



**Washington State  
Department of Transportation**

# Measures, Markers and Mileposts

The Gray Notebook for the quarter ending  
March 31, 2008 :: Edition 29  
published on May 20, 2008

WSDOT's quarterly report to the Governor, the Legislature,  
and the Washington State Transportation Commission  
on transportation programs and department management

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



## What Gets Measured, Gets Managed

This periodic report is prepared by WSDOT staff to track a variety of performance and accountability measures for review by the Transportation Commission and others. The content and format of this report is expected to develop over time. Information is reported on a preliminary basis as appropriate and

available for internal management use and is subject to correction and clarification. The *Gray Notebook* is published quarterly in February, May, August, and November. For an online version of this or a previous edition of the *Gray Notebook*, visit [www.wsdot.wa.gov/accountability](http://www.wsdot.wa.gov/accountability).

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# Measures, Markers and Mileposts

The *Gray Notebook* for the quarter ending March 31, 2008  
Edition 29, published May 20, 2008

<b>Navigating the <i>Gray Notebook</i> .....</b>	<b>ii</b>	<b>Asset Management: Safety Rest Areas .....</b>	<b>60</b>
<b>Linking Measures to Strategic Objectives .....</b>	<b>iii</b>	Visitor numbers .....	60
<b>An Introduction to Project Reporting .....</b>	<b>v</b>	Service levels and condition ratings .....	61
<b>Beige Pages</b>		Security and customer satisfaction survey .....	62
<b>WSDOT's Capital Project Delivery Programs .....</b>	<b>1</b>	Prioritization of preservation program needs.....	63
Highway Construction and Rail/Ferries Performance.....	1	Special feature: WSDOT co-hosts new conference.....	63
Nickel and TPA Project Delivery Overview.....	3	<b>Trucks, Goods, &amp; Freight Annual Update .....</b>	<b>64</b>
Schedule, Scope, and Budget Summary.....	5	Commercial trucking .....	64
Advertisement Record.....	8	Busiest routes and border crossings .....	65
Projects to be Advertised .....	14	Special feature: Severe winter weather disrupts freight.....	66
Selected Project Highlights.....	16	Marine freight.....	67
Watch List: Projects with schedule and budget concerns .....	17	Rail freight.....	67
Schedule Milestone Tracking (Nickel & TPA).....	29	Air cargo.....	68
Paying for the Projects: Nickel & TPA Financial Information .....	31	<b>CVISN Update .....</b>	<b>69</b>
Pre-Existing Funds Projects: Reporting by Program.....	33	<b>Aviation Annual Update .....</b>	<b>70</b>
Pre-Existing Funds Projects: Advertisement Record.....	35	Airport pavement condition ratings .....	70
Pre-Existing Funds Projects: Financial Information .....	38	Local airport aid grant program .....	71
<b>Special Reports .....</b>	<b>40</b>	Airport pavement projects.....	72
Tacoma Narrows Bridge, final update.....	40	Aircraft registration .....	73
Hood Canal Bridge, quarterly update.....	42	Search and rescue operations .....	73
Tacoma/Pierce County HOV Program, quarterly update .....	43	Long-Term Air Transportation Study update.....	74
<b>Cross-Cutting Management Issues.....</b>	<b>44</b>	<b>Incident Response .....</b>	<b>75</b>
Project Management Information Systems.....	44	Number of responses and overall average clearance time.....	75
Use of Consultants .....	45	Programs to reduce over-90-minute incidents .....	76
Construction Material Cost Trends .....	47	Percentage of over-90-minute incidents by quarter.....	77
Hot Mix Asphalt.....	48	Special feature: Major Incident Tow program in action.....	77
Environmental Documentation.....	49	<b>Washington State Ferries: Quarterly Report.....</b>	<b>79</b>
<b>White Pages</b>		Average number of complaints .....	79
<b>Worker Safety: Quarterly Update.....</b>	<b>51</b>	Farebox revenue .....	79
Number of recordable injuries and illnesses by region .....	51	Trip cancellations .....	80
Number of work injuries by type.....	52	On-time performance .....	81
Yearly recordable injuries and illnesses rates .....	52	Emergency expenditures.....	82
<b>Workforce Level and Training: Quarterly Update ...</b>	<b>53</b>	Vessel preservation activities .....	82
Number of permanent full-time employees .....	53	<b>Rail: Quarterly Update.....</b>	<b>84</b>
Statutorily required training for WSDOT workers .....	53	Amtrak <i>Cascades</i> monthly ridership.....	84
Statutorily required training for maintenance workers.....	54	Amtrak <i>Cascades</i> ridership by funding entity .....	84
<b>Highway Maintenance: Post-winter Report.....</b>	<b>55</b>	Amtrak <i>Cascades</i> on-time performance.....	84
Snowstorms, floods, and high winds.....	55	Amtrak <i>Cascades</i> revenue.....	85
Special feature: Bailey bridge over Chehalis River .....	56	Washington Grain Train carloads.....	85
Winter severity and maintenance expenditures .....	57	<b>Highlights of Program Activities .....</b>	<b>86</b>
Snow and ice materials and treatments .....	57	<b>Subject Index .....</b>	<b>91</b>
Pass closures and avalanche control.....	57		
Statewide deicer use and road conditions .....	58		
New automated winter data collection .....	58		
Winter driving conditions on the internet.....	59		
Special feature: Winter storms hammer Eastern Washington..	59		

# Navigating the *Gray Notebook*

## How is the *Gray Notebook* organized?

The *Gray Notebook* provides in-depth reviews of agency and transportation system performance. The report is organized into two main sections. The *Beige Pages* report on the delivery of the projects funded in the 2003 Transportation Funding Package (Nickel), 2005 Transportation Funding Package (TPA), and Pre-Existing Funds (PEF). The *White Pages* describe key agency functions and provide regularly updated system and program performance information. 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](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/>.

### Beige Pages

The *Beige Pages* is WSDOT's project delivery performance report on the Nickel, Transportation Partnership Account (TPA), and Pre-Existing Funds project programs. It contains summary tables, detailed narrative project summaries, and financial information supporting WSDOT's "no surprises" reporting focus. See page 1 for details.

### White Pages

The *White Pages* contain three types of transportation system and agency program performance updates:

#### Annual Performance Topics

System performance updates are rotated over four quarters based on data availability and relevant data cycles. Annual updates provide in-depth analysis of topics and associated issues. Examples include Safety Rest Areas, Aviation, Freight, and a post-winter report on Highway Maintenance.

#### Quarterly Performance Topics

Quarterly topics are featured in each edition since data is generally available more frequently. Quarterly topics include Worker Safety, Incident Response, Washington State Ferries, and Amtrak *Cascades*.

#### Special Topics

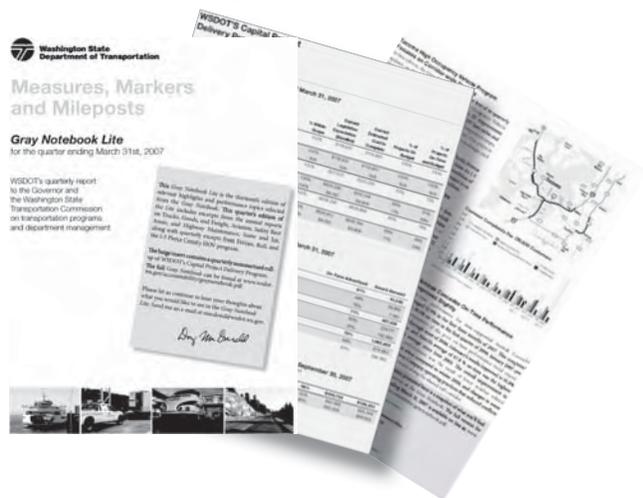
Selected Special Features and Program Highlights are provided in the back of each edition and focus on noteworthy items, special events, and innovations.

## Tracking business plan results

WSDOT's business plan, *Business Directions*, outlines the agency's strategic initiatives and associated activities. It reflects WSDOT's program and project delivery responsibilities with the goal of demonstrating the best possible return for taxpayers' dollars. The *Gray Notebook* complements the plan and tracks progress of the six key initiatives (see pages iii-iv). For a copy of *Business Directions*, please visit: <http://www.wsdot.wa.gov/Accountability/PerformanceReporting/StrategicPlan.htm>.

## Gray Notebook Lite

WSDOT publishes a quarterly excerpt of selected performance topics and project delivery summaries from the *Gray Notebook*, called *Gray Notebook Lite*. *Lite* allows for a quick review and provides a short synopsis of selected topics. It is published as a four-page folio with a two-page *Beige Page* summary insert and can be accessed at <http://www.wsdot.wa.gov/Accountability/GrayNotebook/navigateGNB.htm>.



## How to Find Current and Past Performance Information

The electronic subject index gives readers access to current and archived performance information. The comprehensive index is easy to use and instantly links to every performance measure published to date. Measures are organized alphabetically within program areas. A click on the subject topic and edition number provides a direct link to that page. A copy of the subject index is also provided in the back of each edition. To access the index electronically, visit <http://www.wsdot.wa.gov/Accountability/GrayNotebook/SubjectIndex.htm>.

# Linking Measurements to Strategic Objectives

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**The mission of WSDOT is to keep people and business moving by operating and improving the state's transportation systems vital to our taxpayers and communities.**

## WSDOT Strategic Plan

WSDOT's 2007-2011 *Business Directions Strategic Plan* is a summary of WSDOT's work plan based on the programs and budgets authorized by the State Legislature and the policies adopted by the Governor. The plan describes the agency strategic directions and initiatives that are part of WSDOT's program and service delivery mandates. It addresses Washington State Transportation Plan's current investment priorities, as well as the priorities and concerns of the Governor, the Cabinet, Washington State's legislative bodies, and the Office of Financial Management (OFM).

WSDOT's plan supports Priorities Of Government (POG) and Government Management Accountability and Performance (GMAP)

Washington's governor relies upon accurate, timely information and careful analysis of reported data to make informed budget-related decisions. The Priorities of Government (POG) approach creates a statewide strategic framework to assess the needs of Washington's citizens; once those needs are identified and prioritized, performance evidence helps guide investment choices that maximize results. POG looks at all state activities and how these activities contribute to the framework for the ten statewide results that citizens expect. Of those ten, WSDOT directly addresses the sixth POG – "Improve statewide mobility of people, goods, and services" – through its biennial strategic business plans.

All state agencies and their directors are accountable to Governor Gregoire and the citizens of Washington. Through the Government Management Accountability & Performance (GMAP) Forums, agency directors report to the public on their most important management and policy challenges. WSDOT participates in the Transportation Forum (and supplies data to other forums), but also provides detailed reports of its activities and progress against plan in the *Gray Notebook*.

By tracking the progress of WSDOT's initiatives with key performance measures, the *Gray Notebook* connects WSDOT's six initiatives (main objectives) with statewide outcome goals. The table on the next page shows the six WSDOT initiatives and key related performance measures, as well as where and how the results are reported. WSDOT's strategic plan is available at <http://www.wsdot.wa.gov/accountability/publications/StrategicPlanWEB.pdf>.

## Cabinet Strategic Action Plan

The Cabinet Strategic Action Plan formed the focus of the Governor's Cabinet performance reporting efforts for 2007. It is a management tool based on a series of discussions with citizens, cabinet agency staff, and the Governor's policy and budget staff. The Cabinet Strategic Action Plan established the following goals for WSDOT to accomplish by December 31, 2007:

- Complete 90% of highway projects on time and within budget.
- Preserve 97% of bridges and 90% of roads in good or satisfactory condition.
- Reduce congestion by clearing highway accidents quickly, and reduce the average length of incidents lasting longer than 90 minutes by 5%, and
- Reduce highway fatalities by 4% (both in coordination with the Washington State Patrol).

A review of WSDOT's achievements against these benchmarks will appear in the next *Gray Notebook*, which closes out the fiscal year.

## Statewide transportation policy goals

In 2007, the Legislature amended RCW 47.01.012 and adopted new policy goals for transportation agencies in Washington, streamlining various existing state transportation system goals, objectives, and responsibilities, and the process by which these elements are measured. Under the new legislation, the Washington State Office of Financial Management (OFM) will be responsible for setting objectives and related performance measures. The new policy goals are:

- Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services;
- Safety: To provide for and improve the safety and security of transportation customers and the transportation system;
- Mobility: 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.

In January 2008, OFM submitted the first baseline report on WSDOT's progress toward attaining these policy goals. WSDOT will measure against the new policy goals and work closely with OFM to ensure the performance measures used are clear and consistent. The final report is due in October 2008. The first baseline report is available at <http://www.wsdot.wa.gov/Accountability/PerformanceReporting/Attainment.htm>.

# Linking Measures to Strategic Objectives

WSDOT Strategic Initiative & Transportation Policy Goal(s)	Linked To	Key Performance Measure(s)	Reporting Cycle	Last Report
1. Manage and operate state transportation facilities to improve the safety and reliability of state transportation systems for the benefit of travelers, shippers, and communities. <i>Mobility, safety</i>	Highway Safety	Fatality rates (vehicle) Before and After collision analysis for safety projects Fatality rates (bicyclists, pedestrians) Cabinet Strategic Action Plan Measure: Reduce highway fatalities by 4%	Annual	GNB 28 pp. 59-64 GNB 26 pp. 68-69 GNB 24 pp. 61-62
	Incident Response	Number of over-90 min incidents; average clearance time Cabinet Strategic Action Plan Measure: Reduce the average length of over 90 minute incidents by 5%	Quarterly	pp. 75-78
	Delay and Congestion	Travel time performance for 25 Puget Sound routes; 95% Reliable Travel Time Duration of Congestion	Annual	GNB 27 pp. 57-86
	Amtrak <i>Cascades</i>	Percent of trips on-time	Quarterly	pp. 84-85
	Ferries	Percent of trips on-time	Quarterly	pp. 79-82
2. Maintain structures, facilities, support systems, and services to optimize their short- and long-term usefulness and enhance environmental performance in highway and ferry operations. <i>Preservation, environment</i>	Highway Maintenance	Rating for 33 maintenance activities tracked through the Maintenance Accountability Process (MAP)	Annual	GNB 28 pp. 75-77 GNB 24 pp. 72-74
3. Deliver asset and rehabilitation projects to preserve the state's existing infrastructure assets and utilize lowest life cycle approaches to extend their useful life. <i>Preservation, mobility, safety</i>	Ferries	Life Cycle Preservation Performance: Planned projects vs. actual systems/structures preserved, change in cost rating	Quarterly	pp. 79-83
	Pavement Conditions	Percent of pavement in good, fair, or poor condition (cumulative and by type) Cabinet Strategic Action Plan Measure: Maintain 90% of roads in good or satisfactory condition	Annual	GNB 28 pp. 54-58 GNB 24 pp. 53-57
	Bridge Conditions	Percent of bridges in good, fair, or poor condition (cumulative) Cabinet Strategic Action Plan Measure: Maintain 97% of bridges in good or satisfactory condition	Annual	GNB 26 pp. 58-64
4. Deliver high quality capital projects that add to and improve the state's transportation systems on-time and on-budget. <i>Stewardship, mobility, safety</i>	Capital Project Delivery Programs	Planned vs. actual results of scope, schedule and budget Cabinet Strategic Action Plan Measure: Complete 90% of highway projects on time and within budget	Quarterly	pp. 1-50
5. Communicate transportation system performance and WSDOT agency performance to the public through clear and consistent project delivery and program management reporting. <i>Stewardship</i>	Performance Reporting	The <i>Gray Notebook</i> (Governor, WSTC, Public) GMAP Quarterly Review (Governor) Priorities of Government (OFM) Budget Activities (OFM)	Quarterly Quarterly Biennially Quarterly	
6. Assure the capability, efficiency, and safety of WSDOT's workforce. <i>Stewardship</i>	Workforce Training	Compliance ratings for 25 statutory training courses	Quarterly	pp. 53-54
	Workforce Safety	Recordable injuries per 100 workers per calendar year	Quarterly	pp. 51-52

# Project Reporting on the Capital Project Delivery Program

## Introduction

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. Much of the detailed information can be found on-line at the WSDOT website. The *Gray Notebook*, in the Beige Pages section, highlights each quarter's progress and reports on financial and other program management topics, with special reports on key projects.

The Beige Pages for this quarter are organized in the following manner:

- Executive summaries of highway construction performance and project delivery for 2003 (Nickel) and 2005 (TPA) Transportation Funding Packages projects
- More detailed tables reporting on schedule, scope, budget, and advertising records
- 'Watch List' projects
- Financial information
- Pre-Existing Funds (PEF) projects
- Special reports (Tacoma Narrows Bridge, SR104 Hood Canal Bridge, Tacoma/Pierce County HOV program)
- Cross-Cutting Management Issues

We welcome suggestions and questions that can help us strengthen this project delivery and accountability reporting.

WSDOT's project reporting uses several different tools, including the *Gray Notebook*, 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 below; [www.wsdot.wa.gov/](http://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* (as a downloadable PDF).

## Project delivery improvements underway

While WSDOT has developed user-friendly reports and front end applications to access project information on-line, it is important to note that the data used to generate these reports comes from antiquated legacy mainframe computer systems. Although the quality of the data is good, the time and effort needed to compile, verify and validate the data in these reports each quarter is considerable (in other words, these reports are the result of much manual input and effort, not the output of a modern project management information system).

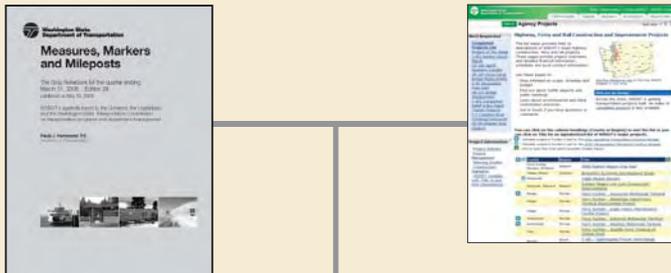
This overall issue is being addressed through the formation of the Statewide Program Management Group (SPMG), a

consortium of leading transportation consulting firms, and WSDOT. The group is developing a comprehensive program, the Project Management Reporting System (PMRS) that will improve how projects are managed and streamline reporting of the expanded capital program.

Incremental funding has been given by the legislature, including an additional \$9.5 million in 2007-2009, to continue the development and deployment of PMRS. Progress of this program is reported semi-annually in the March and September editions of the *Gray Notebook*.

# Project Reporting on the Capital Project Delivery Program

## Project Information Roadmap



Home Page



### Gray Notebook

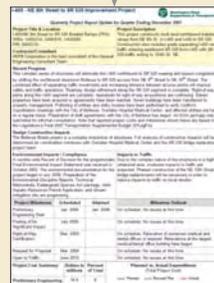
#### Project Pages

Project Pages report on all WSDOT capital delivery program projects. Project Pages provide detailed information updated regularly:

- Overall Project Vision
- Financial Table, Funding Components
- Roll-up Milestones
- Roll-up Cash Flow, Contact Information
- Maps and Links QPR
- Quarterly Project Reports

Quarterly Project Reports (QPRs) summarize quarterly activities:

- Highlights
- Milestones
- Status Description
- Problem Statement
- Risks and Challenges
- Project Costs/Cash Flow
- Contact Information



### Project Pages

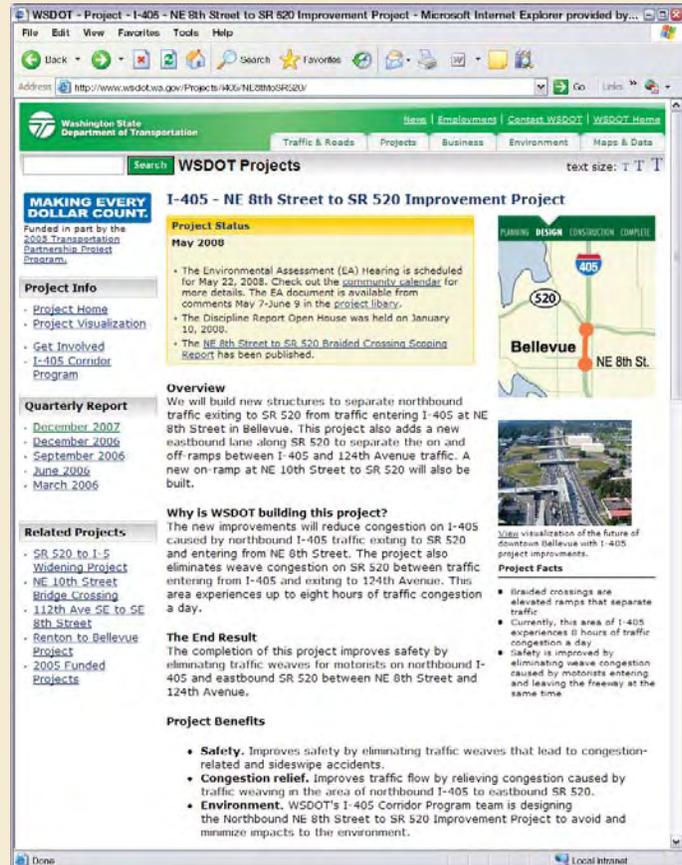
Project Pages contain information on all aspects of a specific project. An existing Project Page is shown below.

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.

The Quarterly Project Reports are accessible through a link on the Project Page.

Project Pages provide a summary of the project status to date and are updated regularly to the best of WSDOT's ability.

Project Pages can be found at [www.wsdot.wa.gov/projects/](http://www.wsdot.wa.gov/projects/).



# WSDOT's Capital Project Delivery Programs

## Executive Summary: Highway Construction Roll-Up of Performance

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](http://www.wsdot.wa.gov)) through the Project Pages and Quarterly Project Reports. The *Gray Notebook's* Beige Pages do not generally include planning studies of projects that do not have a construction phase. The total cumulative number of projects line represents projects that include construction. Since PEF projects are budgeted by program for improvement and preservation of the highway

system, the delivery of the work included on the PEF projects is reported programmatically in six categories of work. Each of the 153 Nickel and 238 TPA projects funded has a line item budget; they are monitored and reported at the individual project level. Budgets for PEF, Nickel, and TPA in this edition of the *Gray Notebook* are based on the 2007 Budget, with references to the 2008 Supplemental Budget as appropriate.

### Performance Information *As of March 31, 2008, dollars in thousands*

	Nickel (2003)	Transportation Partnership Account	Combined Nickel & TPA	Pre-Existing Funds
Total number of projects <sup>1</sup>	153	238	391	769
Total biennial program (2007-09) <sup>2</sup>	\$3,951,257	\$9,409,158	\$13,360,415	\$4,127,777

### Schedule, Scope, and Budget Summary: Results of completed projects

#### Cumulative to date: 2003 – March 31, 2008

For Nickel and TPA details, see pages 5-7

See pages 33-39

Total number of projects completed	93	36	129	
% Completed early or on-time	89%	94%	91%	
% Completed within scope	100%	100%	100%	
% Completed under or on-budget	86%	78%	84%	
% Completed on-time and on-budget	78%	72%	77%	
Baseline estimated cost at completion	\$1,215,313	\$88,646	\$1,303,959	
Current estimated cost at completion	\$1,209,996	\$87,940	\$1,297,936	
% of total program over or under budget	0.4% under	0.8% under	0.5% under	

#### Biennium to date, 2007-09

Total number of projects completed	24	13	37	140
% Completed early or on-time	83%	100%	89%	-
% Completed within scope	100%	100%	100%	-
% Completed under or on-budget	79%	85%	81%	-
% Completed on-time and on-budget	71%	85%	76%	-
Baseline estimated cost at completion	\$460,671	\$73,727	\$534,398	\$1,214,539
Current estimated cost at completion	\$457,161	\$72,983	\$530,144	\$1,113,693

### Advertisement record: Results of projects entering into the construction phase or under construction

#### As of March 31, 2008

For Nickel and TPA details, see pages 8-15

See pages 33-39

Total number of projects in construction phase	24	61	85	N/A
% Advertised early or on-time	71%	87%	82%	-
Total award amounts to date	\$684,674	\$743,129	\$1,427,803	-

#### Biennium to date, 2007-09

For Nickel and TPA details, see pages 8-15

See pages 33-39

Total advertised	7	44	51	105
% Advertised early or on-time	100%	93%	94%	84%
Total award amounts to date	\$84,796	\$99,739	\$184,535	N/A

### Advertisement schedule for projects in the pipeline

Results of projects now being advertised for construction bids or planned to be advertised

April 1, 2008 through September 30, 2008		For Nickel and TPA details, see pages 14-15.		See pages 33-39
Total projects being advertised for construction bids	6	12	18	38
% On schedule or early	67%	75%	72%	-

Data Source: WSDOT Project Control and Reporting.

1. The total number of reportable projects with a construction phase. 2. The total number of dollars in the total expenditure plan for all projects listed by type of funding. These dollars do not necessarily align with the projects counted in the row above.

# WSDOT's Capital Project Delivery Programs

## Executive Summary: Rail and Ferries Roll-Up of Performance Information

A total of five Nickel projects and two Transportation Partnership Account (TPA) rail construction projects have been delivered on time and on budget as of March 31, 2008 (100% on time, 100% on budget) for \$29.650 million. Two projects (one Nickel-funded, one TPA-funded) now entering construction have total award amounts of \$17.856. Nine rail projects are planned to be advertised prior to September 30, 2008.

To date, Ferries has not completed any construction projects using Nickel or TPA funding, but three projects (two Nickel-funded and one TPA-funded) are entering construction and one Nickel-funded project is scheduled to advertise before September 30, 2008.

Rail	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
<b>Schedule, scope and budget summary: completed projects</b>			
As of March 31, 2008; dollars in thousands			
<b>Cumulative to date, 2003 – March 31, 2008</b>	5	2	7
% 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	\$22,450	\$7,200	\$29,650
Current estimated cost at completion	\$22,450	\$7,200	\$29,650
% of total program on or under budget	100%	100%	100%
<b>Advertisement record: projects under construction or entering construction phase</b>			
As of March 31, 2008; dollars in thousands			
<b>Biennium to date, 2007-09</b>			
Total advertised	1	1	2
% Advertised early or on time	100%	100%	100%
Total award amounts to date	\$17,000	\$856	\$17,856
<b>Advertisement schedule: projects now being advertised or planned to advertise</b>			
April 1, 2008 through September 30, 2008			
Total being advertised for construction	5	4	9
% On or better than schedule	0%	50%	22%

Ferries	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
<b>Advertisement record: projects under construction or entering construction phase</b>			
As of March 31, 2008; dollars in thousands			
<b>Cumulative to date, 2003 – March 31, 2008</b>			
Total number of projects in construction phase	2	1	3
% Advertised early or on time	25%	100%	40%
Total award amounts to date	\$10,712	\$49,196	\$59,908
<b>Advertisement schedule: projects now being advertised or planned to advertise</b>			
April 1, 2008 through September 30, 2008			
Total being advertised for construction	1	0	1
% On or better than schedule	100%	N/A	100%

Data Source: WSDOT Project Control and Reporting Office

# WSDOT's Capital Project Delivery Programs

## Highway Construction: Nickel and TPA Project Delivery Performance Overview

### Project Delivery Highlights for Nickel and TPA Combined:

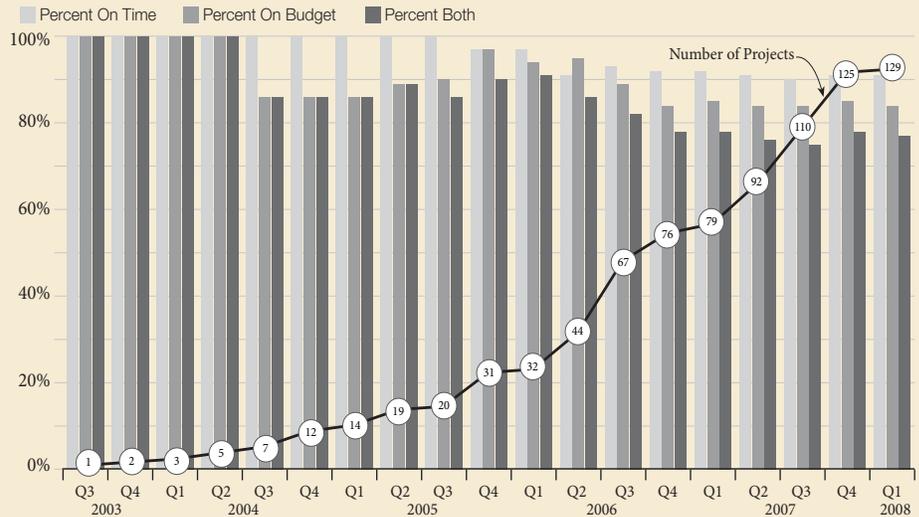
Both Nickel and TPA programs are 100% on or under their total legislative baseline of \$1.304 Billion to date.

91% of Nickel and TPA projects combined are early or on-time - same as last quarter.

84% of Nickel and TPA projects combined are under or on-budget - down one percent from last quarter.

77% of Nickel and TPA projects combined were on-time and on-budget - down 1% from last quarter.

Cumulative performance of Nickel and TPA projects



Data Source: WSDOT Project Control and Reporting.

### WSDOT has successfully delivered 129 Nickel and TPA projects under the \$1.304 billion Legislative budget

Since 2003, WSDOT has delivered a total of 129 Nickel and TPA projects for \$1.298 billion, almost \$6 million less than the \$1.304 billion legislative budget expectation. By March 31, 2008, more than half of the projects funded by Nickel and TPA will either be under construction or completed.

### WSDOT delivers four Nickel projects during the 3rd quarter of FY 2008

WSDOT's capital program delivery performance continues to show improvement in delivering projects on-time and on-budget through the third quarter of FY 2008, as another four Nickel projects were completed. The projects were all completed within scope, and two were completed on-time and on-budget.

### On-time and on-budget performance on individual projects declines slightly

For the 129 highway projects completed through March 31, 2008, changes from the previous quarter are:

- Cumulative on-time delivery performance is unchanged at 91%;
- Cumulative on-budget performance decreased one percent to 84%;
- Cumulative on-time and on-budget project delivery performance declined by one percent to 77% this quarter.

### 85 Nickel and TPA projects under construction or advertised for construction

This quarter, 31 new projects were advertised for construction. Eight projects were advertised earlier than scheduled and the rest were on-time. Nine projects are pending contract awards, and will be reported next quarter. Fourteen projects have been awarded for a cumulative construction contract total of \$38.7 million.

### 18 projects totaling \$836 million scheduled to advertise over the next six months

Seven significantly sized projects have budgets of \$20 million, while another four have budgets between \$10 million and \$20 million.

All but five projects are on their original schedule. SR 16 (Burley-Olalla Interchange) in Kitsap has been delayed to allow time to address wetland mitigation; SR 900/SE 78th St vicinity to I-90 vicinity in King County has been delayed to allow time to redesign retaining walls based on geotechnical investigation results and to purchase remaining right-of-way. SR 902 near Medical Lake Interchange in Spokane is delayed to provide additional time to determine the most cost-effective intersection improvements in light of rapid development growth and increased traffic in the area. The I-5/SR 16 Interchange is delayed to address new bridge and road standards.

# WSDOT's Capital Project Delivery Programs

## Overview of WSDOT's Three Capital Project Delivery Mandates

### WSDOT's total capital program: Current and future biennium outlook

2007-09 Budget, dollars in millions

Past biennia						Current biennia			Future biennia															
'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'23			
						<b>Pre-Existing Funding (PEF) Program</b>																		
						<b>Assumed levels</b>																		
																Facilities \$13.8			Ferries \$653					
																Improvement \$1,460			Rail \$103.4					
																Preservation \$2,551			Local \$126.8					
																Traffic \$78.6								
						<b>Subtotal</b>			<b>\$1,359</b>			<b>30%</b>										<b>10 year total \$4.99 billion</b>		
						<b>2003 Funding Package (Nickel) Program</b>																		
						Improvement \$1,828																		
						Preservation \$191																		
						Ferries \$301.5																		
						Rail \$180.3																		
						Local \$2.7																		
						<b>Subtotal</b>			<b>\$991</b>			<b>21%</b>										<b>16 year total \$2.5 billion</b>		
						<b>Transportation Partnership Account (TPA) Program</b>																		
						Improvement \$8,022																		
						Preservation \$544.7																		
						Ferries \$780.7																		
						Rail \$98.8																		
						Local \$196																		
						<b>Subtotal</b>			<b>\$2,261</b>			<b>49%</b>										<b>16 year total \$9.64 billion</b>		
						<b>Total for 2007-2009</b>			<b>\$4,611</b>			<b>100%</b>												

### 2007-09 Capital Delivery Program

The department's 2005-07 capital program focuses on project and program delivery from all fund sources. WSDOT continues to move forward with the investment plan for the 2003 Transportation Funding Package and the 2005 Transportation Funding Package.

In the 2007-09 biennium, capital funds total approximately \$4.6 billion. Approximately \$991 million will be spent on projects associated with the 2003 Funding Package (Nickel), \$2.261 billion

will be invested in projects from the 2005 Funding Package (Transportation Partnership Account - TPA), and \$1.359 billion will be invested from pre-existing funding sources. For the 2007-09 capital program budget the legislature increased overall bond authorization levels and reaged project delivery in order to fund higher estimated project delivery costs. These changes expanded the Nickel and TPA programs for a longer period of time than was previously assumed.

# WSDOT's Capital Project Delivery Programs

## Schedule, Scope, and Budget Summary

### 129 Highway projects completed as of March 31, 2008

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
<b>Cumulative to Date</b>								
<b>2003-05 Biennium Summary</b>	19	4 early	6 early	19	\$118,575	\$118,450	9	17 on
See the <i>Gray Notebook</i> for quarter ending September 30, 2006, for project listing.	Nickel	15 on time	13 on time				8 on budget	2 over budget
May be accessed at <a href="http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm">http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm</a> .								
<b>2005-07 Biennium Summary</b>	50	20 early	49 early	73	\$650,986	\$652,896	27	53 on
See the <i>Gray Notebook</i> for quarter ending June 30, 2007, for project listing.	Nickel	48 on time	16 on time				33 on budget	13 over budget
	TPA	5 late	8 late					
May be accessed at <a href="http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm">http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm</a> .								
<b>Biennium to Date (2007-09)</b>								
US 2/Dryden - Install signal (Chelan)	Nickel	√	√	√	\$498	\$498	√	√
I-5/Lexington Vicinity - Construct new bridge (Cowlitz)	Nickel	√	√	√	\$5,000	\$5,000	√	√
SR 17/Pioneer Way to Stratford Rd - Widen to four lanes (Grant)	TPA	√	Early	√	\$20,989	\$20,985	√	√
US 101/Mt Walker - Add passing lane (Jefferson)	TPA	Late	√	√	\$3,550	\$2,397	Under	√
Advertisement date was initially delayed for possible redesign of structural elements. Redesign was deemed unnecessary and the project was advertised in April 2007.								
I-5/Pierce Co Line to Tukwila Interchange - Add HOV lanes (King)	Nickel	Early	Late	√	\$142,593	\$139,854	√	√
The operationally complete date was delayed from May 2007 to July 2007 due to poor weather that reduced the number of workable contract days.								
I-5/S Seattle NB Viaduct - Bridge paving (King)	TPA	√	Early	√	\$14,360	\$16,072	Over	Over
Project is over budget due to increased material costs to fix the pavement rutting, higher traffic control costs, and an additional contractor incentive payment.								
I-5/SB Viaduct, S Seattle Vicinity - Bridge repair (King)	TPA	√	Early	√	\$1,108	\$1,266	Over	Over
Project is over budget due to higher traffic control costs, and an additional contractor incentive payment.								
I-90/EB Ramps to SR 18 - Add signal and turn lanes (King)	Nickel	√	Early	√	\$5,012	\$5,012	√	√
I-90/EB Ramps to SR 202 - Construct roundabout (King)	Nickel	√	√	√	\$1,832	\$1,843	√	√
SR 99/S 284th to S 272nd St - Add HOV lanes (King)	Nickel	√	√	√	\$15,404	\$15,153	√	√
SR 169/SE 291st St Vicinity (Formerly SE 288th Street) - Add turn lanes (King)	TPA	√	√	√	\$2,606	\$2,682	√	√
I-405/SR 520 to SR 522 - Widening (King)	Nickel	√	√	√	\$87,293	\$80,363	Under	√
SR 516/208th and 209th Ave SE - Add turn lanes (King)	Nickel	Late	Late	√	\$1,881	\$2,398	Over	Over
Right-of-way and environmental permitting issues.								

# WSDOT's Capital Project Delivery Programs

## Schedule, Scope, and Budget Summary

### 129 Highway projects completed as of March 31, 2008

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
SR 522/I-5 to I-405 - Multimodal improvements (King)	TPA	Early	Early	√	\$22,581	\$22,487	√	√
SR 3/SR 303 Interchange (Waaga Way) - Construct ramp (Kitsap) An additional \$1.4 million is required to properly dispose of runoff storm water.	Nickel	√	√	√	\$24,828	\$26,313	Over	
SR 3/Imperial Way to Sunnyslope - Add lanes (Kitsap) Advertisement date was delayed due to unresolved utilities issues.	TPA	Late	Early	√	\$2,911	\$1,609	Under	√
SR 401/US 101 to E of Megler Rest Area Vicinity - Upgrade guardrail (Pacific)	Nickel	Early	Early	√	\$296	\$152	Under	√
SR 7/SR 507 to SR 512 - Safety improvements (Pierce) The operationally complete date was delayed to install the signal system, which further delayed the paving and sidewalk work.	Nickel	√	Late	√	\$20,268	\$21,068	√	
Pierce and Thurston Co - Roadside safety improvements (Pierce, Thurston)	TPA	√	Early	√	\$1,000	\$936	Under	√
SR 20/Thompson Road - Add signal (Skagit)	TPA	Early	√	√	\$1,038	\$1,038	√	√
US 2/Fern Bluff to Sultan Startup - Stormwater drainage improvements (Snohomish)	TPA	√	Early	√	\$1,012	\$1,012	√	√
US 2/10th St Intersection Vic - Stormwater drainage improvements (Snohomish)	TPA	√	√	√	\$534	\$534	√	√
US 2/Pickle Farm Road and Gunn Road - Add turn lanes (Snohomish) Advertisement date was delayed to bring consultant staff in to assist with project delivery and to address design deviations necessary to control project costs.	Nickel	Late	√	√	\$1,322	\$1,346	√	√
SR 9/SR 522 to 228th St SE, Stages 1a and 1b - Add lanes (Snohomish) Project is over budget. Additional funds were needed to complete the retaining wall and ramp widening work due to higher than anticipated costs associated with erosion control and water removal.	Nickel	√	√	√	\$22,840	\$24,472	Over	
SR 9/228th St SE to 212th St SE (SR 524), Stage 2 - Add lanes (Snohomish)	Nickel	√	√	√	\$31,181	\$31,332	√	√
SR 9/108th Street NE (Lauck Road) - Add turn lanes (Snohomish)	Nickel	√	√	√	\$1,846	\$1,822	√	√
SR 531/Lakewood Schools - Construct sidewalks (Snohomish)	TPA	Early	√	√	\$705	\$594	Under	√
I-90/Harvard Rd Pedestrian Bridge - Construct bridge (Spokane)	TPA	√	√	√	\$1,333	\$1,371	√	√
SR 25/Spokane River Bridge - Upgrade bridge rail (Stevens, Lincoln)	Nickel	√	√	√	\$369	\$316	Under	√
SR 25/Columbia River Bridge - Upgrade bridge rail (Stevens)	Nickel	√	√	√	\$468	\$468	√	√
US 12/Attalia Vicinity - Add lanes (Walla Walla)	Nickel	√	Early	√	\$16,201	\$16,201	√	√

# WSDOT's Capital Project Delivery Programs

## Schedule, Scope, and Budget Summary

### 129 Highway projects completed as of March 31, 2008

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
SR 543/I-5 to Canadian Border - Add lanes (Whatcom) Advertisement date was delayed due to right-of-way acquisition.	Nickel	Late	Early	√	\$49,013	\$50,792	√	√
SR 270/Pullman to Idaho State Line - Add lanes (Whitman) Advertisement date was delayed due to environmental permitting issues and Corps of Engineers mitigation negotiations. The project was completed within budget; however, there is a contractor's claim for \$2.5 million that WSDOT is currently negotiating with the contractor.	Nickel	Late	√	√	\$31,188	\$31,189	√	√
<b>Current quarter, ending March 31, 2008</b>								
US 12/Wynoochee River Bridge - Upgrade bridge rail (Grays Harbor) Advertisement date was delayed to tie this project with another bridge project for efficiency.	Nickel	Late	√	√	\$257	\$368	Over	
US 101/Quinault River Bridge - Upgrade bridge rail (Grays Harbor) Advertisement date was delayed to tie this project with another bridge project for efficiency.	Nickel	Late	√	√	\$268	\$269	√	√
SR 105/Johns River Bridge - Upgrade bridge rail (Grays Harbor) Advertisement date was delayed to tie this project with another bridge project for efficiency, and to balance with the Nickel Bridge Rail Retrofit allocation.	Nickel	Late	√	√	\$338	\$347	√	√
SR 116/SR 19 to Indian Island - Upgrade bridge rail (Jefferson)	Nickel	Late	Late	√	\$475	\$585	Over	
		<b>Percent on-time advertised</b>	<b>Percent on-time completed</b>	<b>Percent within scope</b>	<b>Current Legislative expectation baseline</b>	<b>Current estimated cost to completion</b>	<b>Percent of budgets on-time</b>	<b>Percent on-time, on-budget</b>
<b>Totals Current Quarter (March 31, 2008)</b>		<b>0%</b>	<b>75%</b>	<b>100%</b>	<b>\$1,338</b>	<b>\$1,569</b>	<b>50%</b>	<b>50%</b>
4 Nickel Projects		0%	75%	100%	\$1,338	\$1,569	50%	50%
0 TPA Projects		0%	0%	0%	\$0	\$0	0%	0%
<b>Totals Biennium to Date (2007-09)</b>		<b>73%</b>	<b>89%</b>	<b>100%</b>	<b>\$534,398</b>	<b>\$530,144</b>	<b>81%</b>	<b>76%</b>
24 Nickel Projects		67%	83%	100%	\$460,671	\$457,161	79%	71%
13 TPA Projects		85%	100%	100%	\$73,727	\$72,983	85%	85%
<b>Totals Cumulative to Date</b>		<b>88%</b>	<b>91%</b>	<b>100%</b>	<b>\$1,303,959</b>	<b>\$1,297,936</b>	<b>84%</b>	<b>77%</b>
93 Nickel Projects		88%	89%	100%	\$1,215,313	\$1,209,996	86%	78%
36 TPA Projects		89%	94%	100%	\$88,646	\$87,940	78%	72%

Source: WSDOT Project Control and Reporting Office.

