected, there may be financial settlements unanticipated in the original project budget.

Design

Alternatives: Design alternatives may require unanticipated revision as the result of environmental analyses and/or public input.

Design disputes: Communities or other entities may challenge design concepts, requiring additional time spent in design.

Design element changes: Project parameters may change, requiring changes to designs in progress or under construction.

Team turnover: Changes in staff may delay progress as new team members are brought up to speed on the project.

Utilities

Agreements with other jurisdictions: Agreements may take longer to obtain than anticipated.

Utility relocations: Moving power, water, gas, or other utility lines may be more complex than originally expected.

Right-of-Way

Design changes: Project revisions that may require additional land.

Land acquisition: Negotiations with landowners regarding purchase of property may take longer than anticipated.

Land appreciation: Property value increases that exceed projections.

Land use designation changes: Land previously zoned as farmland may have been converted to industrial or commercial use, raising the purchase price.

Construction

Contractor issues: Disputes with contractors or disagreements over contract parameters may delay construction at any point in the job.

Cost increase of materials: Unit costs may increase beyond the set budget due to fluctuations in the marketplace or a failure to estimate costs properly at the design phase.

Materials procurement: Unexpected demand or lack of availability of raw materials required for construction.

Timing problems: Delays at design or right of way may mean work schedules conflict with events such as fish spawning season.

Weather: Weather unsuitable for construction work will temporarily halt the project.

Litigation

At any point, a problem may escalate if one or more of the parties decides to file a lawsuit.

WSDOT's Capital Project Delivery Programs

Watch List: Projects with schedule or budget concerns

Watch List summary

Projects with budget and/or schedule concerns

Added to Watch List	Project type	Watch List issue
US 101/W Fork Hoquiam River Bridge – Replace bridges 101/142, 101/145 (Grays Harbor)	Highways	Weather
SR 161/24th Street E to Jovita – Add lanes (Pierce)	Highways	Right-of-way: Land acquisition; Utilities: utility relocation; coordination
SR 9/Lundeen Parkway to SR 92 — Add lanes and improve intersections (Snohomish)	Highways	Environmental: mitigation
SR 203/Corridor safety improvements (Snohomish)	Highways	Environmental: permitting
Updates to Watch List	**Project type**	**Watch List issue**
SR 167/15th Street SW to 15th Street NW — Add HOV lanes (King)	Highways	Construction: weather, contractor issues
SR 532 Corridor Improvements-Design-build contracts (Island, Snohomish)	Highways	Environmental: permitting; Right-of-way: land acquisition
New 144-Auto Ferries (King, Kitsap, San Juan)	Ferries	Design: alternatives
Mount Vernon — Siding improvements (Skagit)	Rail	Design: alternatives
Everett — Curve realignment and storage tracks (Snohomish)	Rail	Environmental: mitigation, permitting
Stanwood –Siding upgrade (Snohomish)	Rail	Environmental: permitting
Blaine — Custom facility siding (Whatcom)	Rail	Environmental: permitting
Removed from Watch List	**Project type**	**Watch List issue**
I-405/112th Ave SE to 8th Street, South Bellevue (King)	Highways	Construction: materials procurement
SR 500/St. John's Blvd — Build interchange (Clark)	Highways	Environmental: archaeological
Projects awaiting 2009 Legislative Review*	**Project type**	**Watch List issue**
SR 285/West end of George Sellar Bridge — Intersection improvements (Chelan)	Highway	Design: increased cost of materials; Right-of-way: land acquisition
SR 285/George Sellar Bridge — Additional eastbound lane (Chelan, Douglas)	Highway	Construction: cost increase of materials
SR 14/ Camas Washougal — Add lanes and build interchange (Clark)	Highway	Environmental: geological, permitting; Design: alternatives
I-5/SR 432 Talley Way interchanges — Build interchanges (Cowlitz)	Highways	Design: design element changes
SR 522 / University of Washington Bothell — Build interchange (King)	Highway	Construction: timing problems
I-405 / NE 8th St to SR 520 braided ramps — Interchange improvements (King)	Highway	Design: cost increase of materials
I-405/SR 520 to SR 527 — Widening Stage 2 (King)	Highway	Design: alternatives
SR 167/8th St E vicinity to S 277th St vicinity — Southbound managed lane (King, Pierce)	Highway	Design: design element change, cost increase of materials
I-405/SR 181 to SR 167 — Widening Stage 1 (King)	Highway	Right-of-way: land acquistion; Construction: timing problems
SR 16 Burley-Olalla interchange — Build interchange (Kitsap)	Highway	Construction: timing problems
I-5/Mellen to Grand Mound — Widening, interchange reconstruction (Lewis, Thurston)	Highway	Design: alternatives
• I-5/Blakeslee Junction railroad crossing to Grand Mound interchange — Add lanes	Highway	
• I-5/Mellen Street to Blakeslee Junction — Add lanes, interchange improvements	Highway	
• I-5/Mellen Street interchange — Interchange improvements	Highway	

Watch List: Projects with schedule or budget concerns

Watch List summary

Projects with budget and/or schedule concerns

Projects awaiting 2009 Legislative Review*	Project type	Watch List issue
SR 3 / Belfair area — Widening and safety improvements (Mason)	Highway	Design: alternatives
SR 9 / 212th Street SE to 176th Street SE, Stage 3 — Add lanes (Snohomish)	Highway	Environmental: mitigation; Design: cost increase of materials
I-5/Grand Mound to Maytown Stage One — Add lanes (Thurston)	Highway	Construction: cost increase of materials, timing problems
US 12/SR 124 intersection — Build interchange (Walla Walla)	Highway	Right-of-way: land acquistion
SR 823/Selah vicinity – Reroute highway (Yakima)	Highways	Right-of-way: land acquisition, Environmental, Construction: Increase cost of materials.
Vancouver — Rail Bypass and West 39th Street Bridge (Clark)	Rail	Right-of-way: land acquisition
Tacoma — Bypass of Pt. Defiance (Pierce)	Rail	Right-of-way: land acquisition; Design: redesign

* Note: These projects were on the Watch List as reported in the September 2008 *Gray Notebook 31*. They are currently awaiting Legislative review during the 2009 session. A *Gray Notebook* update will be provided as information becomes available; more information may be available on the relevant project pages on the WSDOT website at http://www.wsdot.wa.gov/projects/.

Added to Watch List

US 101/West Fork Hoquiam River Bridge — Replace bridges 101/142, 145 (Grays Harbor)

This $5.4 million project replaces two aging bridges that cross the West Fork of the Hoquiam River with new concrete bridges meeting current seismic and engineering standards. Both bridges were constructed with timber in 1934; they are now structurally deficient due to severe weathering and rot damage.

The schedule is at risk. Delays to the advertisement date in 2008, due to design revisions and an extended review period, were compounded by bad weather in winter 2008-09. Since paving the new bridges with hot mix asphalt requires warmer, drier weather, the expected completion date for the project has been delayed by six months, to June 2009.

SR161/24th E to Jovita — Add lanes (Pierce)

This $34.7 million dollar project will improve mobility in a busy section of SR161 in the City of Edgewood. WSDOT will widen the roadway to five lanes (including a two-way left turn lane), add a new traffic signal at 16th Street East, and work with the City of Edgewood's proposed enhancements, which include wider sidewalks with plants, lighting, and city gateway signing. When completed, it will reduce congestion and allow safer, more efficient movement of people and vehicles.

The project is in the preliminary engineering phase, and the schedule is at risk. Scheduled advertisement for October 2009 may be delayed due to right-of-way acquisition, utility relocation, and incorporating City of Edgewood's streetscape enhancements. The project's budget may also be affected if multiple condemnations are required during right-of-way acquisition.

SR 9/Lundeen Parkway to SR 92 — Add lanes and improve intersections (Snohomish)

This project, budgeted for $34 million, will add new north- and southbound through lanes to SR 9 between Lundeen Parkway and SR 92, adding turn lanes as needed, and upgrading traffic signals and lighting at three intersections. When completed, it will improve safety and traffic flow.

The project is in the design phase; the schedule is at risk. The advertisement date is planned for January 2010 with construction work starting in summer 2010. However, trees within the project area are known to be used as nesting sites by bird species protected by the 1918 Migratory Bird Protection Act. To disrupt the nesting season (April 1 through August 15) as little as possible, and to begin construction work on time, all tree clearing must take place by April 1, 2010.

Many of the trees identified for removal are not currently within WSDOT-owned right-of-way. WSDOT is managing this risk by prioritizing the purchase of land that is critical for tree removal work, and may also advertise a separate contract that would remove the trees before April 1, 2010.

The budget may also be at risk. In February 2009, WSDOT was formally notified by the regulatory team that oversees the Snohomish Mitigation Bank[1] that the wetland mitigation credits

[1] A mitigation bank restores a wetland, stream or other habitat conservation area, obtains approval from regulatory government agencies, and then uses the improved land to sell credits to offset adverse environmental impacts from developers on nearby ecosystems. Snohomish Basin Mitigation Bank is a private, 225-acre wetland mitigation bank approved in Washington State. It is located at the confluence of the Snoqualmie and Skykomish Rivers.