## 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).

# WSDOT's Capital Project Delivery Programs

## Advertisement Record

### 85 Projects in construction phase as of March 31, 2008

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
<b>Cumulative to date</b>						
Adams and Franklin Co - Roadside safety improvements (Adams, Franklin)	TPA	Late	Jun-07	Frank Gurney, Inc.	Apr-08	\$2,039
The operationally complete date was delayed until spring. The contractor experienced a delay in purchasing and receiving steel components for the guardrail system.						
Whitman and S Spokane Co - Roadside safety improvements (Spokane, Whitman)	TPA	Late	<i>Contract was combined with the project above for construction efficiencies.</i>			
SR 260, 263, and 278 - Upgrade guardrail (Franklin, Spokane, Whitman)	Nickel	Late	<i>Contract was combined with the project above for construction efficiencies.</i>			
SR 112/Hoko and Pysht Rivers - Erosion control (Clallam)	TPA	Early	Aug-06	(State Forces)	Mar-09	\$200
Deficiencies are being corrected by State Forces. First repair was completed in December 2006 and additional repairs are being developed along SR 112.						
I-5/SR 502 Interchange - Build interchange (Clark)	Nickel	√	Dec-06	Kerr Contractors, Inc.	Jun-09	\$28,394
SR 20/Ducken Rd to Rosario Rd - Add turn lanes (Island, Skagit)	Nickel	Late	Jan-07	Strider Construction Inc.	May-08	\$4,544
SR 167 HOT lanes Pilot Project - Managed lanes (King)	TPA	Early	Mar-07	Signal Electric Inc.	Apr-08	\$7,087
SR 167/15th St SW to 15th St NW - Add HOV lanes (King)	Nickel	√	Dec-05	Icon Materials, A Division of CPM	Apr-08	\$27,849
The operationally complete date was delayed from December 2007 to April 2008 because the contractor was unable to complete the paving operations within the 2007 paving window.						
SR 167/S 180th St to I-405 - Southbound widening (King)	TPA	Early	Feb-07	Bilfinger/Tri-State Joint Venture	Jun-10	\$91,500
SR 202/Jct SR 203 - Construct roundabout (King)	Nickel	√	Dec-06	Tri-State Construction, Inc.	Jun-08	\$1,391
I-405/112th Ave SE to I-90 - Northbound widening (King)	TPA	Early	Oct-06	Guy F. Atkinson Construction LLC	Dec-09	\$124,000
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 to SR 181 - Widening (King)	TPA	Early	Feb-07	Jun-10		
<i>Combined with I-405/ SR 181 to SR 167 - Widening for construction efficiencies.</i>						
I-405/SR 181 to SR 167 - Widening (King)	TPA	Early	Feb-07			
• I-405/I-5 to SR 169 Stage 1 - Widening (King)			Feb-07	Bilfinger/Tri-State Joint Venture	Jun-10	\$91,500
• I-405/Springbrook Creek - Wetland and habitat mitigation bank (King)			Aug-06	Scarsella Bros.	Dec-08	\$12,539

# WSDOT's Capital Project Delivery Programs

## Advertisement Record

### 85 Projects in construction phase as of March 31, 2008

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 520/W Lake Sammamish Parkway to SR 202, Stage 3 - Widening (King)	Nickel	Late	Jan-07	Tri-State Construction, Inc.	Dec-11	\$9,988
Advertisement date for the flyover ramp portion of this project was delayed to January 2007 due to storm water and wetland design changes. The flyover ramp is currently open to traffic and the widening portion of the project is scheduled for advertisement in October 2008.						
I-90/Two Way Transit Stage 1 – Transit and HOV lanes (King)	TPA	Late	Oct-06	Max. J. Kuney Co.	Aug-08	\$28,532
SR 509/SR 518 Interchange - Signalization and channelization (King)	TPA	Early	Apr-07	Tri-State Construction, Inc.	Nov-08	\$26,631
SR 518/SeaTac Airport to I-5 - Eastbound widening (King)	TPA	√	Apr-07	Tri-State Construction, Inc.	Nov-08	\$26,631
SR 509/I-5 to Sea-Tac – Freight & congestion relief (King)	TPA	Late	Jun-06	Tri-State Construction, Inc.	Jun-09	\$344
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
SR 104/Hood Canal Bridge - Replace east half of bridge (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
US 101/Lynch Road - Safety improvements (Mason)	TPA	√	Dec-05	Mason County	Mar-10	\$1,000
I-5/S 48th to Pacific Ave - Add HOV lanes (Pierce)	Nickel	√	Mar-05	Kiewit Pacific Co.	Jun-08	\$72,869
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 Construction, Inc.	Oct-09	\$6,129
I-5/SR 526 to Marine View Drive - Add HOV lanes (Snohomish)	Nickel	Early	Dec-04	Atkinson CH2M Hill, A Joint Venture	Jun-08	\$184,993
I-5/41st St Interchange - Widening and rebuild ramps (Snohomish)	TPA	Early	<i>Combined with the project above for construction efficiencies.</i>			
SR 9/Schloman Rd to 256th St NE - New alignment (Snohomish)	Nickel	Late	Jan-07	Scarsella Bros. Inc.	Nov-08	\$10,748
SR 9/252nd St NE Vicinity - Add turn lane (Snohomish)	Nickel	Late	<i>Combined with the project above for construction efficiencies.</i>			
SR 9/268th St Intersection - Add turn lane (Snohomish)	<i>Combined with the project above for construction efficiencies.</i>					
I-90/Latah Creek and Lindeke St Bridges - Upgrade bridge rail (Spokane)	Nickel	√	Jun-07	Frank Gurney, Inc.	Jul-08	\$529
The operationally complete date was delayed until summer. The contractor experienced a delay in purchasing and receiving steel components for the guardrail system.						

# WSDOT's Capital Project Delivery Programs

## Advertisement Record

### 85 Projects in construction phase as of March 31, 2008

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/North Spokane Corridor (NSC) -Francis Ave to Farwell road - New alignment (Spokane)	Nickel	Late	Jan-04		Aug-09	
• NSC-Farwell Road Lowering (Spokane)	Nickel		Jan-04	Max J. Kuney Company	Jul-05	\$4,976
• NSC-Gerlach to Wandermere - Grading - CN (Spokane)	Nickel		Nov-04	KLB Construction Inc	Sep-06	\$9,987
• NSC-Francis Avenue to US 2 Structures - Rebid (Spokane)	Nickel		May-06	Max J. Kuney Company	Jun-08	\$17,236
• US 395/NSC-Freya to Fairview vicinity - Grading and structures (Spokane)	Nickel		Jan-07	Steelman-Duff	Nov-08	\$10,571
• US 395/NSC-Freya St to Farwell road - PCCP paving (Spokane)	Nickel		Feb-07	Acme Concrete Paving	Mar-09	\$19,490
• US 395/NSC - BNSF rail tunnel (Spokane)	Nickel		Sep-07	Scarsella Bros. Inc	Aug-09	\$17,295
<i>All projects were combined with the top-most project for construction efficiencies.</i>						
SR 542/Boulder Creek Bridge - Replace bridge (Whatcom)	TPA	Late	Apr-07	Pacific Road & Bridge Co.	Jun-08	\$3,749
<b>Biennium to date</b>						
US 2/US 97 Peshastin E - New interchange (Chelan)	Nickel	√	Sep-07	KLB Construction, Inc.	Oct-09	\$9,776
SR 503/Gabriel Rd Intersection (Clark)	TPA	√	Oct-07	State Forces	Sep-08	\$20
SR 14/Lieser Rd Interchange - Add ramp signal (Clark)	TPA	Early	Dec-07	Mill Plain Electric, Inc.	Dec-08	\$353
Awarded January 28, 2008.						
US 12/Clemons Rd Vicinity - Intersection improvements (Grays Harbor)	TPA	on time	Dec-07	Nova Contracting, Inc.	Jul-08	\$646
SR 99/Alaskan Way Viaduct Yesler Way vicinity – Stabilize foundation (King)	TPA	√	Aug-07	C. A. Carey Corp.	May-08	\$3,023
This project was part of the 'SR 99/Alaska Way Viaduct Replacement' and identified as one of the "Moving Forward" projects in C 518, L 07, PV (ESHB 1094.SL).						
SR 515/SE 182nd St to SE 176th St Vic - Construct traffic island (King)	TPA	Late	Sep-07	CPM Corp.	Jul-08	
SR 410 and SR 164 - Roadside safety improvements (King)	TPA	√	Oct-07	Apply-A-Line	Dec-08	\$719
SR 522/University of Washington Bothell - Build interchange (King)	TPA	Late	Oct-07	Mowat Construction Co.	Oct-10	\$36,651
Advertisement date was delayed due to environmental permit issues. The project was originally advertised in January 2007 and then pulled from advertisement due to budget constraints. The project was re-advertised in October 2007 and was awarded in January 2008.						
SR 99/N of Lincoln Way - Construct sidewalks (Snohomish)	TPA	√	Oct-07	Wilder Construction Co.	Jun-08	\$665
US 2 and SR 92 - Roadside safety improvements (Snohomish)	TPA	√	Aug-07	Petersen Brothers	Jul-08	\$502

# WSDOT's Capital Project Delivery Programs

## Advertisement Record

### 85 Projects in construction phase as of March 31, 2008

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
I-5/Grand Mound to Maytown Stage One - Add lanes (Thurston)	Nickel	√	Dec-07		Jul-10	
SR 4/Svensen's Curve (Wahkiakum)	Nickel	√	Sep-07	State Forces	Jun-08	\$75
US 12/Frenchtown vicinity to Walla Walla - Add lanes (Walla Walla)	TPA	√	Dec-07	Apollo, Inc.	Oct-09	\$33,733
SR 26/Othello vicinity - Install lighting (Adams, Grant)	TPA	Early	Dec-07	Central Washington Asphalt Inc.	Dec-09	
SR 539/Tenmile Road to SR 546 - Widening (Whatcom)	Nickel	√	Dec-07	Max J. Kuney Company	Oct-09	\$53,987
SR 241/Rattlesnake Hills vicinity - Roadside safety (Yakima, Benton) Advertisement date was delayed due to environmental permitting issues.	TPA	Late	Nov-07	M. A. Deatley Construction, Inc.	Aug-08	\$890
SR 823/Goodlander to Harrison Rd - Build sidewalk (Yakima)	TPA	√	Oct-07	Granite Northwest, Inc. D.B.A.	Sep-08	\$382
SR 24/SR 241 to Cold Creek Rd - Add passing lanes (Yakima, Benton)	TPA	√	Dec-07	Granite Northwest, Inc. DBA	Oct-08	\$2,721
SR 410/Rattlesnake Creek - Stabilize slopes (Yakima)	TPA	√	Dec-07	Granite Northwest, Inc. DBA	Oct-08	\$206
US 12/Naches River N of Yakima - Stabilize slopes (Yakima)	TPA	√	Nov-07	Scarsella Bros., Inc	Dec-08	\$1,516
<b>Quarter ending March 31, 2008</b>						
SR 14/Benton Co - Roadside safety improvements (Benton)	TPA	√	Mar-08		Dec-08	
US 2/Wenatchee - Build trail connection (Chelan)	TPA	Early	Mar-08		Nov-08	
US 2 - Roadside safety improvements (Chelan)	TPA	√	Mar-08		Oct-08	
E Olympic Peninsula - Roadway safety improvements (Clallam, Jefferson, Kitsap, Mason)	TPA	√	Mar-08	Petersen Brothers, Inc	Jul-08	1,788
W Olympic Peninsula - Roadway safety improvements (Clallam, Grays Harbor, Jefferson)	TPA	√	Feb-08	Petersen Brothers, Inc	Sep-08	\$780
SR 112/Neah Bay to Seiku - Roadside safety improvements (Clallam)	TPA	√	Feb-08		Oct-08	
SR 112/Seiku Vicinity to US 101 - Install guardrail (Clallam)	TPA	√	Feb-08	Petersen Brothers, Inc	Oct-08	\$2,596
SR 500/I-205 Interchange - Extend merge lane (Clark)	TPA	Early	Mar-08	Goodfellow Bros., Inc.	Dec-08	\$243

# WSDOT's Capital Project Delivery Programs

## Advertisement Record

### 85 Projects in construction phase as of March 31, 2008

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 502/10th Ave to 72nd Ave - Safety improvements (Clark)	TPA	Early	Jan-08	State Forces	Jun-08	60
Project was part of a corridor project which was delayed. Due to the time necessary to deliver this project, the advertisement date was adjusted.						
I-205/Mill Plain Exit (112th Connector) - Build ramp (Clark)	Nickel	Early	Mar-08		Dec-09	
I-205/Mill Plain Interchange to NE 18th St - Stage 1 (Clark)	TPA	Early	<i>Combined with the project above for construction efficiencies.</i>			
SR 432 - Roadside safety improvements (Cowlitz)	TPA	Early	Feb-08	Coral Construction Co. Wilsonville, OR	Jun-09	\$229
US 12/Waitsburg to SR 127 - Roadside safety improvements (Garfield, Columbia, Walla Walla)	TPA	√	Feb-08	Stripe Rite, Inc.	Oct-08	
US 12/SR 127 to Clarkston - Roadside safety improvements (Garfield, Columbia)	TPA	√	<i>Combined with the project above for construction efficiencies.</i>			
US 101/W Fork Hoquiam River Bridge - Replace bridge (Grays Harbor)	TPA	√	Mar-08	Ross Bros. & Company, Inc.	Feb-09	\$3,545
US 101/W Fork Hoquiam River Bridge - Replace bridge (Grays Harbor)	TPA	√	<i>Combined with the project above for construction efficiencies.</i>			
SR104/Port Angeles Graving Dock - Settlement and remediation (Jefferson)	TPA	√	Feb-08		Jul-08	
I-405/Bridges - Seismic (King)	TPA	√	Feb-08	Klm Construction, Inc.	Dec-08	\$916
I-5/Boston St to E Shelby St - SB I-5, Westside - Noise wall (King)	TPA	√	Mar-08		Apr-10	
I-5/5th Ave NE to NE 92nd St - Noise wall (King)	TPA	√	Feb-08	Wilder Construction Co.	Sep-10	\$3,315
SR 11, SR 525, and SR 900 - Roadside safety improvements (King, Snohomish, Skagit)	TPA	√	Feb-08	Coral Construction Co.	Dec-10	\$1,463
SR 142/Roadside Safety - Roadside improvements (Klickitat)	TPA	Early	Mar-08		Oct-10	
SR 7/Lewis Co - Roadside Safety Improvements (Lewis)	TPA	√	Feb-08	Coral Construction Company	Jun-09	\$404
US 101/SR 3 On Ramp to US 101 NB - Add new ramp (Mason)	TPA	Early	Feb-08	Tri-State Construction, Inc.	Dec-08	\$2,373
Advertisement date was advanced to complete this work prior to the scheduled closing of Hood Canal Bridge.						
SR 161/SR 167 EB Ramp - Realign ramps (Pierce)	Nickel	√	Mar-08	Icon Materials	Dec-08	\$2,080

# WSDOT's Capital Project Delivery Programs

## Advertisement Record

### 85 Projects in construction phase as of March 31, 2008

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 704/Cross Base Highway - New alignment (Pierce) Advertisement date was advanced to construct the first stage of the project at the east end of the corridor and to finish right-of-way efforts within the 2007-09 biennium.	TPA	Early	Mar-08		Dec-08	
SR 9, SR 11, and SR 20 - Roadside safety improvements (Skagit) Combined with roadside safety improvement project SR 11/SR 525/SR 900 (King, Snohomish, Skagit)	TPA	√	Feb-08	Coral Construction Co.	Oct-08	
SR 9/176th Street SE vicinity to SR 96 - Add signal and turn lanes (Snohomish)	Nickel	√	Jan-08	Scarsella Bros. Inc.	Mar-10	\$18,878
SR 9/Marsh road intersection - Safety improvements (Snohomish)	TPA	√		<i>This project combined with the one above for construction efficiencies.</i>		
SR 9/SR 96 to Marsh Road - Add lanes and improve intersections (Snohomish)	TPA	√		<i>This project combined with the one above for construction efficiencies.</i>		
SR 542 and SR 547 - Roadside safety improvements (Whatcom) Combined with roadside safety improvement project SR 11/SR 525/SR 900 (King, Snohomish, Skagit)	TPA	√	Feb-08	Coral Construction Co.	Oct-08	

	On-time advertised	Award amount
<b>Totals Current Quarter (March 31, 2008)</b>	<b>100%</b>	<b>\$38,670</b>
<b>3 Nickel Projects</b>	<b>100%</b>	<b>\$20,958</b>
<b>28 TPA Projects</b>	<b>100%</b>	<b>\$17,712</b>
<b>Totals Biennium to Date (2007-09)</b>	<b>94%</b>	<b>\$184,535</b>
<b>7 Nickel Projects</b>	<b>100%</b>	<b>\$84,796</b>
<b>44 TPA Projects</b>	<b>93%</b>	<b>\$99,739</b>
<b>Totals Cumulative to Date (Projects underway)</b>	<b>82%</b>	<b>\$1,427,803</b>
<b>24 Nickel Projects</b>	<b>71%</b>	<b>\$684,674</b>
<b>61 TPA Projects</b>	<b>87%</b>	<b>\$743,129</b>

Source: WSDOT Project Control and Reporting Office

Note: 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

### 18 Projects in the delivery pipeline for April 1, 2008 through September 30, 2008

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	Current estimated cost
US 97/Klickitat Co - Roadside safety improvements (Klickitat)	TPA	Apr-08	Apr-08	√	\$1,000	\$1,000
SR 16/Burley-Olalla Interchange - Build interchange (Kitsap)	Nickel	Mar-08	Apr-08	delayed	\$25,143	\$27,406
Advertisement date was delayed to address project-related wetland mitigation needs.						
SR 9/Lake Stevens Way to 20th St SE - Improve Intersection (Snohomish)	TPA	Apr-08	Apr-08	√	\$14,151	\$14,516
SR 900/SE 78th St Vic to I-90 Vicinity - Widening and add HOV lanes (King)	Nickel	Nov-07	Apr-08	delayed	\$40,846	\$46,423
Advertisement date was delayed to redesign retaining walls based on geotechnical investigation results, and to purchase remaining right-of-way.						
SR 542/Nooksack River - Redirect river and realign roadway (Whatcom)	TPA	Jan-10	May-08	advanced	\$16,196	\$16,582
US 101/Blyn Vicinity - Add passing lanes (Clallam)	Nickel	Jun-08	May-08	√	\$4,390	\$4,370
SR 6/S Fork Chehalis River Bridge - Replace bridge (Lewis)	TPA	Apr-08	May-08	√	\$14,627	\$14,740
US 97/Brewster Vicinity - Install lighting (Okanogan)	TPA	Nov-08	May-08	advanced	\$185	\$213
SR 902/Medical Lake Interchange - Intersection improvements (Spokane)	TPA	Oct-07	May-08	delayed	\$726	\$864
Advertisement date was delayed as population growth and increased traffic have made design analysis more complicated. Additional time is needed to determine the most cost-effective intersection improvements.						
SR 519/ I-90 to SR 99 Intermodal Access Project - Interchange improvements (King)	Nickel	Apr-09	May-08	advanced	\$74,400	\$74,400
US 101/Hoodspoint Vicinity - Stabilize slope (Mason)	TPA	Jun-08	Jun-08	√	\$499	\$575
I-405/SR 167 to SR 169 - Add new southbound lane (King)	Nickel	Oct-08	Jun-08	advanced	\$55,339	\$55,618
I-405/SR 167 to SR 169 - Northbound widening (King)	TPA	Oct-08	Jun-08	advanced	\$4,099	\$4,093
I-405/SR 515 - New interchange (King)	TPA	Oct-08	Jun-08	advanced	\$113,365	\$113,576
• I-405/Thunder Hills Creek Culvert - Emergency repair (King)	TPA		Feb-08			\$8,487
Central King to South Snohomish Bridges - Seismic retrofit (King, Snohomish)	TPA	Jul-08	Jul-08	√	\$12,372	\$12,556
I-5/SR 16 Interchange - Rebuild interchange (Pierce)	TPA	Mar-08	Jul-08	delayed	\$299,861	\$306,323
Advertisement date was delayed to address new bridge and road standards.						

# WSDOT's Capital Project Delivery Programs

## Projects To Be Advertised, continued

### 18 Projects in the delivery pipeline for April 1, 2008 through September 30, 2008

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	Current estimated cost
Lincoln Co - Roadside safety improvements (Lincoln) Advertisement date is delayed from February to July 2008 due to the length of time required to complete the environmental documentation and secure the necessary permits.	TPA	Feb-08	Jul-08	delayed	\$1,010	\$1,010
US 395/NSC-US 2 to Wandermere and US 2 Lowering - New alignment (Spokane)	Nickel	Aug-08	Aug-08	√	\$130,540	\$134,295
				<b>On schedule</b>	<b>Baseline estimated cost at completion</b>	<b>Current estimated cost at completion</b>
<b>Total (April 1, 2008, through September 30, 2008)</b>			<b>72%</b>		<b>\$808,748</b>	<b>\$837,049</b>
<b>6 Nickel Projects</b>			<b>67%</b>		<b>\$330,657</b>	<b>\$342,512</b>
<b>12 TPA Projects</b>			<b>75%</b>		<b>\$478,091</b>	<b>\$494,537</b>

Source: WSDOT Project Control and Reporting Office.

Note: 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

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## Selected Project Highlights

### Significant projects in progress as of March 31, 2008

#### *I-205/Mill Plain Exit (112th Connector) and*

#### *I-205/Mill Plain Interchange to NE 18th St – Stage 1 (Clark)*

These two combined projects, totaling \$23.6 million, will construct a new ramp that connects the I-205/Mill Plain northbound off-ramp directly to NE 112th Avenue, and construct a bridge over the off-ramps.

The combined project was advertised for construction on March 10, 2008, six weeks ahead of schedule.

#### *SR 142/Roadside Safety – Roadside Improvements (Klickitat)*

This \$1.4 million project will install guardrails, remove roadside hazards, and conduct slope flattening and other minor safety improvements.

Safety improvements not requiring additional right-of-way were advertised on March 24, 2008, two weeks ahead of schedule. Those safety improvements requiring right-of-way acquisition will be constructed in 2010.

#### *SR 520/W Lake Sammamish Parkway to SR 202, Stage 3 – Widening (King)*

This \$102.3 million project will add new auxiliary and HOV lanes that will widen SR 520 to eight lanes and a flyover ramp to reduce traffic congestion, and improve traffic flow and safety.

The flyover ramp was advertised as a separate contract in January 2007. It opened to traffic in early March 2008, two months ahead of schedule.

Design of the remaining SR 520 highway widening continues to be on schedule for advertisement in October 2008. The \$2.7 million cost increase due to inflation (described in the September 2007 *Gray Notebook*) was included in the 2008 Supplemental Budget.

#### *US 12/Frenchtown Vicinity to Walla Walla – Add lanes (Walla Walla)*

This \$56.6 million project will construct about eight miles of four-lane highway to replace the existing two-lane highway west of Walla Walla. The new road will improve safety by separating opposing traffic, and improve traffic flow through the construction of four new intersections and an interchange at SR 125/Pine Street in Walla Walla.

The project was advertised on time and awarded in February 2008 at 19% below budget. The new project cost of \$56.6 million reflects a savings of \$7 million.

The contractor began work in March by installing fencing to protect environmentally sensitive areas and extending an irrigation line prior to water turn-on. Work also started on the US 12 detour at Pine Street, allowing room for the construction of the new interchange.

WSDOT is coordinating with the U.S. Highway 12 Coalition Group to hold a “Celebration of Progress” event in early May. Construction is scheduled for completion in fall 2010.

# WSDOT's Capital Project Delivery Programs

## Watch List: Projects with schedule and 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 roll-up summary on pages 18 through 20 lists projects currently facing schedule or budget concerns with a reference to these over-arching 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](http://www.wsdot.wa.gov/projects).

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.

### Most common causes of schedule delays or cost increases

#### 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 Memorandums of Understanding (MOUs) or Memorandums 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

**Land acquisition:** Negotiations with landowners regarding purchase of property may take longer than anticipated.

**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 and budget concerns

### Watch List Summary

*Projects with cost and/or schedule concerns*

Added to Watch List	Project type	Watch List issue
SR 20/Ducken Road to Rosario Road - Add turn lanes (Island & Skagit)	Highway	Environment: geological issues; Materials: underestimated unit cost for special materials
I-405, I-5 to SR 169 Stage 1 – Widening (King)	Highway	Right-of-way: land acquisition
I-405, I-5 to SR 169 Stage 2 Widening and SR 515 I/C – Widening (King)	Highway	Construction: additional construction; Utilities: relocation
I-90 Two Way Transit & HOV Operations - Stage 1 Mercer Island (King)	Highway	Construction: additional construction, materials
SR 3/SR 303 Interchange (Wagga Way) – Construct ramp (Kitsap)	Highway	Environmental: erosion mitigation; Additional traffic control expense
US 101/Hoodsport vicinity – Stabilize slope (Mason)	Highway	Environmental: wave action mitigation, ESA endangered species
SR 16/Olympic Drive to Union Avenue (also known as SR 16/I-5 to Tacoma Narrows Bridge) – Add HOV lane (Pierce)	Highway	Construction risks
SR 410/214th Avenue E to 234th St (Pierce)	Highway	Environmental: wetlands mitigation redesign
SR 9/Schloman Road to 256th Street NE - New alignment SR 9/252nd Street NE Vicinity - Add turn lane SR 9/268th Street Intersection - Add turn lane (Snohomish)	Highway	Materials: actual quantity required exceeded estimate
SR 902/Medical Lake Interchange - Intersection improvements (Spokane)	Highway	Design: interim and long-term redesign
US 12/Tieton River East and West Bridges - Replace bridges (Yakima)	Highway	Design: flooding mitigation
I-5/SR 16 Interchange - Rebuild interchange (Pierce)	Highway	Design: element changes
Lincoln County-Roadside safety improvements (Lincoln)	Highway	Environmental: permitting
Updates to Watch List	Project type	Watch List issue
SR 433/Lewis & Clark Bridge – Painting (Cowlitz)	Highway	Materials: contract dispute
SR 285, George Sellar Bridge – Additional eastbound lane (Douglas)	Highway	Construction: additional structural work
SR 167/ 8th Street E vicinity to S 277th Street vicinity – Extend HOV lanes (King)	Highway	Design: design element changes
I-5/SR 161/SR 18—Interchange improvements (aka “The Triangle Project”) (King)	Highway	Environmental: fish passage barrier removal; Coordination: tribal consultation
SR 99/Aurora Avenue - George Washington Memorial Bridge – Seismic Retrofit (King)	Highway	Environmental: geological
SR 16/Burley–Olalla interchange – Build interchange (Kitsap)	Highway	Environmental: wetland mitigation
US 101/Purdy Creek – Replace bridge (Mason)	Highway	Right-of-way: land acquisition
SR 529/Ebey Slough Bridge – Replace bridge (Snohomish)	Highway	Environmental: geological, wetland mitigation
SR 532/Corridor improvements - Design-build contracts (Island, Snohomish)	Highway	Design: new seismic code
Individual projects under this umbrella project name:		
<ul style="list-style-type: none"> <li>• SR 532/270th St NW to 72nd Ave NW – Improve safety (island);</li> <li>• SR 532/Sunrise Blvd to Davis Slough – Improve safety (island)</li> <li>• SR 532/General Mark W. Clark Memorial Bridge – Improve safety (Snohomish);</li> <li>• SR 532/64th Ave NW to 12th Ave NW – Improve safety (Snohomish);</li> <li>• SR 532/General Mark W. Clark Memorial Bridge - Replace bridge (Snohomish);</li> <li>• SR 532/Pilchuck Creek Tributary - Fish passage barrier removal (Snohomish)</li> </ul>		

# WSDOT's Capital Project Delivery Programs

## Watch List: Projects with schedule and budget concerns

### Watch List Summary

*Projects with cost and/or schedule concerns*

I-5/172nd Street NE (SR 531) Interchange – Rebuild interchange (Snohomish)	Highway	Right-of-way: land acquisition
US 12/SR 124 Intersection – Build interchange (Walla Walla)	Highway	Environmental: wetland mitigation
SR 542/Nooksack River – Redirect river, realign roadway (Whatcom)	Highway	Environmental: geological; Right-of-way: land acquisition

Updates to Watch List	Project type	Watch List issue
New 144-Auto Ferries	Ferries	Coordination: contract
Port Townsend - Keystone Special Ferry Project (Island)	Ferries	Coordination: contract
Eagle Harbor Maintenance Facility (Kitsap)	Ferries	Design: alternatives required (legal issue)
Mukilteo Multimodal Ferry Terminal (Snohomish)	Ferries	Design: new legislation
Vancouver – Rail bypass and West 39th Street Bridge (Clark)	Rail	Right-of-way: land acquisition, materials
Tacoma – Bypass of Pt. Defiance (Pierce)	Rail	Right-of-way: land acquisition; Design: redesign
Mount Vernon – Siding improvements (Skagit)	Rail	Design: alternatives required
Everett – Curve realignment and storage tracks (Snohomish)	Rail	Environmental: wetlands mitigation
Stanwood – New station, siding upgrades (Snohomish)	Rail	Design: new Federal requirements; Environmental: permitting
Geiger Spur/Airway Heights – New rail connection (Spokane)	Rail	Right-of-way: land acquisition
Bellingham – Waterfront restoration, Georgia Pacific area upgrades (Whatcom)	Rail	Coordination: archeological; legislative funding

Removed from Watch List	Project type	Watch List issue/Resolution
Adams, Franklin roadside safety improvements (Adams, Franklin)	Highway	Construction: materials, order delay
US 101/Dawley Road vicinity to Blyn Highway – Add climbing lane (Clallam)	Highway	Environmental: land acquisition, waiting for Congressional approval
SR 500/Saint John's Boulevard – Build interchange (Clark)	Highway	Environmental: fish passage barrier removal; Right-of-way: land acquisition
US 101/Hoh Site (Site #2) – Stabilize slope (Jefferson)	Highway	Environmental: erosion control; Design: redesign
SR 116/SR 19 to Indian Island – Upgrade bridge rail (aka SR 116/Portage Canal bridge rail) (Jefferson)	Highway	Utilities: relocation
SR 167/15th St SW to 15th St NW - Add HOV lanes (King)	Highway	Design: restart; Construction: paving window
SR 202/Junction of SR 203 – Construct roundabout (King)	Highway	Poor weather; GNB 28, Dec 31, 2007
SR 900/SE 78th St vicinity to I-90 vicinity – Widening, add HOV lanes (King)	Highway	Environmental: geological; Design issues
SR 305/Unnamed tributary to Liberty Bay – Fish passage barrier (Kitsap)	Highway	Environmental: fish passage barrier removal
I-5/Chehalis River Flood Control – Construct levees (Lewis)	Highway	Coordination: community involvement
SR 20, Fredonia to I-5 – Add lanes (Skagit)	Highway	Cost increase, scheduling; GNB 28, Dec 31, 2007
SR 530/Sauk River (Site #2) – Stabilize river bank (Skagit)	Highway	Environmental: flooding
SR 522/Snohomish River Bridge to US 2 – Add lanes (Snohomish)	Highway	Environmental: fish passage window
SR 9/SR 522 to 228th Street SE, Stages 1a and 1b – Add lanes	Highway	Environmental: erosion control, mitigation
SR 9/228th Street SE to 212th St SE (SR 524), Stage 2 – Add lanes (Snohomish)	Highway	Environmental: erosion control, mitigation

# WSDOT's Capital Project Delivery Programs

## Watch List: Projects with schedule and budget concerns

### Watch List Summary

*Projects with cost and/or schedule concerns*

Removed from Watch List	Project type	Watch List issue/Resolution
SR 169/SE 416th – Interchange improvements (King)	Highway	Coordination: community concerns, design
SR 539/Tenmile Road to SR 546 – Add lanes (Whatcom)	Highway	Right-of-way: land acquisition
SR 542/Boulder Creek Bridge – Replace bridge (Whatcom)	Highway	Poor weather; GNB 29
Tacoma Rail & Puget Sound and Pacific RR – Reconfigure rail Phase 1A (Lewis)	Rail	Funding: legislative; Design: redesign; Right-of-way: land acquisition
Tacoma Rail & Puget Sound and Pacific RR – Reconfigure Rail Phase 1B (Lewis)	Rail	Funding: legislative; Right-of-way: land acquisition
White Swan/Toppenish – Yakama Sawmill Traffic Upgrades (Yakima)	Rail	Design: county contract

### Added to Watch List

#### *SR 20/Ducken Road to Rosario Road - Add turn lanes (Island, Skagit)*

This \$8.2 million project will build a southbound left-turn lane and a northbound right-turn lane to SR 20 at Ducken Road. The wood-and-stone guardrail along SR 20 through Deception Pass State Park, installed by the Civilian Conservation Corps in the 1940s, will be replaced with replica guardrail.

The Nickel portion of the project has increased by \$140,000 due to underestimating costs for erosion control and the quantity of materials needed to construct the replica guardrail and wall.

The guardrail replacement work is currently on schedule to be completed in May 2008.

#### *I-405, I-5 to SR 169 Stage 1 – Widening (King)*

This project will widen I-405 from I-5 to SR 167, add one lane southbound on SR 167, and extend the southbound SR 167 High Occupancy Vehicle Lane (HOV) to I-405. This project includes construction elements from several projects identified and approved by the Legislature. Work will reduce congestion.

The project cost is expected to exceed the 2007-09 Budget, with a requested \$11.4 million increase included and approved in the 2008 Supplemental Budget.

The increase is due to right-of-way parcels that cost more than anticipated, and the higher cost of engineering for review of the Design-Build contracts. The budget was affected by two parcels that were settled in condemnation at a price higher than the approved right-of-way budget. A third parcel is still in negotiation, with the outcome to be determined in summer 2008.

#### *I-405, I-5 to SR 169 Stage 2 – Widening and*

#### *SR 515 I/C – Widening (King)*

This project will add a lane in each direction on I-405 between SR 167 and SR 169. It will also build a half-diamond inter-

change with new ramp connections between I-405 and SR 515. Construction will reduce congestion and improve efficiency.

This project may exceed the 2007-09 biennium budget. Cost increases on this project are due to the construction of an additional noise wall; increases in unit bid prices for retaining walls and bridges; increases in utility relocation costs; and WSDOT's contribution to an emergency culvert repair contract in the project's vicinity. The current estimated construction cost range for this project is between \$131 and \$163 million. The construction budget is at the bottom of this range. The Department is reviewing options to keep the project within budget. This project is ready for advertisement in June 2008, four months ahead of schedule.

#### *I-90 Two Way Transit & HOV Operations (Mercer Island)*

This is Stage 1 of three stages on this project. It adds new HOV lanes in the westbound outer roadway, a new 80th Avenue SE HOV direct access ramp, modifications to the Bellevue Way HOV direct access ramp, and a variable speed limit system westbound from I-405 to I-5.

This project is currently under construction and will be open to traffic in August 2008.

Funding for Stages 2 and 3 of the I-90 Two Way Transit & HOV Operations project is currently shown in the 2017-19 biennium. WSDOT anticipates funding for a portion of the Stage 2 project, about \$6 million to \$7 million, will need to be advanced to the 2009-11 biennium to complete dowel bar work which will prevent damage to the existing concrete pavement.

#### *SR 3/SR 303 Interchange (Waaga Way) – Construct ramp (Kitsap)*

This \$24.8 million project provides an interchange to better accommodate current and future traffic needs. The main highway of SR 303 is now open to traffic, and the new signal system at the Waaga Way over-crossing is in operation. Minor work continues on noise walls and signing revisions.

# WSDOT's Capital Project Delivery Programs

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## Watch List: Projects with schedule and budget concerns

### Added to Watch List, continued

However, an additional \$1.4 million is required to properly dispose of runoff stormwater. WSDOT's temporary erosion control measures failed under severe rains in November and December 2006. Additional construction staging challenges and traffic control efforts to safely maintain traffic on SR 303 and SR3 during construction of the interchange also incurred costs.

#### *US 101/Hoodsport Vicinity – Stabilize slope (Mason)*

This \$583,000 project will correct the effects of water erosion due to Hood Canal wave and tidal action on roadway shoulders. A barrier will be placed in the wave-eroded location to protect slopes of US 101 adjacent to Hood Canal.

The advertisement date was delayed from January 2007 to April 2008, to allow time for WSDOT negotiations with NOAA-Fisheries and the U.S. Fish and Wildlife Service (also called 'The Services') for compliance with the Endangered Species Act. Additional time is required for further negotiations with The Services; depending on the outcome, the project could be at risk.

#### *SR 16/Olympic Drive to Union Avenue (also known as SR 16/I-5 to Tacoma Narrows Bridge) – Add HOV lane (Pierce)*

This \$90.5 million project widens SR 16 from the Olympic Drive interchange in Gig Harbor to the Nalley Valley Viaduct in Tacoma. The project was divided into three separate construction contracts. Contract One, from Sixth Avenue to Jackson Avenue, was completed in May 2005. Contract Two, from 36th to Olympic Drive, was completed in December 2004. Contract Three, which stretches from Union Avenue to Jackson Avenue, is nearing completion.

Contract Three is expected to remain on budget but WSDOT is aware of a potential increase in costs due to a claim involving final costs with the contractor.

#### *SR 410/214th Ave E to 234th – Add lanes (Pierce)*

This \$28.7 million project will construct two additional general purpose lanes, median barrier, and a traffic signal to improve traffic operations and mobility.

The project schedule is delayed to allow for additional design efforts to minimize impacts to wetlands. The advertisement date is delayed from March 2008 to February 2009.

#### *SR 9/Schloman Road to 256th Street NE - New alignment*

#### *SR 9/252nd Street NE Vicinity - Add turn lane*

#### *SR 9/268th Street Intersection - Add turn lane (Snohomish)*

This \$20.9 million project will widen SR 9 to provide twelve-foot lanes and four-foot shoulders, as well as realign two existing curves along this section of roadway. Northbound left-turn lanes will be added at the two intersections. The 268th Street

intersection project will require wetland mitigation, illumination improvements, and hazardous waste removal.

The budget has increased by \$329,000 because the quantity of gravel material needed for roadway construction was underestimated. Additionally, erosion control costs increased on a new road that was constructed to allow the contractor's equipment access to the project area.

The project is on schedule to be operationally complete by November 2008.

#### *SR 902/Medical Lake Interchange - Intersection improvements (Spokane)*

This project will make improvements to reduce the number of collisions at an increasingly busy interchange in an area of rapid population growth.

Numerous potential solutions were investigated, including signals and roundabouts, but they were rejected when the high costs were compared to low benefits in safety improvement. WSDOT has decided to make an interim improvement while pursuing a better long-term solution.

The interim solution will lengthen the right-turn lane and upgrade the lighting at the intersection to improve safety. Any funds remaining once this project is completed will be used to fund the design of the long-term solution. This drawn-out design process has further delayed the advertisement date, (as reported in the December 2007 *Gray Notebook*), from April to May 2008. However, this delay should not impact the operationally complete date planned for September 2008.

#### *US 12/Tieton River East and West Bridges - Replace bridges (Yakima)*

This \$14.3 million project will replace the two structurally deficient bridges across the Tieton River with two bridges that will be wider and meet current standards.

The project schedule and budget are now at risk. Yakima County's Critical Areas Ordinance (CAO) classifies the shoreline between the two bridges as a frequently flooded area. WSDOT's current design encroaches on this area. The county recommends that WSDOT redesign the project, using the existing roadway alignment to reduce the shoreline impacts as much as possible. WSDOT is negotiating with the county to determine the final alignment.

#### *SR 16/Burley – Olalla Interchange – Build interchange (Kitsap)*

This project will construct a new interchange on SR 16 to improve safety at this high accident location. WSDOT completed negotiations with resource agencies to successfully address project

# WSDOT's Capital Project Delivery Programs

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## Watch List: Projects with schedule and budget concerns

### Added to Watch List, continued

related wetland mitigation needs. The project advertisement has been delayed from March 2008 to April 2008 due to minor design revisions.

#### *US 101/Purdy Creek – Bridge replacement (Mason)*

This project will replace the existing timber-trestle bridge with a three-span, concrete girder bridge. This project will eliminate future road closures due to seasonal flooding.

Additional redesign work was required (as reported in December 2007 *Gray Notebook*); it is managed by an outside consultancy. It requires additional revision to meet WSDOT standards; and the advertisement date is moved from January 2008 to May 2008.

#### *I-5/SR 16 Interchange - Rebuild interchange (Pierce)*

This project is part of the Pierce County Core HOV program. It reconstructs interchanges; replaces the bridges over Nalley Valley; constructs freeway connections, ramp roadways and structures; and prepares for HOV lanes on I-5 and SR 16. When completed, the project will reduce congestion and enhance motorist safety.

The advertisement date on this project has been delayed five months, from March 2008 to July 2008. The original project was designed to meet 2001 design standards. The bridge designs will now be updated to meet new seismic requirements. The roadway will be redesigned to meet current standards.

#### *Lincoln County-Roadside safety improvements (Lincoln)*

This project will install guardrails, remove fixed objects, and improve roadsides to enhance motorist safety by reducing the severity of collisions on State Routes 21, 25, 28, and 174.

The advertisement date is delayed from February to July 2008 due to the length of time required to complete the environmental documentation and secure the necessary permits.

### Updates to Watch List since December 31, 2007

#### *SR 433/Lewis and Clark Bridge – Painting (Cowlitz)*

This \$14.6 million project paints 14,800 tons of steel on this historic, mile-long bridge. The Oregon Department of Transportation contributes 50% of the project's funding.

The painting contract is about 25% complete. As reported in the December 2007 *Gray Notebook*, the contractor disputed the intent of the contract to perform this work. WSDOT and the contractor have since agreed to terminate the contract. The cost of painting the entire bridge is expected to increase; WSDOT is developing a plan to address the remaining work.

#### *SR 285, George Sellar Bridge – Additional eastbound lane (Douglas)*

This \$13.5 million project will provide an additional eastbound lane to ease heavy congestion at both ends of the George Sellar Bridge. This project is the first of three contiguous major contracts, with the schedules of the other two dependent on this one. Acquiring easements from the railroad is critical to meeting the advertisement date in December. The railroad is committed to meeting WSDOT schedules, but if the acquisition is delayed, the project is at risk for going from one to two construction seasons.