Watch List: Projects with schedule or budget concerns

previously purchased from the bank have been suspended. These credits were planned to be used to offset this project's wetland impacts. WSDOT is working with the regulatory team to resolve this problem; if it is not resolved, it may result in additional project costs as other mitigation sites will have to be identified.

SR 203/Corridor Safety Improvements (Snohomish)

This project, budgeted for $3.1 million, will address safety improvements along more than six miles of SR 203 between the King County line and Monroe in Snohomish County. Project elements include intersection improvements, removing fixed objects, as well as installing new guardrail, shoulder rumble strips, pavement markings, lighting, and signage. These improvements will enhance motorist safety by reducing the number and severity of collisions on a section of roadway which saw 348 collisions since 2002.

This project is currently in the design phase; the schedule is at risk. Snohomish County has reduced the number of staff handling environmental permits, which has in turn increased the time taken to issue permits. WSDOT worked with the county to determine priorities for the shoreline permit approval workload, and two other WSDOT projects with earlier construction or advertisement dates have been given higher priority. The delayed advertisement date for this project — from April 2009 to November 2009– will also delay the completion date by ten months, from October 2009 to August 2010. These delays are not expected to affect the overall project budget.

Related project
SR 203 — Roadside Safety Improvements

Updates to Watch List

SR 167/15th St SW to 15th St NW — Add HOV Lanes (King)

This project, budgeted for $42.3 million, built substantial improvements to SR 167 between the cities of Auburn and Renton, including high occupancy vehicle (HOV) lanes, an Intelligent Transportation System (ITS), and HOV ramps. Improvements are intended to relieve congestion, increase capacity, and provide a travel time advantage to transit and HOV traffic.

The project is operationally complete. The budget continues to be at risk as WSDOT reconciles contractor requests for additional compensation, as reported in the December 2008 *Gray Notebook*.

Part of the request covers $821,000 in repairs to ramps that were damaged by heavy rain during the winter 2007-08 construction shutdown. But as part of the contractor's review and documentation process, the request for additional compensation has grown to $3.1 million covering additional delays and fragmentation of the contract work.

The 2009 Supplemental Budget request included $721,000 for the repairs, but the remainder of the increase was not identified in time for consideration by the 2009 Legislature. WSDOT is evaluating the contractor's request and will be negotiating a final settlement.

SR 532/ Corridor improvements — Design-Build (Island, Snohomish)

This design-build corridor project consists of five individual projects with a total budget of $82.2 million. Components include replacing the General Mark W. Clark Memorial Bridge and widening highway connections to the new bridge. When completed, it will improve traffic flow and motorist safety on the SR 532 corridor between Camano Island and I-5.

WSDOT issued requests for proposals (RFPs) on October 13, 2008, to four prequalified design-build teams; proposals were opened on January 22, 2009. The winning proposal, from the Parsons/Kuney Joint Venture partnership, included not only the base contract proposal of bridge replacement, but also all WSDOT-requested options: road improvements on Camano Island and in Snohomish County around Stanwood and along Sunday Lake Road. The contract, worth $50.4 million, was awarded on January 29.

Now that WSDOT has a firm commitment to the full program of project elements, the project team has clear direction on which environmental permits, additional land parcels, and utility relocations will be required, and what must be completed by July 1, 2009, to avoid missing the scheduled construction start date.

Ongoing right-of-way acquisition and the environmental permitting process, including permits for in-water work required for bridge footings, continue to put the project schedule at risk. WSDOT expects to complete right-of-way acquisitions for the east half of the project by May 2009, and will pursue environmental permits concurrently with the contractor's design-build design process. To further avoid delaying bridge construction work, WSDOT is working closely with the Snohomish County Public Utility District #1 to make sure that the high tension power lines along the north side of the bridge are relocated in a timely manner.

Watch List: Projects with schedule or budget concerns

The entire project is currently scheduled to be operationally complete in December 2010, 11 months earlier than was previously anticipated.

Related projects:
SR 532/270th St NW to 72nd Ave NW — Improve safety
SR 532/Sunrise Blvd to Davis Slough — Improve safety
SR 532/General Mark W. Clark Memorial Bridge — Improve safety
SR 532/64th Ave NW to 12th Ave NW — Improve safety
SR 532/General Mark W. Clark Memorial Bridge — Replace bridge

Ferries updates to Watch List

New 144-Auto Ferry

This project, originally budgeted for $283 million, was to build up to three new 144-auto ferries.

As reported in the December 2008 *Gray Notebook*, Todd's Pacific Shipyard (TPS) requested and received permission from WSDOT to delay submission of its preliminary design technical proposals (Part 1 of its two-part contract) from October to December. These proposals were submitted on December 12, 2008, and are being reviewed by WSDOT's Ferries division.

TPS has now requested permission to delay the due date for Part 2 (the master construction schedule and price proposal) until after the current Legislative session, when the Legislature advises whether to proceed with construction, of how many boats and when.

If construction is funded by the Legislature, the contractor will present a price and schedule proposal for detail design and construction no earlier than summer 2009. (Had the "Notice to Proceed" on Part 2 been issued to the original schedule, by April 2009, the first vessel could be completed in February 2011.)

The Governor's 2009-2011 proposed budget recommends constructing one 144-car ferry in the 2015-2017 biennium and four additional vessels starting in 2025. A study to examine vessel needs commissioned by the Joint Transportation Committee recommended delaying construction of the 144-car vessels until the decade 2020 through 2030.

Rail updates to Watch List

Mount Vernon — Siding improvements (Skagit)

This project, budgeted for $3.8 million, extends the existing rail siding to avoid rail conflicts, allowing the southbound train from Bellingham to depart earlier in the day.

This project's schedule and budget continue to be at risk. As reported in the December 2008 *Gray Notebook*, the Washington Utilities and Transportation Commission (WUTC) received an appeal to its November decision permitting the closure of Hickox Road. In mid-January 2009, the WUTC upheld its Final Order, but with the addition of a cul-de-sac on the west side of the at-grade crossing. This addition will increase the project cost by $75,000, to about $4.875 million. The project is already $1 million over budget because of increased signal costs.

Additionally in January 2009, the lawsuit filed by the City of Mount Vernon in October 2007 against WSDOT for filing improper notice in preparation for the closure was dismissed by Skagit County Superior Court.

WSDOT will be examining alternatives to keep the project within budget.

Everett — Curve realignment and storage tracks (Snohomish)

This project, budgeted for $14 million, will realign curves to improve speeds for passenger service on the Seattle — Vancouver, B.C., route.

As reported in the December 2008 *Gray Notebook*, the budget is at risk. BNSF has requested an additional $2.2 million to complete the project; the increased costs are due to inflation and unanticipated contaminated soils. If this funding is provided, WSDOT plans to enter into an Industry Standard Performance Agreement with BNSF. This agreement would provide both rewards and penalties based upon project delivery. Funding for the project is pending a 2009 Legislative decision.

The schedule is also at risk. BNSF is also still awaiting permits from the US Army Corps of Engineers and the Washington State Department of Ecology. The estimated date for issuance of these permits was June 2008, but the applications have not yet been approved.

The budget issue and permitting delay will delay advertisement to April 2009, which in turn delays the project completion date to April 2010.

Stanwood — New station, Siding upgrade (Snohomish)

These two projects, budgeted for $21 million, will construct a new train platform to serve Amtrak *Cascades* passengers, and upgrade and extend the siding in Stanwood.

The construction start and operationally complete dates for the siding extension are at risk. As reported in the December 2008 Gray Notebook, construction on the siding extension depends on the approval by the Washington Utilities and Transportation Commission (WUTC) of a local road closure and the approval of environmental permits.

Watch List: Projects with schedule or budget concerns

The WUTC held a public meeting on March 30, 2009, to hear the public's view on the petition submitted by BNSF to close the Logan Road rail line crossing. WSDOT will be kept informed of the WUTC decision. BNSF also submitted a petition to close Logan Road with the Snohomish County Commissioners (SCC); the SCC signed a waiver of hearing on January 26, 2009. This means that the SCC will not require a hearing.

BNSF submitted the necessary environmental applications in November 2008. It is possible that permits may be issued in May, 2009. BNSF is expected to submit this project for the required archeological review by the United States Army Corps of Engineers (US ACE), a process which takes about six months.

As for construction of the new station, WSDOT has now received the station construction management agreement from Amtrak. The station project was advertised in January 2009 and awarded March 2009; construction is currently scheduled to be complete by September 2009. WSDOT is continuing to negotiate an agreement with BNSF to allow service at the new station while the siding extension is in design and construction.

Blaine — Custom facility siding (Whatcom)

This project, budgeted for $6 million, constructs additional rail line capacity to accommodate customs and security needs, while reducing congestion and delays for freight and passenger trains on the main line.

As reported in the December 2009 Gray Notebook, WSDOT and BNSF worked together to adjust this project's scope to deliver comparable benefits within the available budget. This now means WSDOT will build two sidings instead of three, allowing construction of the third proposed siding at a later date.

A construction task order was signed in February 2009. This indicates BNSF plans to advertise for bids on the civil engineering work within a couple of months, with the understanding that construction may not proceed until the appropriate permits have been finalized.

Among the environmental permits submitted is an archeological permit under evaluation by the United States Army Corps of Engineers, which may take about six months to complete.

The time needed to resolve the budget issue through the adjustment to the project's scope and the anticipated environmental permitting delay will delay advertisement for construction bids until at least June 2009, which also delays the project completion date until April 2010.

Removed from Watch List

SR 500/St Johns Blvd — Build interchange (Clark)

This project, budgeted for $51.6 million, will replace a signalized intersection with a freeway-style interchange. The complex construction elements include tall walls, high-voltage power lines and utility relocations, culverts, and a multi-use trail. When completed, it will improve safety and traffic flow.

As reported in the December 2008 Gray Notebook, the project budget and schedule are still at risk due to cultural resource discoveries within the project footprint and the Federal Highways Administration's requirement that WSDOT prepare a Supplemental Environmental Assessment.

WSDOT expects to know if these risks can be mitigated within the next six months; an update will be provided when more information becomes available.

I-405/I-90 to SE 8th St – Widening, South Bellevue (King)

This I-405 project, budgeted for $200.5 million, will construct an additional north- and southbound lane between I-90 and SE 8th St. The added lanes will reduce extreme congestion in this area.

The risk to the project's schedule reported in the December 2008 Gray Notebook has been resolved. While the delivery of State-supplied electrical and Intelligent Transportation Systems (ITS) components was delayed, the components were received in late January 2009 and the contractor's schedule was not significantly affected. No cost increases are anticipated due to these delays.

WSDOT expects to open the southbound lane section from SE 8th Street to I-90 to traffic in late March or early April. The entire project is expected to be open to traffic in December 2009.

Related projects

I-405/112th Ave SE to I-90 northbound – Widening

I-405 Bellevue vicinity – Seismic retrofit

Pre-Existing Funds (PEF) Programmatic Reporting

The Pre-Existing Funds (PEF) program funds a wide variety of capital projects to improve the safety, functionality, and longevity of the state highway system. Unlike Nickel and Transportation Partnership Account (TPA) projects, which are fixed lists of projects set by the Legislature and funded with a line item budget for each individual project, PEF projects are funded at the program level. Funding is aligned to commitments to address set priorities such as preserving pavement each biennium. Each biennium, new PEF projects are programmed based on prioritized needs and available funds, and the list of PEF projects changes each biennium.

Examples of PEF projects include: pavement preservation and repaving, bridge repairs and replacement, slope stabilization, safety projects such as cable median barriers and rumble strips, environmental retrofit to improve fish passage and stormwater management, and preservation of facilities associated with the highway system such as rest areas.

PEF performance is reported at two levels

Six individually tracked projects

Six projects are reported individually due to their size or significance (see below and the following pages for schedule and budget information on these projects).

All other projects

WSDOT reports on:

- Achievement of project milestones by type of project, see page 98.
- Actual versus planned cash flow for the overall PEF program, see page 99.
- Before & After results for selected types of projects. Examples include pavement conditions (see Safety Rest Areas, pages 5-6; also *Gray Notebook 32*, pages 12-16) and reductions in accidents (see *Gray Notebook 32,* pages 5-7).

Six individually tracked Pre-Existing Funds (PEF) projects: results through March 31, 2009
Dollars in millions

Project Description	First legislative budget & *year*	Baseline current legislative approved & *year*	Scheduled date to begin preliminary engineering		Scheduled date for Advertisement		Scheduled or actual date to be operationally complete
			Date	On time	Date	On time	
US 2/Ebey Island Viaduct and Ebey Slough Bridge (Snohomish)	$32.1 *2002*	$6.2 *2007*	Dec-98	√	Nov-00	√	Dec-03
• US 2/50th Avenue SE vicinity to SR 204 vicinity – Bridge rehabilitation		$10.8 *2007*	Jul-06		Feb-07		Sep-07
This is stage one of the original US2/Ebey Viaduct and Ebey Slough Bridge project.							
• US 2/43rd Ave SE vicinity to 50th Ave SE vicinity – Bridge rehabilitation		$22.6 *2007*	Jan-09		Aug-10		Dec-11
SR 202/SR 520 to Sahalee Way – Widening (King)	$36.9 *2001-03*	$82.7 *2007*	May-98	√	Aug-05	√	√
SR 539/Horton Rd to Tenmile Rd – Widen to five lanes (Whatcom)	$32.0 *2001-03*	$66.3 *2007*	Oct-90	√	Jan-07	√	Nov-08
SR 28/East end of George Sellar Bridge – Construct bypass (Douglas)	$9.4 *2004*	$22.9 *2007*	May-04	√	Jul-10	Late	Dec-11
The construction phase has been delayed to balance the financial plan for the 2009-11 biennium budget process.							
US 101/Purdy Creek Bridge – Replace bridge (Mason)	$6.0 *2004*	$15.1 *2007*	Aug-04	√	May-08	Late	Sep-09
Advertisement delayed due to additional design needed to bring plans up to WSDOT standards when they were returned from the consultant.							
SR 303/Manette Bridge Bremerton vicinity – Replace bridge (Kitsap)	$25.5 *2002*	$69.0 *2007*	Sep-96	√	Mar-10	√	Jun-13
The construction phase has been delayed to balance the financial plan for the 2007-09 biennium Legislative book.							

Source: WSDOT Project Control and Reporting Office.

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds (PEF) Projects: Milestones, Watch List

Watch List concerns for the six individually tracked PEF projects

SR 539/Horton Road to Tenmile Road - Widen to five lanes (Whatcom)

This project, budgeted for $67.7 million, widens SR 539 to four lanes with a continuous two-way left-turn lane between Horton Road and Tenmile Road. Other improvements include replacing two bridges and a culvert at Deer Creek, drainage construction, reconstructing traffic signals at three intersections, and adding illumination. The work will relieve congestion and increase traffic capacity.

This project is under construction, and is now on schedule to finish paving near Deer Creek in spring 2009.

SR 28/East End of George Sellar Bridge – Construct bypass (Douglas)

This project, one of three involving the George Sellar Bridge, is budgeted for $22.9 million. It will construct a bypass route for southbound traffic, to improve capacity overall and reduce accidents at the east end of George Sellar Bridge. The project also includes funding for a pedestrian tunnel to reach Columbia River amenities.

The project is in the design phase; as reported in the December 2008 *Gray Notebook*, the budget and schedule continue to be at risk. The cost increase and the schedule adjustments will be updated after the close of the 2009 Legislative session.

Milestone tracking for programmatic Pre-Existing Funds (PEF) projects

Number of projects with these milestones, 2007-2009 biennium to date (March 31, 2009)
Dollars in millions

	Begin engineering		Advertised for bids		Operationally complete		Expenditures	
Programmatic categories*	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**
Pavement preservation	83	85	116	105	151	139	$212	$197
Bridges (preservation/replacement)	30	29	36	28	33	29	$101	$79
Slope stabilization	13	15	19	19	19	21	$30	$28
Safety (roadside, rumble strips, median cross-over, etc.)	31	32	41	37	55	52	$92	$83
Environmental retrofit (fish passage improvement, stormwater runoff)	8	8	9	7	6	7	$12	$9
Other facilities (rest area, weigh stations, etc.)	7	8	20	16	37	35	$220	$170
Totals	**172**	**177**	**241**	**212**	**301**	**283**	**$667**	**$566**

Source: WSDOT Project Control and Reporting Office.

* While elements of one or more categories may be included in some of the projects (such as a bridge preservation project that improves safety), every project has been assigned to one primary category for reporting purposes.

Pre-Existing Funds (PEF) Projects: Advertisement and financial overviews

214 PEF projects advertised as of March 31, 2009

The 2007-09 Highway Construction Program includes a commitment to advertise 276 Pre-Existing Funds (PEF) projects in the current biennium. Of the 245 PEF advertisements planned through the seven quarters ending March 31, 2009, 214 projects were advertised, 12 were delayed to future quarters of this biennium, 28 were deferred to future biennia, and one project was deleted.

Of the 51 planned PEF advertisements scheduled for this quarter, 30 were advertised as scheduled. Three of the planned advertisements were delayed to later in this biennium, 17 have been deferred to a future biennium, and none were deleted. In addition, two emergent, 12 previously delayed, and six early projects were advertised in the quarter.

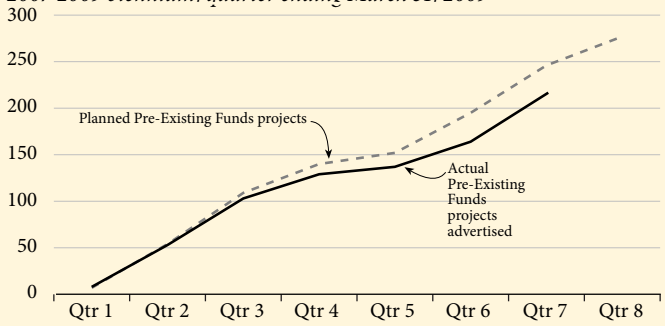
Pre-Existing Funds projects: Biennial progress
July 1, 2007 through March 31, 2009; dollars in millions

WSDOT total award estimate*:	$254.4
Actual total award amount*:	**$298.6**
Projects advertised (see page 102 for definitions)	
As scheduled	177
Early	15
Late	17
Emergent	5
Total projects advertised 2007-March 31, 2009	**214**
Projects delayed (delayed within the biennium)	12
Projects deferred (delayed out of the biennium)	28
Projects deleted	1

Data Source: WSDOT Project Control & Reporting Office.