The estimated construction cost has increased \$2.6 million because more extensive structural work than was anticipated on the bridge is necessary. The \$10.9 million project cost increased to \$13.5 million, and was included and approved in the 2008 Supplemental Budget.

#### *SR 167/ 8th Street East vicinity to South 277th Street vicinity – Extend HOV lane (King, Pierce)*

This project will construct a southbound High Occupancy Vehicle (HOV) lane from where it currently ends in the Auburn vicinity to Pierce County, construct an auxiliary lane, and install ramp meters and signals.

Additional funding and design clarification, requested in the 2008 Supplemental Budget, was not forthcoming and funding was deferred three years.

The project is being re-evaluated based on available funding. Outstanding budget items include shut down and start up costs for a three-year project delay, costs related to project site storm-water management, and the cost of a bridge foundation seismic retrofit. The operationally complete date has been delayed to June 2015.

#### *I-5/SR 161/SR 18—Interchange improvements (aka “The Triangle Project”) (King)*

This project will rebuild the I-5 and SR 18 interchange by replacing a cloverleaf ramp with a flyover ramp and constructing a new westbound SR 18 connection to SR 161. It will reduce congestion and improve safety at one of the most dangerous interchanges in the state.

WSDOT is working to resolve issues related to several fish passage barriers with Washington State Department of Fish & Wildlife and local tribes. One culvert replacement, estimated at \$4 million, will need to be addressed.

The current advertisement date of October 2009 would cause the project to overspend its 2009-11 funding allocation by \$24

# WSDOT's Capital Project Delivery Programs

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## Watch List: Projects with schedule and budget concerns

### Updates to Watch List, continued

million. If the \$24 million is not advanced from 2011-13 funds into the 2009-11 biennium, the October 2009 advertisement date may be delayed.

#### *SR 99/Aurora Avenue- George Washington Memorial Bridge – Seismic retrofit (King)*

This \$4.6 million project completes the remaining seismic retrofit work on the George Washington Memorial Bridge to reduce the probability of catastrophic damage from an earthquake.

The additional geotechnical and structural analysis reported in the December 2007 *Gray Notebook* is still under way. The geotechnical drilling was completed in December; seismic analysis is now expected to be completed in June 2008, a month late.

#### *SR 529/Ebey Slough Bridge – Replace bridge (Snohomish)*

This \$34 million project will replace the old Ebey Slough Bridge with a new fixed-span structure designed to meet current standards.

The \$10 million cost increase for geotechnical work reported in the September 2007 *Gray Notebook* was included and approved in the 2008 Supplemental Budget request.

Completion of the geotechnical analysis has now been delayed from February to April 2008 due to difficulties in obtaining the final bore sample in a wetland area. WSDOT is investigating the possibility of partnering with Snohomish County to develop a wetland mitigation site on county-owned property within the same drainage basin.

#### *SR 532/ Corridor Improvements - Design-Build (see note below for project details) (Snohomish, Island)*

These six combined projects will install left-turn lanes, construct a climbing lane, consolidate driveways, replace the General Mark W. Clark Memorial Bridge, widen highway connections to the new bridge, and remove fish passage barriers under SR 532. The December 2007 *Gray Notebook* reported on four of these projects.

The two projects added to this design-build contract are the SR 532/General Mark W. Clark Memorial Bridge - Replace Bridge project, and the SR 532/Pilchuck Creek Tributary - Fish Barrier Removal project. The work will improve traffic flow and enhance motorist safety on the SR 532 corridor from Camano Island to I-5.

In the December 2007 *Gray Notebook*, WSDOT reported an updated cost range of \$95 to \$105 million, resulting in a budget request for \$9 million. The increase was to meet new seismic design code requirements for the General Mark W. Clark

Bridge. The 2008 Legislature allowed an increase of \$1.8 million, for a new budget total of \$82.6 million. WSDOT is prioritizing planned corridor improvements to keep the project within the \$82.6 million budget and remain on schedule for an October 2008 advertising date.

WSDOT is also pursuing the use of an established mitigation bank to offset the combined project's impact on freshwater wetlands, but finding a suitable mitigation site continues to be a challenge.

Individual projects under this umbrella project name:  
SR 532/270th St NW to 72nd Ave NW – Improve Safety (Island)  
SR 532/Sunrise Blvd to Davis Slough – Improve Safety (Island)  
SR 532/General Mark W. Clark Memorial Bridge – Improve Safety (Snohomish)  
SR 532/64th Ave NW to 12th Ave NW – Improve Safety (Snohomish)  
SR 532/General Mark W. Clark Memorial Bridge - Replace Bridge (Snohomish)  
SR 532/Pilchuck Creek Tributary - Fish Barrier Removal (Snohomish)

#### *I-5/172nd Street NE (SR 531) Interchange – Rebuild interchange (Snohomish)*

This \$42.2 million project at the I-5 and SR 251 interchange will construct a new two-lane on-ramp, realign and widen a southbound off-ramp and northbound on-ramp, and connect these ramps to the recently completed six-lane bridge over I-5.

The \$2.3 million right-of-way funding increase reported in the December 2007 *Gray Notebook* was included and approved in the 2008 Supplemental Budget request.

Delaying the advertisement date, from October 2008 to January 2009 (as reported in the December 2007 *Gray Notebook*), is no longer necessary. WSDOT is working through negotiations with property owners to keep the project on schedule. An update on right-of-way acquisition progress will be provided next quarter.

#### *US 12/SR 124 Intersection – Build interchange (Walla Walla)*

This project constructs a new interchange and bridge to replace two existing intersections.

The primary risk to the project's schedule and budget (as reported in the December 2007 *Gray Notebook*), is the difficulty in finding suitable property to exchange with McNary Wildlife Refuge. This quarter, WSDOT began negotiations on a parcel that the Wildlife Refuge believes to be suitable.

#### *SR 542/Nooksack River – Redirect river and realign roadway (Whatcom)*

This \$16.2 million project considers two alternatives that will reduce seasonal flooding damage and road closures. The work will either realign SR 542 further away from the Nooksack River or divert the Nooksack River further away from SR 542.

# WSDOT's Capital Project Delivery Programs

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## Watch List: Projects with schedule and budget concerns

### Updates to Watch List, continued

The \$400,000 cost increase to address poor soil infiltration reported in the September and December 2007 editions of the *Gray Notebook* was included and approved in the 2008 Supplemental Budget request.

The advertisement date has been delayed for two months, from March to May 2008, to allow WSDOT to settle on a price for the final parcel of land needed for this project.

### Ferries updates to Watch List

#### *New 144-Auto Ferries*

This \$283 million project will build three new 144-auto ferries.

A two-part contract was signed in December 2007 with Todd's Pacific Shipyard to begin building the vessels in November 2008. The expected completion of the first vessel is September 2010. The estimated cost to complete this project is now \$313 million.

#### *Port Townsend - Keystone Special Ferry Project (Jefferson, Island)*

The Governor has signed a bill authorizing the construction of three new vessels with a capacity of up to 100 automobiles to be used on the Port Townsend/Keystone ferry route.

The project for three vessels, similar to the Steilacoom II design, was originally advertised on February 14, 2008 with a bid opening of March 20, 2008. On March 12, 2008 the contract was amended to a one-boat contract. Todd's Pacific Shipyard was the sole bidder on the contract for \$25.9 million, which is \$9 million over the engineer's estimate. The Governor announced that WSDOT will not proceed with building the vessel similar to the Steilacoom II design.

WSDOT plans to begin design of the two vessels similar to the MV Island Home. Meanwhile, an agreement was reached with Pierce County to extend the lease on one of the county's ferries.

#### *Eagle Harbor Maintenance Facility (Kitsap)*

This \$46.3 million project covered renovation of the maintenance building, dock, and a slip bridge structure at Eagle Harbor. The reconstruction of the slip bridge was completed in 2006.

In February 2008, Kitsap Supreme Court ruled in favor of WSDOT in a lawsuit brought by the City of Bainbridge Island and local community groups. The appeal period ends in April 2008.

The increased costs associated with the litigation has affected the project's budget. The project was on hold for the duration of the court case, affecting the schedule. Ferries has postponed the advertisement date from June 2006 to June 2008.

#### *Mukilteo Multimodal Ferry Terminal (Snohomish)*

As reported in the December *Gray Notebook*, this project will build a new ferry terminal building at another location to improve connections to other modes of transportation and alleviate traffic congestion in Mukilteo. Previous estimates ranged from \$222 million to \$311 million.

This project is being revised in response to new legislative and budget requirements. WSDOT submitted and the Legislature funded a budget request that included an additional vehicle holding area, and a temporary connection between the Sound Transit station and the existing terminal. WSDOT is continuing to investigate multiple options to reduce project costs. Current estimated costs of a promising alternative range from \$107 million to \$160 million.

### Rail updates to Watch List

#### *Vancouver - Rail Bypass and West 39th Street Bridge (Clark)*

This \$115 million project will allow passenger trains to bypass freight trains, thereby reducing congestion and improving schedule reliability. A bridge over the railroad tracks at West 39th Street will enhance vehicle and pedestrian safety.

In January 2008, WSDOT authorized Burlington Northern Santa Fe (BNSF) Railway to begin property purchases for the rail improvements and to begin construction on the first phase of the rail project. An updated cost estimate for the total project is \$27.1 million higher than currently funded. This is due to increases in the cost of construction materials, most notably steel. BNSF will update the project cost estimate in August 2008.

The design of the West 39th Street Bridge is complete. The latest cost estimate for the bridge component of the project is about \$700,000 more than the estimate. The advertisement date has been delayed to September 2008 to obtain the necessary right-of-way, which may also delay the project's completion date. WSDOT and BNSF continue to assess the delay of the bridge construction on the overall project schedule.

#### *Tacoma - Bypass of Pt. Defiance (Pierce)*

This \$59.6 million project constructs a 20-mile bypass route through Lakewood, in coordination with Sound Transit. This bypass will reduce the Amtrak Cascades schedule between Seattle and Portland by six minutes.

The advertisement date has been delayed from February 2008 to July 2008 to acquire right-of-way. The traffic issue involving the Berkeley Street interchange on I-5 has been resolved by upgrading the four interchanges the project will build.

# WSDOT's Capital Project Delivery Programs

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## Watch List: Projects with schedule and budget concerns

### Updates to Watch List, continued

The revised construction estimate received in February 2008 segregated the costs between WSDOT and Sound Transit for the first time. The state's share of the work is \$8.5 million above the project funding due to higher than anticipated real estate costs and inflation in construction materials. The real estate increase is based on WSDOT acquiring entire parcels for the project's right-of-way. If WSDOT can acquire only the portions of the parcels needed for the project, the cost may decrease.

To use this bypass, a 1.2 mile segment of new track which includes a crossing over Pacific Avenue in Tacoma must be constructed. The crossing is part of the Sound Transit plan to provide Sounder service to Lakewood and requires about \$50 million in additional funding. Since construction of the crossing is uncertain, WSDOT is exploring several options to deliver the project. Two options are delivering a portion of the project to prevent overlap with Sound Transit's project, or moving ahead as originally planned.

#### *Mount Vernon – Siding improvements (Skagit)*

This \$3.8 million project upgrades existing rail siding to avoid passenger train delays.

As reported in the December 2007 *Gray Notebook*, the proposed closure of the Hickox Road crossing has met with resistance from residents and officials from the City of Mount Vernon and Skagit County. BNSF Railway petitioned the Washington Utilities Transportation Commission (WUTC) to close the crossing in April 2007. The WUTC hearings finished in February 2008 and the final decision should be made by April 2008.

The lawsuit filed by the City of Mount Vernon in October 2007 against WSDOT for filing improper notice in preparation for the closure is still pending. Neither the City nor WSDOT has taken any further action while they await the decision of the WUTC crossing closure case. If the WUTC rules in WSDOT's favor, the project will go to advertisement in April 2008.

#### *Everett – Curve realignment and storage tracks (Snohomish)*

This \$14 million project will realign curves to improve speeds for passenger service on the Seattle-Vancouver, B.C., route.

In order to do the project, it is necessary for the BNSF Railway to fill wetlands on their property. BNSF continues to work with the Army Corps of Engineers and the Washington State Department of Ecology to obtain the required wetland permitting. It is now anticipated that the permitting delays will delay advertisement to April or May 2008. If the permits cannot be obtained by the end of June 2008, it is unlikely this project can be completed as planned in the current biennium.

#### *Stanwood – New station, siding upgrades (Snohomish)*

This \$5 million project will construct a new train platform to serve Amtrak *Cascades* passengers.

As reported in the December 2007 *Gray Notebook*, the Stanwood Station project had been delayed pending the federal rulemaking regarding the height of new platforms. Also, BNSF Railway had notified WSDOT that an extension to the siding track at Stanwood would be required before Amtrak *Cascades* trains could serve the station facility. The extension would require additional funding to construct.

The platform height issue was resolved when the federal government indicated it would not enforce the proposed height standards as law. BNSF has since given their approval to move forward with construction of the new station. It is expected to be completed by June 30, 2009.

The 2008 Legislature increased funding for the siding project by about \$12.9 million, which allows the siding extension to move forward. The completion date for the siding project depends on completing the required environmental documentation. Construction may start in 2009. WSDOT is working with BNSF to allow service to the station while the siding extension is in design and construction.

#### *Geiger Spur/Airway Heights – New rail connection (Spokane)*

This \$7 million project will build a new rail connection to Spokane County's Airway Heights Industrial Park to replace the connection that currently passes through Fairchild Air Force Base, and which the U.S. Air Force plans to close down. The project will provide continued rail service.

All right-of-way has been acquired and the project is progressing toward an April 2008 advertisement.

#### *Bellingham – Waterfront restoration, Georgia Pacific (GP) area upgrades (Whatcom)*

This \$5.5 million project would relocate the BNSF main line near Bellingham's central waterfront to allow redevelopment of the former Georgia Pacific site for commercial and residential uses. The City and Port of Bellingham have developed a master plan that also includes two new roadway bridges over the relocated main line track.

The current estimated cost for the project is about \$11 million – more than double the available funding. Also, potential evidence of ancient fishing activities has been discovered by the city. The lack of funds to complete both the rail and roadway projects, and the archeological issue have prompted the 2008 Legislature to move the state funding out of the 2007-2009 biennium.

# WSDOT's Capital Project Delivery Programs

## Watch List: Projects with schedule and budget concerns

### Updates to Watch List, continued

WSDOT intends to use about \$140,000 in federal funds to perform additional cultural resource investigations.

Since the rail relocation project cannot be constructed with existing funds in the 2007-2009 biennium, WSDOT has begun discussions with the BNSF Railway to use the remaining funds from the Bellingham - GP Area Upgrade project to modify the track super-elevation near the former Georgia Pacific Plant. Modified track super-elevation would allow for higher train speeds and improve schedule reliability for Amtrak *Cascades* passenger trains.

### Removed from Watch List

#### *Adams and Franklin counties roadside safety improvements (Adams and Franklin)*

This project will install guardrails on several state routes in an effort to reduce the severity of collisions.

As reported last quarter in the December 2007 *Gray Notebook*, the operationally complete date was delayed to April 2008 due to the unexpected delay in procuring the steel components for the guardrail system. The project is still scheduled to be operationally complete in April 2008.

#### *US 101/Dawley Road Vicinity to Blyn Highway – Add climbing lane (Clallam)*

This project will construct a northbound truck-climbing lane to reduce congestion and improve motorist safety. This section of US 101 experiences traffic back-ups behind slow vehicles due to high truck volumes and steep grades.

The advertisement date has been delayed from September 2008 to January 2009. WSDOT is waiting on U.S. Congressional approval for the purchase of property from the U.S. Fish and Wildlife Service for stormwater mitigation.

#### *SR 500/Saint John's Boulevard – Build interchange (Clark)*

This \$48.3 million project will replace a signalized intersection with a freeway-style interchange. The project has a number of complex construction elements, including tall walls, high-voltage power lines, utility relocation, culverts, and a multi-use trail and park.

The City of Vancouver is interested in partnering with WSDOT on this project. The City's interests include options to improve fish passage under Saint John's Boulevard, an alternative alignment for the Discovery Trail, and utility relocation options. Environmental permitting and documentation timelines have

increased and additional right-of-way acquisition may be needed for the trail relocation.

WSDOT will delay advertisement from April 2009 to April 2010 in order to resolve these issues and allow time for the City to pursue funding.

#### *SR116/SR 19 to Indian Island (aka SR 116/Portage Canal Bridge Rail) – Upgrade bridge rail (Jefferson)*

This \$475,000 project upgrades the existing bridge rail to meet current safety standards and enhance motorist safety. The project was planned to be completed November 29, 2007.

Due to ongoing challenges with utility relocations, the operationally complete date was delayed from November 29, 2007, to February 28, 2008, but it completed on February 22, 2008.

#### *US 101/Hoh Site (Site #2) – Stabilize slope (Jefferson)*

This \$9.5 million project will stabilize the Hoh River bank to prevent the loss of US 101 roadway due to erosion. Analysis has identified the need for additional erosion prevention measures to avoid future emergency work. The project advertisement date has been delayed from November 2008 to January 2010 due to continued engineering and design work.

#### *SR 167/15th St SW to 15th St NW – Add HOV lanes (King)*

This project will construct a northbound HOV lane, convert an existing southbound lane to an HOV lane, install an Intelligent Transportation System (ITS), construct HOV ramp bypasses, and correct off-ramp connecting lanes.

There have been a significant number of change orders and quantity overruns during construction. Funding uncertainties caused project design to be suspended; restarting contributed to errors in quantity estimates. This increased the budget by \$1 million. WSDOT received the additional funding for the shortfall in the 2008 Supplemental Budget.

Construction on this project is nearing completion. The northbound HOV lane and two widened bridges are expected to be fully open to traffic in April 2008. The project's operationally complete date was delayed by four months because the contractor was not able to complete the paving operations within the 2007 paving window.

#### *SR 202/Junction of SR 203 - Construct roundabout (King)*

This project will construct sidewalks and two roundabouts. Due to severe weather conditions, construction work slowed,

# WSDOT's Capital Project Delivery Programs

## Watch List: Projects with schedule and budget concerns

### Removed from Watch List, continued

resulting in a delay of the operationally complete date of two quarters, to June 2008.

#### *SR 169/SE 416th – Interchange improvements (King)*

This \$6.3 million project will construct intersection improvements to reduce the risk of collisions occurring at this intersection. As reported in the December 2007 *Gray Notebook*, WSDOT is reviewing a modified intersection design that will add turn lanes without the need to acquire adjacent farmland.

After evaluating several alternatives, WSDOT is now proposing a revised intersection design, supported by elected officials. It addresses community concerns by eliminating the need for additional right-of-way purchases and does not affect any wetlands or an adjacent convenience store. This redesign allows the project to proceed within budget and on schedule to be advertised in October 2009.

#### *SR 900/SE 78th St vicinity to I-90 vicinity – Widening and HOV lanes (King)*

This project will improve traffic flow and safety by widening SR 900, and providing shoulders for the I-90 westbound off-ramp. Construction will also add turn lanes to improve intersection traffic flow and remove fish barrier culverts.

Geotechnical analysis had revealed a much smaller risk of hillside instability than initially anticipated. Several retaining walls were redesigned to increase their underground tieback anchors, and the longer anchors required purchasing additional right-of-way. The advertising date was delayed to April 2008 and the operationally complete date from August 2009 to October 2009. It also increased the project cost by \$4.8 million.

#### *SR 305/Unnamed Tributary to Liberty Bay – Fish passage barrier (Kitsap)*

This \$1.9 million project eliminates a fish passage barrier by replacing the existing culvert with a new concrete structure allowing migratory fish unhindered access to new habitat.

The design schedule has been delayed. As reported in the December 2007 *Gray Notebook*, delaying the current advertisement date from May 2008 to March 2009 will allow time to work through the Federal Endangered Species Act (ESA) compliance review process.

#### *Tacoma Rail and Puget Sound & Pacific RR – Reconfigure rail Phase 1A (Lewis)*

This is the first of six phases of a \$7.4 million project that will make a new connection between Tacoma Rail and Puget Sound & Pacific RR at Blakeslee Junction. In addition, the project refurbishes the Skookumchuck Bridge; reconfigures the Centralia yard

to create a passing track which improves speed to 20 miles an hour at the wye junction; installs a centralized traffic control from BNSF to Blakeslee Junction; and reconfigures BNSF signal spacing on Napavine Hill, south of Chehalis. When completed, this bypass will reduce congestion for rail and road traffic in the area.

At a meeting between BNSF and WSDOT in February 2008, BNSF indicated that the costs for Phase 1A have increased to \$16.65 million. The increase is due to the curvature change in Centralia, the use of BNSF labor, the need to convert the line from Centralia to Blakeslee Junction to continuous welded rail, and inflation. It also includes purchasing right-of-way. WSDOT's estimate of the project cost, with current expenditures, is about \$17.15 million, which is underfunded by \$9.7 million.

Due to cost increases and the requirement that construction of Phase 1B occur concurrently with this project, the 2008 Legislature deferred work on the two projects. The Legislature's decision on whether or not to continue with these projects may happen as early as the 2009 legislative session.

#### *Tacoma Rail and Puget Sound & Pacific RR – Reconfigure rail Phase 1B (Lewis)*

This stage of the project will remove tracks through Centralia and Chehalis and replace them with new sidings elsewhere on the Tacoma Rail system. This stage includes acquiring right-of-way.

The Legislature has provided \$5.4 million for this project. At a meeting between BNSF and WSDOT, BNSF advised that the cost is now estimated at \$8.01 million. The original cost did not include acquiring the right-of-way and the cost of the purchase of the Tacoma Rail land in Centralia and Chehalis. The railroad wants this project to be completed at the same time as Phase 1A to save total costs and avoid Tacoma Rail being isolated from its track in Centralia.

Due to cost increases and the requirement that construction of Phase 1B occur concurrently with this project, the 2008 Legislature deferred work on the two projects. The Legislature's decision on whether or not to continue with these projects may happen as early as the 2009 legislative session.

#### *I-5/Chehalis River Flood Control – Construct levees (Lewis)*

This project provides a state contribution to design and construct a comprehensive flood control project for the Chehalis River Basin.

The 2008 Legislature provided \$50 million which includes a basin-wide study. Roles and responsibilities of the partners have not been determined.

# WSDOT's Capital Project Delivery Programs

## Watch List: Projects with schedule and budget concerns

### Removed from Watch List, continued

#### *SR 20/Fredonia to I-5 – Add lanes (Skagit)*

This \$109.9 million staged project will construct two lanes and will relieve traffic congestion and improve safety. Stage one is currently in construction. Stages two and three were advertised on schedule in January 2008 and awarded in March 2008. Construction will begin in early May.

The previously reported \$5.7 million cost increase resulting from inflation was included and approved in the 2008 Supplemental Budget.

#### *SR 530/Sauk River (Site #2) – Stabilize river bank (Skagit)*

This project will realign a two-mile section of road away from the river and restore riverbank and aquatic habitats that were disturbed by temporary emergency repairs.

To address the development of a new side channel in the river's flow, WSDOT is proposing to shift an additional 7,500 feet of SR 530 away from the river. This will move the highway out of the floodplain and eliminate the need for bank protection measures that have raised environmental concerns.

The added work requires an estimated \$9 million in additional funding. WSDOT will request the increase from the 2009 Legislature, delaying the advertisement date from January 2009 to January 2010.

#### *SR 522/Snohomish River Bridge to US 2 – Add lanes (Snohomish)*

This project will construct two additional lanes to form a four-lane divided highway, improving the safety of motorists and adding capacity to the existing two-lane roadway.

As reported in the December 2007 *Gray Notebook*, the advertisement date was delayed by ten months to December 2009 due to "fish window restrictions" on construction. This delay causes a \$7.4 million increase due to construction cost inflation. The increase was included in the 2008 Supplemental Budget request.

#### *SR 9/SR 522 to 228th Street SE, Stages 1a and 1b – Add lanes*

#### *SR 9/228th Street SE to 212th St SE (SR 524), Stage 2 – Add lanes (Snohomish)*

The \$29.8 million contract on these projects will add lanes, and install new guardrails and median barriers to enhance safety on 1.8 miles of congested state highway.

The \$1.6 million cost increase for erosion control and water removal (reported in the December 2007 *Gray Notebook*) was included in the 2008 Supplemental Budget request.

The retaining wall and ramp widening, delayed by bad weather in fall/winter 2007/2008, will now be completed in April 2008, two months late. Ramp traffic has been shifted to the new pavement so crews can complete repaving and re-striping by April 2008, weather permitting.

The \$5.7 million cost increase, which was due to inflation, was included in the 2008 Supplemental Budget request.

#### *SR 542/Boulder Creek Bridge – Replace bridge (Whatcom)*

This project will replace the existing bridge with a new bridge designed to current standards. It is now under construction and work has been accelerated, allowing the project to be operationally complete six months early in June 2008.

#### *SR 539/Tenmile Road to SR 546 – Add lanes (Whatcom)*

The \$54 million contract on this project will add one lane in each direction from Tenmile Road to SR 546 near the town of Lynden. The project will reduce congestion and improve safety, and includes a study to determine the better of two alternatives to improve traffic flow.

WSDOT has been able to resolve potential schedule impacts which arose due to difficulty in acquiring two parcels of land needed to complete utility relocations and keep the project on schedule. The contract was revised to work around utility relocations to allow the contract to be awarded.

#### *White Swan/Toppenish – Yakama Sawmill traffic upgrades (Yakima)*

This \$640,000 project includes construction and the purchase of materials to upgrade the existing rail line. The upgrade would accommodate increased traffic from two sawmills, providing access to low cost freight transportation. In January 2008, WSDOT and Yakima County decided to revert back to the original funding agreement in which grant funds would upgrade a portion of the Toppenish Simcoe and Western Rail Lines between Wesley Junction and the Town of Harrah.

WSDOT and Yakima County signed an amendment to the contract in March 2008. Environmental permitting is to be completed by April 2008 with construction starting July 2008. Project completion is scheduled for April 2009.

# WSDOT's Capital Project Delivery Programs

## Project Delivery Summary Reports

### Schedule milestone tracking for Nickel projects

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

Milestone	Scheduled milestones to date	Scheduled milestones achieved to date	Scheduled milestones missed	Scheduled milestone achievement rate <sup>1</sup>	Milestones achieved early
<b>Project definition complete</b>					
Biennium to date (2007-09)	4	3	1	75%	1
Cumulative to date	148	151	1	102%	4
<b>Begin preliminary engineering</b>					
Biennium to date (2007-09)	8	6	1	75%	0
Cumulative to date	151	151	1	100%	1
<b>Environmental documentation complete</b>					
Biennium to date (2007-09)	13	7	4	54%	0
Cumulative to date	129	118	11	91%	0
<b>Right of Way certification</b>					
Biennium to date (2007-09)	10	9	2	90%	1
Cumulative to date	83	69	17	83%	3
<b>Advertisement date</b>					
Biennium to date (2007-09)	12	8	3	67%	1
Cumulative to date	119	117	3	98%	1
<b>Operationally complete</b>					
Biennium to date (2007-09)	31	24	4	77%	2
Cumulative to date	93	93	4	100%	4

Source: WSDOT Project Control and Reporting Office.

<sup>1</sup> 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.

# WSDOT's Capital Project Delivery Programs

## Project Delivery Summary Reports

### Schedule milestone tracking for Transportation Partnership Account (TPA) projects

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

Milestone	Scheduled milestones to date	Scheduled milestones achieved to date	Scheduled milestones missed	Scheduled milestone achievement rate <sup>1</sup>	Milestones achieved early
<b>Project definition complete</b>					
Biennium to date (2007-09)	27	35	5	130%	4
Cumulative to date	208	206	8	99%	6
<b>Begin preliminary engineering</b>					
Biennium to date (2007-09)	36	33	4	92%	0
Cumulative to date	214	213	4	100%	3
<b>Environmental documentation complete</b>					
Biennium to date (2007-09)	61	51	14	84%	4
Cumulative to date	139	123	23	88%	7
<b>Right-of-Way certification</b>					
Biennium to date (2007-09)	30	31	5	103%	7
Cumulative to date	61	68	8	111%	15
<b>Advertisement date</b>					
Biennium to date (2007-09)	40	44	4	110%	10
Cumulative to date	91	97	4	107%	10
<b>Operationally complete</b>					
Biennium to date (2007-09)	21	13	3	62%	4
Cumulative to date	35	36	3	103%	4

Source: WSDOT Project Control and Reporting Office.

<sup>1</sup>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.

# WSDOT's Capital Project Delivery Programs

## Paying for the Projects: Financial Information

### 2003 Transportation Funding Package (Nickel)

#### Revenue forecast update

The following information incorporates the February 2008 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 February 2008 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 5.6%. This reduction is due to projected higher gasoline prices that result in 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

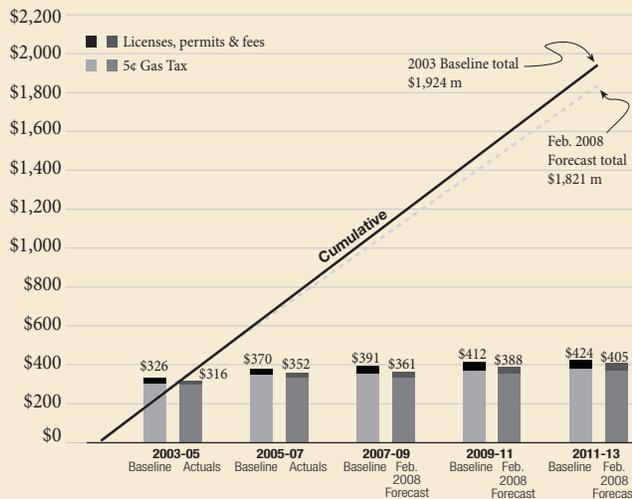
#### Deposited into the Multimodal Account (established in 2000)

- 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 slightly higher than the baseline forecast resulting in an increase of 1.9% in the ten-year outlook.

### Transportation 2003 (Nickel) Account Revenue forecast

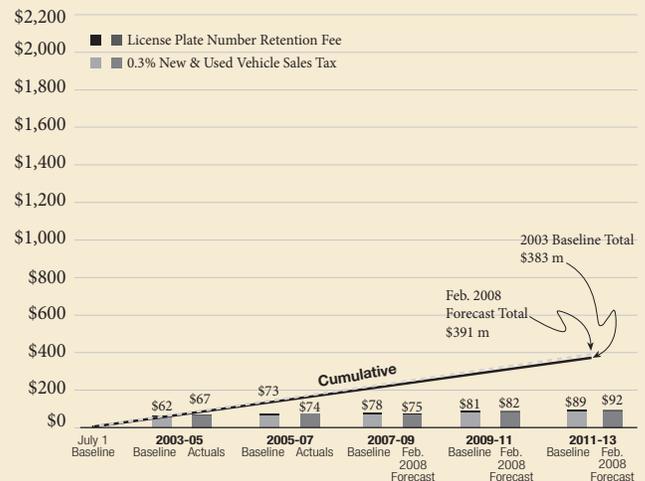
March 2003 legislative baseline compared to February 2008 Transportation Revenue Forecast Council Dollars in millions



\*Baseline numbers may not add due to rounding. Data source: Financial Planning.

### Multimodal Account (2003 Package) Revenue forecast

March 2003 legislative baseline compared to February 2008 Transportation Revenue Forecast Council Dollars in millions



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

# WSDOT's Capital Project Delivery Programs

## Paying for the Projects: Financial Information

### Transportation Partnership Program

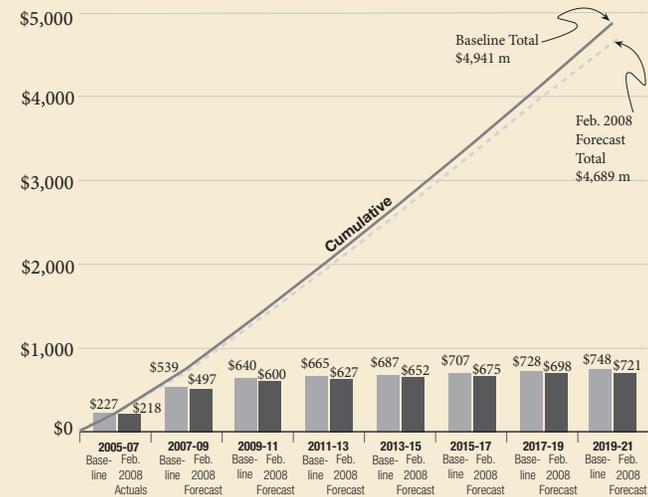
#### Revenue forecast update

The accompanying chart compares the current February 2008 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 February 2008 forecast for gas tax receipts over the 16 year period decreased by 5.4% from the baseline forecast. This reduction is due to projected higher gasoline prices that result in 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 Gas tax revenue forecast

March 2005 legislative baseline compared to February 2008 Transportation Revenue Forecast Council Dollars in millions



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

### 2005 Transportation 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
- \$30 for cars between 6,000 and 8,000

#### 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 pound

#### 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

## Pre-Existing Funds Projects: Reporting by Program

### PEF program milestone reporting

The chart below shows the six program categories that are being reported on and the number of projects associated with each category for this biennium. Additionally, WSDOT continues to report on five PEF projects that were selected due to size and visibility on a quarterly basis (see page 39).

Why is the Pre-Existing Funds Program reported differently than the Nickel and TPA Program?

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, the Pre-Existing Funds (PEF) projects are funded at the program level. Funding is aligned to commitments to address

set priorities such as number of miles paved per biennium. Each biennium, new PEF projects are programmed based on prioritized needs and available funds so the list of PEF projects changes each biennium.

Because Nickel and TPA projects were defined and budgeted at the project level from the beginning, milestones and other benchmark data to monitor individual project delivery were established and are available. However, since PEF projects have been historically funded by program category, this type of data has not been collected and is not currently available. Future programs will collect benchmark project data such as for the milestones reporting.

### Milestone tracking for Pre-Existing Funds Projects

Number of projects with milestones, 2007-09 biennium-to-date, milestone and expenditure achievement-to-date

Dollars in millions

Programmatic categories	Begin engineering		Advertised for bids		Operationally complete		Expenditures	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Pavement preservation	49	49	54	49	82	79	\$107	\$95
Bridges (preservation/replacement)	19	18	16	13	13	9	\$46	\$38
Slope stabilization	8	10	7	9	6	7	\$5	\$11
Safety (roadside, rumble strips, median cross-over, etc.)	26	27	13	20	21	20	\$53	\$34
Environmental retrofit (fish passage improvement, stormwater runoff)	9	9	1	1	4	5	\$4	\$4
Other facilities (rest area, weigh stations, etc.)	5	9	13	12	14	20	\$71	\$59
<b>Totals</b>	<b>116</b>	<b>122</b>	<b>104</b>	<b>104</b>	<b>140</b>	<b>140</b>	<b>\$287</b>	<b>\$242</b>

Data Source: WSDOT Project Control and Reporting Office.

Note: 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.

# WSDOT's Capital Project Delivery Programs

## Pre-existing Funds Projects: Advertisement Record

### Corrections to previously reported Pre-Existing Funds project contract costs

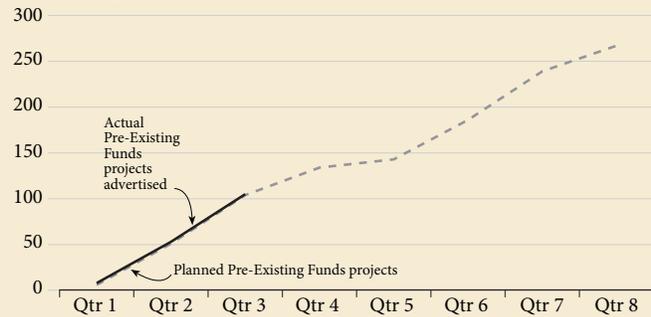
The "Total Department's Estimate" and "Total Award Amount" reported in the last *Gray Notebook* for the quarter ending December 31, 2007, pie chart were incorrect and have been corrected in this edition. The previously reported amounts were \$7.5 million and \$6.9 million respectively, and the error occurred due to several problems with the new reporting system, Project Control Reporting System (PCRS). The data has been manually updated while system enhancements are being made.

### Advertisement Record: 105 projects advertised for construction as of March 31, 2008

The 2007-09 Highway Construction Program includes a commitment to advertise 267 Pre-Existing Funds (PEF) projects. There were 105 PEF advertisements planned through the quarter ending March 31, 2008, and 105 advertisements were achieved in those three quarters. Of the 105 scheduled, 22 were delayed to future quarters of this biennium, three were deferred to future biennia, and zero projects were deleted.

### Highway construction program advertisements Pre-Existing Funds projects

Planned vs. actual number of projects advertised  
2007-2009 biennium, quarter 3 ending March 31, 2008  
Number of projects



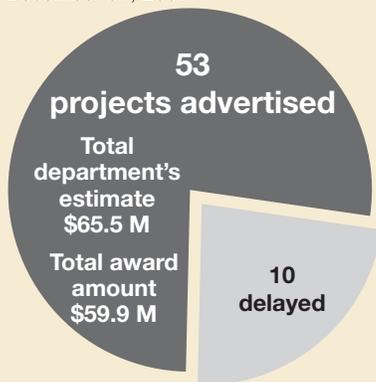
Data Source: WSDOT Project Control and Reporting Office.

### Current quarter (January 1 - March 31, 2008)

For this quarter, 53 planned PEF advertisements were planned. Thirty-nine of these projects were advertised as scheduled. Eleven of the planned advertisements were delayed to later in this biennium, one has been deferred to a future biennium, and zero were deleted. There were five advanced, one emergent, and seven delayed projects advertised.

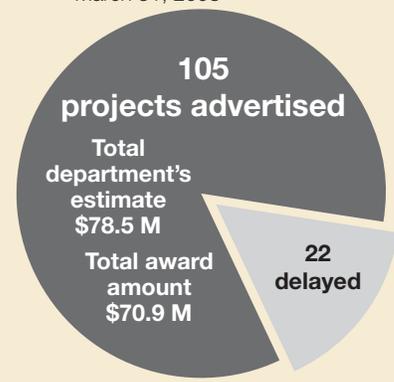
## Pre-Existing Funds projects: A snapshot of quarterly progress and total biennial progress to date

End of last quarter  
December 31, 2007



	Projects through last quarter	This quarter's progress	Biennium to date total
<b>Projects advertised</b>			
As scheduled	38	39	77
Project ads early	6	5	11
Project ads late	5	7	12
Emergent projects	4	1	5
<b>Total advertised</b>	<b>53</b>	<b>52</b>	<b>105</b>
<b>Projects delayed</b>			
Within the biennium (delayed)	8	11	19
Out of the biennium (deferred)	2	1	3
<b>Total delayed</b>	<b>10</b>	<b>12</b>	<b>22</b>
<b>Projects deleted</b>			
Projects deleted	0	0	0
<b>Total deleted</b>	<b>0</b>	<b>0</b>	<b>0</b>

End of this quarter  
March 31, 2008



Note: Due to WSDOT's ongoing effort to analyze and correct project data, the number of advertised projects will be updated to reflect small changes from quarter to quarter. Data has been updated and revised since PEF project data was last reported.

# WSDOT's Capital Project Delivery Programs

## Pre-existing Funds Advertisement Record

### Projects scheduled for advertisement or advertised this quarter

January 1, 2008 – March 31, 2008

Project description	On-time advertised	Project description	On-time advertised
Clark/Wahkiakum counties - Seismic strengthening of three bridges	√	I-90/West Nelson Siding interchange - Electrical light system	√
WSDOT region-wide safety - Shield redirection landforms/Safety	√	I-90/Golf Course Road interchange - Electrical light system	√
US 2/Corridor rumble strips - safety	advanced	US 101/Purdy Creek Bridge - Replace bridge	delayed
US 2/US Forest Service Road vicinity to Money Creek vicinity - Paving	advanced	US 101/C Street vicinity to Chehalis River Bridge - Paving	√
US 2/East end Odabashian Bridge - Loop trail connection	advanced	US 101/West of Oak Street to Little Hoquiam River Bridge - Paving Advertisement was delayed to reduce the traffic impacts to the Aberdeen and Hoquiam communities during multiple projects during the 2008 construction season.	delayed
US 2/Deep Creek Bridge - Spokane vicinity - Special repair Advertisement delay due to redesign of the installation method for three-beam guardrail across the bridge.	delayed	US 101/South of west fork of the Hoquiam River Bridge to north of Boulder Creek Bridge - Chip seal	√
SR 3/Dawn Drive vicinity to East Homestead Drive vicinity - Paving	√	SR 109/Junction of US 101 to SR 109 Spur - Paving	delayed
I-5/Northbound CD at SR 900 - Paving	√	SR 109/North of Harborview Court to south of Grass Creek Bridge - Paving Project has been delayed because of other construction activity around Grays Harbor during this time.	delayed
I-5/James Street Ramp Terminals - Signal rebuild	√	SR 124/South Lake Road to 1.4 miles east of Walkler Road - Paving	√
I-5/Spring Street/southbound on-ramp - Traffic signal Advertisement date delay due to combining this project with the "I-5/NE 50th Street" and "I-5/James Street" signal projects. The projects will be advertised under the same contract for contracting efficiency.	late	SR 162/Orville Road to SR 165 - Paving	√
I-5/Northeast 50 <sup>th</sup> Street - Signal rebuild	√	SR 166/SR 16 to Blackjack Creek - Paving Project schedule was delayed to accommodate local agency's major utility project in the project location.	delayed
I-5/47 <sup>th</sup> Avenue SW to 48 <sup>th</sup> Street vicinity - Median barrier replacement	early	SR 194/Almota to the junction of US 195 - Chip seal	√
I-5/Southbound bridge stringer crack repair This is a Oregon Department of Transportation led project.	late	SR 225/Benton City to SR 240 - Paving	√
SR 8/South of Mox Chehalis Road, east to north of Cooper road - Chip seal	delayed	SR 241/SR 22 to Sheller Road - Paving	√

# WSDOT's Capital Project Delivery Programs

## Pre-existing Funds Advertisement Record

### Projects scheduled for advertisement or advertised this quarter

January 1, 2008 – March 31, 2008

Project description	On-time advertised	Project description	On-time advertised
SR 9/Thunder Creek Bridge - Bridge scour	√	SR 272/Colfax to Idaho State Line - 2008 Chip Seal	√
US 12/US 101 to Sargent Boulevard vicinity - Paving	√	SR 290/Starr Road intersection - intersection improvements Advertisement delayed to complete intersection analysis required by the design manual to determine the best solution.	late
US 12/Rimrock Lake Central vicinity - Stabilize slope	√	SR 300/Belfair State Park to SR 3 - Chip seal	√
US 12/Rimrock Lake vicinity - Stabilize slope	√	I-405/Thunder Hills Creek Culvert - Emergency repair	emergent
US 12/Walla Walla to Waitsburg - Centerline rumble strips	√	SR 410/Pine Creek Road to Cliffdell - Paving	√
US 12/Turner Road to Messner Road - Paving	√	SR 410/Nile Rd to Mud Lake Rd - Paving	√
US 12/Columbia Way to Rail Road Bridges - Paving	√	SR 503/ Brush Prairie to Battle Ground - Median rumble strips/Safety	√
SR 14/Paterson to I-82 - Centerline rumble strips	advanced	SR 507/Thurston County Line to Old Hwy 99 vicinity - Chip seal	√
SR 14/WSDOT Southwest region line To Whitcomb Island - Paving	√	SR 516/160 <sup>th</sup> Avenue southeast to Covington city limits - Paving Advertisement date delay due to schedule conflict with City of Covington projects. The City has scheduled multiple projects within the project limits.	delayed
SR 20/Coal Creek Bridge - Scour	√	SR 525/Clinton ferry terminal to Bob Galbreath Road - Paving	√
SR 20/Ferry County Line to Republic - Crack seal repair Advertisement delayed to combine this project with the "2009 Chip Seal" project to increase economic efficiency.	delayed	SR 526/40 <sup>th</sup> Ave West vicinity to Casino Road - Paving	√
SR 526/Airport Rd to Seaway Blvd - Signal and illumination rebuild Advertisement date delay is a result of combining several Signal and Illumination projects ("SR 526/Sign Structure Replacement", "SR 526/Airport Rd to Seaway Illumination Rebuild" and "SR 526/Paine Field Blvd Signal Rebuild") with "SR 526/SR 525 vicinity to Casino Road" paving project. All these projects will be advertised under the same contract for contracting efficiency and reducing interruption to traveling public.	late	SR 526/Paine Field Boulevard - Signal rebuild Advertisement date delay is a result of combining several Signal and Illumination projects ("SR 526/Sign Structure Replacement", "SR 526/Airport Rd to Seaway Illumination Rebuild" and "SR 526/Paine Field Blvd Signal Rebuild") with "SR 526/SR 525 vicinity to Casino Road" paving project. All these projects will be advertised under the same contract for contracting efficiency and reducing interruption to traveling public.	late
SR 20/Pend Oreille Mill to Newport - Chip seal	√	SR 20/Tiger to Ruby Mountain - Chip seal	√
SR 528/I-5 to SR 529 vicinity - Paving Advertisement date delay due to the need for additional traffic data to support a traffic control design that minimizes traffic impact on heavily congested SR 528. Extra time was also needed for coordination with the City of Marysville to protect the city water main under the roadway during construction.	late	SR 526/Sign structure replacement	late
		Advertisement date delay is a result of combining several Signal and Illumination projects ("SR 526/Sign Structure Replacement", "SR 526/Airport Rd to Seaway Illumination Rebuild" and "SR 526/Paine Field Blvd Signal Rebuild") with "SR 526/SR 525 vicinity to Casino Road" paving project. All these projects will be advertised under the same contract for contracting efficiency and reducing interruption to traveling public.	