* In cases where WSDOT's estimate and award amounts contain multiple sources, the PEF reported amount is a calculated percentage based on the contract total value. PEF projects may have Nickel and TPA funding not reported in this section.

Pre-Existing Funds projects construction program advertisements
Planned vs. actual number of projects advertised
2007-2009 biennium, quarter ending March 31, 2009



Data Source: WSDOT Project Control and Reporting Office.

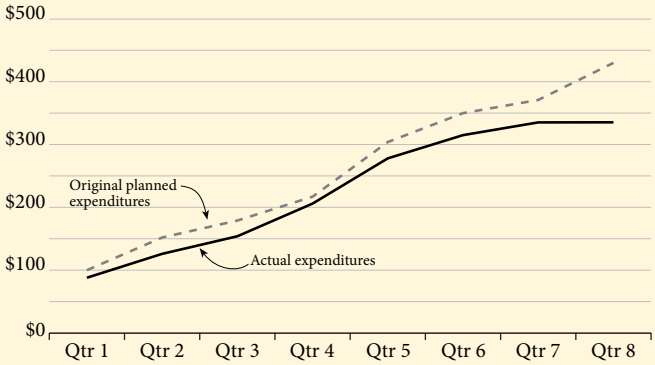
Paying for the projects: Financial information

WSDOT submitted an expenditure plan to the Legislature for the seventh quarter of the biennium totaling approximately $667 million. As of the end of the quarter at March 31, 2009, actual expenditures totaled $566 million, a variance of about $101 million, or 15%, from the biennium plan. The variance for the Highway Construction Program was divided between the Improvement and Preservation programs.

The Preservation Program planned cash flow was $371 million, and actual expenditures were $335 million. This was about $36 million under plan, or 10%.

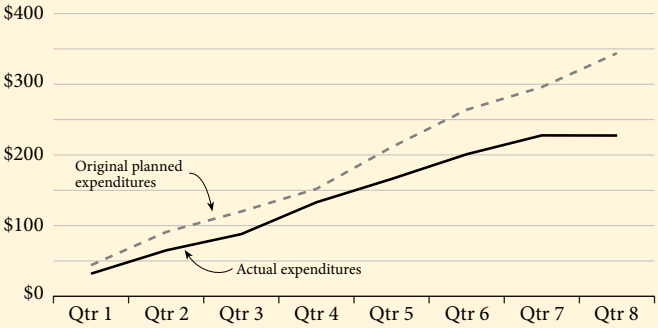
The Improvement Program planned cash flow was $296 million, and actual expenditures were $231 million. This was about $64 million under plan, or 22%.

Pre-Existing Funds preservation program cash flow
Planned vs. actual expenditures
2007-2009 biennium, quarter ending March 31, 2009
Dollars in millions



Data Source: WSDOT Project Control and Reporting Office.
Note: As of Quarter 5 (July 1 - Sept. 30, 2006), Original Planned Cash Flow values have been updated based on the 2006 Supplemental Budget.

Pre-Existing Funds improvement program cash flow
Planned vs. actual expenditures
2007-2009 biennium, quarter ending March 31, 2009
Dollars in millions



Data Source: WSDOT Project Control and Reporting Office.
Note: As of Quarter 5 (July 1 - Sept. 30, 2006), Original Planned Cash Flow values have been updated based on the 2006 Supplemental Budget.

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds (PEF) Projects: Advertisement record

Pre-Existing Funds (PEF) projects scheduled for advertisement or advertised this quarter

January 1 – March 31, 2009

Project description	On time advertised
US 2/East end Odabashian Bridge — Loop trail connection Advertisement date was late due to funding constraints and reprioritization of projects in the region.	Late
US 2/East of Orondo — Slope stabilization Advertisement date was late due to delays in obtaining environmental permitting and acquisition of a right-of-way certification for parcel owned by the Bureau of Land Management.	Late
US 2/West of Leavenworth — Paving	Advanced
US 2/97 Lincoln Rock State Park to Orondo — Paving Advertisement date was late due to delays in obtaining environmental permitting and right-of-way acquisition.	Late
SR 3/Hood Canal Bridge vicinity — Improvements	√
I-5/S 272nd St to Southcenter Parkway — Ramp paving	√
I-5/52nd Ave W to SR 526 — Northbound paving Advertisement date was late due to new budget proposals to balance the available funds.	Late
I-5 Northbound/Snohomish River to Ebey Slough — Paving	√
I-5/SR 532 to Hill Ditch Bridge — Concrete pavement rehabilitation Advertisement date was late due to additional design effort needed to address additional items of work not previously included.	Late
I-5/Spokane Street interchange vicinity — Special bridge repair Advertisement date was deferred due to the requirement for daytime lane closures which conflicts with higher priority projects during the 2009 construction season.	Deferred
I-5/Nooksack River bridges — Painting Advertisement date was deferred as part of the new budget proposal to balance available funds. The project's costs increased significantly when a more recent inspection revealed a total paint failure.	Deferred
I-5/Nisqually River Bridge — Special repair	√
I-5/Puyallup River Bridge to King County line — Paving Advertisement of this project is dependent on the 'I-5/Port of Tacoma to King county line–Add HOV lanes' project, which has been delayed due to design challenges	Delayed
I-5/Capital Blvd Bridge — Bridge painting	√
I-5/North Fork Lewis River Bridge southbound — Expansion joint	Late
SR 7/Mountain Highway & 304th St E — Signal	Advanced
SR 8/Elma Rest Area — Paving	Delayed
US 12/Black River Bridge — Bridge painting	√
SR 17/Grant County Airport North — Paving	Emergent
SR 19/Oak Bay Rd to Embody Rd — Chip seal	√
SR 19/N of Embody Rd to north of Egg and I Rd — Chip seal	√
SR 19/N of Egg and I Rd to West Valley Rd — Chip seal	√
SR 20/Harbor Vista Dr vicinity to NE Narrows Ave — Paving Advertisement was deferred as part of the new budget proposal in order to balance the available funds.	Deferred
2007-09 Eastern Region chip seal — Safety restoration Advertisement for this project was late due to additional time needed by Region Traffic office to complete the signing plans.	Late
SR 20/Ferry County line to Republic — Crack seal repair Advertisement for this project was late in order to to combine it with the 2009 Chip Seal project to increase economic efficiency.	Late
SR 21/Jct US 395 to Jct I-90 — 2009 chip seal	√
SR 21/Jct SR 174 to Keller Ferry — 2009 chip seal	√
SR 21/Jct SR 20 to Canada — 2009 chip seal	√

Pre-Existing Funds (PEF) Projects: Advertisement record

Pre-Existing Funds (PEF) projects scheduled for advertisement or advertised this quarter

January 1 – March 31, 2009

Project description	On time advertised
SR 22/Toppenish to SR 223 — Chip seal Advertisement deferred to balance the financial plan for the proposed 2007 budget.	Deferred
SR 26/Washtucna to LaCrosse Airport Rd — 2009 Chip seal	√
I-90/Bellevue Way interchange ramps — Paving Advertisment deferred due to an existing heavy construction season with no weekend closures available for this project and no additional funds available to construct at night.	Deferred
I-90/Sunset interchange modifications — Modify facility to full access interchange Advertisement deferred as part of the new budget proposal in order to balance the available funds.	Deferred
I-90/Yakima River to West Ellensburg — Paving	Advanced
I-90/Urban Ramp Project — Paving	Advanced
I-90/Urban Ramp Project — Safety improvements	Advanced
I-90/Spokane Viaduct to Sprague Ave interchange — PCCP rehabilitation	Advanced
US 97/ Border vicinity improvements — Safety improvements	√
US 97/ Intersection (vicinity mileposts 259.9–291.49) — Safety improvements	Early
US 97A/North of Wenatchee — Wildlife fence Advertisement date is late due to time required for final design solution.	Late
SR 99/14th St interchange — Illumination rebuild	√
US 101/Chicken Coop Creek — Fish barrier	Deferred
US 101/West of Oak St to Little Hoquiam River Bridge — Paving	√
US 101/Vicinity of Olympic National Park Rd to vicinity of Lost Creek Bridge — Chip seal	√
SR 102/Washington State Corrections Center to US 101 — Chip seal	√
SR 104/1.2 miles west of Hood Canal Bridge — Fish barrier	√
SR 106/X Trib (cross tributary) Skokomish — Fish barrier	√
SR 106/Union to Twanoh State Park — Chip seal	√
SR 107/Chehalis River Bridge — Seismic retrofit	Deferred
SR 109/Jct US 101 to SR 109 Spur — Paving	√
SR 109/North of Harborview Court to south of Grass Creek Bridge — Paving	√
SR 109/Conner Creek Bridge to north of Chabot Road — Chip seal	Deferred
SR 109/South of Moclips, Olympic Hwy to Quinault River Bridge — Chip seal	Deferred
SR 112/Falls Creek Bridge to SR 113 and Burnt Mountain Rd — Chip seal	√
SR 116/Naval Undersea Engineering Station to Flagler Rd — Chip seal	√
SR 167/SR 18 interchange W-N ramp N-E ramp overcrossing — Seismic retrofit	Deferred
SR 167/I-405 interchange vicinity to SW 7th St vicinity — Paving Advertisement deferred as part of the new budget proposal in order to balance the available funds.	Deferred
SR 169/SE 264th St to vicinity Witte Road — Paving and PCCP rehabilitation	√
SR 174/Grant County line to Jct SR 21 — 2009 chip seal	√
SR 202/Snoqualmie River Bridge to South Fork Snoqualmie River Bridge — Paving After further evaluation of the pavement condition, and to help balance the statewide pavement preservation program, WSDOT determined repaving this roadway section could be deferred out of this biennium. WSDOT will continue to monitor the pavement condition.	Deferred
SR 260/Kahlotus to Washtucna — 2009 chip seal	√
SR 263/Snake River to Kahlotus — 2009 chip seal	√