# WSDOT's Capital Project Delivery Programs

## Pre-existing Funds Advertisement Record

### Projects scheduled for advertisement or advertised this quarter

January 1, 2008 – March 31, 2008

Project description	On-time advertised	Project description	On-time advertised
SR 25/Bosburg to Canadian border - Paving	early	SR 23/Junction US 195 to Lincoln County Line - Chip seal	√
SR 26/Brink Road to Fairgrounds Road vicinity - Crack seal repair	√	SR 542/Baptist Camp Creek - Fish barrier removal Advertisement date was delayed due to additional time needed to reach a settlement on the purchase price of the final parcel required for this project.	delayed
SR 27/Cannon Street to Manring Street vicinity- Chip seal	√	SR 542/Bruce Creek - Culvert replacement and realignment Advertisement date was delayed due to additional time needed to reach a settlement on the purchase price of the final parcel required for this project.	delayed
SR 31/Tiger to Canada - Chip seal	√	SR 900/South Boeing Access Road to I-5 Interchange - Paving	√
I-90/Cle Elum vicinity - Install barrier	advanced	SR 900/Bronson Way N to Sunset Blvd N - Paving Advertisement date delay to balance the financial plan for the 2009-11 pavement program budget proposal.	deferred

# WSDOT's Capital Project Delivery Programs

## Pre-existing Funds Projects: Financial Information

### Paying for the projects: financial information

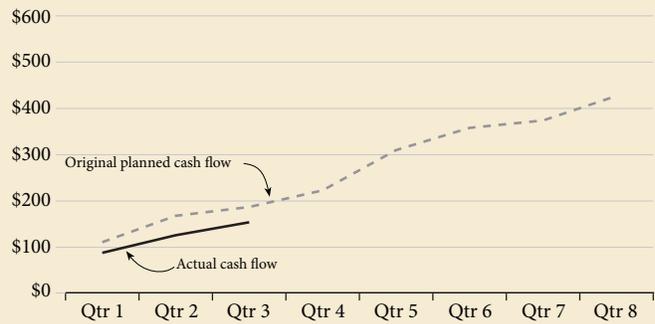
WSDOT submitted an expenditure plan to the Legislature for the third quarter of the biennium totaling approximately \$287 million. As of March 31, 2008, actual expenditures totaled \$242 million, a variance of approximately \$45 million, or 16 percent, from the biennium plan. The variance as of the end of the third quarter for the Highway Construction Program was divided between the Improvement and Preservation Programs.

The Preservation Program planned, cash flow was \$171 million, and actual expenditures were \$154 million. This was \$17 million under plan, or 10 percent.

The Improvement Program planned, cash flow was \$117 million, and actual expenditures were \$88 million. This was approximately \$28 million under plan, or 24 percent.

### Preservation Program cash flow Pre-Existing Funds

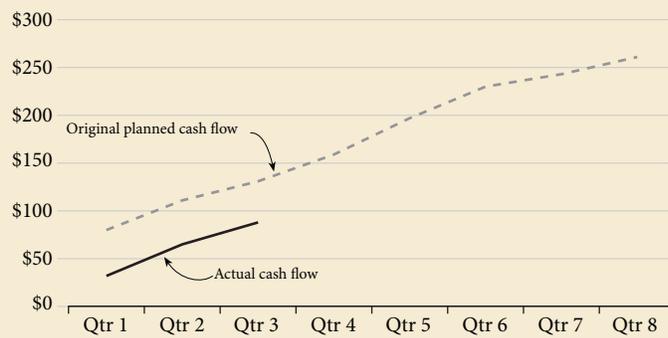
Planned vs. actual expenditures  
2007-2009 biennium, quarter 3 ending March 31, 2008  
*Dollars in millions*



Data Source: WSDOT Project Control and Reporting Office.

### Improvement Program cash flow Pre-Existing Funds

Planned vs. actual expenditures  
2007-2009 biennium, quarter 3 ending March 31, 2008  
*Dollars in millions*



Data Source: WSDOT Project Control and Reporting Office.

# WSDOT's Capital Project Delivery Programs

## Pre-existing Funds Reporting by Program

### Five individually-tracked PEF projects: results through March 31, 2008

Dollars in millions

Project description	First legislative budget	Baseline: current legislative approved	Scheduled date to begin preliminary engineering	On-time	Scheduled date for advertisement	On-time	Scheduled date to be operationally complete
SR 28/E End of the George Sellar Bridge - Construct bypass (Douglas) <small>The construction phase has been delayed to balance the financial plan 07-09 biennium Legislative book.</small>	\$9.4 (2004)	\$17.0 (2007)	May-04	√	Oct-09	√	Sep-11
SR 202/SR 520 to Sahalee Way - Widening (King)	\$36.9 (2001-03)	\$82.7 (2007)	May-98	√	Aug-05	√	Dec-08
SR 303/Manette Bridge Bremerton Vicinity - Replace bridge (Kitsap) <small>The construction phase has been delayed to balance the financial plan 07-09 biennium Legislative book.</small>	\$25.5 (2002)	\$64.9 (2007)	Sep-96	√	Mar-10	√	Jun-13
US 101/Purdy Creek Bridge - Replace bridge (Mason)	\$6.0 (2004)	\$13.0 (2007)	Aug-04	√	May-08	Late	Jan-10
SR 539/Horton Road to Tenmile Road - Widen to five lanes (Whatcom)	\$32.0 (2001-03)	\$65.9 (2007)	Oct-90	√	Jan-07	√	Oct-08

Source: WSDOT Project Control and Reporting Office.

# WSDOT's Capital Project Delivery Programs



## Special Report: Tacoma Narrows Bridge Construction Final Update

### Tacoma Narrows Bridge reaches completion

As of March 31, 2008, design-builder Tacoma Narrows Constructors (TNC) has completed 100% of construction on the SR 16 Tacoma Narrows Bridge project, making this the last of such special reports. In the last quarter, TNC completed the guard-rail on the north side of the 1950 bridge, as well as constructing the concrete barrier at the approaches and opening all lanes of traffic on the 1950 bridge. For the remainder of the quarter, TNC addressed remaining punch-list items, working towards WSDOT's project acceptance and demobilization requirements.

### Tacoma Narrows Bridge progress to date

*As of March 31, 2008*

Activity	Percent Complete
Design	100%
Construction	100%
<b>Total<sup>1</sup></b>	<b>100%</b>

Data Source: WSDOT Engineering and Regional Operations Division.  
<sup>1</sup>Weighted 7% Design progress and 93% Construction progress.

This five-and-a-half year project has built improvements along 3.4 miles of State Route 16 between Jackson Avenue in Tacoma and 36th Street NW in Gig Harbor. The highlight of the project is a mile-long suspension bridge built parallel to and south of the 1950 Tacoma Narrows Bridge. Other improvements include a new bridge maintenance facility, environmental mitigation projects including the removal of older creosote pilings from Titlow Beach, a new toll facility for both manual and electronic toll collection, a new half-diamond interchange, a new overpass, improved access to SR 16, an eastbound and westbound HOV lane, drainage improvements, a new bicycle/pedestrian path, retrofit and deck work on the 1950 Tacoma Narrows Bridge, and numerous safety improvements in the bridges' vicinity.



The new 2007 Tacoma Narrows Bridge in the foreground and the older 1950 Tacoma Narrows Bridge in the background, spanning Puget Sound.

From the outset, the scope and complexity of the SR Tacoma Narrows Bridge Project required WSDOT to employ unique approaches to complete construction of both the bridge and the supportive infrastructure. WSDOT used a design-build contracting approach for the \$849 million project, a more common practice in the U.S. among agencies responsible for procuring mega-scale transportation infrastructure. The practice transferred much of the risk that is normally borne by WSDOT to the prime contractor TNC. This also allowed WSDOT and TNC to jointly handle the challenges as they arose, including dealing with corroded wire for the main suspension cables of the bridge, maintaining a safe working environment despite the harsh marine conditions, and working with bridge subcontracts during day-to-day operations, and some legal challenges involving the assembly of the 46 new deck sections.

In addition to the design and construction challenges faced by TNC and WSDOT, the completed Tacoma Narrows Bridge would bring about the first tolling operations in Washington State in over 20 years. Initial public discontent over tolls required that WSDOT engage in a tremendous amount of public outreach to address issues such as how the Transportation Commission would go about setting toll rates and how Washington State would develop a system of Washington Administrative Codes (WACs) to address toll infractions and collection. Each tolling issue was overcome by partnering with affected communities and using a cooperative problem-solving approach. WSDOT also worked closely with its toll operations contractor TransCore to implement the first electronic toll collection system on Washington State's highways. The success of the overall TNB project and toll collection was critical to setting the stage for future design-build and toll projects in Washington State.

### Improved travel times sustained on SR 16 bridges

A daily average of 40,000 vehicles crossed the new Tacoma Narrows Bridge eastbound during this quarter. This level is comparable to traffic levels from the previous year (when tolling was not initiated), despite the initial projections that tolls would lead to a 10-15 percent decrease in traffic.

### Electronic tolling proves successful

Over 10 million vehicles crossed the new Tacoma Narrows Bridge during its first eight months of operation, with more than 70 percent using the electronic *GoodToGo!* toll collection system. This option is particularly popular among morning commuters, with over 85 percent using the electronic toll lanes. By the end of December, 2007, over 92,000 *GoodToGo!* accounts (some with multiple vehicles, each requiring a transmitter) had been established, with more than 220,000 transponders distributed.

# WSDOT's Capital Project Delivery Programs



## Special Report: Tacoma Narrows Bridge Tolling Operations, Quarterly Update

Only two percent of drivers failed to pay the toll during this quarter – far below the double-digit violation rates experienced in tolling facilities elsewhere in the United States. Over 85,000 citations have been issued to date. Over 90 percent of this quarter's violations occurred in the electronic toll lanes, when drivers without *GoodToGo!* accounts bypassed the toll booths and stayed in the electronic lanes.

For more information on the *GoodToGo!* toll collection system, visit <http://www.wsdot.wa.gov/goodtogo/>.

### Toll revenue on target

An average of \$80,330 each day was collected in electronic and cash tolls on the Tacoma Narrows Bridge this quarter. The discounted toll rate of \$1.75 for *GoodToGo!* customers, compared to \$3.00 for cash toll payers, will continue through June 30, 2008. The Tacoma Narrows Bridge Citizen Advisory Committee recommended, and the Transportation Commission concurred, that a discount should be continued for *GoodToGo!* customers. The Transportation Commission recommended that the future toll rate be \$2.75 for *GoodToGo!* customers and \$4.00 for cash toll payers. These recommended rates will be the subject of two public hearings by the Transportation Commission in May, with a final vote on the toll rate due to be held on May 27, 2008. The new rates would go into effect on July 1, 2008, and continue through June 30, 2009.

A total of \$21 million has been collected in tolls since the bridge opened on July 16, 2007. This is in line with the original projections for the first months of operation, even though initial projections called for a decrease in traffic that never occurred. However, the success of the electronic toll collection program resulted in more drivers paying \$1.75 than \$3.00, so the average toll paid was less than projected. The two variables offset one another and ultimately led to actual revenues which are on target for the first eight months of operation.

Approximately 60% of every toll is allocated to make the bond payments used for construction of the bridge. The remaining 40% is allocated for the toll operations contract; WSDOT oversight; maintenance and preservation; enforcement; and insurance. By 2014, roughly 75% of each toll collected will be used to pay the debt service on the bridge. It is estimated that the bridge debt service will be paid off in calendar year 2030.

The 2008-09 Supplemental Budget enacted by the legislature includes \$42 million to pay for debt service and \$28.3 million for the two-year period to pay for the maintenance and operation of the bridge.

### WSDOT will report on tolling operations results

WSDOT is holding the tolling contractor, TransCore, accountable for a high level of accuracy in tolling operations. TransCore was required to successfully pass performance guarantee acceptance tests within the first six months of tolling operations. The tests, which were conducted under normal tolling and live operating conditions, began on November 1, 2007 and concluded 60 days later on December 31, 2007. These tests specify a high level of accuracy in electronic toll collection, vehicle classification, violation imagery, lane availability, and customer service center computer system availability. The contracts call for accuracy within the overall tolling system that is no less than 99.5%. Results are currently being analyzed and will be released during the next quarter and published in the next *Gray Notebook*. Follow-up tests are required at least once a year. However, TransCore is allowed to perform more tests at their discretion.

Both the toll collection and accounting system and toll systems operating agreements include accuracy and availability performance guarantees that are required to be performed on an annual basis. There are a total of 30 targets that WSDOT will track. Preliminary reports for this quarter indicate that targets are being reached, including:

- Handling 95% of inbound phone calls to the service center in 30 seconds (goal is at least 80%);
- Keeping the number of calls abandoned at 3% or less;
- Fulfilling requests for new or replacement transponders within two days (goal is three days);
- Processing 98% of license plate data from the video-toll system and sending to the Department of Licensing within two business days; and
- Correctly entering 99.9% of all license plate data on the first review.

These and other contractual measures will be used by WSDOT to evaluate tolling operations and published regularly in the *Gray Notebook* to evaluate the systems through the remainder of the five-year contract with TransCore.

# WSDOT's Capital Project Delivery Programs



## Special Report: SR 104 Hood Canal Bridge East-Half Replacement and West-Half Retrofit

### Overall project completion rate 73%

As of March 31, 2008, the SR 104 Hood Canal Bridge project was 73% complete. WSDOT is on schedule to deliver the new eastern half of the bridge during the May-June 2009 bridge closure.

This project is being delivered as a target price contract. The target price includes all actual costs to build the project plus a predetermined lump sum fee and incentives for schedule and budget performance. Project cost trends for anchor and pontoon construction and outfitting have exceeded the initial target cost estimate. If the current trend continues, the cost to complete the project will exceed the budget. The project team is working closely with the contractor to analyze actual cost trends, to predict future costs, and to look for ways to improve and explore cost-saving opportunities.

### Pontoon construction 85% complete

In February the third cycle of pontoons was floated out of the graving dock. The cycle included the completed construction of pontoons V, X, ZC, and ZD. Pontoons V and X will be among the bridge's new roadway pontoons while pontoons ZC and ZD will be joined to form the retractable portion of the new draw span assembly.

With 12 of the 14 new pontoons finished, crews have started work on the fourth and final construction cycle. WSDOT is currently constructing pontoons U and W, which are scheduled for completion in August 2008.

### West-half leak detection system 88% complete

Crews continue installing the electrical components that sense water inside each of the 19 west-half pontoons. Similar systems are being installed in the new east-half pontoons as they are constructed. Weather prohibited WSDOT from conducting leak detection tests during the winter months, but crews expect to complete the work in May 2008.



Crews guide Pontoon X out of the Tacoma graving dock in February.

### Upcoming work and milestones

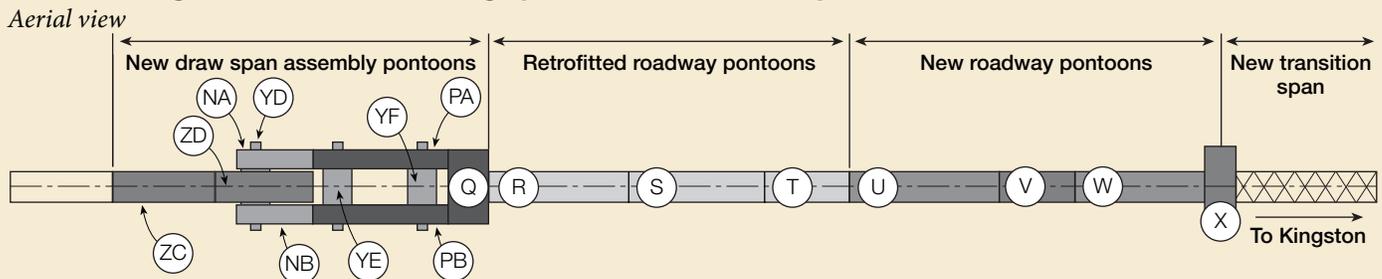
The fourth cycle pontoon float out from the graving dock in August 2008 will mark the completion of new pontoon construction for the Hood Canal Bridge project.

Fourth cycle pontoons U and W will be transported to Seattle where they will be connected with pontoons V and X in September. The four pontoons, spanning more than three football field lengths, will be assembled in September in Seattle to make up the bridge's easternmost floating section.

Two steel trusses, each about 280 feet in length, are scheduled for completion in December 2008. The spans are being constructed in Vancouver, Washington, and will connect the floating bridge to stationary roadways on the Olympic and Kitsap peninsulas.

The new trusses and pontoon sections will replace the existing structures when the eastern half of the bridge is closed for replacement in May-June 2009.

### Schedule diagram of Hood Canal bridge pontoon construction cycles



■ First cycle (PA, PB, Q). Completed: December 2006.

■ Third cycle (ZC, ZD, V, X). Scheduled completion: April 2008.

■ Retrofitting (R, S, T). Completed: September 2007.

■ Second cycle (NA, NB, YD, YE, YF). Completed: July 2007.

■ Fourth cycle (U, W). Scheduled completion: September 2008.

Source: WSDOT Hood Canal Bridge Project Office

# WSDOT's Capital Project Delivery Programs

## Special Report: Tacoma/Pierce County HOV Program, Quarterly Update

The Tacoma/Pierce County HOV Program is a series of improvement projects that adds 79 high-occupancy-vehicle (HOV) lane miles and other improvements on I-5, SR 16 and SR 167, easing congestion and increasing safety. Funded projects are scheduled to be completed in 2023. Current available funding for this program is nearly \$1.6 billion.

### Completed projects

	On-Time	On-Budget
I-5 - 38 <sup>th</sup> Street interchange	√	√
I-5 - South 48 <sup>th</sup> Street to Pacific Avenue	√	√
SR 16 - Sprague Avenue interchange to Snake Lake	√	Over
SR 16 - Pearl Street/6 <sup>th</sup> Avenue to Jackson Avenue	√	√
SR 16 - 36 <sup>th</sup> Street interchange to Olympic Drive	√	Under
SR 16 - Union to Jackson Avenue	*	*

\*While operationally complete, construction continues for this project. On-time, on-budget numbers will be reported when the project is fully completed.

### Port of Tacoma area projects

The HOV program includes two projects that span I-5 between Tacoma's Portland Avenue and the Port of Tacoma Road. One project focuses on northbound I-5; the other on southbound. In the projects, crews will build HOV lanes in both directions of I-5 and build new bridges spanning the Puyallup River.

Consultation with the Puyallup Tribe of Indians is ongoing for geotechnical, environmental, and cultural resource work taking place on tribal property. Engineers are analyzing property needs for highway and ramp construction, and structural alternatives for new bridges to replace the existing Puyallup River bridges.

### Highlighted projects in the design phase

#### I-5/SR 16 - Westbound Nalley Valley

The design plans for the I-5/SR 16 Westbound Nalley Valley project are undergoing the first of two internal review processes in preparation for advertisement to the contracting community in July. The review process involves subject experts scrutinizing the plans to ensure consistency, accuracy and quality. While that work is ongoing, the design team is completing plans for a sewer relocation project and a wetlands mitigation project associated with the Westbound Nalley Valley project. They are also securing various permits needed for construction activities.

#### I-5 - Port of Tacoma Road to King County Line

Preliminary design work on this project is moving forward. During this quarter, staff completed quality control work on initial roadway design plans. Engineers completed 3-dimen-

sional surface modeling for the I-5 alignment and ramp design revisions, and they completed preliminary erosion control plans. Environmental Species Act consultation work is scheduled to begin before the summer. WSDOT estimates that the design will be ready for construction in summer 2009, but there are concerns about meeting an early 2009 advertisement date.

### Highlighted project

#### I-5 - 48<sup>th</sup> Street to Pacific

Construction crews, WSDOT and City of Tacoma officials, and members of the local community came together on March 17 to hold a ribbon-cutting ceremony to commemorate the opening of the new Delin Street underpass spanning I-5. The new Delin Street underpass was the second of two bridges built as part of the I-5 48th to Pacific project. The first underpass, Yakima Avenue, opened a few weeks earlier on February 29.

The two bridges replace three underpasses crews demolished to make room for widening I-5 through downtown Tacoma. Two of the previous three bridges were one-way only. The new Delin Street underpass is a four-lane, two-way bridge that replaces the one-way Delin Street and Tacoma Avenue underpasses.



Students from Holy Rosary School help Secretary of Transportation Paula Hammond cut ceremonial ribbons and walk across the new bridge during the opening ceremony. Also present (from left to right) are Project Engineer Howard Diep, Tacoma Mayor Bill Baarsma, Olympic Region Administrator Kevin Dayton, and FHWA Division Administrator Dan Mathis.

### New format in the next issue of the Gray Notebook

The Tacoma/Pierce County HOV Team is refining its approach to delivering this program. To achieve efficiencies and economies in project delivery, the construction package in the HOV work plan is being modified. An explanation of that project refinement will be presented in next quarter's Gray Notebook.

For more information about the Tacoma/Pierce County HOV Program and its individual projects, visit [tacomatraffic.com](http://tacomatraffic.com).

# Cross Cutting Management Issues

## Project Management Information Systems

WSDOT's current capital construction program is three times larger than the normal biennial construction program. The supplemental funds allocated with the 2005 Transportation Partnership Account (TPA), when combined with the funding approved from the 2003 Nickel finance package, created an unprecedented project delivery challenge. WSDOT's goal is to successfully manage the risks generated by this historically large project delivery challenge.

To ensure that the projects are delivered on time and on budget, WSDOT assessed its project management, control and reporting capabilities. WSDOT looked to other state transportation departments that implemented best management practices such as project management plans, scope management, work breakdown structures, and risk management.

In 2006, WSDOT received approval to begin development of the Project Management and Reporting System (PMRS). This system is designed to utilize commercial "off-the-shelf" software for transportation project management, document management, archival needs and workflows. PMRS integrates the new software with WSDOT's legacy systems, as well as a web portal for reporting key project information. The system will provide tools for project and agency managers to better identify risks early, track performance of individual projects, and improve planning and decision making.

### Recent developments in the deployment process

WSDOT has changed its deployment strategy for PMRS. Rather than completing the development and procurement of all of the necessary components before deploying the system, it will begin using individual components as soon as they become available. The original PMRS plan called for deployment to almost all of the capital projects to begin in August 2009. With the new plan, users will begin using the tools as early as July 2008. The additional time allotted will allow users to begin using the components earlier one at a time, becoming accustomed to the individual processes and intricacies of the new tools.

### Completed activities (October 1, 2007 - March 31, 2008):

- Project electronic content management pilots (architecture that integrates functions to make content accessible agency-wide) completed for the Alaska Way Viaduct project and the Eastern region.
- Policies and procedures were completed for use of project management tools.
- Training materials were developed for project electronic content management and drafted for the *Primavera*® project manager software.
- Forty staff were trained in project electronic content management software in the last two quarters.

### Activities scheduled for completion (April 1, 2008 – September 30, 2008)

- WSDOT will begin the agency-wide deployment of project electronic content management.
- Agency-wide training will launch for *Primavera*® project manager software.
- In addition to training, agency-wide deployment of *Primavera*® project manager will also begin.

### Key Performance Highlights:

Project electronic content management pilots were completed for the Alaska Way Viaduct project and the Eastern region.

Policies and procedures documentation completed for use of project management tools.

Training materials were completed for project electronic content management and drafted for *Primavera*® project manager software.

# Cross Cutting Management Issues

## Use of Consultants

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: On-Call Task Orders and Project-Specific Agreements.

On-Call Task Order Agreements comprise the majority of the funds spent on consultant contracts. Every six months, WSDOT assesses the types of work services that it consistently uses. Examples of services for which WSDOT uses consultants include 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 multiple On-Call Task Order agreements for each category. Next, WSDOT regions will determine if work can be completed using an On-Call Task Order Agreement.

The Project Specific Agreements, which are individually advertised by project, are typically used for work that cannot be performed using an On-Call Task Order Agreement. For example, WSDOT might use a project specific agreement to design a ferry terminal or to develop layout plans for an airport. For a breakdown of the total expenditures from October 1, 2007 through March 31, 2008, see the first table on the following page.

From October 1, 2007 to March 31, 2008, the net totals of new consultant expenditures were \$64,261,868 for On-Call Task Order Agreement projects and \$20,869,761 for Project Specific Agreement projects. During this six-month period, a wide array of projects received funds. However, following the pattern of previously reviewed periods, the bulk of *new* expenditures were directed towards a few specific projects.

### On-Call Task Order consultant agreements

One hundred-five On-Call Task Order Agreements had Nickel project expenditures during the period of October 1, 2007, to March 31, 2008. The total expenditures for services rendered were \$13,755,530 for 67 prime consultant firms. One hundred-three On-Call Task Order Agreements had Transportation Partnership Account (TPA) project expenditures during this period; expenditure totals were \$29,366,200 for 60 prime consultant firms. The overall statewide On-Call Task Order Agreement consultant expenditures (excluding Nickel, TPA, and General Engineering consultants) for the same period were \$21,140,139. For a list of significant authorizations for On-Call consultants, see the second table on the following page.

### General Engineering consultant agreements

As discussed in the March 31, 2007, *Gray Notebook* (p. 40), eight high-profile General Engineering consultant (GEC) projects were to receive consultant authorizations from On-Call Task Order Agreements during the period of October 1, 2007, to March 31, 2008. GEC expenditure totals were \$30,132,459, divided between eight prime consultant firms, of which \$5,792,234 were Nickel funds and \$24,340,255 were TPA funds. No Pre-Existing Funds (PEF) were spent. For a breakdown of the total expenditures from October 1, 2007, through March 31, 2008, see the third table on the following page.

### Project specific agreements and supplements

From October 31, 2007, to March 31, 2008, new expenditures for project specific Nickel agreements and/or supplements totaled \$7,442,276 were divided between 28 prime consultants. New expenditures for project specific TPA agreements and/or supplements were \$8,824,644, divided between 25 prime consultants received expenditures from project specific TPA agreements. All non-Nickel/TPA project specific consultant authorizations totaled \$4,602,842. The fourth table on the following page lists significant authorizations for project specific agreements.

### Consultant utilization definitions & examples

Authorization type	Description	Project examples	Service performed by consultant
On-Call 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.	US 12 - Wallula to Walla Walla Corridor Study	David Evans and Associates conducted a preliminary environmental investigation on preferred corridor alignments for US 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	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 Program Division.

# Cross Cutting Management Issues

## Use of Consultants

### Consultant expenditures

For October 1, 2007 - March 31, 2008, dollars in millions

Consultant agreement	Nickel	TPA	PEF	Total
On-Call Task Order Consultant Agreements (including General Engineering Consultant agreements, see below)	\$19.7	\$53.7	\$21.1	\$94.5
Project Specific Agreements/ Supplements	\$7.4	\$8.8	\$4.6	\$20.8
<b>Totals</b>	<b>\$27.1</b>	<b>\$62.5</b>	<b>\$25.7</b>	<b>\$115.3</b>

Data Source: WSDOT Consultant Program Division

### Significant authorizations for On-Call Consultants

October 1, 2007 - March 31, 2008, dollars in millions

Project (funding source)	Consultant	Total expenditures
Columbia River Crossing Project (TPA)	David Evans & Assoc., Inc.	\$7.8
Statewide Program Management Consultant (Nickel, TPA, PEF)	PB Americas, Inc.	\$2.9
On-Call Public Involvement Services (Nickel)	EnviroIssues	\$1.4
SR 167 Extension General Engineering Contractor (Nickel)	Carter & Burgess, Inc.	\$2.3
Urban Corridors Office On-Call Engineering Management (Nickel, TPA, PEF)	Parametrix, Inc.	\$1.9
Alaska Way Viaduct and Seawall Environmental Impact Statement (Nickel, TPA, PEF)	PB Americas, Inc.	\$3.4

Data Source: WSDOT Consultant Program Division

### Expenditures for General Engineering Consultants<sup>1</sup>

October 1, 2007 - March 31, 2008, dollars in millions

Project	Consultant	Expended this period
GEC Alaskan Way Viaduct & Seawall Replacement Project	Hatch Mott MacDonald	\$1.3
GEC I-90 Snoqualmie Pass East - Hyak to Keechelus Dam	URS Corporation	\$4.0
GEC Northwest Region Mt. Baker Area	H.W. Lochner, Inc.	\$1.1
GEC Northwest Region Snohomish & King Counties Area Projects	DMJM Harris, Inc	\$0.9
GEC SR 167 Extension	Carter & Burgess, Inc.	\$2.3
GEC SR 167 Valley Freeway Corridor	Perteet, Inc.	\$0.8
GEC SR 520 Bridge Replacement and HOV Project	HDR Engineering, Inc.	\$0.9
GEC Tacoma/Pierce County HOV Program	CH2M Hill, Inc.	\$12.3
<b>Totals</b>		<b>\$24.0</b>

Data Source: WSDOT Consultant Program Division

<sup>1</sup> All General Engineering Consultant Agreements are funded through the 2005 Transportation Partnership Account.

### Significant authorizations for project specific consultants

October 1, 2007 - March 31, 2008, dollars in millions

Project (funding source)	Consultant	Total expenditures
I-405 General Engineering Consultant (Nickel)	HNTB Corp.	\$11.7
I-90 Two Way Transit and HOV Operations (Nickel, TPA)	HNTB Corp.	\$1.0
SR 522 Snohomish River Bridge to US 2 (Nickel)		\$1.1
SR 520, West Lake Sammamish Boulevard to SR 202 (Nickel)	CH2M Hill, Inc.	\$1.2

Data Source: WSDOT Consultant Program Division

# Cross Cutting Management Issues

## Construction Material Cost Trends

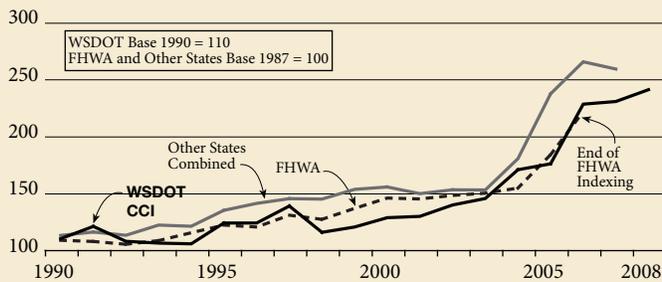
WSDOT prepares construction cost estimates using historical information about market conditions drawn from recent bids. Like other state transportation departments, WSDOT must extrapolate for the future based on past records. WSDOT accumulates construction cost information and calculates a Construction Cost Index (CCI). The CCI is then compared against the experience of other western states. WSDOT's CCI is a composite of unit price information from low bids on seven of the most commonly used construction materials. These items reflect a composite cost for a completed item of work and include the costs of labor, equipment, and materials.

### Construction Cost Index increases 4.5% in the first quarter of 2008

The graph below presents the past 18 years of CCI data for WSDOT. This is plotted against the CCI of the Federal Highway Administration and a line representing the combined CCIs of several nearby western states: California, Colorado, Oregon, South Dakota and Utah.

### Construction Cost Indices for Washington State, FHWA, and selected Western states

1990 - 2008 (YTD)

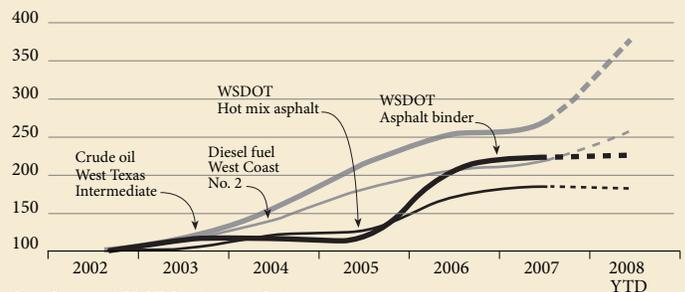


Data Source: WSDOT Construction Office.  
 Note: WSDOT 2008 index is for quarter 1. The FHWA index was discontinued in 2007. Other states 2007 data includes California, Colorado, Oregon, South Dakota and Utah annual indices.  
 Note: 2003 and 2004 WSDOT CCI data points adjusted to correct for spiking bid prices on structural steel.

From 1990 through 2001, WSDOT's CCI experienced an average annual growth rate of about 1.5% each year over the 11 year period. Beginning in 2002 and continuing through 2005, the growth rate increased to 8% annually. The CCI increased rapidly in 2006 and by the end of 2007, the CCI had increased by an additional 31%. During the first quarter of 2008, WSDOT's CCI has increased 4.5% over the annual average for 2007, from 230

to 241. WSDOT believes that further increases can be expected for the 2008 construction season, as the U.S. dollar's weakness causes inflation for materials that are in high demand worldwide such as steel and cement, both of which are factors in WSDOT's CCI. The rising costs of crude oil have a large impact on highway construction cost as contractors use large amounts of fuel to prepare and place materials, and the prices for Hot Mix Asphalt (HMA) are also greatly influenced by crude oil prices.

### WSDOT asphalt, crude oil & diesel fuel indices 2002-2008 (year to date)



Data Source: WSDOT Construction Office.  
 Note: Base in 2002 = 100. Diesel and crude indices compiled by the U.S. Dept. of Energy, Energy Information Administration.

### Hot Mix Asphalt

Of the seven materials WSDOT tracks in the CCI, HMA is the most commonly used material on WSDOT construction projects and accounts for almost half the weight of the index. HMA prices typically follow a similar pattern to the price of crude oil and diesel fuel as the asphalt binder used in HMA is a residual of crude oil. In 2006 and 2007, the gap between crude oil price increases and asphalt price increases narrowed as refining trends and market conditions allowed refiners to make asphalt production a more profitable process. For more information about crude oil prices, refining trends, and asphalt production, see the June 30, 2006 *Gray Notebook* (pg. 32).

At the end of 2007, WSDOT briefly saw HMA price increases outpace crude oil price increases before falling during the fourth quarter as the paving season ended. HMA prices increased 10.4% during the first quarter of 2008. With crude oil prices topping new record highs daily, WSDOT expects further upward adjustments in contractors' bids for HMA throughout the remainder of 2008.

For more information on how WSDOT awards HMA, please see page 48.

# Cross Cutting Management Issues

## Hot Mix Asphalt for awarded contracts

WSDOT tracks both the projected and awarded amounts of Hot Mix Asphalt (HMA) for two reasons. First, the agency projects HMA tons so that contractors can better anticipate future HMA volumes. This helps private contractors better manage their construction projects and reduce their costs associated with producing HMA, which ultimately results in improved competitive bidding and accurate estimates for WSDOT's construction projects. Second, WSDOT tracks actual tons awarded to measure the agency's estimating accuracy.

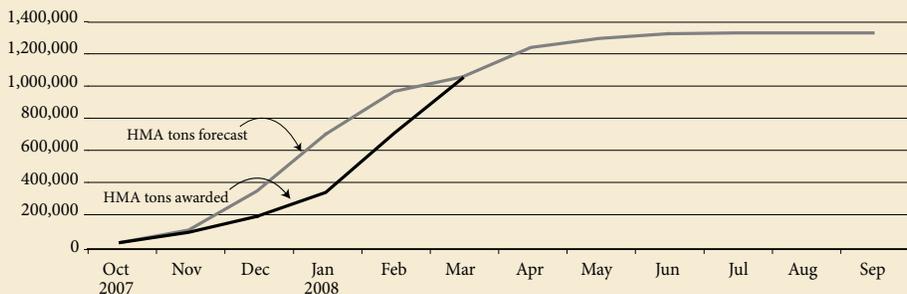
### Forecast for 2008 construction season

In October 2007, WSDOT predicted that 1,322,418 tons of HMA would be awarded in contracts throughout the state by September 2008. The 2008 forecast of 1,322,418 tons of HMA is a 1.9% increase compared to the 2007 forecast of 1,297,601 tons. This slight increase in tonnage is a result of WSDOT awarding more construction contracts in 2008 than in 2007.

### Awarded tonnage below projection by 0.9%

WSDOT's forecast anticipated that during the six months from October 2007 through March 2008, 54 projects would be awarded requiring a combined total of 1,049,266 tons of HMA. At the end of March 2008, the actual total was 48 projects awarded, with 1,040,281 tons of HMA. The 1,040,281 tons awarded between October and March represents a difference of 8,985 tons from the projected 1,049,266 tons. The actual HMA awarded was under the projection by 0.9%.

### Hot Mix Asphalt tons awarded October 2007 - March 2008



Data Source: WSDOT Construction Office.

### Hot Mix Asphalt - projected vs. actual, 2002-2008

In Tons, October 1 through September 30 of each year<sup>1</sup>

Year	Projected	Actual	% Difference
2002	1,373,465 <sup>2</sup>	1,364,021	-1%
2003	1,417,126	1,825,442	29% <sup>3</sup>
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	N/A	N/A

Data Source: WSDOT Construction Office.

<sup>1</sup> 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.

<sup>2</sup> The projection for 2002 was revised in March 2002 by the Transportation Commission following budget cuts.

<sup>3</sup> 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.



Contractors lay HMA on I-82 in south central Washington.

# Cross Cutting Management Issues

## Endangered Species Act Documentation

The Endangered Species Act (ESA) requires that all projects with federal funds or permits be evaluated for effects and potential impacts the project may have on federally-listed endangered and threatened species. Projects that will result in impacts to federally-listed species undergo consultation, either informally or formally, with “the Services”: the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA Fisheries). WSDOT projects that are found to have no effect on ESA-listed species do not undergo consultation with the Services.

### Nickel projects with ESA components

Of the 24 planned Nickel construction projects in the 2007-09 biennium, 17 of these projects have completed an ESA review. The remaining projects consist of one informal consultation, one formal consultation, and four internal ESA reviews. Of the 12 projects funded for the 2009-11 biennium, two have completed consultation and two are currently

under informal consultation. One of the remaining projects will undergo informal consultation and six will be reviewed for ESA compliance by the Services when scheduling permits. One project does not have enough information at this time to determine consultation status.

### Transportation Partnership Account projects with ESA components

Of the 99 TPA-funded projects in the 2007-09 biennium, 66 have completed an ESA review or consultation. The remainder includes seven informal consultations, nine formal consultations, 13 internal ESA reviews, and four projects that do not have enough information to determine consultation need at this time. Of the 61 projects funded by the TPA program in the 2009-11 biennium, three are currently undergoing consultation at the Services: two formal consultations, and one informal consultation. Six have completed ESA review or consultation and 39 will be completed in the future. Thirteen are waiting for additional information to make a determination.

### Pre-Existing Funds projects with ESA components

More than half (156) of the 270 PEF-funded projects in the 2007-09 biennium have completed an ESA review or consultation. Ninety-six projects currently have Biological Assessments in preparation or will be finishing an internal ESA review, including 11 informal consultations. The remaining 18 projects do not have sufficient information to determine consultation need at this time. Of the 91 projects funded for the 2009-11 biennium, seven projects have completed ESA review, and 49 will complete ESA review in the near future. The remaining 42 projects need additional information to determine consultation status.

#### Formal and Informal Consultations

For additional information on both formal and informal consultation with the U.S. Fish and Wildlife Service and the National Oceanographic and Atmospheric Administration/National Marine Fisheries Service, such as requirements and the average duration of reviews, see page 50 of the September 30, 2007 *Gray Notebook*.

### Endangered Species Act compliance status for all projects

Funding Source	Nickel projects		Transportation Partnership Account projects		Pre-Existing Funds projects	
	2007-09 biennium	2009-11 biennium	2007-09 biennium	2009-11 biennium	2007-09 biennium	2009-11 biennium
Formal Endangered Species Act consultation underway or to be scheduled	1	0	9	2	0	0
Informal Endangered Species Act consultation underway or to be scheduled	1	3	7	1	11	0
Endangered Species Act review underway or to be scheduled <sup>1</sup>	4	6	13	39	85	49
Projects which lack sufficient information to start the Biological Assessment <sup>2</sup>	0	1	4	13	18	42
Reviews or consultations completed	17	2	66	6	156	7
<b>Total number of projects</b>	<b>24</b>	<b>12</b>	<b>99</b>	<b>61</b>	<b>270</b>	<b>98</b>

Data Source: WSDOT Environmental Services.

<sup>1</sup> Projects that have an Endangered Species Act review underway or to be scheduled are those that did not require consultation. They may have had found to have no effect reviews or the project used a programmatic Biological Assessments to completed the required documentation.

<sup>2</sup> This means that WSDOT does not yet have enough information regarding design to begin an Endangered Species Act review.

## Endangered Species Act Documentation: Species Update

### Northern Rocky Mountain gray wolf delisted

In February 2008, the USFWS published in the Federal Register the Final Rule designating the Northern Rocky Mountain population of gray wolf as a distinct population segment and removed it from the federal list of endangered and threatened wildlife. The rule became effective March 28, 2008.

The range of this population of gray wolves includes the eastern third of Washington State, east of US 97 and SR 17 north of the town of Mesa, and the area east of US 395, directly south of Mesa. The USFWS used the centerline of highways 97, 17, and 395 as the distinct population segment boundary in Washington State. Gray wolves outside of this area in Washington State remain listed as an endangered species.

### How does this affect future WSDOT projects with ESA documentation?

In general, the delisting of the Northern Rocky Mountain distinct population segment from the greater North American gray wolf population does not affect or change how WSDOT currently completes projects for ESA review. For WSDOT projects occurring in eastern Washington within the designated region, biologists will no longer need to address gray wolves in biological assessments. However, projects occurring outside these boundaries (generally central and western Washington State) will still need to address gray wolves during an ESA review.

The USFWS states in the Final Rule that although the agency has received reports of individual wolves and wolf packs in the North Cascades region of Washington State, agency efforts to confirm these sightings were unsuccessful, and to date no individual wolves or packs have been confirmed there. The USFWS has also stated that unsuitable habitat in the North Cascades region makes it highly unlikely that wolves from this population segment have dispersed to that area; however, if they had, these wolves would remain protected under the ESA as an endangered species, because the area falls outside of the newly designated boundary area.



A Northern Rocky Mountain gray wolf at dusk. Photo courtesy John and Karen Hollingsworth, US Fish and Wildlife Service.

### Area of delisted Northern Rocky Mountain gray wolf in Washington State



- Area designated by USFWS as not requiring ESA documentation for projects where Northern Rocky Mountain Gray Wolves habitate.
- Indicates highways designated by USFWS as the boundary for the delisted populations, and those that remain under ESA protection.

Data Source: WSDOT Environmental Services and USFWS.

### WSDOT examining factors in 'brown-needle' phenomenon

When winter transitions to springtime in the mountain passes of the Northwest, some travelers have noticed that roadside conifers have an unusually large amount of brown or reddish-brown needles compared with the green conifers found further away from the roadside. As spring transitions to summer though, most of the discoloration in roadside conifers disappears, returning to shades of green. So what could possibly be causing this phenomenon?

It appears that there is no one definitive answer. Because the discoloration appears following the conclusion of winter maintenance activities, WSDOT and other state DOTs have begun investigating to see if there is a relationship with snow-plowing and de-icer applications and the brown-needle effect. Since 1999, soil and water samples have revealed no unusual or unsafe levels of chlorides in areas where de-icer agents were applied. The U.S. Forest Service has not asked WSDOT to change its winter maintenance activities, nor has it voiced any major concerns over the long-term health of roadside conifer communities. The two agencies have commenced a limited study on Blewett Pass/U.S. 97 to characterize the extent of seasonal damage to conifer needles within 30 feet of the roadway.

WSDOT has prepared a detailed folio with information about its research partners, preliminary findings, and winter maintenance practices. It is available online at: <http://www.wsdot.wa.gov/winter/anti.htm>.

For more information about WSDOT's winter maintenance activities, see pages 55-59 of this edition of the *Gray Notebook*.

# Worker Safety: Quarterly Update

## WSDOT Employees: Recordable Injuries and Illnesses

Worker Safety is WSDOT's highest priority. The Department's ultimate goal is zero injuries. In the meantime, WSDOT has set a goal to reduce OSHA-recordable injuries and illnesses among WSDOT employees by 50% from the Fiscal Year (FY) 2006 baseline of 466 injuries to 231 injuries by the end of FY 2008. Please note: System improvements to accident recordkeeping are currently under review. These changes are expected to result in adjustments to WSDOT's FY 2006 safety performance baseline, and will be reported in the next *Gray Notebook*.

### WSDOT reports 86 OSHA-recordable injuries and illnesses during 3rd quarter of FY 2008

During the third quarter of FY 2008, WSDOT experienced 86 OSHA-recordable injuries and illnesses; a 21% reduction from the previous quarter at 109 injuries. Eastern, North Central and Southwest Regions are all on-track to meet their regional goals.

### Employees lead the way to prevent injuries

Some WSDOT employees are participating in a pilot Stretch & Flex program in an effort to help reduce sprains and strains.

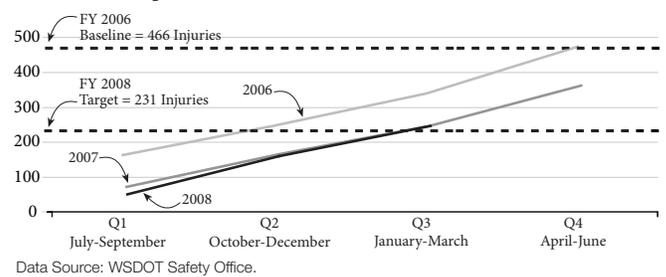
The Stretch & Flex sessions include gentle stretching targeting areas of fatigue that arise from a variety of workplace duties. Use of work time is supported by management. Interested employees are required to discuss participation with their supervisor.

**WSDOT's goal for 2008 is to reduce OSHA-recordable injuries and illnesses by 50% (231 injuries/illnesses) from the FY 2006 baseline (466 injuries/illnesses).**

As of March 31, 2008, WSDOT has sustained 243 injuries/illnesses for the first three quarters of FY 2008, on par with third quarter FY 2007 (also 243 injuries).

Fifty percent (122) of the 243 injuries/illnesses this fiscal year are attributed to sprains and strains which also make up 56% of all injuries this quarter.

**Cumulative OSHA-recordable injuries and illnesses**  
Cumulative number of injuries  
FY 2006 – 3rd quarter FY 2008



### Progress towards achieving OSHA-recordable injury reduction goal by region

FY 2008 through Quarter 3 (July 2007 - March 2008); Target goal: 50% reduction in OSHA-recordable injuries (231 injuries/illnesses)

Region	FY 06 Baseline	FY 07 through Q3	FY 08 through Q3	FY 08 Target	Comments	On-track to achieve goal
Northwest	81	45	50	<b>40</b>	Of the 50 injuries sustained, 24 (48%) were sprain/strain injuries.	No
North Central	33	12	9	<b>16</b>	Sprain/strain injuries were down by 4 (57%) compared to FY07.	Yes
Olympic	54	30	38	<b>27</b>	Due to more aggressive hearing testing, there was a 40% increase in hearing loss/STS illnesses compared to this time last year.	No
South Central	33	26	16	<b>16</b>	Sprain/strain injuries were down by 3 (38%) compared to FY 07.	No
Southwest	30	12	10	<b>15</b>	Sprain/strain injuries were down by 7 (78%) compared to FY 07.	Yes
Eastern	56	17	11	<b>28</b>	Of the 11 injuries sustained, 9 (82%) were sprain/strain injuries.	Yes
Headquarters	23	20	11	<b>11</b>	Injuries were down by 9 (45%) compared to FY 07.	No
Ferry System	156	81	98	<b>78</b>	Ferries have sustained 17 (21%) more injuries than this time last year. They also account for 48% of WSDOT sprain/strain injuries in FY 08 with 58.	No
<b>WSDOT total</b>	<b>466</b>	<b>243</b>	<b>243</b>	<b>231</b>	<b>The agency as a whole has reduced targeted sprain/strain injuries by 12 (9%) compared to this time last year.</b>	<b>No</b>

Data Source: WSDOT Safety Office.

# Worker Safety: Quarterly Update

## WSDOT Workers: Recordable Injuries and Illnesses

### OSHA-recordable injury and illness rates<sup>1</sup>: annualized

**Highway, street, and bridge construction workers**  
Through the third quarter of FY 2008, the annualized injury rate for WSDOT highway, street, and bridge construction workers was 4.7 per 100 workers which is 0.2 less than the previous quarter and 0.5 less than the same quarter one year prior. WSDOT's current OSHA-recordable rate is lower than the most recent Bureau of Labor Statistics Benchmark (2006) by 1.3 in this industry classification.

#### Ferry system

The Ferry workers' annualized injury rate through the third quarter was 8.4 per 100 workers. This is 0.9 more per 100 workers than the previous quarter and 1.3 more than the same period one year prior. The Ferry System's current OSHA-recordable rate is higher than the most recent Bureau of Labor Statistics Benchmark (2006) by 4.0 in the industry classification of Inland Water Transportation Workers.

### Number of OSHA-recordable injuries/illnesses by WSDOT worker

#### Highway maintenance workers

For this quarter, highway maintenance workers reported 31 injuries, 36 percent of all injuries agency-wide. This was 24 less than the previous quarter and one less than the same quarter in FY 2007. There were 151 days away from work associated with these injuries. The most frequently injured part of body was the back with eight injuries.

#### Highway engineering workers

For the third quarter, highway engineering workers reported 13 injuries, 15 percent of all injuries agency-wide. This was one more than the preceding quarter and five less than the same period in FY 2007. There were 118 days away from work associated with these injuries. The most frequently injured part of body was the shoulder with three injuries.

#### Ferry system

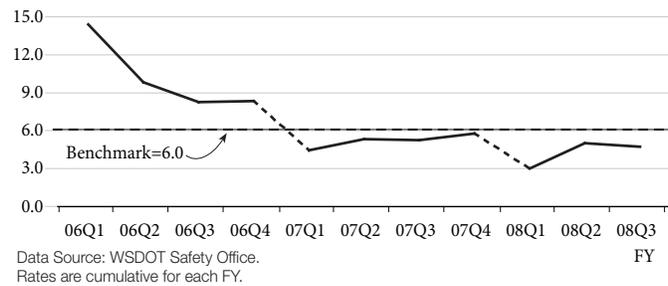
Ferry workers reported 39 injuries, 45 percent of all injuries agency-wide for this quarter. This was one less than the preceding quarter and 12 more than the same period in FY 2007. There were 292 days away associated with these injuries; 24 of which were sprain/strain injuries. Thirteen injuries had no associated days away.

#### Administrative staff

There were three injuries to administrative staff for the third quarter of FY 2008. This is one more injury than the previous quarter and one less than the same quarter in FY 2007. One of the injuries had nine days away from work associated with it.

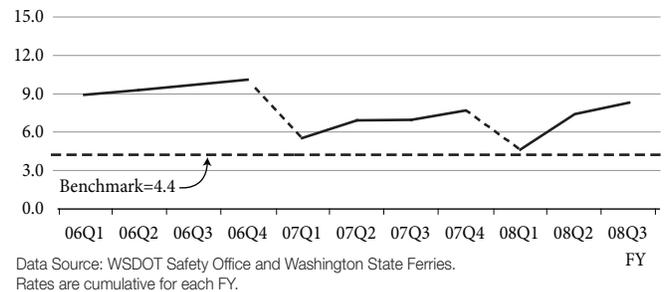
### Yearly OSHA-recordable injuries and illnesses rate for maintenance and engineering workers: annualized

OSHA-Recordable injury rate per 100 workers<sup>1</sup>



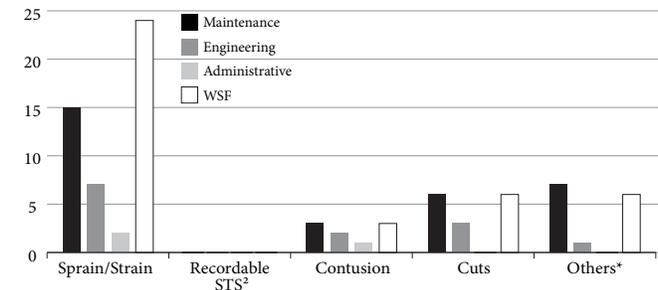
### Yearly OSHA-recordable injuries and illnesses rate for ferry system workers: annualized

OSHA-recordable injury rate per 100 workers<sup>1</sup>



### Number of work injuries by type

January 1 through March 31, 2008 (third quarter FY 2008)



<sup>1</sup>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 per year.

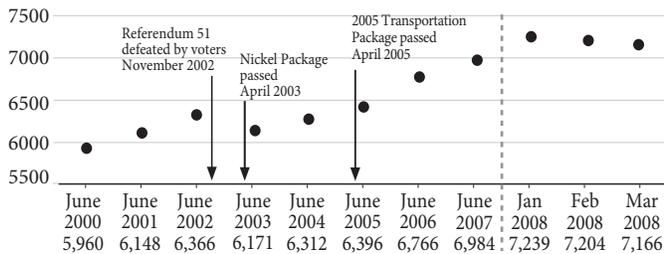
<sup>2</sup>An OSHA recordable Standard Threshold Shift (STS) is if an employee's hearing test reveals that the employee experienced a work-related STS in hearing in one or both ears, and the employee's total hearing is 25 dB or more above audiometric zero (averaged at 2000, 3000 and 4000 Hz) in the same ear(s) as the STS, the case must be considered recordable.

# Workforce Level and Training: Quarterly Update

## Number of Permanent Full-Time Employees

This quarter, WSDOT employed 7,166 permanent full-time employees, a decrease of 48 employees from the previous quarter. This total does not account for permanent part-time, seasonal, or on-call workers. The chart below shows the total number of full-time employees at various points since the end of fiscal year 2000, with significant mandates identified. The total number of full-time equivalencies (FTE's) will generally exceed the number of permanent full-time employees due to seasonal and part-time workers being funded from "FTE" allotments. For information on WSDOT's use of consultants, see the September 30, 2007 GNB, page 43.

## Number of permanent full-time employees at WSDOT



Data Source: Dept. of Personnel Data Warehouse, HRMS, WSDOT and the ferry system payroll

## Diversity training compliance improves

The percentage of all staff complying with the mandatory diversity training has increased by 4%-17% in a year-on-year comparison of third quarter FY2008 to third quarter FY2007. The range of improvement was noted across all WSDOT regions, as well as Ferries, Urban Corridors, and Headquarters, increasing from 53%-89% of staff complying in 2007 to 64%-97% complying in 2008. The goal is 90% compliance in any given quarter. For the quarter, a total of 1,418 WSDOT employees attended diversity training modules offered by WSDOT. This is an increase of 5% or 79 additional employees trained compared to last quarter (this number includes all individuals who attended one or more

## Worker compliance with mandatory training for all WSDOT workers

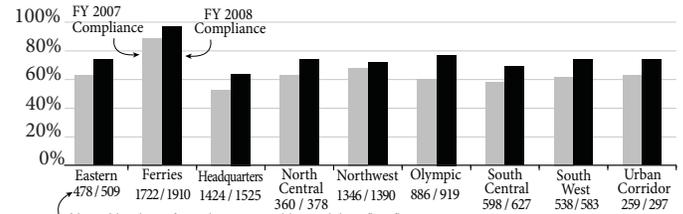
Third quarter, fiscal year 2008

Training course	Employees requiring training	Basic training completed to date	Employees needing basic training	Employees needing refresher training	Completed training reported quarter	Total in compliance	Percent in compliance	Percent change from previous quarter
Disability Awareness	8,138	6,391	1,703	402	376	5,989	74%	4%
Ethical Standards	8,138	7,815	279	1,782	305	7,510	92%	12%
Security Awareness	8,138	6,507	1,587	N/A	71	6,507	80%	2%
Sexual Harassment/ Discrimination	8,138	6,851	1,243	1,216	531	6,320	78%	4%
Valuing Diversity	8,138	6,512	1,582	511	608	5,904	73%	3%
Violence that Affects the Workplace	8,138	6,697	1,397	N/A	88	6,697	82%	2%

Data Source: WSDOT Office of Human Resources, Staff Development.

## Required diversity training compliance averages 2007-09 biennium, third quarter of FY 2007 vs. FY 2008

Goal is 90% compliance for each region



Note: Number of employees requiring training; first figure represents FY 2007, second figure represents FY 2008  
Data Source: WSDOT Office of Human Resources, Staff Development

training modules this quarter). A refresher course of 45 employees was trial tested for two of three courses in Eastern Region with positive results.

## "No shows" significantly decrease this quarter

This quarter, the number of "no shows" for the mandatory diversity modules decreased to 5% (54). This is a decrease from the 112 "no shows", or 8%, for the preceding quarter, a 61% decrease between the three quarters. The total numbers of "no shows" for all WSDOT entities are reported to the senior management team regularly.

## Compliance challenges continue

A significant challenge in making progress towards a higher percentage of compliance for the three mandatory diversity modules is the lack of computer-based training (CBT) to address the Diversity Training refresher requirements. The workforce of 8,138 full-time, part-time, and seasonal employees require 6,107 units of Basic Diversity Training that is instructor led. The CBT is needed for refresher training that increased from 1,041 last quarter to 2,129 this quarter. The estimated number of WSDOT employees who should take more frequent sexual harassment training is 3,240. WSDOT will continue to discuss the development of a comprehensive diversity CBT in addition to other training strategies in order to achieve diversity training goals.

# Workforce Level and Training: Quarterly Update

## Statutorily Required Training for Maintenance Workers Statewide

WSDOT's goal is to achieve 90% compliance for statutorily required training for maintenance employees. Regional maintenance and safety trainers use a variety of approaches to increase compliance rates and deliver training. These methods augment traditional instructor-led training, and include computer-based and online training, other distance learning approaches,

and safety training days. These approaches allow maintenance employees to gain required WSDOT workplace training with minimized travel or work schedule disruption. Additional efforts are underway to convert several statutorily required courses into an e-learning format to augment instructor-led training.

Training program	Total people needing training	Total people complying	% complying current quarter	% change from last quarter	Past (2005-07) biennium average	Current (2007-09) biennium average
Aerial Lift	178	163	92%	-1%	87%	93%
Bucket Truck	374	299	80%	0%	82%	81%
Confined Space Entry	503	413	82%	-2%	79%	83%
Drug & Alcohol Certification	1,215	1,067	88%	0%	90%	88%
Drug-free Workplace	340	308	91%	-2%	87%	90%
Electrical Safety Awareness	311	191	61%	-1%	57%	60%
Excavation, Trenching & Shoring	398	330	83%	-1%	81%	85%
Fall Protection	729	609	84%	4%	84%	81%
Forklift	1,106	961	87%	0%	89%	88%
Hazard Communications	1,403	1,222	87%	0%	84%	88%
Lockout/Tag out	570	473	83%	0%	72%	84%
Personal Protective Equipment	1,397	1,170	84%	0%	83%	85%
Proper Lifting	1,451	1,129	78%	2%	71%	78%
Supervisor Return to Work	204	158	77%	-2%	73%	76%
Blood-borne Pathogens <sup>1</sup>	579	395	68%	3%	56%	69%
Fire Extinguisher <sup>1</sup>	1,378	912	66%	-23%	57%	72%
Hazardous Materials Awareness <sup>1</sup>	822	643	78%	-16%	73%	81%
Hearing Conservation <sup>1</sup>	1,345	943	70%	-26%	76%	78%
Lead Exposure Control <sup>1</sup>	83	11	13%	-56%	35%	52%
Railway Work Certification <sup>1</sup>	29	24	83%	-13%	69%	85%
Respirator Protection <sup>1</sup>	205	48	23%	-50%	17%	32%
First Aid <sup>2</sup>	1,463	1,111	76%	-17%	83%	78%
Flagging & Traffic Control <sup>2</sup>	1,125	1,010	90%	-7%	92%	91%
Emissions Certification <sup>3</sup>	75	55	73%	-15%	57%	78%
<b>Total</b>	<b>17,283</b>	<b>13,645</b>	<b>79%</b>	<b>-9%</b>	<b>78%</b>	<b>81%</b>

Data Source: WSDOT Office of Human Resources, Staff Development.

<sup>1</sup>Refresher training required annually; <sup>2</sup>Refresher training required every three years; <sup>3</sup>Refresher training required every five years.

### Two regions achieve WSDOT's 90% training goal this quarter

WSDOT tracks compliance for statutorily required training programs for its maintenance workers by individual regions. The chart to the right documents each region's compliance with all the training courses in the chart above as a single percentage. WSDOT saw a general reduction in compliance during the first quarter of 2008, but the Eastern and Southwest regions exceeded the 90% compliance goal.

### Required training for maintenance workers by WSDOT region\*

Region	Current quarter percent in compliance	Percent change from last quarter	Past (2005-07) biennium average	Current (2007-09) biennium average	Goal met
Northwest	75%	1%	70%	75%	
North Central	80%	2%	79%	82%	
Olympic	76%	2%	71%	74%	
Southwest	92%	-3%	91%	94%	√
South Central	78%	-4%	79%	82%	
Eastern	82%	-14%	91%	92%	√

Data Source: WSDOT Office of Human Resources, Staff Development.

\*Note: Headquarters (Olympia) previously reported on this table has been removed because this division does not carry maintenance workers on its current staff list.

# Highway Maintenance: Annual Update

## 2007-2008 Post-Winter Report

### Snowstorms, floods, and high winds

The winter of 2007–2008 turned out to be anything but typical. Multiple heavy snowstorms, floods, and high winds combined to make this past winter one of the most challenging in recent history for WSDOT Maintenance crews. November winds and mountain snow gave way to an early December storm that was one of the most significant weather events of the past fifty years.

Continuous snowstorms hammered the mountains and Eastern Washington throughout January and early February, and mountain snowfall accumulations reached historic amounts. Several closures on the major passes were made necessary by heavy snowfall and avalanche danger. Avalanche control teams were especially busy this past winter, performing missions in areas that had not required control in many years, and in other areas where controls had never before been required.



Stranded semi-trucks parked on an overpass on I-5 near Chehalis during the December floods.

WSDOT worked with city, county, and local agencies in responding to the variety of events which occurred. Equipment, materials, and labor were shared between these agencies, as the events were more severe than any single agency was capable of managing. These extreme weather events also dictated the use of the Headquarter's Emergency Operations Center on three separate occasions, for a total of 21 days. They tracked 116 road closure incidents (72 of these were during the December storm) and coordinated with the regions and outside agencies (WSP, counties, and cities) for detour routes and current conditions. Regional EOC's were activated as conditions warranted.

### Heavy flooding shuts down I-5 for four days

On December 3rd, 2007, record-high floodwaters caused the closure of I-5 from MP 68 to MP 88. The closure remained in force until Thursday December 6th, when I-5 re-opened to

### WSDOT Winter Maintenance Highlights:

WSDOT winter operations were \$9.1 million over budget this season at \$40.3 million total, a 12% increase over last year.

The December 2007 flood caused approximately \$18 million in damage to state highways.

As of March 31, material usage for winter maintenance was 85,000 tons— 30,000 tons more than projected.

This winter, maintenance crews used deicers during 32,787 (94%) of all roadway treatments, and sand on the remaining 2,110 (6%) treatments.

Snoqualmie Pass was closed for a total of 370 hours this winter, compared to 75 hours in winter 2006-2007.

semi-truck traffic only. This was the first full closure due to flooding of I-5 in this area since 1996. A detour was established on I-90, I-82, and I-84 in Oregon that added 440 miles to the trip southbound to Portland. Trucks carrying perishable goods and trucks with supplies for local communities were allowed to use a shorter detour on a secondary highway. It is estimated that the closure cost truckers four million dollars a day. Non-truck traffic wasn't allowed on this section of I-5 until December 7th. As waters began to slowly abate, WSDOT was able to reopen I-5 to traffic early by breaching a dike on a WSDOT right-of-way, which allowed floodwaters to recede more rapidly. Damage to I-5 was minimal considering the depth (10 feet in places) and the flow of the floodwaters, moving over the lanes with enough power to displace a Jersey barrier.

For more information on how the flood affected freight movement in Washington State, please see p. 66.



This section of U.S. 101 washed away during the December 2007 flood.

# Highway Maintenance: Annual Update

## 2007-2008 Post-Winter Report, continued

### Flooding causes \$18 million in damage to state highways

Starting December 1, 2007 an intense storm brought over 3 feet of snowfall to the Cascades, extreme high winds, and region-wide rain and flooding. While the storm raged, WSDOT Maintenance crews fought to keep drivers safe and highways open.

Twenty four hour rainfall totals included 11.1 inches at Bremerton and 8.6 inches at the Wynoochee Dam near Montesano. The rain, combined with the melting mountain snow pack, left I-5 in the Chehalis area under nearly 10 feet of water. I-5 was closed to traffic from December 3-6 between mileposts 68 and 88. This was the first full closure of I-5 due to flooding in this area since 1996.



I-5 near Chehalis submerged during the December 2007 flood.

Commute traffic in urban areas turned to gridlock as water overwhelmed drainage systems and pooled on roadways. Coastal winds gusted between 80 and 120 miles per hour (hurricane force) with sustained winds of 40 to 50 miles per hour during the height of the storm. Fallen trees, landslides and downed power lines blocked many coastal area roads. Several communities were isolated due to blocked highways. Sixty-five separate closures were reported on state routes. A state of emergency was declared on December 3.

The highway damage estimate from this storm alone was \$18 million for state routes and another \$39 million for city and county roads. Several highways were significantly damaged by the rains. On I-405 near Renton, a culvert failure caused a slope to collapse and required weeks of repair to slopes and drainage facilities. A section of SR 96 also collapsed due to a culvert failure. A major landslide on SR 6 caused partial closure of the roadway and was not fully re-opened until March 16, to allow crews time to perform repairs and cleanup work. Damage to homes and businesses in Lewis, Thurston, Pacific, and Grays Harbor Counties reached into the tens of millions of dollars. Like many citizens, WSDOT employees were personally affected by this storm, either by the loss of home and property, by injury associated with downed trees, or by being stranded due to closed roads and bridges.

### WSDOT constructs temporary Bailey bridge over the Chehalis River in six days

Forty WSDOT employees used little more than their hands, some basic tools, and two cranes to erect a 180-foot bridge over the Chehalis River in only six days. The temporary Bailey-style bridge connects Leudinghaus Road and River Road to SR 6, after the county bridge washed out during the December floods.

The work began on December 18, when 40 WSDOT crew members, largely volunteers, showed up in Lewis County to construct the bridge. Six days later, they put the finishing touches on the bridge and departed. They worked for 12 to 14 hours each day under near-freezing temperatures and pouring rain. The bridge was constructed on site.

The Bailey bridge was invented by British civil engineer, Donald Bailey, and designed to be constructed, moved, and replaced in just several hours. Originally used for military applications, its purpose today is to swiftly replace a bridge that has been washed out, before a new permanent bridge can be constructed. It is disassembled into pieces that are stored, awaiting assembly on-site. It consists of 295 total panels and transoms, and 450 pins holding them all together. There are very few of these bridges in Washington State, and this is the only one in the Southwest region of the state.

The Bailey bridge will remain in place until Lewis County constructs a permanent replacement in about 18 months. The estimated cost for set up, maintenance, take down, and preparing the Bailey bridge components for return to storage is \$250,000.



WSDOT crew members help construct a temporary Bailey-style bridge across the Chehalis River in December 2007.

# Highway Maintenance: Annual Update

## 2007-2008 Post-Winter Report, continued

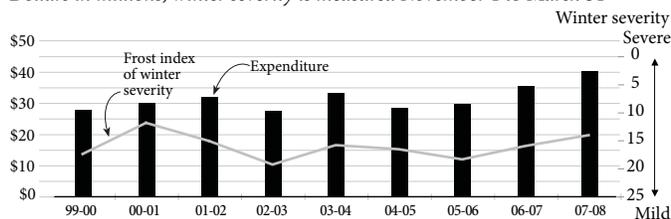
### Weather severity and maintenance expenditures

This past winter was notable for the amount and duration of storm activity. The frost index, which measures winter severity based on daily temperatures, indicates that Washington had a more severe winter than average. Frost index data is gathered from 29 weather stations around the state. A lower numerical rating means more sub-freezing temperatures, in turn increasing the likelihood of snow and ice. More snow and ice requires more labor, equipment, and materials to provide safer road conditions, which translates to a higher cost.

Rising costs for deicer materials, coupled with increased usage and the exceptional labor hours required for snow and ice response, resulted in a significant overage in actual expenditures versus planned expenditures for winter 2007-2008. The original plan through March 31st was \$31.2 million. As of March 31, 2008, actual expenditures were \$40.3 million, with an anticipated \$3.8 million in expenditures remaining for April, May, and June. In February, the Maintenance Program submitted a Snow and Ice Supplemental Budget Request to cover program overruns associated with the response to the severe winter weather. A supplemental budget amount of \$3.25 million was granted by the Legislature and signed into law by the Governor.

### Winter severity and snow and ice expenditures

Dollars in millions, winter severity is measured November 1 to March 31



Data Source: WSDOT Maintenance.

### Pass closures and avalanche control

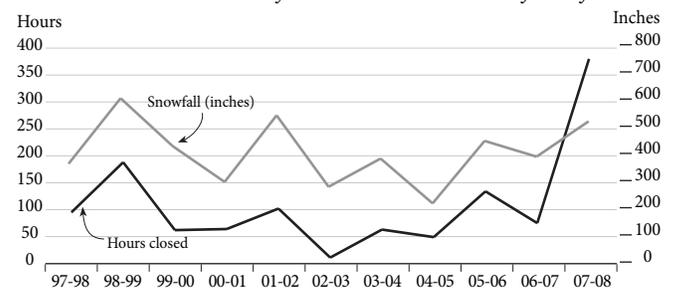
All of the major passes were significantly impacted this year by heavy snow coupled with extreme avalanche danger. While the entire seasonal snowfall accumulations were not extraordinary, the amount of snow that fell during individual storm events reached record or near-record accumulations.

For example, in the 16 days between January 26 and February 10, White Pass received 267 inches of snow, 78 inches of that fell in a 48-hour period. White Pass also experienced multiple avalanches and closures for the first time in many years. One particular avalanche covered the highway to a depth of 20 feet and destroyed almost all of the 20- 30 year old trees in its path.

Total snowfall for White Pass at the end of March was 645 inches. Stevens Pass also had near record seasonal snowfall, with a total at the end of season of 562 inches, the seventh highest on record. Between January 26 and February 10, Stevens and White Passes were closed for 90 hours and 57 hours respectively, due to heavy snow and avalanche danger.

### Snoqualmie Pass I-90 winter closure hours, 1997-2008

Accumulated annual hours of road closures and inches of snowfall

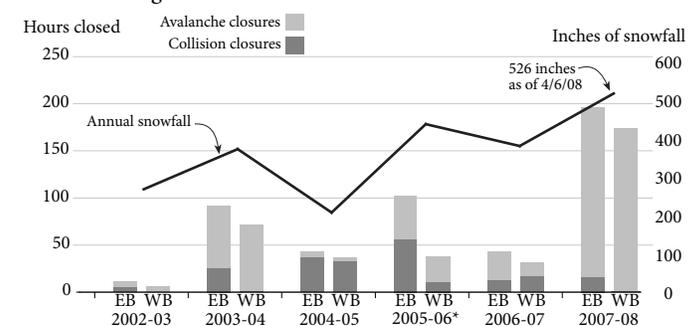


Data Source: WSDOT Maintenance.

On February 9, total snowfall on the ground at Snoqualmie Pass was 148 inches, the highest in 50 years, and the total snow accumulation was 416 inches, the highest in ten years. Total snow accumulation at Snoqualmie at the end of March was 526 inches. During the 2007-08 winter season, Snoqualmie Pass was closed a total of 370 hours, mostly due to severe avalanche danger, control and cleanup, compared to 75 hours last season. Between January 26 and February 10 alone, Snoqualmie Pass was closed for 145 hours in the eastbound direction and 147 hours in the westbound direction. For more information on pass closures and how they affect freight transportation, see page 66.

### I-90 Snoqualmie Pass snowfall and eastbound/westbound highway closures

Eastbound and westbound I-90 avalanche and collision-related closures during the winter season



\*Does not include 2005-06 rock fall closures of 42 hours EB and 56 hours WB.

Data Source: WSDOT Maintenance Office.

# Highway Maintenance: Annual Update

## 2007-2008 Post-Winter Report, continued

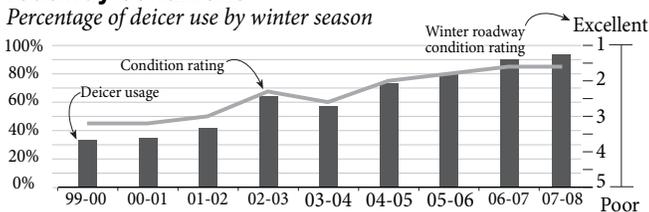
### Use and survey of deicer applications

One of the best strategies to keep roadways clear and safe is to prevent snow and ice from accumulating or bonding to the pavement. WSDOT accomplishes this by applying deicing agents to the roadway surface. Liquid and/or solid deicer chemicals prevent ice crystals from bonding to the road surface, limiting the appearance of frost, black ice, and compact snow. While deicer agents are not a cure for all hazardous winter road conditions, these agents are more effective in the prevention of snow and ice accumulations than plow-and-sand techniques traditionally used by highway maintenance crews.

Through March 31, maintenance crews recorded 34,897 road treatments applied to help improve winter road conditions statewide. Maintenance crews used deicers during 32,787 (94%) of these treatments, and sand on the remaining 2,110 (6%) treatments. Although more expensive, deicer provides for better road condition for longer periods of time, leading to improved safety, fewer road closures, and a reduced need for studded tires. Over the last few years, increased use of deicers as well as improvements in application techniques have contributed to consistent improvements in winter roadway conditions.

The graph below, the 2007-08 winter season saw the best winter roadway condition rating yet with an almost perfect score of “Excellent” or 1, a slight increase over last winter. The condition rating is measured by assessing road conditions after chemical or sand applications are made.

### Statewide deicer use and winter roadway conditions



Data Source: WSDOT Maintenance.

### Snow and ice materials and treatments

Material usage this past winter far exceeded projections due to the frequency, intensity, and duration with which storms hit statewide. WSDOT projected the usage of 55,000 tons combined of solid and liquid materials. By the end of March, material usage was nearing 85,000 tons statewide. In order to ensure material applications are limited to the most effective, yet least amount required to provide safe roads, about two-thirds of WSDOT trucks are equipped with material controllers that accurately and precisely control the amount of material applied. The remainder of the fleet will be fitted with controllers as funding allows.

### Winter weather conditions create extreme avalanche danger over mountain passes

This season’s avalanche control on Snoqualmie and Stevens passes was one of the most extensive in the history of WSDOT. The amount of snow, the intensity with which it came down, and the general lack of rainfall between storm events combined to create one of the most dangerous avalanche hazard years on record. The Northwest Avalanche Center (NWAC) moved to a Level 5 Warning at one point, a very rare occurrence. During the week of February 4, all three mountain passes were closed at the same time due to extreme avalanche danger.

#### Avalanche control arsenal used at Snoqualmie and Stevens Passes, Winter 2007-2008

	Missions	Detonations	Artillery Rounds	Pounds of Explosives
Snoqualmie	90	199	99	8,121
Stevens	33	180	40	4,300
<b>Total</b>	<b>123</b>	<b>379</b>	<b>139</b>	<b>12,421</b>

Source: WSDOT Maintenance Office.



Controlled avalanche falls over the snow shed on I-90, Snoqualmie Pass.

### WSDOT employs advanced data collection to track winter operations

Data collection for winter operations is an integral part of the operation in order to provide accountability and to determine where and when deicers have been applied. In the past, data collection was reliant on operators manually entering that data on Personalized Digital Assistants (PDAs). This winter, several trucks were set up with sophisticated material controllers which send data electronically by means of cell phone technology. This enables WSDOT Maintenance Managers to receive real-time updates on material applications and other aspects of winter operations, such as plow use and truck locations. This technol-

# Highway Maintenance: Annual Update

## 2007-2008 Post-Winter Report, continued

ogy provides managers with the ability to move equipment to where it is most needed, to track material applications, and to determine the overall effectiveness of winter operations.



Precision material controllers help WSDOT monitor materials, equipment, and road conditions with greater accuracy.

Using this new technology, trucks capture data from onboard sensors and components and send it through a service provider to a specific vendor site. WSDOT will poll the vendor site periodically and pull the data into the WSDOT system. The system with GIS mapping technology will display truck icons that show current locations, travel directions, and functions the trucks are performing (i.e., chemical treatments, plowing, etc.) along with current road conditions (icy, compact snow and ice, bare and wet, clear). All in all, the winter of 2007-2008 presented overwhelming challenges of a magnitude not seen in many years. WSDOT crews once again stepped up to the plate, working long hours in adverse conditions in order to keep the highways safe for the traveling public. Cleanup and repairs continue to take place as of this printing.

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### **WSDOT web resources keep the public informed of winter driving conditions**

WSDOT continued to help drivers plan their trips by placing accurate, detailed, and timely information on the WSDOT website. The site experienced unusually high volumes during the 2007-2008 winter. The website topped 4.8 million views on January 28, a Monday when rain and snow pummeled most of the state.

An important part of WSDOT's winter communications effort involved the use of the agency's social media tools. The websites Flickr and YouTube were invaluable in telling the story of just how bad the situation was this past winter. KING 5 news featured

WSDOT's YouTube videos showing the high winds on Stevens Pass. Numerous comments posted on WSDOT's blog ([www.wsdotblog.blogspot.com](http://www.wsdotblog.blogspot.com)) thanked the agency and its employees on a job well done during the numerous storms. The highest viewings for the social media sites were:

- Flickr ([www.flickr.com/wsdot/](http://www.flickr.com/wsdot/)):
  - February 11: 48,053 views (new record)
- Blogger ([www.wsdotblog.blogspot.com](http://www.wsdotblog.blogspot.com)):
  - January 31: 7,930 views (new record)
- YouTube ([www.youtube.com](http://www.youtube.com)):
  - Stevens Pass high wind video: 3,989 views
  - Stevens Pass road clearing video: 1,400 views
  - Avalanche control video: 25,600 views

### **Winter storms hammer Eastern Washington with near-record snowfall and high winds**

This has been one of the worst winters in recent memory with respect to blowing snow, drifting snow, and road closures in Eastern Washington. During winter 2007-2008, Spokane experienced the fourth highest January snowfall (40 inches) in the city's history. The overall winter snowfall for the season was Spokane's seventh highest on record (63 inches).

Due to the severity of the storms, Spokane County was unable to keep their roads in a safe and passable condition and was forced to declare a state of emergency. They looked to WSDOT for assistance. WSDOT and Spokane County borrowed a snow blower from the Air National Guard stationed at Fairchild AFB in order to try and keep up with the challenging conditions.



Snowblower clears snow drifts caused by high winds on U.S. 2 near Spokane.

# Asset Management: Safety Rest Areas Annual Update

## Program Overview

At Washington State's Safety Rest Areas, travelers can rest and refresh themselves in order to make their trips safer and more pleasant. This annual update provides information on:

- Visitor use
- Level of service and facility conditions
- Security
- Customer satisfaction feedback and surveys
- Preservation and improvement programs.

### Rest areas see first visitor decline in years

WSDOT has calculated, based on water usage, that 20.8 million people visited Washington State rest areas in 2007, a decrease of about three percent from last year (21.5 million visitors). This is the first documented decrease in many years and may be attributed to higher fuel prices discouraging discretionary travel. The Toutle River rest areas, located north of Kelso on I-5 in Cowlitz County, continue to be the most visited sites, with an estimated 3.1 million visitors in 2007. The Indian John Hill

### Safety rest area visitor data

Number of visitors by rest area; arrows indicate change in year-on-year visitor numbers

Interstate safety rest area	County	2006 Annual visitors	2007 annual visitors	Non-interstate safety rest area	County	2006 Annual visitors	2007 Annual visitors
Gee Creek <sup>1</sup>	Clark	1,380,000 ↓	1,065,000	Nason Creek	Chelan	439,000 ↑	454,000
Toutle River <sup>1</sup>	Cowlitz	3,298,000 ↓	3,093,000	Telford	Lincoln	275,000 ↑	352,000
Scatter Creek NB	Thurston	1,016,000 ↑	1,100,000	Elma EB	Grays Harbor	401,000 ↓	337,000
Maytown SB	Thurston	808,000 ↑	813,000	Bevin Lake	Lewis	146,000 ↑	270,000
SeaTac NB	King	1,026,000 ↓	941,000	Alpowa Summit <sup>1</sup>	Garfield	N/A	N/A
Silver Lake SB	Snohomish	516,000 ↓	388,000	Chamberlain Lake	Klickitat	134,000 ↑	147,000
Smokey Point <sup>1</sup>	Snohomish	1,052,000 ↓	1,373,000	Blue Lake <sup>2</sup>	Grant	19,000 ↑	27,000
Bow Hill <sup>1</sup>	Skagit	1,898,000 ↓	1,853,000	Keller Ferry	Lincoln	N/A	N/A
Custer <sup>1</sup>	Whatcom	663,000 ↓	563,000	Vernita	Benton	129,000 ↑	106,000
Selah Creek <sup>1</sup>	Yakima	725,000 ↓	672,000	Hatton Coulee	Adams	62,000 ↑	172,000
Prosser	Benton	575,000 ↑	638,000	Quincy Valley	Grant	110,000 ↓	123,000
Indian John Hill <sup>1</sup>	Kittitas	2,020,000 ↓	1,617,000	Horn School	Whitman	125,000 ↑	167,000
Ryegrass <sup>1</sup>	Kittitas	759,000 ↑	752,000	Dismal Nitch	Pacific	183,000 ↑	117,000
Winchester <sup>1</sup>	Grant	438,000 ↑	440,000	Forest Learning Ctr <sup>2</sup>	Cowlitz	131,000 ↓	95,000
Schrag <sup>1</sup>	Adams	1,789,000 ↓	1,780,000	Iron Goat	King	N/A	N/A
Sprague Lake <sup>1</sup>	Lincoln	1,452,000 ↓	1,335,000	Mader	Whitman	N/A	N/A
Traveler's Rest	Kittitas	N/A	N/A				
Price Creek	Kittitas	N/A	N/A				
<b>Interstate Totals</b>		<b>19,415,000</b>	<b>18,423,000</b>	<b>Non-Interstate Totals</b>		<b>2,050,000</b>	<b>2,367,000</b>

Source: WSDOT Maintenance & Operations Division, Facilities Office.