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds (PEF) Projects: Advertisement record

Pre-Existing Funds (PEF) projects scheduled for advertisement or advertised this quarter

January 1 – March 31, 2009

Project description	On time advertised
SR 282/Ephrata South — ACP conversion	Emergent
US 395/Boyds to Canada — 2009 chip seal	√
SR 410/Clay Creek — Outfall washout repair Project advertisement is delayed due to challenges with obtaining tribal concurrence for scope of work and needed environmental mitigation.	Delayed
SR 507/Vicinity of East Gate Rd to 208th St E — Safety	Deferred
SR 509/S Normandy Rd vicinity to S Normandy Rd wye connection — Paving Advertisement deferred as part of the new budget proposal in order to balance the available funds.	Deferred
SR 515/SR 516 to SE 232nd St vicinity — Paving Advertisement deferred as part of the new budget proposal in order to balance the available funds.	Deferred
SR 525/I-5 to Ash Way Bridge — Paving Advertisement date was late due to new budget proposals to balance the available funds.	Late
SR 542/Baptist Camp Creek — Fish barrier Advertisement date was late due to additional time needed to reach a settlement on a privately owned right-of-way parcel that is required for the project. The project was advertised in May 2008 and then pulled from ad. FHWA right-of-way certification requirements were not met prior to bid opening. Advertisement was rescheduled for January 2009 to keep the in-water construction work within the July 1 to September 30 fish passage window.	Late
SR 542/Bruce Creek — Culvert replacement and realignment Advertisement date was late due to additional time needed to reach a settlement on a privately owned right-of-way parcel that is required for the project. The project was advertised in May 2008 and then pulled from ad. FHWA right-of-way certification requirements were not met prior to bid opening. Advertisement was rescheduled for January 2009 to keep the in-water construction work within the July 1 to September 30 fish passage window.	Late
SR 908/I-405 to SR 202 (Redmond Way) — Paving Advertisement deferred as part of the new budget proposal in order to balance the available funds.	Deferred

Source: WSDOT Project Control and Reporting Office.

A glossary of PEF advertisement terms

Advertisement date
The date that WSDOT schedules to publicly advertise a project for bids from contractors. When a project is advertised, it has a completed set of plans and specifications, along with a construction cost estimate. A √ mark in the Advertisement record indicates that a project advertised on time within the quarter.

Advanced
A project from a future quarter which has been advertised in the current quarter.

Early
Project with an ad date originally scheduled for the current quarter but occurred in an earlier quarter.

Late
A project that was advertised in the period being reported but which missed the original ad date.

Emergent
A new project that addresses unexpected needs such as emergency landslide repair.
Projects which were not advertised on schedule fall into three categories:

Delayed
A project that has not yet been advertised and which has had the ad date moved out of the quarter being reported to another quarter within the biennium.

Deferred
A project not yet advertised and which has had the ad date moved out of the quarter being reported to a future biennium.

Deleted
A project that, upon review or due to changing circumstances, is no longer required or has been addressed by another project.

Hot Mix Asphalt

WSDOT compiles a yearly forecast of hot mix asphalt (HMA) tons awarded to assist the paving industry in preparing to deliver the agency's annual program. The agency's forecast allows private contractors to better anticipate future HMA volumes and manage their production of HMA. This ultimately leads to more competitive bidding and favorable prices on WSDOT contracts. In addition, the agency tracks actual tons awarded against the forecast to gauge how accurately project awards were planned.

WSDOT revises HMA forecast for 2009, now 1.5 million tons

In October 2008, WSDOT forecast that 994,496 tons of Hot Mix Asphalt (HMA) would be awarded in construction contracts through September 2009. This forecast anticipated that during the six months from October 2008 through March 2009, 40 projects would be awarded with a combined total of 498,586 tons of HMA. At the end of March, the actual total is 42 projects awarded with a combined total of 507,625 tons of HMA. The October 2008 forecast of 994,496 tons of HMA was a 25% decrease compared to the forecast for 2008 (1,332,418 tons).

In March, WSDOT revised its forecast of HMA tonnage due the passage of the Recovery Act. This legislation enabled a number of projects to move forward that were otherwise not planned to be awarded prior to October 2009. These projects account for an additional 541,261 tons of HMA that the agency expects to award between April and the end of September. This brings the combined total of HMA tons for all projects to 1,535,757 by the end of September 2009. The new revised forecast including stimulus projects represents a 15% increase compared to the forecast for 2008, which is closer to the historical average of HMA awards forecast.

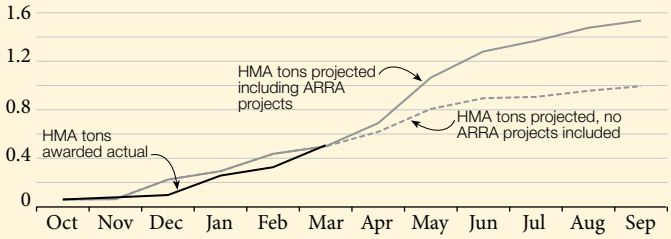
There are a number of reasons why WSDOT originally forecast that it would award less HMA this year. While funding for pavement preservation projects remained fairly steady from 2002 to 2009, the cost of HMA has gone from an average of $33 a ton in 2002 to $66 a ton in 2008. This means that about half as many tons can be paved in 2008 than in 2002 for the same dollar amount. Additionally, because of the Nickel and TPA programs, more of the projects WSDOT is currently awarding are specialty projects that do not involve paving. WSDOT also expanded its policy on chip seal pavement routes to convert some routes that were previously paved with HMA to be maintained with chip seal. This also reduces the amount of HMA tons the agency awards.

Paving on SR 9 near Arlington.

HMA Highlights:

A new revised forecast of 1.5 million tons, which includes stimulus projects represents a 15% increase compared to the forecast for 2008, which is closer to the historical average of HMA awards forecast.

Hot Mix Asphalt tons awarded
October 2008-March 2009
Tons in millions



Data Source: WSDOT Construction Office.

Hot Mix Asphalt - projected vs. actual tons awarded
2002 - 2009, From October 1 through September 30 of each year[1]

Year	Projected	Actual	% Difference
2002	1,373,465[2]	1,364,021	-1%
2003	1,417,126	1,825,442	+29%[3]
2004	1,324,218	1,299,377	-2%
2005	1,779,826	1,685,394	-5%
2006	1,213,985	1,126,701	-7%
2007	1,297,601	1,214,544	-6%
2008	1,322,418	1,397,189	+6%
2009[4]	1,535,757	N/A	N/A

Data Source: WSDOT Construction Office.

1 Awarded tons are tracked on an October through September calendar year, providing a better measurement of the work schedule and better planning for the paving industry than the calendar year. Construction projects awarded in the fall typically do not begin work until the next year's construction season begins in the Spring.

2 The projection for 2002 was revised in March 2002 by the Transportation Commission following budget cuts.

3 The 2003 Nickel Transportation Funding Package was passed after the projection was made for 2003. WSDOT subsequently awarded five projects from the Nickel funding package with a combined total of 315,285 tons of HMA.

4 Projected tons awarded for 2009 includes Recovery Act stimulus projects.

Use of Consultants

Consultant use highlights:

- WSDOT consultant spending totaled $96,274,728 between October 1, 2008 and March 31, 2008.
- Consultants contributed to many major projects including the SR 520 Bridge Replacement, the Columbia River Crossing, and the I-90 Snoqualmie Pass project.
- WSDOT uses consultants for preliminary engineering, land surveying, real estate negotiation, transportation studies and other services.

WSDOT uses consultants to complete tasks and projects that the department does not have the resources or the expertise to perform internally. WSDOT uses two different types of consultant agreements: task order agreements and project-specific agreements.

Task order agreements comprise the majority of consultant contracts. Every year, WSDOT assesses the types of work services that it consistently uses, including preliminary engineering, traffic engineering, real estate appraisal and negotiation, land surveying, and transportation studies. Based on the biennial estimated needs, the agency advertises for predetermined categories of work and initiates task order agreements with qualified consultants for each category. WSDOT regions then determine if work can be completed using a task order agreement.