- Water use data for each month (used in the calculation of number of visitors) was 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. Actual gallons per restroom user vary by site due to type/age of fixture and flow setting.

<sup>1</sup> These rest areas have two facilities, one on each side of the road. For this table, the annual user numbers have been combined and the pull rate averaged for the two sites.

<sup>2</sup> These rest areas have seasonal closures.

N/A (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 use.

### Annual safety rest area highlights:

Washington State rest areas accommodated 20.8 million visitors during 2007, about a three percent decrease from the previous year.

Rest areas in the state have maintained a rating of "good condition" since 1999.

During the summer of 2007, 90% of visitors who took a survey rated rest area facilities as either "very good" or "good."

rest areas on I-90 near Cle Elum and Bow Hill dual rest areas south of Bellingham on I-5 are also popular with 1.6 million and 1.9 million visitors respectively. Both Schrag (1.8 million) and Sprague (1.3 million) rest areas along I-90, and Smokey Point (1.4 million) rest area north of Everett, were also frequently visited in 2007.

# Asset Management: Safety Rest Areas Annual Update

## Safety Rest Area Facility Conditions

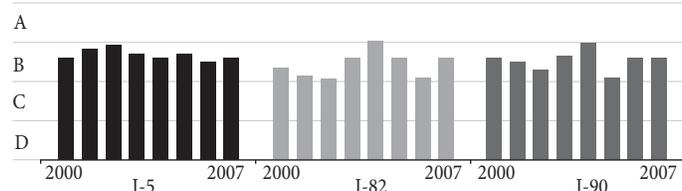
### Rest areas maintain “good condition” rating

Based on the Maintenance Accountability Process (MAP) criteria, WSDOT has maintained Interstate rest areas at a rating of “good condition,” or “Level of Service” (LOS, rating of B), since 1999. The rest area is in good condition if all features, such as soap dispensers or RV dump stations, are in working order, landscaping is trimmed, and only a small amount of litter, weeds, or minor defects in sidewalks or parking areas is present.

MAP measures and communicates outcomes of highway maintenance activities, including those at safety rest areas. It links strategic planning, the budget, and maintenance service delivery. As part of the MAP process, WSDOT inspects all rest areas semiannually to determine the LOS that WSDOT delivered. Levels of Service are based primarily on operational aspects of the rest areas, and are only based in small part on facility condition, which is discussed in greater detail below. For more information on the MAP process in general, see the December 31, 2007, *Gray Notebook* (p. 74).

### Rest area service level trends for interstate rest areas on I-5, I-82 and I-90

Service level



Data Source: WSDOT Maintenance and Operations Division.

### Safety rest area condition report for 2007

In 2007, WSDOT performed the third round of building and site condition assessments. This biennial process prioritizes renovation and replacement projects; the next assessment will be in 2009.

The table above shows the number of rest areas falling under each condition rating. Over the last biennium, there was an improvement in six facilities, while six other facilities’ ratings fell, three of which moved from a “Fair-Medium” to a “Fair-Low” rating. The difference reflects deterioration in the facilities and repairs or improvement of service for a facility.

The current condition assessment process identified approximately \$28 million in estimated costs to correct site and building deficiencies at rest areas, an increase of \$8 million from the previous year. The estimated cost for upgrades includes \$2.6 million in water and sewer system deficiencies, \$1.8 million in RV sewer projects, \$6.5 million in site deficiencies, and \$19 million in building deficiencies.

### Safety rest area condition ratings

Number and percent of safety rest areas in each category

General condition	2005 rating	Percent in rating	2007 rating	Percent in rating
Good	11	26%	8	19%
Fair - High	2	5%	6	14%
Fair - Medium	9	21%	6	14%
Fair - Low	18	43%	20	48%
Poor	2	5%	2	5%

Source: WSDOT Maintenance & Operations Division, Facilities Office.  
Note: Four facilities had no condition assessment information.

### Safety rest area condition ratings defined

- **Good:** Newly constructed facility and/or meets current standards.
- **Fair-High:** Meets current standards and/or is in adequate condition with minimal component deficiencies.
- **Fair-Medium:** Functional; is in adequate condition with minor component deficiencies.
- **Fair-Low:** Multiple system deficiencies.
- **Poor:** At or beyond its service life with multiple major deficiencies.

WSDOT expects that more repair and rehabilitation projects will be required as facilities age and traveler demand increases. The highest priorities in addressing deficiencies are the health and safety of the traveling public.

### Rest area costs were 31¢ a visitor in 2007

In 2007, the approximate cost to maintain, operate, and preserve Washington State safety rest areas at the current LOS was about \$0.31 a visitor. This is a one cent increase from 2006 when the cost averaged \$0.30 a visitor. (On average the budget/cost for maintenance, operation, and preservation is approximately \$6.5 million a year.) To put this in perspective, the Federal Highway Administration has estimated that the cost to society for each fatal collision is \$3.9 million. In 2006, there were 269 fatal accidents on Washington State highways, 42 of which were caused in part by sleepy, fatigued, or distracted drivers according to the “2006 Washington State Collision Data Summary: Highways Only” report. At an estimated cost of \$3.9 million, society would have lost nearly \$163.8 million in 2006 due to drowsy and distracted drivers.

# Asset Management: Safety Rest Areas Annual Update

## Security and Customer Satisfaction

### Security at safety rest areas

As indicated by customer card comments and other feedback, personal safety and security concerns at safety rest areas are important, especially on I-5. Loitering, solicitation, possible drug activity, and vandalism are all noted. WSDOT and the Washington State Patrol (WSP) work together, especially in the summer months, to address these problems.

In the fall of 2007, gang-related vandalism was noted at a rest area facility. WSDOT staff met with local law enforcement and WSP to develop control and intervention plans. A security camera was installed at the facility, police patrol increased, and better lighting was installed. This gang activity ceased within a few weeks.

### Private security used at a few rest areas

WSDOT continues to employ a private security firm to patrol these the Smokey Point and Silver Lake facilities at random hours of the day and night. This has resulted in a decrease in vandalism and illicit activities.

### *Additional private security service under consideration*

Annual WSP-WSDOT evaluations of urban rest areas also resulted in numerous improvements at other rest area facilities, including improved lighting, landscaping, and heightened awareness of potential security hazards by rest area attendants.

### Summer 2007 customer satisfaction survey

WSDOT measures the Safety Rest Areas Program effectiveness through user surveys, information submitted by users on comment cards, and through site and facility condition assessments.

During the summer of 2007, WSDOT surveyed visitors of Washington State's rest areas to compare demographics and user satisfaction with information gathered in 2006. Using the same questions given in the 2006, 3,177 visitors were surveyed at 28 of the 46 most frequently visited rest areas. Information was gathered on the visitors' age, gender, point of origin, destination, purpose of travel, satisfaction with the facility, improvements customers would like to have, and importance of traveler information. There were two new questions asked in 2007: interest in commercial advertising, and advance knowledge of wireless internet availability. Results of the survey revealed 90% of customers rated the facilities as either "very good" or "good." This is a 5% decline over the 2006 results.

When asked what improvements customers would like to see, 65% said none, 12% said cleaner facilities, fewer than 1% said safer facilities, and 12% had no response. The majority of customers surveyed (65%) did not want more tourist information. Similar

### Washington State safety rest areas basics

WSDOT's Safety Rest Area Program began in 1967, and most of Washington State's rest areas were built under a federal program in the late 1960s. Currently, WSDOT owns, operates, and maintains 46 safety rest areas (29 on interstate highways and 17 on non-interstate highways). These facilities encompass 555.5 acres, 83 buildings, 29 on-site public drinking water systems, 36 on-site sewage treatment/pre-treatment systems, and 19 RV dump stations. All facilities comply with the American Disability Act (ADA), and have permanent restroom buildings, separate truck/RV and passenger car parking, and picnic areas.

results were noted for the question concerning commercial information with 61% indicating it was 'not important.' Sixty-two percent of those interviewed in this random survey were male, and most travelers were between 54-65 years of age.

### Update on rest areas comment card program

In 2007, nearly 1,000 visitors to the rest areas filled out comment cards, providing valuable feedback to WSDOT regarding their experience at the facility. Cards were placed in the comment card boxes on site, or were mailed to WSDOT.

Sixty-one percent of the cards returned indicated an overall experience of "good" to "excellent," an improvement over 2006 comments. Accolades for the "free coffee" program and cleanliness of the restrooms topped the list of comments.

Twenty-five percent of the cards were in the "average" range, citing appreciation for the facility, but indicating a need for additional rest rooms, vending at those sites with none, and improved WiFi service. The remaining 14% of the comments indicated dissatisfaction with the rest rooms cleanliness, lack of traveler information, inadequate pet areas, and facility closures.



# Asset Management: Safety Rest Areas Annual Update

## Safety Rest Area Preservation Program

### Prioritization for preservation program needs

WSDOT identifies deficiencies biennially through a condition assessment process. Major rehabilitation needs and minor projects are identified and prioritized. Major rehabilitation projects involve major reconstruction or the replacement of systems or components that have reached the end of their useful life.

#### Major rehabilitation projects

##### *SR 401 Dismal Nitch – Water system rehabilitation*

The water system rehabilitation at the Dismal Nitch rest area was completed in summer of 2007, allowing the rest area to remain open year-round.

##### *I-90 Indian John Hill – Water system rehabilitation*

Increasingly frequent water line breakages required water line replacement at the Indian John Hill rest area. The majority of construction was completed in December 2007. The final surface restoration and the concrete sidewalk replacement should be complete in April 2008.

##### *I-5 Toutle River – Water system rehabilitation*

Over the past several years, the Toutle River rest area has run out of water during peak demand periods; which means trucks must haul additional water to the site. In order to meet peak demands, this project will increase water capacity by drilling another well. Planned completion is May 2008.

##### *SR 24 Vernita – Water system rehabilitation*

Due to well failure at this site, this project has required immediate attention. Currently, the site is open with minimal water capacity and must close during increased demand periods. The project is planned for completion in May 2008, ahead of the busy summer season.

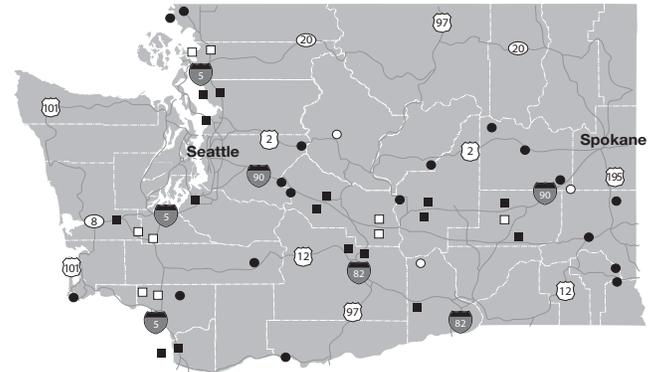
### Adding new rest areas

WSDOT prioritizes facility additions to its Safety Rest Area Program based on locations where accidents due to fatigue are occurring, and where no nearby rest facilities (publicly-owned facilities or private establishments such as an all-night restaurant) are present. When possible, WSDOT seeks to partner with local communities to share the costs of building new safety rest areas. The following are projects currently under development for construction in the next five years.

##### *U.S. 101 NE Peninsula – New facility*

WSDOT is conducting a traffic study in coordination with the Sequim City Council to identify issues with the interchange traffic and the city street traffic in this area. When complete, this facility will provide year-round access to public restrooms,

### Washington State safety rest area locations



- Rest area
  - Rest area with dump site
  - Rest area with wireless
  - Rest area with wireless and dump site
- Data Source: WSDOT Maintenance & Operations Division.

For a more detailed map see, <http://www.wsdot.wa.gov/safety/restareas/restareamap.htm>

picnic and pet areas, free coffee, a recreational vehicle dump station, and interpretation of historical and natural features. This project is funded by both federal and state funds.

##### *SR 7 Elbe – New facility*

WSDOT anticipates purchasing a site for the new rest area facility in the 2007-09 biennium. When complete, this rest area will provide year-round access to public restrooms, picnic and pet areas, and interpretation of historical and natural features unique to this location. This project is also funded with a combination of federal and state funds.

### 2008 National Safety Rest Area Conference

WSDOT, in conjunction with the Motorist Information and Services Association (MISA), will host the first, joint National Safety Rest Area Conference in Seattle, WA from October 1-3, 2008, at the Red Lion Hotel. The conference theme, "More with Less: Balancing Safety, Technology, and Sustainability," will draw participants from transportation agencies, tourism and welcome center program providers, and others interested in motorist services across the continent. The conference website is located at <http://www.misaonline.org/conferences.php>.

### Safety Rest Area Strategic Plan

In 2006, a performance audit done by the State Auditor's Office on the Safety Rest Area Program recommended a comprehensive strategic and operational review of the program. In the fall of 2007, a team of executives and advisory members were gathered to initiate the development of a Safety Rest Area Strategic Plan. Advisory team members included staff from various offices within WSDOT, as well as WSP and other entities. The plan is expected to be complete by summer 2008.

# Trucks, Goods, and Freight Annual Update

## Moving Freight in Washington State

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. Specific responsibilities include:

- Developing the state's strategic investment plan for freight to increase the state's economic vitality, improve our marketplace competitiveness, and ensure our resiliency. The plan is based on the Washington Transportation Plan Freight Report.
- Building regional participation and support for the freight investment plan by working together with freight system partners.
- Managing the state's rail freight capital programs and operations.

### Freight system performance measures

Viable truck, goods, and freight performance data is very limited due to its proprietary nature. This issue is a national challenge. Transportation agencies throughout the United States are beginning to respond to the need for performance measures, and develop data collection methods. The purpose of freight performance measures is to help WSDOT understand whether or not public investments and strategies deliver the level of performance desired by the state's freight customers. The data in this report serve as indicators for freight movement while WSDOT continues to develop specific performance measures.

### Washington State's freight system

There are three components of Washington State's freight system that support our national and state economies. First, Washington State is a *Global Gateway*, connecting Asian trade flows to the U.S. economy, Alaska to the Lower 48, and Canada to the U.S. West Coast. Second, our own state's manufacturers and farmers rely on the freight system to transport *Made in Washington* products to customers worldwide. Finally, Washington State's distribution system is essential for *delivering goods to you*. It is a fundamental local utility, critical to the state's economy.

### Freight continues to grow in Washington State

Across all modes and systems, freight tonnage is growing, which reflects positive economic growth and development for Washington. Based on the most recent data released by Federal Highway Administration, in 2002, over 477 million tons of freight worth more than \$371 billion was moved to, from and within Washington State using all modes. By 2035, this is expected to increase to 975 million tons of freight worth over \$1,239 billion. Trucks carried most of the freight, both by tonnage (59%) and value (64%), in 2002.

### Freight system performance highlights:

Truck volumes increase on Washington highways, for instance, on I-90 near North Bend truck volumes increased 14% between 2005 and 2006, p. 65.

The number of commercial trucks registered in Washington State has increased 2% in the last year, from 245,177 in 2006 to 250,641 in 2007, p. 65.

The Ports of Seattle and Tacoma see a 4% decrease in container volumes between 2006 and 2007, p. 67.

Air cargo tonnage increased 18% from 508,000 tons to 601,435 tons between 2004 and 2005, p. 68.

### Truck volumes increase on Washington highways

Truck volumes in Washington show steady increases. The graphic on page 65 shows average daily truck traffic at select mileposts on I-5, I-90, SR 18, US 97, and US 395 indicating volume increases. Collecting data on truck volumes by milepost shows those locations with the greatest activity, as well as growth trends.

At most locations where truck data is collected, there was growth in the number of trucks a day. On I-5 near Olympia, annual daily truck traffic increased 3% from 14,755 trucks per day in 2005 to 15,249 trucks per day in 2006. On US 395 near Eltopia, the number of trucks increased 3%, from 3,313 trucks per day in 2005 to 3,426 trucks a day in 2006. On I-90 near North Bend, the number of trucks increased 14% from about 5,890 trucks a day in 2005 to 6,694 trucks a day in 2006.



Trucks carrying containers out of the Port of Seattle.

# Trucks, Goods, and Freight Annual Update

## Truck Freight

### Commercial trucks registered in Washington State increase 2% from last year

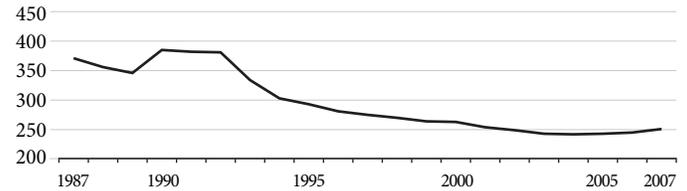
Commercial trucks operating in Washington State must register and pay state taxes. The number of commercial trucks registered in Washington State has increased 2% in the last year, from 245,177 in 2006 to 250,641 in 2007. The number of trucks registered for commercial use in Washington had generally decreased from 402,875 in 1985. This decrease leveled off in 2001.

Trucks in interstate commerce must also register and pay state taxes based on weight and travel mileage. Between 2006 and 2007, there was an increase of an estimated 188 interstate trucks prorated to Washington, from 25,997 to 26,185. The number of interstate trucks prorated to Washington shows an increase of 30% from 1987 to 2007, increasing from an estimated 20,197 trucks to 26,185 in the 20 year period.

The number of trucks registered for use provides a useful but limited view of trucking activity in the state. It does not reflect changes in the use and miles traveled for each individual truck.

### Commercial trucks registered in Washington

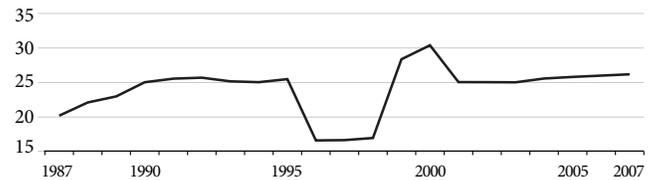
All weight classes, FYs 1987 - 2007; vehicles in thousands



Data Source: WSDOT Economic Analysis.

### Trucks in interstate use prorated to Washington State

All weight classes, FY 1987 - 2007; vehicles in thousands

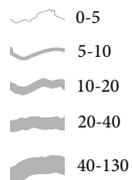


Data Source: WSDOT Economic Analysis.

## Truck volumes and tonnage on state highways

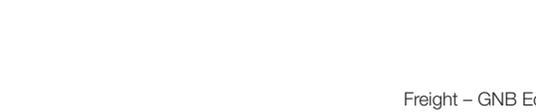
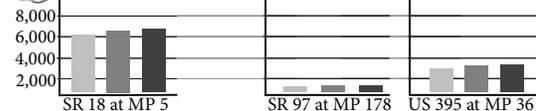
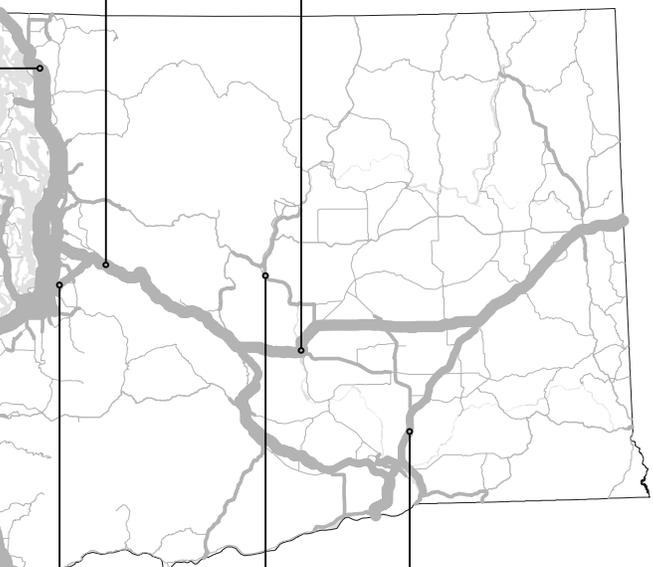
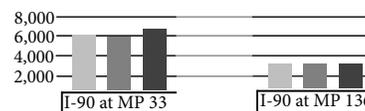
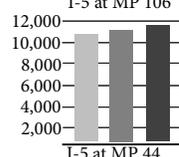
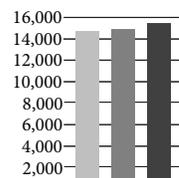
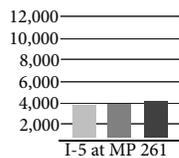
Average daily truck volumes at select highway mile posts and annual truck freight tonnage on state highways

Annual tonnage (2004)  
In millions of tons



Average daily truck volumes (2004-2006):

2004 ■ 2005 ■ 2006 ■

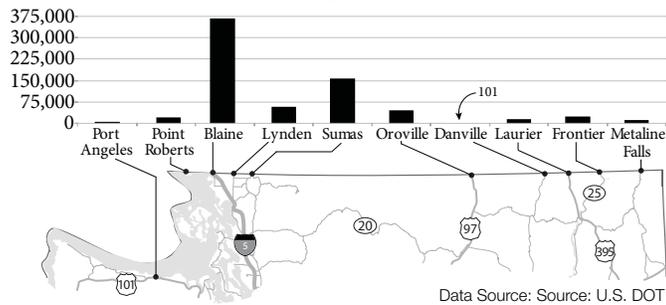


Data Sources: Transportation Data Office (truck volumes); Freight and Goods Transportation System, 2005 (annual truck tonnage)

# Trucks, Goods, and Freight Annual Update

## Truck Freight

### Trucks entering Washington from Canada in 2006

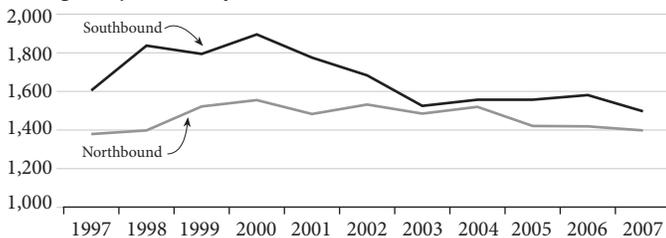


### Truck crossings decrease approximately 3% at Western Washington border crossings

At Western Washington border crossings, which handle almost 85% of all cross border trade along Washington's northern border, total truck traffic has doubled since 1990. (See graph below.) Complete data is available for northbound and southbound trucks at these three border crossings only. The number of trucks crossing at these points decreased slightly (3%) from a combined average of 2,999 northbound and southbound trucks a day in 2006 to an average of 2,895 trucks a day in 2007. Volumes are gradually returning to pre-2001 growth patterns after the overall economic downturn of 2000 and the increased security concerns after September 11.

### Western Washington truck border traffic (Blaine, Lynden and Sumas Crossings)

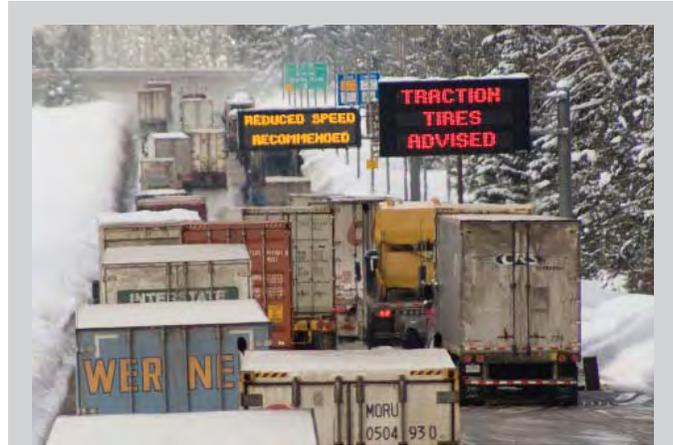
Average daily number of trucks



Data Source: U.S. Customs and Border Protection and Statistics Canada. Data compiled by Whatcom Council of Governments (2007).

### Nickel, TPA, and other projects with freight benefits

The 2005 Transportation Partnership Account (TPA) contained several projects with specific freight benefits. In addition to general TPA projects with indirect freight benefits, the Legislature provided \$541.1 million for 35 projects with specific benefits for freight mobility and economics. Some of these freight-specific TPA projects have already been completed. The Legislature also created the Freight Mobility Account, funded from various licenses, permits, and fees; for the 2005-07 biennium, \$12 million was provided to this account.



### Severe winter weather disrupts freight movement statewide

Throughout the 2007-2008 winter season, Washington State's most important freight routes were pounded by heavy weather. The cost to truckers, and to the region's economy in general, was in the millions. Governor Gregoire's office estimated a loss to the economy of at least \$4 million a day for the four-day closure of I-5 in December 2007, and about \$17.5 million in lost commerce for the closure of I-90 during the blizzards of February 2008.

In both instances, truckers faced both delays and long detours that generated costs, in extra fuel, food, or lodging, and lost income, as drivers cancelled or rescheduled their loads.

During the December 3-7 closure of twenty miles of I-5, caused when the Chehalis River burst its banks after heavy rains, many truckers were stranded at rest areas and on overpasses. Those who could detoured about 275 miles out of their way via I-90, I-82, and I-84, along the Columbia; few alternate routes were unaffected by flooding and wash-outs.

The closures of Snoqualmie, Stevens, and White passes – sometimes simultaneously – forced drivers to take the same detour south or return to their starting points, escorted to safe altitudes by the Washington State Patrol. Drivers reported losing \$400-\$500 a day as they waited for avalanche control or snowplows to open blocked roads.

WSDOT kept in touch with the freight community by emailing alerts to trucking companies and calling local truck stops, allowing drivers to make route decisions based on the timeliest information and the roads available to their destinations.

For more information about how WSDOT winter operations handled the severe winter weather, see p. 57-59.

# Trucks, Goods, and Freight Annual Update

## Marine/Rail Freight

The 2003 Transportation Funding Package (Nickel) also contains projects that are considered to have freight benefits because they are in an area that has a high volume of truck traffic, are near a port or international border, or make it easier for large or heavy trucks to maneuver more safely and efficiently.

For a list and map of highway projects with freight benefits in the Nickel Fund and TPA Account, please see WSDOT Freight Programs at [www.wsdot.wa.gov/freight/default.htm](http://www.wsdot.wa.gov/freight/default.htm).

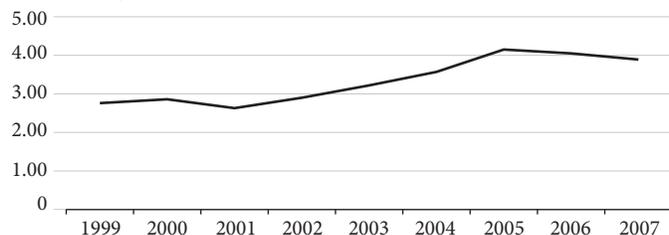
### Freight through Washington's seaports sees slight decline

Seaport activity in Washington, measured by volume of freight handled in tons, saw a slight decrease from 2005 to 2006; however, the overall trend is an increase in waterborne trade. Washington's seaports handled 121.2 million metric tons of freight in 2006, down slightly from 121.8 million metric tons in 2005. Since 2002, freight tonnage handled at Washington's seaports has averaged an annual growth rate of 5%. 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.

The Central Puget Sound seaports, which includes the Port of Seattle and Port of Tacoma, serve as gateways for imports, handling 99.9% of the state's international container traffic. These two ports combined handled a total of 3.9 million TEUs (twenty-foot equivalent units: international and domestic) in 2007. Volumes were 4% lower in 2007 than in 2006, mirroring a national short-term dip in container volumes since 2006. However, the 7% average annual growth rate from 2002 to 2007 confirms an overall, ongoing growth trend. The volume of international containers handled at Washington's seaports is projected to triple from 2002 to 2025. At current growth rates, the state may reach this volume even sooner.

### 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.

### Freight rail is projected to continue growing

Highlights from the Washington Rail Capacity Study show that rail traffic continues to grow across the state. The most recent study, conducted in 2004, showed that Washington's freight railroads moved more than 81 million domestic tons of freight, up from 63 million in 1996. Washington's rail freight traffic consisted of 680,202 carloads and 1,500,880 intermodal units (trailers and containers) in 2004. Farm products are the most significant commodity handled on Washington's rail network from a tonnage standpoint, amounting to almost 24 million short tons in 2004. More than 90 percent of this traffic terminated at Washington ports for export to overseas destinations.

Despite a softening economy in the short-term, Washington's freight railroads are projected to continue growing over the next 20 years. Between 2004 and 2025, overall traffic is expected to increase at a 2.2% annual compound rate for tonnage, from 81.5 million in 2004 to 129.5 million in 2025. The strongest growth is expected to take place in outbound intermodal volumes, driven by Asian imports that show an average annual growth of 4.8%.



Use of the Washington Produce Railcar Pool is increasing. In 2007, a total of 166 carloads were shipped on the "Cold Train."

### Developing freight rail system cost/benefit evaluation methodology underway

2007 Transportation Budget Section 7(a)-7(c) states that: "The department (WSDOT) shall develop a standardized format for submitting requests for state funding for rail projects that includes an explanation of the analysis undertaken, and conclusions derived from the analysis." The Washington Transportation Commission Statewide Rail Capacity and Needs Study, completed in 2006, recommended use of cost/benefit methodology. The Legislature also identified the state's priorities in ESHB 1094, Section 309, 7(a). WSDOT is currently working to create tools, based on those directives, that are effective and easy to use by both WSDOT analysts and legislative staff.

# Trucks, Goods, and Freight Annual Update

## Air Freight/Freight and Goods Transportation System Update

### Air cargo volumes continue to increase

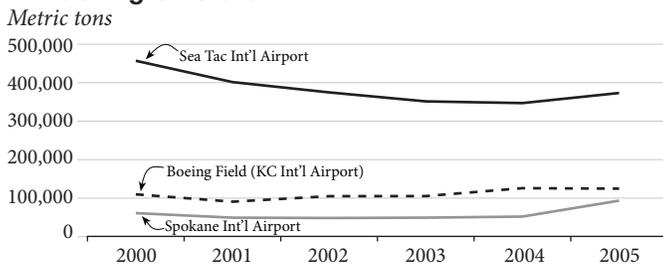
In 2005, air cargo handled at Washington airports totaled 601,435 tons (including air freight and mail). Between 2004 and 2005, air cargo tonnage increased 18% from 508,000 tons to 601,435 tons, marking the second consecutive year of growth in air cargo since 1999. Air cargo activity is highly concentrated 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.

### Washington State Long-Term Air Transportation Study forecasts continued growth of air cargo

In 2005, the Washington legislature required WSDOT to assess existing capacity and implement a state aviation plan to determine long-term air transportation needs, including that of air cargo. The first two phases of the study, called the Long-Term Air Transportation Study (LATS), have been completed and the final phase is underway. (See also Aviation, page 70).

During Phase II of LATS, air cargo forecasts were developed for the top ten cargo airports in Washington State 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.

### Air cargo volumes at primary air cargo airports in Washington State



Data Source: Washington State Long-Term Air Transportation Study, Phase II, WSDOT; Regional Air Cargo Strategy, Puget Sound Regional Council.

### The Freight and Goods Transportation System (FGTS) update completed in 2007

WSDOT updated the designation of Washington State's Freight and Goods Transportation System (FGTS) during 2007, with the assistance of the County Road Administration Board and the Association of Washington Cities (AWC). The FGTS is

updated every two years and is used to establish funding eligibility for Freight Mobility Strategic Investment Board (FMSIB) grants, support Highways of Statewide Significance designation, fulfill federal reporting requirements, and plan for pavement needs and upgrades.

The FGTS classifies state highways, county roads, and city streets according to the average annual gross truck tonnage they carry. Tonnage values are derived from actual or estimated truck traffic count data that is converted into average weights by truck type. Freight corridors designated as Strategic Freight Corridors are those routes that carry an average of four million or more gross tons by truck annually.

In 2007, a total of 2,607 state route miles were designated as either T-1 or T-2, representing 37% of all state route miles. T-1 roads accounted for 1,093 miles, 16% of all state route miles, and T-2 roads accounted for 21% at 1,514 miles. Slightly over 307 state route miles changed designation since the 2005 FGTS update, with a net gain of 113 miles to the T-1/T-2 set in 2007.

In 2007, 48 county road miles were classified as T-1, and 160 miles classified as T-2, a decrease of four miles from the 2005 designation. In 2007, WSDOT and AWC created an online format for cities and towns to update FGTS classifications for their jurisdictions. In 2007, 44 cities and towns had T-1 and T-2 city streets within their jurisdictions.

WSDOT is developing an online format to provide comprehensive information on the 2007 updated FGTS classifications, including tables, maps and data downloads. Detailed maps will be available on the WSDOT web site and can be requested on CD-ROM from WSDOT. More information and the 2007 report is available at: [www.wsdot.wa.gov/freight/publications](http://www.wsdot.wa.gov/freight/publications).

### Establishing a statewide freight data inventory

WSDOT has been working with freight data users across the state to develop a proposal for the first statewide freight data program. Partners have included representatives from state and local planning organizations, major universities, and ports. The proposal will establish an ongoing, systematic approach to providing freight data for better decision making. Currently, very little systematic data exists to inform decision makers about the state's freight transportation systems that support regional, state, and national economies.

Implementation of a freight data inventory program will provide the ability to answer questions such as who uses the freight system, where priority freight corridors and projects are located, how to improve performance of the system, and who pays for and who benefits from freight investments.

# Commercial Vehicle Information Systems and Networks (CVISN): Annual Update

The Commercial Vehicle Information Systems and Networks (CVISN) program has helped improve the efficiency and safety 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.) The Washington State Patrol enforces laws associated with the regulation and safety of commercial trucks. WSDOT develops, installs, and maintains CVISN equipment and infrastructure.

## Number of trucks using CVISN transponders increases slightly

As of 2007, 20.7% of all trucks moving through the state had CVISN transponders, a 0.5% increase over 2006. However, the percent of bypassed weigh stations went down slightly, from 82.1% in 2006 to 81.5% in 2007. The decrease is likely due to problems around the usually busy Everett weigh station. The station has operated without the CVISN system since March 2007 in part because of road resurfacing works, but also because of a collision in which an uninsured motorist destroyed the Everett station's CVISN roadside equipment in June 2007. WSDOT anticipates the equipment will be replaced and the station operational by September 2008.

### Trucks with transponders, 2004-2007

Percent of trucks with transponders and percent of transponder-equipped trucks bypassing weigh stations

	Number of trucks with transponders	Percent with transponders	Percent bypassed
2004	915,486	13.3%	85.9%
2005	1,058,843	18.7%	81.8%
2006	1,155,255	20.2%	82.1%
2007	1,099,432	20.7%	81.5%

Data Source: WSDOT CVISN Office.

Transponder-equipped trucks are allowed to bypass weigh stations if they are:

- Properly credentialed (license and registration);
- Not overweight or over-height;
- Not carrying oversized loads; and
- Have a Federal Inspection Selection System (ISS-D) Inspection Value score (safety rating) of 74 or less.<sup>1</sup>

By allowing those trucks to automatically bypass the weigh station, WSP and WSDOT are able to focus their attention on the remaining commercial vehicles not equipped with CVISN transponders. However, a small percentage of CVISN transponder-equipped trucks are pulled over at random to ensure compliance.

<sup>1</sup> The Inspection Selection System with Driver Conviction Data (ISS-D) value is based on the motor carrier's safety performance data. The ISS provides a three-tiered recommendation for inspection as follows: Recommend Inspect (inspection warranted) 75-100; Optional Inspect (may be worth a look) 50-74; Pass (inspection not warranted) 1-49.

## Transponder-equipped trucks save time and money for the trucking industry

Trucks equipped with CVISN transponders were pre-cleared and received over 896,000 green lights to bypass Washington weigh stations in 2007. This 5% decrease from 2006 numbers is very probably related to the road resurfacing project and damaged equipment at the Everett station.

WSDOT estimates that an average stop at a weigh station is five minutes. It is further estimated that the operating cost of a commercial vehicle is \$1.25 per minute. In 2007, the savings to the trucking industry were about 75,000 hours of travel time and \$5.6 million.

### Money and hours saved by the trucking industry through the use of CVISN transponders

	2005	2006	2007
Number of bypasses	850,000	948,000	896,000
Hours of time saved	70,000	79,000	75,000
Money saved (approx.)	\$5,300,000	\$6,000,000	\$5,600,000

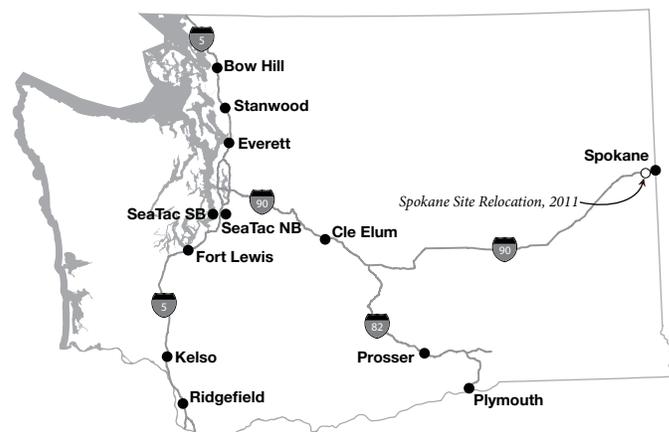
Data Source: WSDOT CVISN Office and Washington Trucking Associations.

## Spokane Port of Entry site relocation

WSDOT is starting to build a new Port of Entry (POE)<sup>2</sup> on Interstate 90 in Spokane. The new POE will be located roughly one mile west of the current one on the Idaho Road interchange. The existing POE will remain in use and operational until the new facility is completed on June 30, 2011. WSDOT and WSP agreed to move the site for several reasons: the existing site is not large enough for WSP needs and its location posed safety concerns. Also, the new location allows for the weigh-in-motion equipment to be installed within the state of Washington.

<sup>2</sup> The Washington State Patrol (WSP) has designated four weigh stations as Ports of Entry in Washington: the first weigh stations a commercial vehicle encounters when entering the state on I-5, I-90 and I-82 from Oregon or Idaho.

### 2007 WSDOT CVISN weigh-in-motion locations statewide



Data Source: WSDOT Traffic Office.

# Aviation Annual Update

Washington State's aviation system provides a critical link between the local, state, and national transportation systems. With 139 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 16 backcountry emergency airports. The following key aviation program components are included in this annual update:

Programs & Activities	Page
Airport pavement management system	70
Pavement condition rating	70
Local airport aid grant program	71
Aircraft registrations	73
Search and rescue, state-managed airports	73
Long-Term Air Transportation Study (LATS)	74

## 23% of Washington State's airport pavement infrastructure is in "poor" condition, disrepair

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 at 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. Unfortunately, due to budget limitations, the FAA has decided not to fund the next

### Aviation Performance Highlights:

77% of surveyed airport pavements in Washington State are in "Good" or "Fair" condition.

In 2007, WSDOT completed ten airport pavement projects, and plans on completing eight more in 2008.

The WSDOT local airport grant program will award a total of \$1.3 million towards 88 projects in the first round of the 2007-09 biennium awards, and leveraging \$8 million in federal funds.

62% of WSDOT's grants for the 2007-2009 biennium were awarded for pavement and security projects.

For the sixth year, WSDOT has exceeded its goal for total aircraft registrations.

The Air Search/Aviation Emergency Services program participated in 193 incidents in 2007.

statewide pavement management update, scheduled to take place in 2008, until 2010. The condition of the statewide system of pavements will not be available to report until 2011.

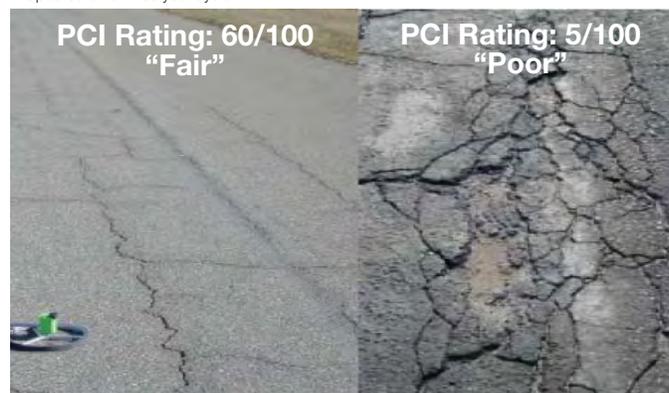
### Airport pavement condition rating<sup>1</sup> by type 2002-2005

*Includes 96 of Washington State's public use airports*

*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.  
<sup>1</sup>Updated on a three year cycle.



Airport pavement in disrepair: the photo on the left illustrates pavement in "Fair" condition, with a PCI rating of 60. The pavement on the right is in "Poor" condition. It received a PCI rating of only 5 (out of a possible 100).

# Aviation Annual Update

## Local Airport Grant Program

### WSDOT awards \$1.3 million in first round of airport improvement grants for the 2007-09 biennium

Each year WSDOT's local airport aid grant program provides crucial financial assistance to many of the state's 139 public airports. Through its grant program, WSDOT leverages millions of dollars in federal grants by using a relatively modest amount of state and local match contributions. In July 2007, WSDOT announced its first round of grant awards for the 2007-2009 biennium. Forty-four airports, representing 88 projects, were awarded just over \$1.3 million in state funds. Of that amount, WSDOT was able to leverage over \$8.4 million in grant funds from the FAA using approximately \$219,000. The first round of awards set a record for both the highest number of airports receiving grants, and the largest total number of projects funded through the grant program's history.

#### Number of local airport aid grants awarded<sup>1</sup>

	2005	2006	2007	First round <sup>2</sup>
Airports awarded grants	21	31	14	44
Number of projects	24	39	19	88

Data Source: WSDOT Aviation.

<sup>1</sup> Grants include funding from federal, state, and local sources. See the table below.

<sup>2</sup> Grants awarded (to date) as part of the first round of aviation grants in the 2007-09 biennium.

The local airport aid grant program supports Washington State public-use airports in addressing pavement, maintenance and planning, security, runway safety, and other important safety needs.

#### Majority of grants awarded in the first round are for pavement projects

Consistent with other rounds of grants, WSDOT focused most of its available funding, about \$701,000, towards pavement projects at smaller Washington airports. As shown in the 2005 Airport Pavement Management System report (previous page), 23% of Washington airport pavements have deteriorated to the point where costly reconstruction or even rehabilitation is needed. For the remaining 77%, preventative maintenance is

required to avoid expensive repairs. Through its grant program, WSDOT aims to fund more crucial pavement projects in order to benefit the state's overall air transportation system.