Project specific agreements, which are individually advertised by project, are typically used for work that cannot be performed using a task order agreement. For example, WSDOT might use a project specific agreement to design a bridge or an interchange.

For Quarters 2 and 3 of FY 2009 (October 1, 2008 to March 31, 2008), the net totals of new consultant expenditures were $52,837,929 for task order agreement projects, $18,681,581 for project specific agreement projects, and $24,755,218 for general engineering consultant agreements. For a breakdown of the $96,274,728 in total expenditures for Quarters 2 and 3 of 2009, see the first table on the following page.

Task order agreements

Sixty-six task order agreements had Nickel project expenditures during the period. The total expenditures for services rendered were $2,956,091 for 49 prime consultant firms. Ninety-seven task order agreements had Transportation Partnership Account (TPA) project expenditures during this period; expenditure totals were $20,924,276 for 60 prime consultant firms. The overall statewide task order agreement consultant expenditures (excluding Nickel, TPA, and General Engineering consultants) for the same period were $45,368,544. For a list of significant expenditures for consultants, see the second table on the following page.

Consultant utilization definitions & examples

Authorization type	Description	Project examples	Service performed by consultant
Task Order Agreements	Consultant performs regularly occurring work in one of multiple categories including preliminary engineering, traffic engineering, real estate appraisal and negotiation, land surveying, and transportation studies work.	U.S. 12 - Wallula to Walla Walla Corridor Study (Nickel and TPA)	David Evans and Associates conducted a preliminary environmental investigation on preferred corridor alignments for U.S. 12 from the Wallula junction to the city of Walla Walla.
General Engineering Agreements	Consultant supervises the planning, design, and program management responsibilities for very large scale mega-projects, or clusters of related projects.	SR 167 Valley Freeway Corridor (Nickel)	Perteet is organizing the corridor project's partnership groups, handling the public involvement process, and evaluating environmental documentation.
Project Specific Agreements	Consultant performs services for a specific project when an on-call consultant is unavailable to perform such work.	SR 520 West Lake Sammamish Boulevard to SR 202 (Nickel)	CH2M Hill was selected as the prime design consultant for stages 3A and 3B of a flyover ramp that will comply with the City of Redmond's stormwater design codes.

Data source: WSDOT Consultant Services Office.

Use of Consultants

General engineering agreements

As discussed in the March 31, 2007, *Gray Notebook* (p. 40), eight high-profile general engineering consultant (GEC) projects were to receive consultant agreements during the period of October 1, 2008 to March 31, 2009. GEC expenditure totals were $24,755,218, divided between eight primary consultant firms, of which $2,170,228 were Nickel funds and $22,584,990 were TPA funds. For a breakdown of the projects, see the third table on this page.

Project-specific agreements

From October 1, 2008 to March 31, 2009, new expenditures for project-specific Nickel agreements and/or supplements totaling $6,411,263 were divided between 23 prime consultants. New expenditures for project-specific TPA agreements and/or supplements were $6,768,349, divided between 19 prime consultants. All non-Nickel/TPA, project-specific, consultant authorizations totaled $5,501,969. The fourth table on this page lists significant expenditures for project-specific agreements.

Consultant expenditures

April 1, 2008 through September 30, 2008, dollars in millions

Type of consultant agreement	Nickel	TPA	PEF	Total
Task order consultant agreements (including GEC agreements)	$5.1	$43.5	$29.0	$77.6
Project-specific agreements/supplements	$6.4	$6.8	$5.5	$18.7
Totals	**$11.5**	**$50.3**	**$34.5**	**$96.3**

Significant authorizations for task order consultants

April 1, 2008, through September 30, 2008, dollars in millions

Project	Consultant	Total expenditures
Columbia River Crossing Project (TPA, PEF)	David Evans and Associates, Inc.	$6.6
Statewide Program Management Consultant (Nicket, TPA, PEF)	PB Americas, Inc.	$2.2
On-Call UCO Engineering Management Services (Nickel, TPA, PEF)	Parametrix, Inc.	$3.8
Alaskan Way Viaduct and Seawall EIS (TPA, PEF)	PB Americas, Inc.	$16.1
SR 520,Trans-Lake Washington Project (Nickel, TPA)	Parametrix, Inc.	$1.9

Expenditures for general engineering consultants (GEC)

April 1, 2008, through September 30, 2008, dollars in millions

Project	Consultant	Expended this period
GEC Alaskan Way Viaduct & Seawall Replacement Project	Hatch Mott MacDonald	$0.7
GEC I-90 Snoqualmie Pass East – Hyak to Keechelus Dam	URS Corporation	$5.3
GEC Northwest Region Mt. Baker Area	H.W. Lochner, Inc.	$0.2
GEC Northwest Region Mt. Sno-King Area	DMJM Harris, Inc	$0.3
GEC SR 167 Extension	Carter & Burgess, Inc.	$0.3
GEC SR 167 Valley Freeway Corridor	Perteet, Inc.	$0.7
GEC SR 520 Bridge Replacement and HOV Project	HDR Engineering, Inc.	$16.3
GEC Tacoma/Pierce County HOV Program	CH2M Hill, Inc.	$1.1
Total		**$24.7**

Note: Numbers do not add exactly to total due to rounding.

Significant authorizations for project-specific consultants

April 1, 2008, through September 30, 2008, dollars in millions

Project	Consultant	Total expenditures
I-405 General Engineering Consultant (Nickel, TPA)	HNTB Corporation	$6.2
SR 520, West Lake Sammamish Boulevard to SR 202 (Nickel)	CH2M Hill, Inc.	$5.8
SR 522, Snohomish River Bridge to U.S. 2 (Nickel)	Parametrix	$1.6

Source for all tables: WSDOT Consultant Services Office.

Project Management Reporting Systems

Project Management Reporting System Highlights

- PMRS is a state-of-the-art system for managing and delivery construction projects.
- Over 700 WSDOT engineers and project management staff are using PMRS.
- PMRS development is on schedule for completion by July 1, 2010, when all projects will be in the system.

More information about PMRS can be found at: http://www.wsdot.wa.gov/Projects/ProjectMgmt/

WSDOT is currently delivering the largest transportation construction program in our state's history – hundreds of projects worth more than $15 billion. WSDOT is managing the program using best management practices proven throughout the country in both the public and private sectors, including a new Project Management and Reporting System (PMRS). PMRS is an information backbone and set of software tools to help project managers deliver construction projects on-time and within scope and budget. Using PMRS, project managers can track and manage project costs, schedules, and deliverables, and determine the best course of action to address project risks. PMRS also supports project reporting for both internal management and external accountability purposes.

Key PMRS functions include: cost estimating, project scheduling, contract management, cost control and earned value management, project reporting, and document management. Development of PMRS began in July 2006. Active use began in July 2008 and is taking place in stages. Currently, over 700 WSDOT engineers and project management staff are using PMRS. Projects previously managed using older computer systems are being moved into PMRS, and all new projects are started there. Training on use of the system, including a new Project Management Academy, is taking place in conjunction with system rollout. PMRS development is on schedule for completion by June 1, 2010, when all projects will be in the system.

Accomplishments since the last semi-annual report in the September 30, 2008, *Gray Notebook* include:

- Document management software has been configured and deployed to all WSDOT regions. Real estate and environmental documents are currently being loaded into the system, to be followed by public involvement and design documents;
- Project scheduling software has been deployed in five regions and at headquarters. Full deployment will be completed by mid-2009.
- A contract management tool has been launched and is being used to manage contract submittals and requests for information.
- Tools to manage daily project inspection reports and field note records have been deployed statewide.
- The Project Management Academy is underway and 294 graduates have been trained to date.
- The Project Control and Reporting sub-system has been completed and 210 staff have been trained in use of the system. Web-based report formats are being developed.
- Work to interface PMRS with WSDOT's legacy systems continues to move forward. Interfaces between the PMRS scheduling tool and two legacy systems – the Capital Project Management System (CPMS) and the Transportation Reporting and Accounting Information System (TRAINS) – have been completed. Integration of the PMRS schedule management tool is underway.
- Development of an earned value reporting system is underway and scheduled for completion by June 2009.

Though development and implementation is not complete. PMRS is already producing benefits. Loading projects into the system requires project staff to reassess and quality control schedules and costs, and create a plan against which the project's performance will be measured. This is contributing to effective project management, improved risk management, proactive problem resolution and improved communication.

Workforce Level and Training

This quarter, WSDOT employed 7,132 permanent full-time employees on March 31, 2009, 53 fewer employees than the previous quarter ending December 31, 2008. On August 4, 2008, Governor Gregoire announced a statewide hiring freeze as state revenues, including gas tax revenues, declined. The total number of permanent full-time employees had reached a high of 7,282 at the end of July 2008, as WSDOT delivered the largest construction program in department history, and has decreased 2%, or 150 employees, since then. The chart below shows the number of permanent full-time employees since June 30, 2001. The total number of full-time equivalencies (FTEs) will generally exceed the number of permanent full-time employees as seasonal, permanent part-time, and non-permanent/on-call workers are funded from FTE allocations. For more information on consultant use, see pages 104-105.

Worker Training Highlights

WSDOT employed 53 fewer permanent fulltime people than the previous quarter.

Compliance levels improved for five of the six training courses required for all employees.

Sexual harassment/ discrimination training compliance increased 6%, and remains a high priority.

Workforce training compliance improves

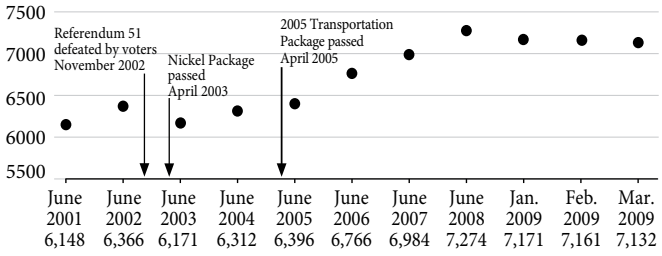
Compliance levels improved for five of six training classes required of all employees in the quarter ending March 31, 2009, including each of the three Office of Equal Opportunity (OEO) courses. The compliance for ethical standards training decreased 3%.

The greatest increase in compliance, a 6% improvement in sexual-harassment/discrimination training, is a result of focused efforts to ensure managers comply with a 2008 state law shortening their refresher requirement from five years to every three years. In spite of the significant increase in the number of employees requiring training, manager refresher training compliance has improved 14% in the last two quarters. The course training remains a high priority, with 1,500 workers needing to refresh.

WSDOT is making four key efforts to help raise compliance with required courses for all employees.

- Collaboration between Human Resources, OEO, and maintenance and safety trainers within regions to create coordinated training opportunities for employees.
- WSDOT is training temporary employees for mandatory courses in the first six months, following the same curriculum as permanent employees.
- Human Resources staff track employees for mandatory training compliance.

Number of permanent full-time employees at WSDOT



Data Source: Dept. of Personnel Data Warehouse, HRMS, WSDOT and the ferry system payroll.

Required training: All WSDOT workers

Training course	Workers requiring training	Basic training completed to date	Workers needing basic training	Workers needing refresher training	Completed training reporting quarter	Total in compliance	Percent in compliance	% Change from previous quarter
Disability awareness	7,983	7,032	951	340	235	6,692	84%	1%
Ethical standards	7,983	7,682	301	1,851	823	5,831	73%	-3%
Security awareness	7,983	6,624	1,359	N/A	259	6,624	83%	1%
Sexual harassment/ discrimination	7,983	7,273	710	1,500	661	5,773	72%	6%
Valuing diversity	7,983	7,100	883	398	277	6,702	84%	1%
Violence that affects the workplace	7,983	6,939	1,044	N/A	227	6,939	87%	1%

Data Source: WSDOT Office of Human Resources, Staff Development.

Workforce Training

- Trainers are using compact discs and booklets to train hard-to-reach employees and workers needing refresher courses.

Maintenance and safety training compliance improves

Statutorily required maintenance and safety training compliance for WSDOT employees improved to 84% this quarter, a 1% increase over last quarter. The safety training compliance was 84%, a 1% increase from the previous quarter, while the maintenance training compliance was 85%, a 1% decrease from the prior quarter.

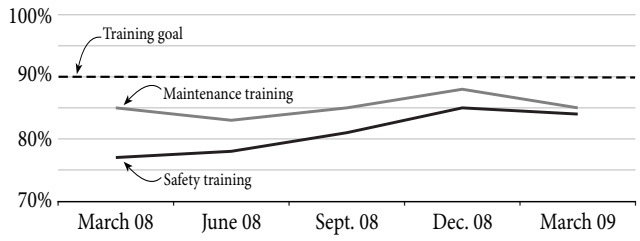
WSDOT's goal is to reach 90% compliance for statutorily required maintenance and safety employee training. Regional maintenance and safety trainers are utilizing multiple approaches to increase compliance rates, including providing computerized training and coordinating workshops that provide multiple training courses on the same day.

In an effort to heighten the visibility of compliance levels this data will be presented in a new format. Formerly, the statewide table identified all statutorily required training requirements for maintenance and safety workers and the respective compliance figures. Now, the data will be displayed as a line graph that shows the trend of maintenance and safety training over the past five quarters. The statewide table will now appear on an annual basis at the end of each calendar year.

Compliance is annually highest in the fall and winter when more employees are available for training. Supervisors and trainers balance maintenance workloads to ensure training occurs continually while maintaining roadways safely.

Maintenance and safety training compliance

March 2008 - March 2009



Data Source: WSDOT Office of Human Resources. Staff Development.

Statutorily required maintenance & safety courses

Maintenance courses
Aerial lift
Bucket truck
Drug & alcohol certification
Excavation, trenching & shoring
Emissions certification
Forklift
Hazardous materials awareness
Railway work certification

Safety courses
Blood-borne pathogens
Confined space entry
Drug free workplace
Electrical safety awareness
Fall protection
Fire extinguisher
First aid
Hearing conservation
Lead exposure control
Flagging & traffic control
Lockout/tagout
Personal protective equipment
Respirator protection
Supervisor return to work
Proper lifting
Hazard communications

Data Source: WSDOT Office of Human Resources, Staff Development.

Required training for maintenance employees by WSDOT region

Region	Current quarter percent in compliance	Percent change from last quarter	Current biennium (2007-09) average	Goal met
Northwest	78%	1%	76%	
North Central	80%	1%	80%	
Olympic	83%	1%	77%	
Southwest	96%	2%	93%	√
South Central	88%	1%	84%	
Eastern	93%	0%	91%	√

Data Source: WSDOT Office of Human Resources, Staff Development.

Two regions achieve 90% goal

WSDOT tracks statutorily required training compliance for its maintenance workers by region. The table to the right documents each region's compliance with all the courses above as a single measure. Training compliance increased in six regions and remained steady in two regions during the first quarter of 2009. Two regions, the Eastern and Southwest regions, continued to exceed the 90% compliance goal.

Highlights of Program Activities

For the quarter ending March 31, 2009

Project starts, updates, or completions

Project starts

I-5/Boeing Access Rd (King)

Contractor crews began work in February to replace the cracked and broken, 40-year-old, concrete panels that make up I-5 in Seattle. To extend the life of the freeway, WSDOT will replace about 440 deteriorating concrete panels and grind down the worst areas of uneven pavement on northbound and southbound I-5 between the Boeing Access Road in South Seattle and the King/Snohomish County line and in the I-5 express lanes. Work will be accomplished during a series of 100 overnight and up to 14 weekend lane closures on northbound and southbound I-5 between February and September 2009. This $21 million project is funded by the 2003 Nickel program.

SR 520/I-405 to West Lake Sammamish Parkway (King)

On January 20, WSDOT awarded Granite Northwest a contract to repave nearly four miles of SR 520 in both directions between I-405 in Bellevue and West Lake Sammamish Parkway in Redmond, a $9.4 million project, which will also replace crumbling asphalt at the approaches to five bridges with new concrete slabs. Crews began work in March on the bridge approaches, replacing deteriorating asphalt with concrete, to smooth the transition from the asphalt roadway to the concrete bridges. The project is scheduled for completion in fall 2009.

SR 532 Corridor improvements (Snohomish, Island)

WSDOT selected design-builder Parsons/Kuney Joint Venture to construct $82 million in safety improvements on SR 532 near Stanwood. Parsons/Kuney began design in early March after receiving the final approval from WSDOT. The team will seamlessly move into construction this in July and start work, such as building bridge footings, before finishing the entire design phase. Crews plan to have all lanes open to traffic by mid 2011. Project work includes replacing the General Mark W. Clark Memorial bridge and improving intersections between Camano Island and I-5, including new left and right-turn lanes. Crews will also construct a westbound truck-climbing lane between 12th Avenue NW and 28th Avenue NW, and an eastbound truck-climbing lane between Pioneer Highway and 72nd Avenue NW. They will repave the section of road between 270th Street NW and 72nd Avenue NW and build highway stormwater run-off treatment facilities.

Project updates

SR 169 – Green River Bridge (King)

Repair work on the 80-year-old Green River Bridge, closed since November 2008, continues after WSDOT awarded a $3.2 million construction contract in March to complete the second stage of the project. In stage one, crews excavated a 200-foot by 80-foot by 30-foot section of road just south of the bridge. In stage two, contractor crews will install drainage systems and build a 160-foot-long retaining wall adjacent to the southeast corner of the bridge. Crews will work six days a week and plan to open the bridge to traffic some time in July. The SR 169 bridge was closed in November after rainstorms super-saturated the ground and aggravated an ancient landslide under the support piers of the bridge. The damage was eligible for federal emergency funding totaling $15 million.

I-405 – South Bellevue (King)

On January 16, crews opened a new I-405 northbound lane in Bellevue to help ease one of the worst traffic bottlenecks in the state. The new lane begins at 112th Avenue SE and ends at I-90, an area known for backups during the morning commute. In the next step of the project, on January 26, crews opened a new ramp meter and carpool bypass lane to northbound I-405 from 112th Avenue SE. The ramp meter will evenly distribute vehicles onto the freeway, create gaps for merging traffic, and improve safety. The bypass lane will give carpoolers and buses better travel times and help them avoid backups. Traffic engineers will monitor area streets and keep all routes flowing as freely as possible.