For the 2007-2009 biennium, WSDOT selected 33 pavement projects to receive grants, six more than the 27 financed in the 2005-2007 biennium. A number of these projects were initially identified through WSDOT-funded airport layout plans and pavement maintenance reports completed in 2006, which is a positive trend for both WSDOT and for maintenance of the state's air-based transportation network. The tables on page 72 include pavement projects that were completed in 2007 and those that are scheduled to be completed in 2008.

#### Security grant program

Through its security grant program, WSDOT provides funding to airports to help them develop security plans. These plans help airports identify safety vulnerabilities and security gaps. After these weaknesses are assessed, airports can create effective emergency response strategies. WSDOT can then help fund projects that remedy common airport security problems. Eligible projects may include:

- Security gates, fencing, and monitoring stations
- cameras
- lighting
- signage.



The security camera (seen in the circled-area above) was financed with a WSDOT security grant awarded to the Chehalis/Centralia airport.

### 2007-2009 Local airport aid grant program, first round

All monetary figures are rounded to the nearest dollar

Type of Projects	Number of projects	Local funds	State funds	Federal funds	Project total	Percentage of program <sup>1</sup>
Pavement	33	\$262,989	\$701,227	\$7,119,561	\$8,083,777	80%
Security	21	\$31,212	\$74,000	\$0	\$105,212	1%
Safety	15	\$29,454	\$176,267	\$534,398	\$740,119	7%
Maintenance, planning & other	12	\$47,925	\$375,709	\$774,516	\$1,198,150	12%
Runway safety	7	\$397	\$7,500	\$0	\$7,897	0%
<b>Total</b>	<b>88</b>	<b>\$ 371,977</b>	<b>\$1,334,703</b>	<b>\$8,428,475</b>	<b>\$10,135,155</b>	<b>100%</b>

Data source: WSDOT Aviation.

<sup>1</sup> Rounded to the nearest percentage.

# Aviation Annual Update

## Local Airport Grant Programs

### 2007 Completed airport pavement projects

WSDOT's Local airport aid grant program 2007 - 2009 biennium

Airport Sponsor	Project description	Total cost <sup>1</sup>	Status
Anacortes Airport: Port of Anacortes	Taxiway, taxilane & apron fog seal	\$241,110	√
Bowers Field: Kittitas County	Taxilane & apron rehabilitation & reconstruction	\$1,194,138	√
Deer Park Municipal Airport: City of Deer Park	Taxilane & apron construction	\$474,933	√
Ephrata Municipal Airport: Grant County Port District No. 9	Glider runway crack seal	\$35,000	√
Ephrata Municipal Airport: Grant County Port District No. 9	Taxiway & connector construction	\$3,509,247	√
Jefferson County International Airport: Port of Port Townsend	Taxilane construction	\$1,822,790	√
Kelso-Longview Regional Airport: City of Kelso	Taxilane construction	\$490,000	√
Moses Lake Municipal Airport: City of Moses Lake	Runway, taxiway, taxilane & apron crack seal	\$20,250	√
Port of Whitman Business Air Center: Port of Whitman County	Taxiway reconstruction	\$1,050,000	√
Willapa Harbor: Port of Willapa Harbor	Apron overlay	\$89,370	√

Data source: WSDOT Aviation.

<sup>1</sup> Consists of state (WSDOT), local and federal funds.

### 2008 Anticipated airport pavement projects

WSDOT's Local airport aid grant program 2007 - 2009 biennium

Airport Sponsor	Project description	Anticipated completion
Arlington Municipal Airport: City of Arlington	Taxiway & apron overlay, construction & reconstruction	Dec-08
Colville Municipal: City of Colville	Seal coat all paved surfaces	Aug-08
Desert Aire Municipal: Grant County Airport District No. 1	Taxiway reconstruction	Dec-08
Mansfield Airport: Port of Douglas County	Seal coat all paved surfaces	Dec-08
Moses Lake Municipal Airport: City of Moses Lake	Runway & taxiways slurry seal	Aug-08
Omak Municipal Airport: City of Omak	Taxiway & apron fog seal	Aug-08
Sand Canyon Airport: City of Chewelah	Seal coat runway	Aug-08
Waterville Municipal: Port of Douglas County	Seal coat all paved surfaces	Dec-08

Data Source: WSDOT Aviation.

### Runway safety grant program

Runway incursions pose a significant but unnecessary risk for pilots and their passengers. The FAA defines an incursion as any occurrence at an airport involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take off of aircraft. Reducing the risk of runway incursions and runway collisions is a top priority of the FAA and WSDOT. Both agencies are partnering to promote runway safety throughout Washington State's system of airports.

Runway safety management is a dynamic process that involves understanding the factors that contribute to runway collisions and taking actions to reduce or eliminate them. Runway incursion severity ratings (Categories A through D) indicate the potential for a collision or the margin of safety associated with

an event. The FAA aims to reduce the severity, number, and rate of runway incursions by mitigating the errors that contribute to collision risks.

The program's goal is to increase pilot and airport operator awareness through educational and training opportunities. Additionally, WSDOT hopes to heighten the level of safety by investing in airport infrastructure and providing local agencies with funds to address identified safety risks and challenges. Eligible projects must have a direct correlation to increased runway safety. Typical projects could include, but are not limited to:

- Runway hold position markings
- Runway hold position signs
- Airport layout / taxi diagrams
- Aviation radios
- Unicom /common traffic advisory frequency signs
- Flashing amber beacons

# Aviation Annual Update

## Aircraft Registration

### Aircraft registration program

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

In 2003, the Legislature authorized changes to state law (R.C.W. 47.68.250) for aircraft registrations to include penalties for late registrations. WSDOT mails two reminder letters to each aircraft owner and attempts to contact individuals via e-mail or telephone, if possible, as a final reminder before issuing penalties.

### Penalties for failure to register aircraft in Washington State

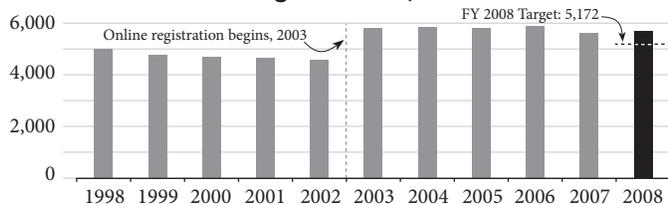
Registration overdue	Penalty per aircraft	Payment due date
0 to 59 days	Normal registration with no penalty	March 1
60 to 119 days	\$100.00	March 2
120 to 180 days	\$200.00	May 1
Over 180 days	\$400.00	June 30
Over 210 days	Account forwarded to collection agency	August 20

Data source: WSDOT Aviation.

### WSDOT continues to exceed aircraft registration goals

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.

### Number of aircraft registrations, 1998-2008



Data Source: WSDOT Aviation.

WSDOT ended the 2007 aircraft registration year with 5,746 active aircraft in need of registration. WSDOT's goal was to register at least 90% of active aircraft for FY 2008, or 5,172 aircraft. As of March 31, 2008, 5,673 aircraft (98% of active aircraft) have been registered to date, exceeding the goal well before the close of FY 2008 on June 30, 2008.

### 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. This program is staffed by a volunteer force consisting of pilots and non-pilots who are trained and certified by WSDOT.

### WSDOT search and rescue operations, 2007

Type of activity	Number of Events
Incidents	193
Emergency locator transmitters	74
Full scale search and rescue missions	3
Overdue aircraft	4
Aircraft accidents	54
Events involving fatalities	28

Data Source: WSDOT Aviation.

### Search and rescue operations supported by WSDOT-managed state airports

WSDOT operates 16 public-use airports across the state. The majority of these airports are located near the Cascade Mountains; additional airports are located along the Snake River in southeastern Washington.

Initially conceived of as a simple system of emergency landing areas in key locations, WSDOT-managed airports today are used for many additional activities, including fire-fighting operations, recreational aviation, and numerous non-aviation activities. The airports also provide transportation access to isolated communities or significant recreation areas. One of the WSDOT-managed airports, Methow Valley State Airport, is included in the national inventory system and is eligible for federal funding.

## WSDOT Aviation Studies

### Long-Term Air Transportation Study examines capacity and future demand

Growing uncertainty in traditional airport funding sources and concerns over statewide aviation capacity needs prompted the Legislature to authorize a long-term air transportation planning study for the state's general aviation and commercial airports. The legislation is referred to as the Washington State Long-Term Air Transportation Study (LATS). The purpose of LATS is to understand what capacity currently exists in aviation facilities and what will be needed to meet future demand for air transportation.

Since the last *Gray Notebook* article, WSDOT released the LATS Phase II report in July 2007 and completed its public outreach research on those findings. The outreach focused on the six key issues identified in Phase II of LATS, including the state's forecasting model for travel needs, land use conflicts, (potential) high speed rail service, allocation of service, service to rural communities, and emerging technologies. WSDOT conducted two in-person seminars, as well as an online and phone survey to gather public opinion on the LATS Phase II findings.

Some of the survey highlights include:

- Over 85% of respondents thought that the capacity of central Puget Sound regional airports was of moderate to high concern.
- 90% of respondents felt that accepting delays and reduced service is an unacceptable alternative to increasing capacity.
- 75% of respondents rated maintaining the condition of existing facilities as a high investment priority.

### Phase III of LATS study under way

Phase III, currently under way, began with Governor Gregoire appointing 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.

More information about LATS is available at:

<http://www.wsdot.wa.gov/aviation/LATS>.

### WSDOT introduces new online tool: Washington State's airport information system

The WSDOT airport information system is an online program that provides the public with information about Washington State's air transportation system. Some of the key features of the airport information include:

#### Online reporting system

The public can view information collected during Phases I and II of the Long-Term Air Transportation Study (LATS). Users may search information by individual airport, county, or region; a statewide summary is also available. They can also view a series of 140 separate webpages providing individual profiles of each airport in the system.

#### Airport update feature

Each airport in the state can update its own information online and print reports. WSDOT Aviation will use the information to evaluate aviation improvements over time and communicate improvement needs to decision makers.

#### Benefits of the new system

##### *Information will be more accurate*

Reliable information is available to support WSDOT's programs including the Airport Aid Grant Program, aviation system plan, and Airport Land Use Compatibility Program.

##### *Information will be consistent*

One-stop shopping means an improvement in the accuracy and timeliness of airport information.

##### *Information will be more accessible*

WSDOT, FAA, local agencies, and the public may view airport information on the web.

More information is available at <http://www.wsdot.wa.gov/aviation/AirportInformationSystem.htm>.

### The WSDOT-managed airport study

The WSDOT-managed airports study is designed to examine the department's role in operating these airports, as well as the role each airport serves in the statewide aviation system, in order to understand the comparative benefit of investing in these airports versus others in the statewide system, including:

- Defining the purpose and role of the WSDOT-managed airport system through an independent assessment.
- Conducting a detailed assessment of existing facilities.
- Standardizing airport operating agreements.
- Identifying policies, standards and operating procedures.
- Integrating results with those found in the LATS study.

# Incident Response Quarterly Update

## Program Clearance Times

WSDOT's Incident Response (IR) program, operates roving units that quickly and safely clear traffic incidents on the state's busiest highways. These roving units operate during peak traffic periods, and offer a variety of free motorist assistance services such as changing flat tires, jump starts, providing fuel, and relocating blocking vehicles safely off the roadway. IR units are trained and equipped to support the Washington State Patrol (WSP) by responding to collisions and other traffic emergencies. They may be called out to major incidents 24 hours a day, seven days a week to provide traffic control, mobile communications, and assistance with clearance and clean-up.

As of March 2008, WSDOT's IR program includes 55 vehicles and 53 designated roving routes statewide, 48 of which are currently covered. In addition to this, the WSDOT IR program has implemented innovative strategies to help reduce incident clearance times, including:

- Agreements with 14 county coroners for the off-site extrication of the deceased from fatality collisions;
- Instant Tow Program which dispatches tow trucks more quickly to the scene of incidents; and
- Major Incident Tow Program, which provides incentives to tow companies to clear incidents involving heavy trucks more quickly (see p. 77).

More information on the IR program can be found at [www.wsdot.wa.gov/Operations/IncidentResponse/](http://www.wsdot.wa.gov/Operations/IncidentResponse/).

### Number of responses statewide down 13%

In the first quarter of 2008, the Incident Response Team responded to 11,686 incidents. This is a 13% decrease from the same quarter in 2007, and a 7% decrease from Q4 of 2007. The 7% drop from Q4 of 2007 to Q1 of 2008 may be related to winter-weather induced events in Q4 2007, seasonal trends, or increased fuel costs.

### Incident clearance times redefined in Q1 2008

With the new Washington Incident Tracking System (WITS), incident start times have been standardized to correspond to the time that the WSDOT responder became aware of the incident. This change improves responder consistency, and improves the accuracy of WSDOT recorded response and clearance times.

The average clearance reporting time for Q1 of 2008 was 14.0 minutes. This is a drop of about 2.0 minutes from averages in the four quarters of 2007, which ranged from 16.0 to 16.3 minutes. The drop is accounted for in part by the change in the average period of time that elapsed between "start time" and "notification time" in those quarters - about 1.75 minutes. This time is based on an analysis of incident response data from the first half of 2007. The average clearance time figure also now includes unable-to-locate (UTL) incidents, which accounts for an additional portion of the decrease in clearance time reported.

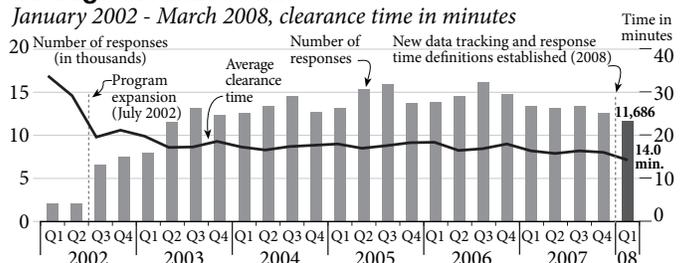
### IR program performance highlights:

Statewide, WSDOT clears 98.5% of incidents in less than 90 minutes.

WSDOT IR units responded to 11,686 traffic incidents during the first quarter of 2008, with an average clearance time of 14.0 minutes.

To date, Major Incident Tow program successful in 9 out of 11 total activations.

### Number of responses and overall average clearance time

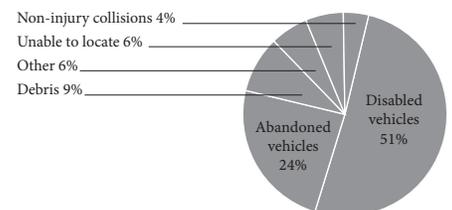


Data Source: Washington Incident Response Tracking System, WSDOT Traffic Office.

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 in 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.

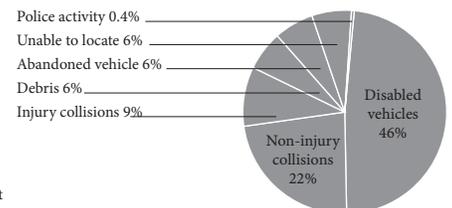
### Incidents lasting less than 15 minutes (8,677) 74.3%

Fatality, injury and police activity were less than 1% (not shown). There were 6 fires and 1 hazardous materials involved incidents in addition to or as a result of above incidents.



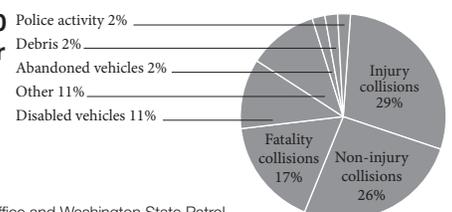
### Incidents lasting 15 to 90 minutes, (2,834) 24.3%

Fatality was less than 1% (not shown). There were four hazardous materials and 65 fire involved incidents in addition to or as a result of above incidents.



### Incidents lasting 90 minutes and longer (175) 1.5%

There were 11 hazardous materials and eight fire involved incidents in addition to or as a result of above incidents.



Data Source: WSDOT Traffic Office and Washington State Patrol

# Incident Response Quarterly Update

## Program Clearance Times

The average clearance time for fatality incidents has also been affected by improving standards. In 2007, fatality incident clearance times ranged from 204 to 245 minutes. This quarter, the average fatality collision clearance time is 180 minutes. Again, this apparent decrease is a function of the new definition of incident duration. Often, WSDOT is called out to provide traffic control at fatality events in the middle of the night or outside of a standard roving zone. WSDOT's incident responders are generally not notified until several minutes after a fatality event has taken place and WSP responders decide that they need WSDOT's traffic control services in order to safely manage the scene. Now that the beginning of an incident in the program's data will be the time that WSDOT was notified, the duration of the program's responses to fatality incidents will be shorter and more accurate.

### *IR staff reductions contribute to Q1 response decrease*

The reduction in the number of responses is related to the loss of seven contracted incident responders in the Seattle and Tacoma areas. Four WSP cadets and three private tow operators that provided responses to smaller incidents were cut from the IR program. In February 2007, the WSP cadets left their roving duties shortly before Federal funding for their positions ended. In April 2007, the three tow company responders left after WSDOT's Federal funding for contracts expired.

### **WSDOT rolls out enhanced IR database**

On January 1, 2008, WSDOT upgraded the Washington Incident Tracking System (WITS) database for all IR activities. The new database will improve data analysis by interfacing more easily with other databases. It was designed to save time for IR drivers through automatic entry and improved error detection. IR personnel participated in the development and were key to a smooth transition to the new system.

In addition to the previously-existing categories of Abandoned Vehicle, Debris, Disabled Vehicle, and Collision (Property Damage, Injury, and Fatality), the new database added two categories of incident types, Police Activity and Other, to better define traffic incidents. The new categories are reflected in the pie charts on the previous page. The category 'Police Activity' is used for incidents in which the roadway is affected by a non-traffic-related, unplanned event that requires law enforcement's intervention. Examples include snipers, potential suicides, and natural disasters. The 'Other' category includes medical emergencies, drivers pulled over for cell phone calls, and other events that do not fit under the existing categories.

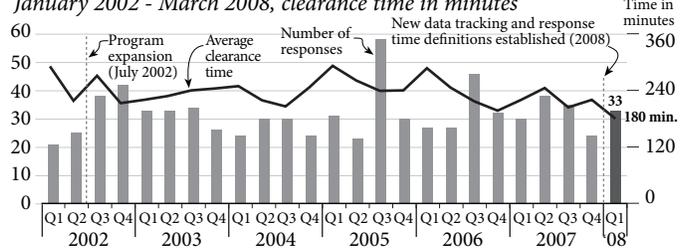
Additionally, the Unable to Locate (UTL) events were classified as their own category type. This change will better optimize IR data collection and analysis. As seen in the accompanying charts UTLs reflect 6% of all under-15-minute incidents, and 6% of all 15-90 minute incidents.

In 2007, the WSDOT's Northwest region (which includes the Seattle area) received funding for 7.5 new responders. While this increase compensated for the loss of the third-party responders, the increase in gas prices has eroded program resources and WSDOT has had difficulty recruiting qualified responders in a competitive employee marketplace.

### **IR program responds to 10% more fatality incidents than the same quarter last year.**

In Q1 of 2008, the Incident Response program attended 33 fatality collisions. This is a 10% increase from fatality incidents in the same quarter of 2007, and a 37.5% increase from 24 such incidents last quarter. An increase in WSDOT's response to fatalities does not necessarily mean there has been an increase in the total number of fatality events. However it may in fact indicate that the WSP is requesting IR assistance at more of them. More information on fatalities on state highways can be found in the June 2007 *Gray Notebook* on pg. 77.

### **Number of responses and average clearance time of fatality collisions**



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.

### **Major Incident Tow program assists with incidents involving heavy trucks**

In 2007, the Legislature provided WSDOT with \$346,000 in funding for the Major Incident Tow (MIT) Program. The MIT is a pilot project designed to provide an incentive to tow companies for the quick removal of badly-damaged heavy (40,000+ lb) vehicles from the roadway. When tow companies successfully remove a blocking heavy vehicle from the road in 90 minutes or less, WSDOT provides them with a \$2500 incentive for meeting quick clearance goals. MIT currently operates in King, Pierce and Snohomish counties. WSP is responsible for determining and activating a MIT event, while WSDOT is responsible for administering the payment for recoveries successfully meeting the Under 90 Minute goal.

Tow trucks are required to be enroute to an incident within 30 minutes of receiving a MIT activation request from the WSP. Once any ongoing investigation is complete, WSP gives the tow company the go-ahead to begin removing the blocking vehicle(s). From that point, the clock starts and the tow company has 90

# Incident Response Quarterly Update

## Major Incident Tow Program

minutes to remove the wreckage and any debris. The clock stops when all travel lanes are re-opened to traffic. This period of time is considered the “recovery time” and is the measurement period for incentive payment.

### Nine of eleven MIT events have been successful

Since the start of the program in July 2007, there have been 11 MIT activations: nine of those (81%) have been successful, one MIT activation was cancelled en-route, and another was unsuccessful in meeting the under-90 minute goal. The average recovery time for the program, including the unsuccessful event, is 70 minutes. Without the unsuccessful event, it was 53 minutes. The total duration of lane blockage was 237 minutes, and without the unsuccessful event, it was 227 minutes.

Six of the 11 events (55%) occurred at interchanges between two highways. Interchanges often require heavy trucks to make turns while carrying a large load. This can create a tendency for these trucks to roll over, especially if they are traveling too fast for the conditions.

### MIT Program is exploring expansion beyond pilot counties

Although the MIT program is slightly less than halfway through the two year pilot phase, only 11 (28%) of the 40 planned activations have been deployed. Because this is a pilot program with

limited funding, WSDOT and WSP have been cautious in declaring MIT events, trying to save activations for incidents that stand to have the greatest impact on the traveling public - heavy vehicles blocking major highways during or just before or after peak period traffic (4 am to 10 pm).

Since the MIT program has had fewer activations than expected WSDOT is exploring a proposal to expand the program state-wide, to include incidents on Interstates, state highways and other truck corridors outside of the three pilot counties.

### Thirteen Towing companies meet high equipment and performance standards for MIT program

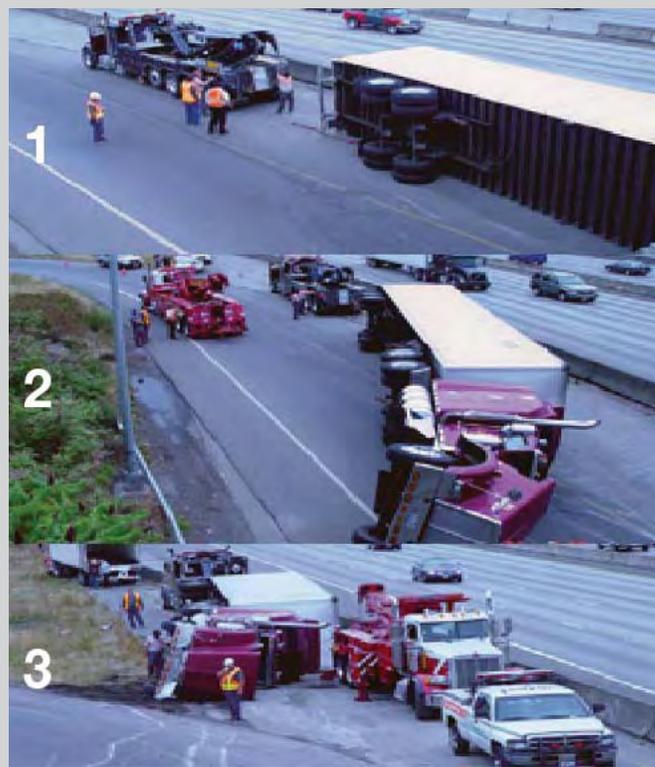
WSDOT and WSP have set high standards for towing companies to be part of the MIT program. Tow companies must respond with two Class C or Class S heavy rotator tow trucks, the only type capable of safely up-righting an overturned semi trailer. Because these Class C and Class S tow trucks are expensive to purchase and operate, some otherwise-qualified tow companies only own one. These companies are allowed to partner with each other to attend MIT events and split the incentive payment. Currently, four companies are under contract for MIT tows as solo-tows, and nine companies are under contract as team-tows.

### Case study: MIT activated successfully to prevent backups in evening peak traffic

On August 21, 2007, at 2:27 pm, a heavy truck carrying 38,000 lbs of empty wine bottles rolled over on the interchange from westbound SR 512 to southbound I-5 in Tacoma. The structural integrity of the trailer was compromised, so although none of the load had spilled, it would have to be unloaded manually. That did not mean that the trailer had to be unloaded in the road. Bill's Towing and Gene's Towing teamed up to move the wreckage off the interchange to the side of the road in 37 minutes of recovery time, with a total lane-blockage time of only two hours and thirteen minutes. The entire incident lasted seven hours and nine minutes, from the start until the last responder had left the scene, including four and a half hours to unload the trailer.

Travelers faced intermittent traffic back ups of up to one mile on westbound SR 512, but for the most part was able to move past the scene. The ramp was closed briefly to facilitate repair to the Jersey barrier and to move the wreck. The MIT incentive program greatly minimized what could have been a blockage of many hours.

The photo sequence to the right shows the MIT program in action: **Photo 1** shows a class S-1 tow truck preparing to move the fully loaded, rolled-over semi. **Photo 2** shows the tow using cables to pull the truck from the middle of the interchange towards the side of the road. **Photo 3** shows the semi fully removed from road. The interchange is once again open to traffic, and crews can begin unloading the cargo in a safer environment.



# Incident Response Quarterly Update

## Over-90-Minute Incidents

### WSDOT and WSP partner to reduce the average duration of over-90-minute incidents

Through her Cabinet Strategic Action Plan, Governor Gregoire set a target for WSP and WSDOT to reduce the average duration of over-90-minute road closure times by 5%, from 174 minutes to 165 minutes. As reported in the December 31, 2007 *Gray Notebook*, the two agencies achieved this goal.

WSDOT and WSP are continuing to strive to meet the 165-minute average duration goal, and further reduce the average duration of road closures.

### WSDOT and WSP continue to meet target for clearing over-90-minute incidents on key Puget Sound routes

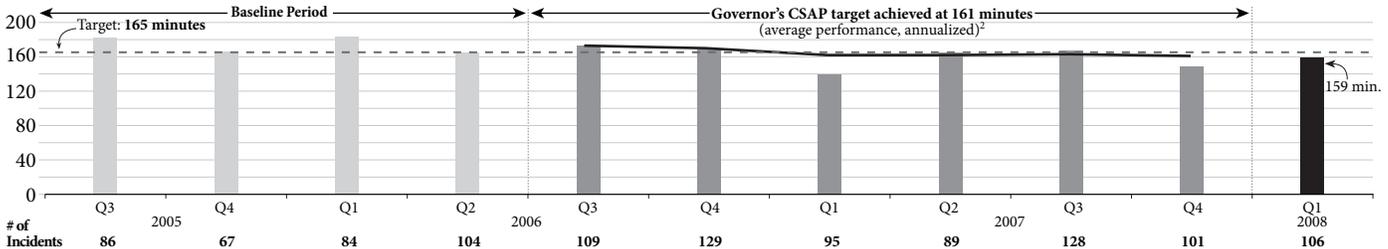
In the first quarter of 2008, the average duration of the 106 over-90-minute blocking incidents on the nine key highways was 159 minutes, six minutes (3.6%) under the target duration of 165 minutes. This is an increase of 7% over last quarter, and an increase of 14% over the same quarter of last year. The reason for the large increase over Q1 2007 is that in the first quarter of 2007, there were no extraordinary (6+ hour) incidents, which tend to skew the data upward. In Q1 of 2008, there were four extraordinary events. With those events removed from the data set, the average duration of over-90-minute blocking incidents for the quarter would fall to 149 minutes.

#### Incidents are still being resolved in less time

In the last performance period, a trend emerged showing a decrease in the proportion of over-90-minute incidents lasting 3 to 6 hours, and an increase in the 90 minute to 3 hour incidents – essentially, incidents were being resolved in a shorter amount of time. This quarter showed a slowing in that trend, as the proportion of 3-6 hour incidents increased and the 90 minute to 3 hour incidents decreased. Although the overall trend is still going in the right direction, this is a concern and the agencies will continue to track this data closely.

### Reducing average clearance time for over-90-minute incidents (on key highway segments)<sup>1</sup> July 2005 - March 2008

In minutes



Data Source: Washington State Patrol and WSDOT Traffic Office.

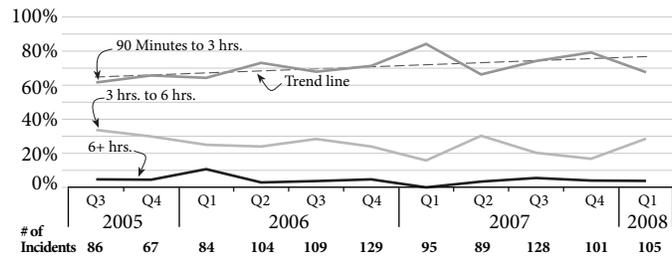
Baseline Data Source: 2006-08: WSP, Computer Aided Dispatch System, 2005-08: WSDOT Incident Response Tracking System.

<sup>1</sup>Selected Key Highway Segments--I-5 (Oregon to Canadian Border), I-90 to North Bend, I-405, SR 18 to I-90, SR 16 to Purdy, SR 167, SR 520, SR 512, and I-205.

Clearance Time (for this measure only) is the time between first recordable awareness of an incident and all lanes open.

<sup>2</sup>The Governor's Cabinet Strategic Action Plan (CSAP) goal for IR sought to reduce the average duration of over-90-minute road closure times on the key highway segments by 5%, from 174 minutes to 165 minutes for the performance period Q3 2006 to Q4 2007.

### Percentage of over-90-minute incidents by quarter Quarter 3, 2005 - Quarter 1, 2008



Data Source: WSDOT Traffic Office and Washington State Patrol.

### Four extraordinary incidents this quarter

Commercial motor vehicles were involved in all four extraordinary incidents from Q1 2008. Three of the four events involved fully-loaded semis that needed to be unloaded before they could be removed from the scene. All extraordinary incidents for Q1 2008 are shown in the table below.

### Extraordinary (6+ hours) incidents on nine key Puget Sound routes

Quarter 1, 2008, duration in minutes

Date	Duration	Location	Description
Feb 28	362	SR 18 MP 24	Incident involving a loaded semi-truck that spilled its load of wood chips. The highway was initially closed for 76 minutes, then reopened for the evening commute. The highway was then re-closed following evening peak for 286 minutes to finish clearing the incident.
Mar 13	382	SR 512 MP 6.8	Fatality with semi-truck involvement; five hour WSP investigation; two class C tows required to remove semi-truck.
Mar 17	389	I-5 MP 56	Four-vehicle injury collision. Responsible driver fled scene on foot. A semi-truck spilled load, required clean-up and a Class C tow. Jersey barriers needed to be reset.
Mar 29	441	I-5 MP 275	Loaded semi-truck on its side on the on-ramp. Cargo needed to be unloaded before truck could be removed.

Data Sources: Washington State Patrol; WSDOT Traffic Office.

# Washington State Ferries Quarterly Update

## Farebox Revenue and Ridership

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. Currently, it is the largest operating auto-ferry fleet in the world, carrying over 11 million vehicles and 24 million passengers each year.

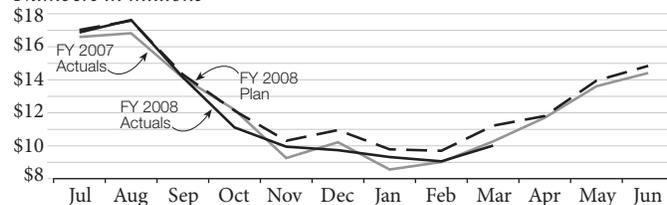
Performance measures	Page
Farebox revenue, Ridership	79
Service reliability: missed trip index	80
Service reliability: on-time performance	81
Vessel and terminal construction	82
Life-cycle preservation	82
Customer feedback	83

### Farebox revenue below forecasted levels

Farebox revenue was 7.5% below projected levels for the quarter. This is the third consecutive quarter that revenues have been below projected levels in fiscal year (FY) 2008. Farebox revenue was \$28.4 million during the quarter, \$2.3 million less than projected revenue of \$30.7 million. However, farebox revenue for this quarter was \$540,000 more than the same quarter a year ago. Year-to-date revenue is 4.8% below projected levels for FY 2008, but \$810,000 higher for the same quarter year-on-year.

### Farebox revenues by month

Fiscal year 2008 (July 1, 2007 - March 31, 2008)  
Numbers in millions



Data Source: WSDOT Ferry System.

### Ridership data

This edition of the *Gray Notebook* is the first since the December 31, 2006, edition in which WSF ridership numbers have been reported. During the third quarter of FY 2007 (January 1 – March 31, 2007) WSF experienced a technical problem with the interface between the new electronic fare system, *Wave2Go*, and the traffic reporting system for ridership numbers. WSF has now been able to report accurate data. Those numbers for previously unreported FY 07 and FY 08 quarters are published in this edition along with the current fiscal quarter's numbers.

### FY 2007 ridership figures near projected levels

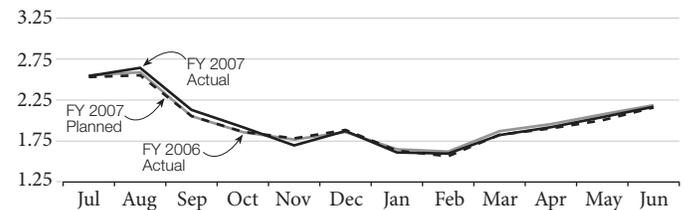
WSDOT reported ridership numbers for the first two quarters of FY 2007, but was unable to report the last two quarters of

FY 2007 (third quarter: January 1, March 31, 2007 and fourth quarter: April 1 – June 30, 2007). For the third quarter, WSF ridership was approximately 95,000 riders below the expected levels. For the fourth quarter, ridership was approximately 99,000 riders below expected levels. For FY 2007, WSF transported 23,979,229 riders (or approximately 99.7% of expected ridership figures of 24 million for the fiscal year). Ridership in FY 2007 was almost identical to ridership for the previous year (FY 2006), a decrease of only 40,000 riders, or 0.2%.

### Ridership by month for fiscal year 2007

Per fiscal year 2007, July 1, 2006 - June 30, 2007

Numbers in millions



Data Source: WSDOT Ferry System.

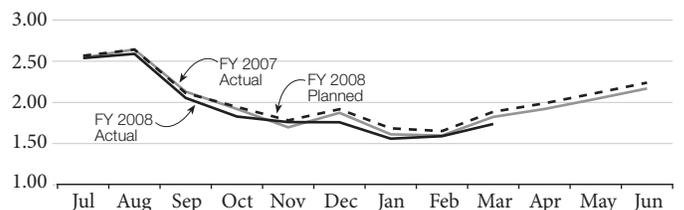
### First two quarters of FY 2008 3% below target

Ridership figures for the first two quarters of FY 2008 were not unreported (first quarter: July 1 – September 30, 2007, second quarter: October 1 – December 31, 2007) in the *Gray Notebook*. For the first quarter of FY 2008, ridership was approximately 156,000 riders below projected levels, and for the second quarter, ridership was approximately 297,000 riders below expected levels. Contributing factors to a reduction in ridership include a general slowdown in the economy and a change in travel behavior among motorists as motorists choose to travel less when gas prices rise (including travel to and from ferries).

### Ridership by month for fiscal year 2008

Per fiscal year 2008, July 1, 2007 - March 31, 2008

Numbers in millions



Data Source: WSDOT Ferry System.

### Ridership down 6% for current quarter

For the current fiscal quarter (third quarter: January 1 – March 31, 2008), ridership levels are approximately 305,000 below expected levels for the quarter. Fiscal year to date, 17,430,788 riders have used the ferry system, a 4% decrease from projected levels for FY 2008. The factors outlined above continue to contribute to the decline in ridership, and it is assumed that the impact of those factors is increasing over the year.

# Washington State Ferries Quarterly Report

## Service Reliability and On-Time Performance

### Average number of missed trips increases

In the third quarter 39,302 sailing trips were scheduled. Of those trips, 2,117 were canceled and 1,487 trips were replaced, resulting in a total of 38,672 trips during the quarter (39,302 scheduled trips – 2,117 cancelled trips + 1,487 replacement trips = 38,672 net trips).

WSF's missed trip index (formerly called the 'trip reliability index') measures trip reliability averages, and utilizes a transportation industry-based standard calculation to evaluate performance. Assuming 400 trips a year for each commuter, WSF had a system-wide missed-trip rate of 6.6 trips/commuter per year, based on the quarterly performance.

Trip reliability for the third quarter of FY 2008 declined significantly as compared to the previous quarter, a reduction of 59% [Note: the previous *Gray Notebook* reported 3.9 missed trips, however the correct figure is 4.1 missed trips]. This missed trip index for the quarter is the highest ever reported in the *Gray Notebook*.

### Three routes affect overall system reliability averages

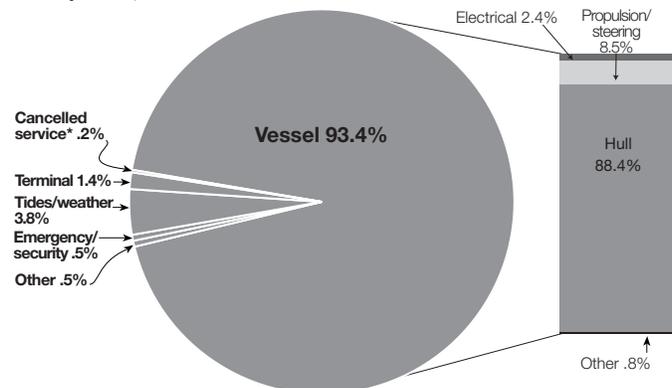
The system-wide decline in performance during the quarter was caused by a variety of disruptions on three routes:

- Fauntleroy-Vashon-Southworth: The change from a three-boat schedule to a two-boat schedule on this route (commonly referred to as 'the triangle route', because of its three trip-legs) resulted in 304 missed trips during the quarter. The shift from a three-boat to two-boat schedule was due to two factors: a lack of suitable vessels after the Steel Electric vessel class was removed from service due to safety concerns in November 2007, and the need for hull repairs on additional WSF vessels

that had been inspected following the discovery of problems with the Steel Electric vessel class.

- Point Defiance-Tahlequah: Mechanical problems with both the M/V *Rhododendron* and the M/V *Evergreen State* resulted in a suspension of service, causing 184 missed trips on this route during the quarter.
- Port Townsend-Keystone: Winter weather and strong tides resulted in 79 missed trips during this quarter. Another 17 missed trips were due to damage to a door on the passenger-only M/V *Snohomish*, which provided interim service on this route until a leased vessel from Pierce County, the M/V *Steilacoom II*, could begin running on this route. WSF also provided passenger-only service from Seattle's Pier 50 to Port Townsend for an interim period in an effort to holiday travel.

### Reasons for trip cancellations Third quarter, FY 2008



Data Source: WSDOT Ferry System.

\* Note: 'Cancelled service' category consists of cancelled trips that are eliminated due to an unplanned change in scheduled service.

### Missed-trip reliability comparison - Expanded reporting

Route	Third quarter, fiscal year 2007			Third quarter, fiscal year 2008		
	Number of missed trips <sup>1</sup>	Missed trip index (average) <sup>2</sup>	Overall reliability average <sup>3</sup>	Number of missed trips <sup>1</sup>	Missed trip index (average) <sup>2</sup>	Overall reliability average <sup>3</sup>
San Juan Domestic	39	0.1	99.97%	3	0.2	99.99%
International Route	0	0.0	100.00%	0	0.0	100.00%
Edmonds - Kingston	7	0.6	99.85%	5	0.4	99.89%
Seattle - Vashon (Passenger Only)	3	3.1	99.23%	0	0.0	100.00%
Fauntleroy - Vashon - Southworth	15	0.6	99.85%	304	12.7	96.92%
Keystone - Port Townsend	143	30.8	92.31%	91	21.2	94.98%
Mukilteo - Clinton	3	0.2	99.95%	21	1.3	99.68%
Pt. Defiance - Tahlequah	0	0.0	100.00%	184	25.3	94.05%
Seattle - Bainbridge Island	14	1.4	99.66%	0	0.0	100.00%
Seattle - Bremerton	2	0.3	99.92%	22	3.5	99.13%
<b>TOTAL</b>	<b>189</b>	<b>1.9</b>	<b>99.51%</b>	<b>630</b>	<b>6.5</b>	<b>98.40%</b>

Data Source: WSDOT Ferry System.

<sup>1</sup>Number of missed trips<sup>1</sup> is the difference (net) between the number of cancelled trips and the number of replaced trips.

<sup>2</sup>'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'.

<sup>3</sup>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.

# Washington State Ferries Quarterly Report

## Service Reliability and On-Time Performance



Vehicles line up at the tollbooths at Colman Dock, Seattle.

### On-time performance within 1% of comparative quarters

WSF quarterly on-time performance rating declined slightly: 93.8% of recorded trips were on-time versus 94.4% on-time in the previous quarter. Compared with the same quarter year-on-year, on-time performance was recorded as 95.1% overall, a decline of roughly 1%.

The average sailing delay increased 6% as compared to the previous quarter (3.3 minutes versus 3.1 minutes). As compared to a year ago, the average sailing delay decreased 14% during the quarter. The sailing delay is the duration between the 10 minute on-time “window” and when a vessel is detected as leaving its terminal.

WSF calculates its on-time performance rating using an automated tracking system on each of its terminals which 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

### On-time performance comparison

Route	Third quarter, fiscal year 2007			Third quarter, fiscal year 2008		
	Number of actual trips <sup>1</sup>	Percentage of trips ‘on-time’ <sup>2</sup>	Average delay from scheduled sailing time <sup>3</sup>	Number of actual trips <sup>1</sup>	Percentage of trips ‘on-time’ <sup>2</sup>	Average delay from scheduled sailing time <sup>3</sup>
San Juan Domestic	6,134	92%	3.0 minutes	5154	92%	3.3 minutes
International Route	12	100%	3.3 minutes	12	100%	0.9 minutes
Edmonds - Kingston	4,622	90%	3.8 minutes	4,359	96%	2.9 minutes
Seattle - Vashon (Passenger Only)	285	98%	3.0 minutes	231	89%	3.4 minutes
Fauntleroy - Vashon - Southworth	9,708	96%	2.9 minutes	7,716	92%	3.8 minutes
Keystone - Port Townsend	1,634	89%	4.7 minutes	98	22%	28.7 minutes
Mukilteo - Clinton	6,457	98%	2.4 minutes	6,238	99%	2.0 minutes
Pt. Defiance - Tahlequah	2,995	96%	3.0 minutes	2,749	96%	3.0 minutes
Seattle-Bainbridge Island	4,033	98%	1.6 minutes	3,957	98%	1.5 minutes
Seattle - Bremerton	2,030	97%	2.9 minutes	2,239	92%	3.9 minutes
<b>TOTAL</b>	<b>37,910</b>	<b>95%</b>	<b>2.9 minutes</b>	<b>32,743</b>	<b>94.%</b>	<b>3.3 minutes</b>

Data Source: WSDOT Ferry System.