SR 532, General Mark W. Clark Memorial Bridge.

Highlights of Program Activities

For the quarter ending March 31, 2009

I-405/I-5 to SR 169 (King)

Construction reached the half-way point on this $164.3 million project that will help relieve congestion on the I-405 in Renton by widening a section of highway between I-5 and SR 169. In February, crews finished placing 24 girders for the new I-405 bridge over Oakesdale Avenue SW. The work is part of a new bridge with eight lanes of traffic, with three general purpose lanes and one carpool lane in each direction of I-405 between I-5 and SR 167. Crews have also been working on building a new lane on southbound SR 167 between I-405 and SW 41st Street. Crews expect to complete the project in summer 2010.

Photo courtesy: Dan Crowell, Soundview Aerial Photography.

Project completions

US 97/Biggs Rapids – Sam Hill Bridge (Klickitat)

WSDOT opened US 97 Biggs Rapids-Sam Hill Bridge to all traffic on December 24, 2008, and completed all construction in March 2009. The bridge has been closed periodically since January 2008 for a complete replacement of the bridge deck. The new, wider deck has a better driving surface, and allows more goods to be shipped across the Columbia River by lifting previous weight restrictions for this heavily traveled trucking route. In addition, lighting and guardrail improvements increase safety for all travelers crossing Biggs Bridge.

SR 202 at Fall City (King)

WSDOT reopened a flood-damaged section of SR 202 just east of Fall City on January 16. Crews replaced a 120-foot long, 30-foot wide, and eight-foot deep section of roadway that washed away when the Snoqualmie River flooded on January 7. WSDOT hired contractor KLB Construction under an emergency contract to make speedy repairs and rebuild the roadway with 3,000 cubic yards of material. The cost for the emergency work is approximately $350,000 and is expected to be eligible for federal emergency funding.

Ferries

Ferries draft Long-Range Plan has now received public comment

WSDOT Ferries Division (WSF) staff has worked collaboratively with the Washington State Legislature and Washington State Transportation Commission to address the long-term sustainability of the ferry system in the development of the WSF draft long-range plan. The draft plan is based on 2007 legislation and will guide future WSF service and investment decisions through 2030. The draft plan was made available December 19 for public review and comment and WSF accepted comments through January 26. During the 38-day comment period, WSF conducted a total of 10 public hearings in ferry-served communities to present the draft plan and to listen to public testimony. More than 1,300 individuals attended the public hearings, and hundreds in attendance testified. In addition, WSF received more than 800 written comments.

The draft plan puts forward two options for consideration:

Plan A: This option assumes that the state will continue in its current role as owner, operator, and principal funder of ferry services in the Puget Sound region. Current level of service remains with operational strategies implemented over time and several new vessels coming online. This plan contains a significant budget shortfall that will require new revenues.

Plan B: This option recognizes that the state may not be able to provide new revenues to meet the evolving needs of all ferry customers and communities, and looks at marine transportation very differently. It proposes an alternative where the state takes responsibility for the core marine highway system and a locally-funded entity or entities would take responsibility for a new marine transit system. This option assumes operational strategies would be implemented over time. It also contains a budget shortfall, but it is significantly smaller than Plan A.

WSDOT Ferries Division sells two passenger-only ferries

On January 16, WSDOT's Ferries Division (WSF) closed the sale of two passenger-only fast ferries, Chinook and Snohomish, to the Golden Gate Bridge, Highway and Transportation District of Larkspur, California. The total sale price for the two vessels was $4 million. In 2006, the Washington State Legislature voted to end state funding for passenger-only ferries. In 2007, the Legislature directed WSF to sell the Chinook and Snohomish and deposit the proceeds into a passenger ferry account. The proceeds from the sale will be used to help fund county-run passenger-only ferry service.

For the quarter ending March 31, 2009

WSDOT to ride Victoria Express wave for Hood Canal Bridge Project

As part of its preparations for the six-week closure of the Hood Canal Bridge, WSDOT contracted with Victoria Express, a Port Angeles-based ferry company, to lease two 149-passenger vessels. The ferries, operated by WSF crews, will be used to provide a temporary water shuttle capable of transporting more than 11,000 passengers daily between South Point in Jefferson County and Lofall in Kitsap County. The free service will begin on May 1, 2009, and operate every half hour, with first and last departures at 4:00am and 11:00pm. Jefferson, Kitsap, and Clallam transit operators will offer connecting services between the docks and park-and-ride lots in Shine Pit and Port Gamble, as well as to communities throughout the Olympic and Kitsap peninsulas.

Rail

WSDOT releases Amtrak Cascades Mid-Range Plan for next eight years

WSDOT completed the Amtrak Cascades Mid-Range Plan as requested by the Washington State Legislature. The plan identifies options to achieve enhanced Amtrak Cascades services for the next eight years. The plan provides policymakers with four strategic investment options for infrastructure development, which can enhance service capacity, improve on-time performance, and increase ridership on the segment between Seattle and Portland.

The mid-range plan:

- Identifies the needs of intercity passenger train services,
- Assesses the potential of passenger rail as a strategic multimodal transportation solution,
- Specifies the steps of improving infrastructure to deliver additional intercity passenger services,
- Links capital and operational investment to ridership growth and economic and societal benefits,
- Provides a variety of information to support informed decision-making processes, including legislative budgeting and prioritizing.

WSDOT celebrates ten years of Amtrak Cascades service in the Pacific Northwest

WSDOT, along with partners Amtrak and the Oregon Department of Transportation, is celebrating ten years of Amtrak Cascades passenger rail service. More than six million passengers have ridden Amtrak Cascades in its ten years of operation, resulting in a 71% increase in ridership since 1999. In 2008, ridership reached nearly 775,000 passengers, making it the most successful year in the history of the service.

WSDOT began working with Amtrak in 1994 to improve passenger rail service along the I-5 corridor. In 1999, the new Amtrak Cascades service debuted, providing additional intercity passenger rail service in the Pacific Northwest between Vancouver, BC, and Eugene, OR. The service has grown to four daily round-trips between Portland and Seattle, with connecting services to Eugene and Bellingham, plus one daily round-trip between Seattle and Vancouver, BC. Additionally, WSDOT has invested $137 million in capital rail improvements since 1999 to improve the rail line infrastructure, traffic control, and safety systems, as well as station restorations and improvements.

Amtrak Cascades.

Highlights of Program Activities

For the quarter ending March 31, 2009

Freight Transportation

2009 Marine Cargo Forecast

According to the 2009 Marine Cargo Forecast, released on March 23 by the Washington Public Ports Association and WSDOT, the current downturn in container cargo imports is temporary: cargo for most commodity types is expected to increase significantly over the next 20 years. The Marine Cargo Forecast is issued every five years; it identifies future trade opportunities available for Washington State as well as the need for an efficient multimodal system that will allow shippers choice and keep transportation rates competitive.

Washington ports and WSDOT are investing in infrastructure to improve connectivity, add capacity, and relieve freight congestion. Several projects that will improve port access and freight mobility are proposed, funded, or under way. The following projects have been identified as the highest priority within the next eight years (2009 - 2017): Vancouver Washington Freight Rail Bypass, Point Defiance Bypass from Tacoma to Nisqually, Third main line Kalama to Kelso Port of Vancouver, and USA Freight Access Project.

SR 20, North Cascades Highway.

Announcements, awards, and events

Reopening of SR 20, the North Cascades Highway, under way

WSDOT maintenance crew members on both the east and west sides of the North Cascades Highway began the annual clearing process to reopen 37 miles of highway, including Rainy and Washington passes, on March 30. Clearing the North Cascades Highway is a significant effort each year. WSDOT crews will be working 10-hour days, Monday through Thursday, through April. The highway reopened May 1 last spring and was closed for the season on December 11. It costs between $200,000 and $250,000 to reopen the highway each spring.

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Americans with Disabilities Act (ADA) Information

Persons with disabilities may request this information be prepared and supplied in alternate formats by calling the Washington State Department of Transportation at (360) 705-7097. Persons who are deaf or hard of hearing may call Access Washington State Telecommunications Relay Service by dialing 7-1-1 and asking to be connected to (360) 705-7097.

Civil Rights Act of 1964, Title VI Statement to Public

Washington State Department of Transportation (WSDOT) hereby gives public notice that it is the policy of the department to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Persons wishing information may call the WSDOT Office of Equal Opportunity at (360) 705-7098.

Other WSDOT information available

The Washington State Department of Transportation has a vast amount of traveler information available. Current traffic and weather information is available by dialing 5-1-1 from most phones. This automated telephone system provides information on:

- Puget Sound traffic conditions
- Statewide construction impacts
- Statewide incident information
- Mountain pass conditions
- Weather information
- State ferry system information, and
- Phone numbers for transit, passenger rail, airlines and travel information systems in adjacent states and for British Columbia.

For additional information about highway traffic flow and cameras, ferry routes and schedules, Amtrak Cascades rail, and other transportation operations, as well as WSDOT programs and projects, visit www.wsdot.wa.gov

For this or a previous edition of the *Gray Notebook*, visit www.wsdot.wa.gov/accountability

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