<sup>1</sup>Number of Actual Trips represents trips detected by the Automated Tracking System. It does not count all completed trips during the quarter.

<sup>2</sup>The ‘Percentage of Trips On-Time’ category is rounded to the nearest (whole) percentage point for this table.

<sup>3</sup>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.

### 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.

### New performance measure added

This quarter, WSDOT has added the Missed Trip Reliability comparison table to the WSF service reliability section of the *Gray Notebook*. This new measure shows an expanded selection of statistics related to trip cancellations and service reliability for each of the 10 ferry routes.

automated tracking system. However, marine and atmospheric conditions may prevent all trips from being detected when a vessel leaves a terminal.

# Washington State Ferries Quarterly Report

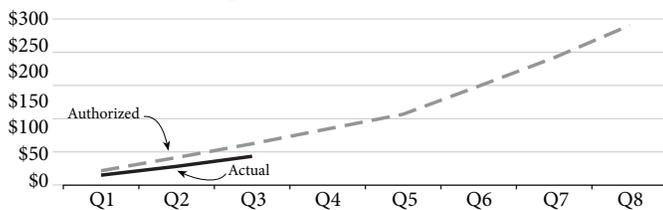
## Construction and Preservation Programs

### Construction program expenditures

WSDOT makes capital investments in the ferry system through the Washington State Ferry Construction Program. This program preserves existing terminals and builds new ferry terminals and vessels, and is budgeted at approximately \$240 million dollars.

### Construction program expenditures Washington State Ferries

Through third quarter, 2007-2009 biennium  
Authorized vs. actual expenditures, cumulative dollars in millions



Data Source: WSDOT Ferry System.

### Vessel construction biennium-to-date

Vessel construction expenditures were under-spending by \$17.0 million, a 42.6% variance from the authorized funds (\$40 million) for the quarter ending March 31, 2008. Continued delays reported in the last *Gray Notebook* for both the M/V *Tacoma* and M/V *Hyak* account for the majority of the under-spending this quarter. However, with the M/V *Tacoma*, there was an unanticipated reduction in the cost and scope of scheduled repairs, which increased the amount of under-spending that occurred during the quarter for the vessel program. For the M/V *Hyak*, late billings for dry-dock work, and a delay in the start of the dockside contract, added to this quarter's variance totals. Finally, drydock scheduling has deferred the work that was scheduled to begin on the M/V *Wenatchee* this quarter, pushing repairs to later in the 2007-09 biennium.

### Terminal construction biennium-to-date

Terminal construction expenditures were under-spending by \$8.1 million, a 40% variance from the authorized funds (\$19.7 million) for the quarter ending March 31, 2008. The Anacortes terminal project has been the greatest cause in the variance, as it was not able to secure the right-of-way acquisitions needed in August 2007 as had been expected.

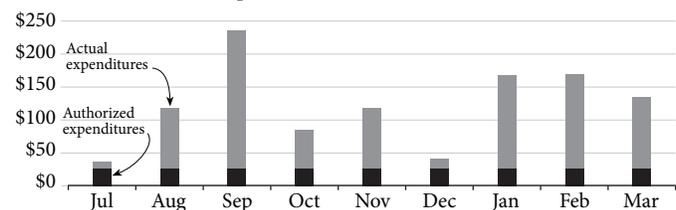
### Emergency expenditures biennium-to-date

Emergency expenditures are over-spending by \$6.2 million for the biennium, a 359% variance from the authorized funds (\$2.4 million) for the quarter ending March 31, 2008. Both the M/V *Quinault* and the M/V *Illahee* required major repairs to their

hulls. Both vessels are part of the Steel Electric vessels class that were pulled from active service on November 20, 2007. The M/V *Rhododendron* and the M/V *Hiyu* had hull painting in January and February, 2008.

### Emergency expenditures Washington State Ferries

Through third quarter, fiscal year 2008  
Authorized vs. actual expenditures, cumulative dollars in millions



Data Source: WSDOT Ferry System.

### System preservation

#### Vessel preservation

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 system.

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 seven Category 1 components, including four hull/steel replacements and two auto-deck replacements for the current quarter. There have been six Category 2 systems replaced, including one portable water tank structural preservation and one salt-water piping replacement this quarter.

#### Vessel preservation activities

Third quarter of fiscal year 2008, 2007-2009 biennium

System	Number of systems preserved (cumulative to date)	Planned number of preservations
Category 1 Systems	7	43
Category 2 Systems	6	50
<b>Total</b>	<b>13</b>	<b>93</b>

Data Source: WSDOT Ferry System.

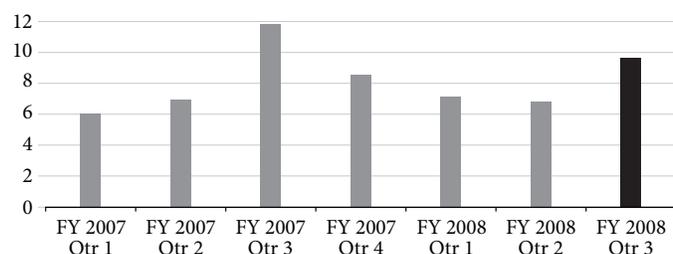
# Washington State Ferries Quarterly Report

## Customer Feedback

### Customer feedback includes 43% more complaints than last quarter

In the third quarter of FY 2008, WSF had an average of 9.6 complaints per 100,000 customers. There were 470 complaints made during the quarter. This is an increase of 43% over the previous quarter (6.8 complaints per 100,000 customers) but a 21% decrease from the same quarter one year ago (11.8 complaints per 100,000 customers).

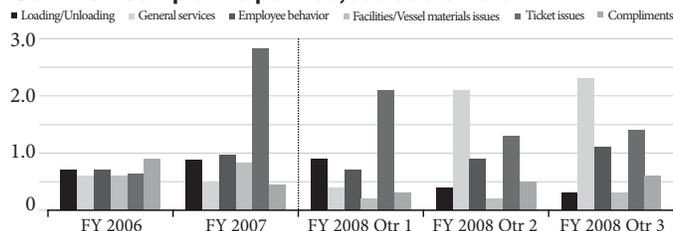
#### Average number of complaints per 100,000 customers



Data Source: WSDOT Ferry System.

The main increase in complaints was attributed to customers expressing concerns about less frequent service on the Fauntleroy – Vashon – Southworth route from January 14<sup>th</sup> to February 4<sup>th</sup> and about the on-time performance of vessels on the Seattle – Bremerton route. On February 8, 2008, the M/V *Yakima* suffered hull damage and was taken out of service; a slower replacement vessel was assigned to the route and customers voiced concerns that the make-up vessel was not able to maintain an on-time sailing schedule.

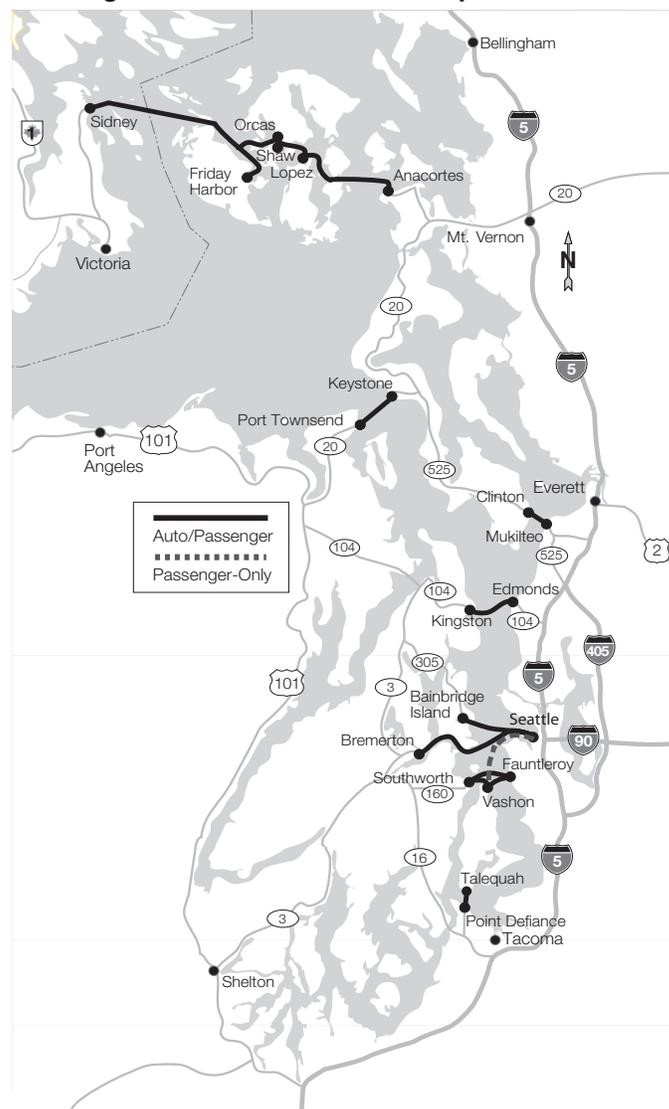
#### Common complaints per 100,000 customers



Data Source: WSDOT Ferry System.

WSF monitors customer complaints, comments, and compliments in order to evaluate its services within 26 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



Data Source: WSDOT Ferry System.



Ferry riders enjoy the view on the Seattle - Bremerton route.

# Rail: Quarterly Update

## 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 of the five are owned by Washington State, and the other two are owned by Amtrak.

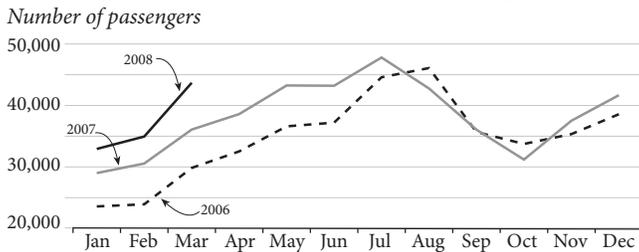
Amtrak *Cascades* service is jointly funded by Amtrak, and the states of Washington and Oregon. Amtrak provides operating funds for one daily round-trip route, Oregon provides for two routes, and Washington, through WSDOT, provides for four.

### Amtrak Cascades experiences strong growth during first quarter 2008

Ridership on Washington state-supported Amtrak *Cascades* trains was 111,552 in the first quarter of 2008. This represents a 16.7 percent increase over the same period in 2007. Overall ridership on Amtrak *Cascades* trains was 165,004 for the quarter, a 12.6 percent increase over the previous year.

Rising fuel prices have contributed to strong demand for Amtrak *Cascades* service as people seek economical alternatives to the increasing costs of automobile travel.

### State-supported Amtrak Cascades monthly ridership



Data Source: Amtrak and State Rail and Marine Office.

### On-time performance

On-time performance for state-supported Amtrak *Cascades* trains averaged 58.1 percent in the first quarter of 2008, a 5.2 percent increase over the same period in 2007 at 52.9 percent. A train is considered late if it arrives at its endpoint destination more than ten minutes after the published schedule.

Performance in January 2008 was 18 percent higher than the previous year. Modifications to railroad operating practices and a few weather-related delays drove overall improvement. February was eight percent better than the previous year. During March, on-time performance declined slightly over the previous year due to substantial train delays in areas where track maintenance and upgrades were taking place.

WSDOT continues to work with BNSF and Amtrak on methods to improve service reliability and achieve our goal of 80 percent

### WSDOT rail program status:

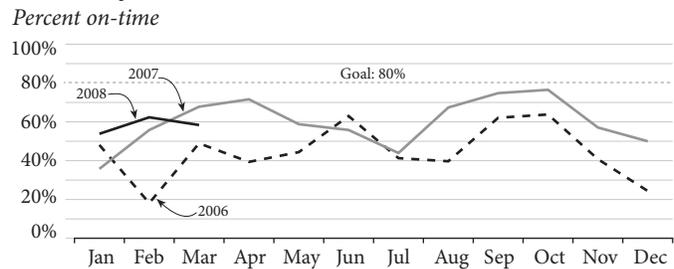
Ridership on state-supported Amtrak *Cascades* totaled 111,552 for the first quarter of 2008, a 16.6% increase over the same time last year.

Amtrak *Cascades* on-time performance averaged 58.1% in the first quarter of 2008.

Amtrak *Cascades* total revenue was up by 3.6% for FFY 2008 (Oct-07 - Jan-08).

Grain Train carload use for the first quarter of 2008 was down 24% compared to last year.

### State-supported Amtrak Cascades on-time performance



Data Source: Amtrak and State Rail and Marine Office.

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.

or better on-time performance. Further Modifications of operating practices, enhanced track maintenance and upcoming rail capacity improvements will reduce congestion and improve reliability of Amtrak *Cascades* service.

### Amtrak Cascades ridership by funding entity

Every day there are 11 Amtrak *Cascades* trains connecting the major cities along the I-5 corridor. Washington, Oregon, and Amtrak jointly fund the operation of these trains. The table to the right shows how many people are riding on trains funded by the three government entities.

#### Amtrak Cascades by funding entity

Ridership by funding entity

Funding Partner	1st Quarter 2007	1st Quarter 2008
State of Washington	95,626	111,552
State of Oregon	25,105	27,610
Amtrak	23,520	25,842
<b>Total Ridership</b>	<b>144,251</b>	<b>165,004</b>

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.

# Rail: Quarterly Update

## Amtrak Cascades monthly revenue

Revenue per month includes ticket receipts, income from food and beverage sales, and proceeds from mail and express shipments on state-supported Amtrak Cascades trains.

The timeframe used in this measurement is the federal fiscal year (FFY), which starts in October and ends in September. This timeframe is used so that it coincides with the same 12-month timeframe used in the WSDOT/Amtrak annual operating contract.

WSDOT typically receives Amtrak Cascades revenue data 60 days after a given month has passed. This delay is the result of slower processing times for food, beverage, and mail receipts, which typically account for 11 percent of total revenues.

During the first four months of FFY 2008 (October 2007-January 2008), total revenues were up 3.6 percent when compared to the same period in FFY 2007. The rate of revenue growth lagged behind ridership growth because of two significant issues. There were reduced service levels between Seattle and Bellingham in October 2007 while substitute equipment was used on the corridor. In addition, there was no business class service available--which generates higher revenues per ticket--during that time, as the Talgo-built, Amtrak Cascades trainsets were out of service for mechanical repairs.

## Washington State Grain Train

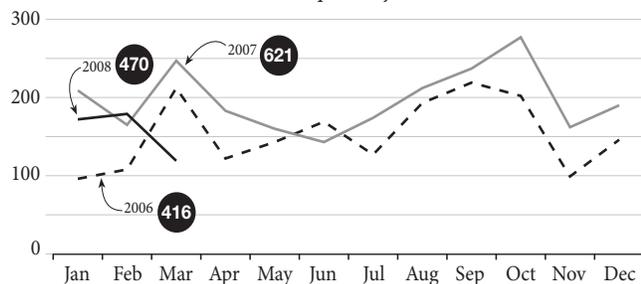
The Washington Grain Train is a financially self-sustaining, transportation program that supports the state's agricultural community while helping short-line railroads maintain a sufficient customer base for long-term financial viability.

### Grain Train shipments decrease

During the first quarter of 2008, Grain Train carload use was down 24 percent compared to this time last year. There were 470 carloads shipped in the first quarter of 2008 versus the 621 in the first quarter of 2007. Nevertheless, carloads this quarter

### Washington Grain Train carloads

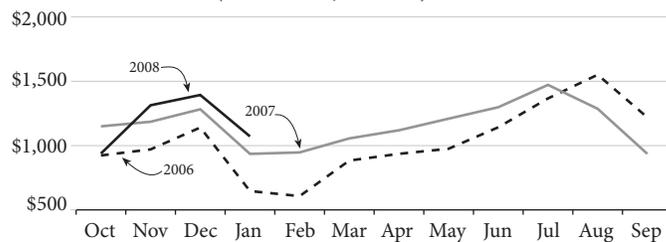
Carloads per month for Q1 2008, CY 2007 and CY 2006  
Circled numbers show cumulative quarterly totals



Data Source: State Rail and Marine Office.

## State-supported Amtrak Cascades revenues per month

FFY 2006 - FFY 2008 (Oct. 2007 - Jan. 2008)



Data Source: Amtrak and State Rail and Marine Office.

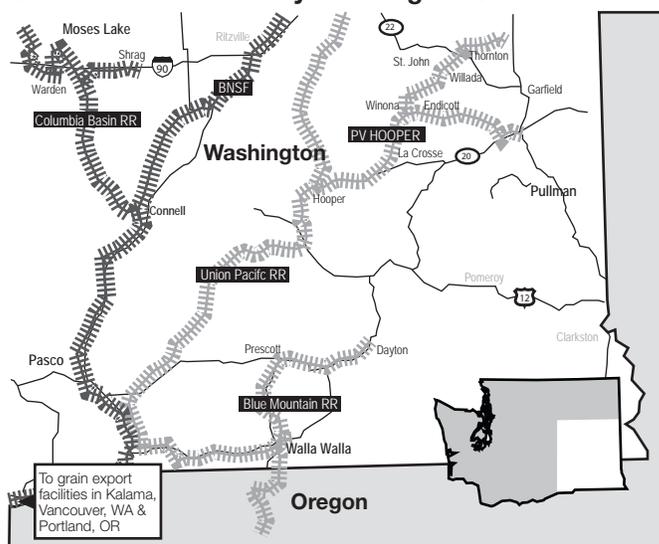
## Grain Trains benefit the public

The Washington Grain Train produces a number of important public benefits, including:

- Helping move Washington State products reliably and efficiently to domestic and international markets.
- Helping preserve Washington State's short-line railroads.
- Helping support a healthy rail network that can maintain and attract new businesses--especially in the rural areas.
- Saving fuel.
- Supporting better air quality.
- Helping reduce wear and tear on local roadways.
- It was started with federal "seed" money and operates without any taxpayer subsidy.

are still above the first quarter of 2006 when only 416 carloads were shipped. One explanation for the decrease is that Grain Train cars used on the Columbia Basin Railroad were only able to make two trips during the first quarter due to weather and rail-related issues.

## Communities served by Washington Grain Train



Data Source: WSDOT Rail Office.

# Highlights of Program Activities

## Project Starts, Updates, or Completions

### Project Starts

#### *US 101, Hoquiam (Grays Harbor)*

On February 19, WSDOT began a 10-week continuous closure of the Simpson Avenue Bridge, spanning the Hoquiam River in Hoquiam. During the closure, crews will upgrade major electrical and mechanical parts that operate the bridge's drawspan. Many of the parts are original to the 80-year-old bridge and are in need of replacement. The work also includes removing the original control house from the top of the bridge and installing a new control house. During the bridge closure, US 101 will be detoured onto the Riverside Bridge, which will carry one lane of traffic in each direction. The detour will remain in place through the end of April 2008.

#### *SR 3, Poulsbo (Kitsap)*

A project that improves safety and reduces collisions started on February 4 when crews begin installing traffic signals at two busy SR 3 intersections. It had become difficult for drivers to turn left onto SR 3 due to heavy traffic volumes: this stretch of highway averages about 17,000 vehicles a day. The new traffic signals, at NW Pioneer Way and Big Valley Road NE, are expected to be up and running in mid-May.

#### *US 97/Columbia River Crossing, Maryhill (Klickitat)*

The US 97 Biggs Rapids-Sam Hill Bridge over the Columbia River in Klickitat County was completely closed to traffic starting on January 2. Over the past several years, the bridge's deck had begun to crack and deteriorate, and has worsened despite several maintenance projects. The bridge will remain closed until crews can replace the north and main spans of the deck; it is scheduled to reopen by Memorial Day. After Labor Day, the bridge will close again for the replacement of the deck on the south span.



Crews reached a milestone as they began placing concrete on the US 97 Biggs Rapids-Sam Hill Bridge across the Columbia River.

#### *US 101, Megler-Astoria (Pacific)*

Repairs to storm-damaged sections of US 101 in Pacific County began on January 14. Crews repaired the damaged roadside, where supporting rocks washed away during the December 2007 storms, compromising the stability of the roadway above. December's high winds and heavy rainfall caused significant erosion of these large rocks, known as "rip-rap," along US 101 from the north span of the Astoria-Megler Bridge (mile post 0.44) to the east side of the Fort Columbia Tunnel (mile post 2.75).

#### *I-5, Everett (Snohomish)*

On March 3, WSDOT began work on a project to replace a 95-foot-long girder, part of an I-5 bridge support, that was struck and damaged by an over-height truck in December 2006. Crews will cut a hole in the middle of the southbound I-5 bridge over Pacific Avenue to remove and replace the girder, during which time, traffic lanes will split around a construction zone that will stretch from Marine View Drive to just north of 41st Street. Two lanes will run on the left side of the work zone, and one lane will run to the right. Crews expect this traffic split to be in place for up to eight weeks, with the bridge repair completed by the end of April; they will then continue their work on the I-5 Everett HOV freeway expansion project.

#### *SR 9, Harvey Creek (Snohomish)*

On February 25, crews began setting girders for a new bridge that will take SR 9 over Harvey Creek and Harvey Creek Road. The bridge is at the north end of a new one-mile stretch of highway between Arlington and Bryant that is being built to eliminate a sharp curve on the existing highway. Crews are also adding new turn lanes at the intersections of 252nd Street NE and 268th Street NE, upgrading lighting, replacing culverts to improve fish passage, and making other changes to enhance safety on the highway.

#### *US 395/BNSF Railroad Tunnel, Spokane (Spokane)*

Work on the next major component of the North Spokane Freeway began on March 10. This project will build a 1,330 foot tunnel to carry BNSF trains under the new North Spokane Corridor freeway; at 54 feet wide, the tunnel can accommodate a future second set of tracks. The rail tunnel will be located near Market Street in the vicinity of Magnesium and Hawthorne roads. This project is the sixth of eight in the US 395/North Spokane Corridor freeway project, and is expected to take two construction seasons to complete, wrapping up in mid-2009.

# Highlights of Program Activities

## *US 12, Walla Walla (Walla Walla)*

On March 18, WSDOT began the first major traffic revision for construction work on US 12 from the Frenchtown vicinity to Walla Walla, which will build about nine miles of new four-lane divided highway. WSDOT crews will construct four intersections and an overpass with ramps at Pine Street; roundabouts at the US 12 ramp intersections will manage traffic heading to and from the highway between Pine Street and Dell Avenue.

## *SR 823, Selah (Yakima)*

On March 17, crews began sidewalk and intersection reconstruction work on SR 823 between Goodlander Road and Harrison Road in Selah. WSDOT is improving the intersection at Goodlander Road to allow easier right-turns onto northbound SR 823. The new sidewalk will give pedestrians a safer route to walk between Carlon Park, Selah High School, and the residential area along SR 823.

## Project Updates

### *SR 502, Battle Ground (Cowlitz)*

In early January, crews began installing girders for the new SR 502 interchange that will link the city of Battle Ground directly to I-5. Sixteen massive girders were installed, each 180 feet in length and 83 inches deep, that will support the span of SR 502 as it crosses over I-5 for the southbound highway connection. In addition to improving access to Battle Ground, the SR 502 Interchange Project will ease congestion and improve safety on I-5 and several other interchanges, including one at NE 179th Street just south of the project and the junction of I-5 and I-205 another three miles south. With the girders installed, crews will move on to the next step: building the overpass deck. The project is scheduled for completion in 2009.



Sixteen girders will support the new interchange bridge being built at SR 502 and I-5 near Battle Ground.



Crews working along SR 20 at Deception Pass are replacing the 1935 guardrail with new guardrail that meets current highway standards and maintains an historic look.

### *SR 20, Deception Pass (Island)*

In February, crews reached the half-way point of a project to replace the historic Deception Pass guardrail on SR 20. The guardrail, originally built in 1935 by the Civilian Conservation Corps, is unique to Deception Pass State Park in Washington State. The new guardrail replicates the look of the original, but meets current highway standards, and will help improve safety for drivers. The new stone masonry posts are reinforced with a concrete core footing and a six-foot by 20-inch deep concrete slab running the full length of the guardrail. They are being finished by masons that are hand-troweling the concrete and rock outer layer of the bollards, incorporating rocks from the original guardrail posts. The Douglas fir guardrail between the posts is fitted on the back with a 3/8 inch-thick steel plate, giving it a hidden, but important, additional layer of protection. Weather permitting, the project is scheduled for completion by Memorial Day 2008. Crews will replace the sections that are most vulnerable to collisions first, and return as funding becomes available to replace the rest.

### *I-405, Bellevue (King)*

Crews began demolishing the Paragon Hotel in Bellevue on March 10, to make way for a new bridge at NE 10th Street. WSDOT is completing the construction in partnership with the City of Bellevue to improve northern access to downtown Bellevue and the medical district. The NE 10th Street Bridge will provide an alternative to NE 8th Street for motorists crossing I-405. In addition to the freeway crossing, WSDOT is building an enhanced water quality and stormwater treatment pond that includes a natural landscape, creating an urban wetland where the hotel once stood.

# Highlights of Program Activities

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## *SR 522, Bothell (King)*

On January 17, WSDOT signal technicians activated a new signal system at NE 195th Street and SR 522 in Bothell. It was the last major milestone in a project which included two left-turn lanes, a wider westbound SR 522 ramp to accommodate both turn lanes, and two signals to manage traffic flow. The new turn lanes and signals will reduce the weekday back-ups that extended past Woodinville-Snohomish Road NE by clearing the left-turning traffic from the intersection. Crews began constructing this \$1.9 million project in summer 2007; work will be completed this spring when crews finish permanent-striping work.

## *SR 202, Redmond (King)*

Crews opened a new lane in each direction of SR 202 between East Lake Sammamish Parkway and Sahalee Way on February 14. Temperatures were finally warm and dry enough to apply temporary striping to the new sections of roadway. After striping, crews opened lanes and activated a new signal at 204th Place NE. Drivers can now turn left again from eastbound SR 202 to 204th Place NE. The left turn was restricted at this intersection for a year while crews rebuilt the roadway and installed the new signal.

## *SR 305, Poulsbo (Kitsap)*

WSDOT gave drivers some additional room on SR 305 through the heart of Poulsbo in Kitsap County. On January 25, a two-mile stretch of SR 305 was widened from two lanes to four after almost 18 months of construction. The right lanes in both directions are designated high-occupancy vehicle (HOV) lanes on Monday through Friday during peak commute times. The additional lanes through Poulsbo should ease congestion, help buses stay on schedule, and make it easier for emergency vehicles to get where they need to go. This project will also improve safety for motorists, pedestrians, and bicyclists by updating traffic signals, improving turning lanes at eight intersections, and adding bicycle lanes and sidewalks between Baywatch Court and Lincoln Drive.

## *I-5, Chehalis (Lewis)*

The LaBree Bridge over I-5 in Chehalis was closed to all traffic in January until construction of a new interchange is complete. Crews began demolishing the LaBree Road Bridge by “crunching” it – a slow, methodical process of slowly picking away and containing small chunks of the structure to be removed. The replacement interchange, built in the same location, is expected to be functional late in 2009. The work is part of the I-5/Rush Road to 13th Street project that began in July 2007.

## *I-5, Everett (Snohomish)*

On February 2, crews began placing the final bridge girders for Sound Transit’s South Everett Freeway Station project. In just one night, crews set eight girders over the I-5 southbound lanes for the new freeway overpass bridge at 112th Street SE in Everett. This work is part of the I-5 South Everett Freeway Station Project, which will allow buses, carpools, and vanpools to go directly from the I-5 HOV lanes to a new 400-stall park-and-ride lot in the I-5 median at 112th Street SE. A new access road from 112th Street SE will allow single-occupant vehicles to reach the park-and-ride.

## Project Completions

### *SR 6, Pe Ell (Lewis)*

After four months of labor-intensive repair work, crews successfully secured the previously unstable slope on SR 6 near Pe Ell, allowing safe passage for motorists traveling on this section of highway. The closure began December 3, 2007, after a winter storm caused a major landslide at this location, cutting off access to motorists and creating dangerous conditions on the hill above the highway. WSDOT geotechnical engineers examined the slope and determined that extensive regrading was the best way to secure the unstable slope and enhance safety to the traveling public. Repair work began on January 28, with the removal of roughly 100,000 cubic yards of debris from the slope, followed by re-grading the hillside for further stability.

### *SR 96 Snohomish (Snohomish)*

Less than a month after flooding destroyed a section of State Route 96 (Seattle Hill Road) near Snohomish, crews reopened the repaired roadway on Dec. 31. On Dec. 3 maintenance crews noticed a sinkhole in the shoulder of SR 96 and immediately closed the roadway to keep drivers safe. They discovered that heavy rains had collapsed a culvert and washed out the ground beneath a large section of the roadway, leaving nothing to support the remaining asphalt. Wilder Construction crews working for WSDOT began repairs on Dec. 11. They worked around the clock to tear out the damaged roadway, replace the failed culvert, build two new retaining walls, and add fill material. The new box culvert, measuring 10 feet wide by five feet tall, will protect against future flooding and improve fish passage.

# Highlights of Program Activities

## Ferries

### David Moseley named Assistant Secretary for Washington State Ferries

Governor Christine Gregoire, Senator Mary Margaret Haugen, and Representative Judy Clibborn joined Transportation Secretary Paula Hammond on February 5 as she announced the appointment of David Moseley



as the new Washington State Department of Transportation Assistant Secretary for the Ferries Division.

During the announcement, the governor specified three areas of improvement that she hopes will ensure that Washington State has a healthy, cost-effective ferry system well into the future. They included: fleet preservation and maintenance programs that set the industry standard for best practice; a “nimble organization” that provides outstanding customer service; and a funding plan that is lean and sustainable, accommodating vessel preservation and construction as needed.

Moseley, formerly Vice President for the Institute for Community Change in Seattle, had been Federal Way city manager from 1999 to 2006. He assumed the position vacated by Mike Anderson, who retired in 2007.

### *Steilacoom II* begins service on Port Townsend/Keystone ferry route (Jefferson/Island)

On February 9, the *Steilacoom II*, leased from Pierce County by Washington State Ferries, began service on the Port Townsend/Keystone route. This ferry carries 50 cars and 300 passengers, and will replace the temporary service provided by the passenger-only vessel *Snohomish*. Crews spent one week training on the *Steilacoom II*, becoming familiar with the vessel’s equipment and operations, and performing routine safety drills. The U.S. Coast Guard issued a Certificate of Inspection certifying the vessel for service. Vehicle service on the Port Townsend/



*Steilacoom II* waits for passengers and vehicles to come aboard at the dock in Port Townsend.

Keystone route was shut down on November 20, 2007, when Secretary Hammond ordered the Steel Electric-class vessels pulled from service for safety reasons.

### WSDOT Ferries Division launches testing phase of biodiesel fuel project

On March 10, WSDOT Ferries Division launched the Biodiesel Research and Demonstration Project with testing on the 124-car ferry *Issaquah*. WSDOT is partnering with the Puget Sound Clean Air Agency and other regional stakeholders to test the use of biodiesel in the marine environment. The decision to test biodiesel was based on Governor Chris Gregoire’s 2005 executive order for sustainability and 2006 legislation requiring state agencies to use a minimum of 20 percent biodiesel by 2009. Each year, the state’s ferry system burns about 17 million gallons of diesel fuel on its vessels, making the agency a significant fuel consumer in Puget Sound. In April, WSDOT plans to begin testing biodiesel on the 87-car *Klahowya* and the 87-car *Tillikum*. The tests are scheduled to run until February 2009.

## Motorist/project information

### I-5 flow map reaches to Fort Lewis/DuPont (Pierce)

WSDOT’s statewide traveler information page on the web now has a flow map showing traffic conditions in the Fort Lewis/DuPont area of Pierce County, giving drivers who travel this busy stretch of highway a tool to help plan their commutes. Extending the flow map into this area (<http://www.wsdot.wa.gov/traffic/dupont/>) is especially useful as traffic volumes are increasing near Fort Lewis. Gate counts from the Fort have risen from 265,000 in 2006 to 317,000 in 2007. To help alleviate congestion in the area, drivers not exiting at Fort Lewis are encouraged to stay in the left two lanes.

### New travel tools in Thurston County

In the Olympia area, crews are installing six new traffic cameras and installing two overhead electronic signs for Amber Alerts and traffic management. The cameras and signs, installed as part of a \$2 million project, should be in operation by September. Three of the new cameras are on I-5 at Eastside Street, Sleater-Kinney Road, and Martin Way; the other three are located on surface streets at the intersections of Union Avenue and Plum Street, Martin Way and Sleater-Kinney, and Martin Way and College Street. The new I-5 overhead signs are located southbound in DuPont and northbound at Tumwater Boulevard. These electronic signs are an important communication link with drivers during Amber Alerts and highway incidents.

# Highlights of Program Activities

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## More cameras at the Canadian border (Whatcom)

A total of 16 cameras are now available on all four highways leading to border crossings in Whatcom County. The cameras are available via WSDOT's Web site at [www.wsdot.wa.gov/traffic/border/](http://www.wsdot.wa.gov/traffic/border/). There are eight cameras on I-5, five on SR 543, two on SR 539, and one on SR 9. The I-5 Peace Arch crossing is the third busiest passenger vehicle crossing on the U.S.-Canada border, and the SR 543 Pacific Highway crossing is the fourth busiest commercial crossing. WSDOT also installed traffic detectors at each crossing to measure the border wait times. Signs, I-5 radio stations, and the WSDOT website will display the wait times, helping drivers make informed decisions about where to cross before they even hit the road. WSDOT also has made traffic maps and cameras available for many Web-accessible cell phones at <http://www.wsdot.wa.gov/small/>. The project should be completed by April.

## Public Transportation and Traffic Management

### *I-90, Mercer Island (King)*

On February 26, crews closed one lane of the I-90 reversible center roadway between Bellevue and Mercer Island as WSDOT and Sound Transit work to improve travel for HOVs and buses. WSDOT and Sound Transit are adding new 24-hour HOV lanes in each direction on I-90. The project includes building a new direct access ramp from I-90 to 80th Avenue SE for HOVs and buses. One of two lanes in the center roadway from 80th Avenue SE and Bellevue Way will be closed until late June or early July. This work is part of the I-90 Two-Way Transit and HOV Operations project.

### *SR 167, Renton (King)*

WSDOT crews installed gantries over SR 167 that soon will support signs and electronic tolling equipment for the SR 167 HOT Lanes pilot project. The new overhead gantries will support electronic, variable-message signs that display the current toll rate and signal to drivers when a HOT (high occupancy toll) lane access point is approaching. Smaller gantries at each of the six northbound and four southbound access points will support electronic readers that detect Good To Go! transponders and automatically debit tolls as solo drivers pass beneath them. In late March, road crews added a second solid stripe to the existing white stripe that currently separates the HOV lanes from the general purpose lanes. It will be illegal for all drivers to cross the solid double white lines.

## Aviation

### WSDOT accepts applications for Local Airport Aid grants

WSDOT Aviation began accepting applications in February from airport sponsors for a new round of Local Airport Aid grants. This is WSDOT's second round of airport grants offered during the 2007-2009 biennium. Each year, WSDOT provides crucial financial assistance to many of the state's 139 public airports through its Local Airport Aid grant program. WSDOT accepts applications from any municipality or federally recognized tribe that owns an open, public-use airport in Washington. At least \$1 million will be available for eligible airport projects; the maximum amount WSDOT can award to an airport sponsor for a single grant is \$250,000. WSDOT plans to announce the awards no later than April 18, 2008. Details will be available on the Aviation home page of the WSDOT website: <http://www.wsdot.wa.gov/aviation/grants/default.htm>.

### Announcements, awards, and events

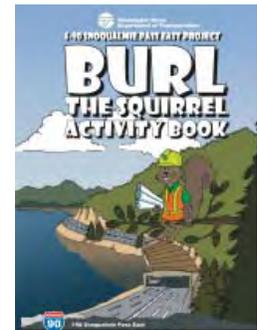
WSDOT wins three communications awards from the Transportation Research Board in Washington, D.C.

At their annual meeting in Washington, D.C., in January, the Transportation Research Board gave top communications awards to WSDOT. The communications competition attracted 80 entries from around the world. WSDOT won three of 11 awards in the communications competition, which highlights creative ways to communicate complex information to the public.

The three awards were given for the following projects:

- Holiday Travel Graphs were developed to communicate anticipated peak travel times in the mountain passes, particularly for I-90, that help people plan their trips.
- "Rachel's Drive" is a video with computer animation that shows how the new high occupancy toll (HOT) lanes will work on SR 167 between Renton and Auburn.
- "Burl the Squirrel" is a cartoon character and star of an activity book used to educate children about the importance of the wildlife crossings and other features that form the I-90 Snoqualmie Pass East Project.

The Transportation Research Board is a national organization that encourages innovation in transportation and is one of six major divisions of the National Research Council.



# Gray Notebook

## Subject Index

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003  
**13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16** = Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005  
**19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006  
**25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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<b>Topic</b>	<b>Edition</b>
<b>Aviation</b>	
Air Cargo.....	25, 29
Air Search and Rescue .....	6, 13, 17, 26, 29
Airport Aid Grant Program: Amount Awarded.....	6, 13, 17, 21, 25, 29
Airport Land Use Compatibility and Technical Assistance.....	21, 25, 29
Airport Pavement Conditions .....	17, 21, 25, 29
Airports in Washington.....	6, 13, 17
Aviation System Planning.....	17
Fuel: Taxable Gallons .....	6
Project Delivery .....	21, 25, 29
Registrations of Pilots, Mechanics and Aircraft .....	6, 10, 13, 17, 21, 25, 29
Registration Revenue .....	10, 13, 17
Training of Pilots and Mechanics.....	6
<b>Benchmarks (RCW 47.01.012)</b>	
Administrative Efficiency.....	9, 14, 18, 22
Bridge Condition Goal.....	14, 18, 22
Non-Auto Share Commute Trips Goal.....	14, 18, 22
Pavement Goal.....	14, 18, 22
Transit Efficiency.....	9, 14, 18, 22
Safety Goal.....	14, 18, 22
Vehicle Miles Traveled (VMT) per Capita.....	9, 14, 18, 22
<b>Bridge Conditions on State Highways</b>	
Age of WSDOT Bridges.....	4
Bridge Ratings (FHWA): Structurally Deficient and Functionally Obsolete.....	4, 26
Bridge Condition Ratings and Safety.....	26
Bridge Condition Ratings: State Comparison .....	8
Bridge Replacements .....	19, 23, 26
Bridge Structural Condition Ratings.....	11, 15, 19, 22, 23, 26
Deck Condition Rating.....	26
Deck Protection Program: Overview.....	4, 8, 11, 15, 23, 26
Deck Protection Projects: Planned vs. Actual Projects .....	4, 5, 8, 11, 15, 23, 26
Hood Canal Bridge Update.....	11-29
Inspection Program.....	4, 11, 15, 19, 23, 26
Inventory of WSDOT Bridges .....	4, 5, 8, 11, 15, 19, 23, 26
Movable Bridge Repair .....	19, 26
Preservation Program Results.....	11, 15, 19
Rehabilitation and Replacement Project Schedule .....	4, 11, 15, 19, 23, 26
Repairs .....	19, 23, 26
Risk Reduction.....	19, 23, 26
Scour Mitigation.....	4, 11, 15, 19, 23, 26
Seismic Retrofit Program: 1990-2020 Status.....	4, 8, 22, 23
Seismic Retrofit Program: Planned vs. Actual Projects.....	4, 5, 8, 11, 15, 23, 26
Seismic Retrofit Program: Risk Reduction.....	19, 23, 26
Seismic Retrofit Program: Top 10 Priority Bridges.....	4, 8
Seismic Retrofit Program: Transportation Partnership Account Bridges.....	26
Steel Bridge Painting: .....	4, 5, 8, 11, 15, 26
Tacoma Narrows Bridge Update.....	8-29
<b>Commute Options</b>	
Award for the Commute Trip Reduction Program.....	6, 11
City of Redmond Case Study.....	19
Commute Mode Share Trends .....	4, 6, 7, 13
Commuting Trends at CTR Work Sites and Work Sites in General.....	4, 19, 22, 23, 27
Commute Trip Reduction Efficiency Act.....	27
CTR Task Force Report: Biennial Results .....	4, 13
Cost Effective Strategies.....	19
Drive Alone .....	6, 7, 20, 23, 27
Eastgate Park and Ride Expansion.....	9
Effectiveness of CTR Program (Biennial Results).....	4
Employer Participation, Investment, and Benefits.....	2

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003  
**13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16** = Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005  
**19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006  
**25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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<b>Topic</b>	<b>Edition</b>
Gasoline Consumption Per Capita (Northwest Environment Watch).....	7
Grant Programs .....	20, 23, 26
Number of Vanpools in Washington State.....	27
Opportunities for Commuters.....	15
Park and Ride Lot Occupancy Rates: Central Puget Sound .....	4, 14, 23
Park and Ride Lot Occupancy Rates: King County .....	3, 5-14, 23, 27
Park and Ride Lot Security.....	5
Park and Ride Lot Puget Sound System .....	8
Vanpool Investments .....	15, 23, 27
Vanpool Operation in the Puget Sound Region.....	2-15, 23, 27
Vanpooling Share of Daily Puget Sound Area VMT .....	2, 15
Van Share Trends.....	8, 9, 11, 12, 15
<b>Congestion on State Highways</b>	
2007 Urban Mobility Report.....	27
Accidents on Interstate 405: 2001 and 2002.....	9
Automated License Plate Recognition Technology.....	23
Benchmark Policy Goals for Congestion: Analysis.....	5
Case Studies: Before and After Results .....	15, 19, 23, 27
Comparisons of Conditions 2002-2003.....	15
Comparisons of Conditions 2003-2005.....	23
Comparisons of Conditions 2004-2006.....	27
Congestion Measurement Principles .....	5, 6, 19, 23, 27
Congestion Monitoring .....	19,23, 27
Cost of Delay.....	15,23, 27
Daily Vehicle Hours of Delay per Mile, Sample Commutes Measured by Delay, Time of Day Distribution of Delay, and Travel Rate Index .....	2, 5
Distribution of Traffic Between Freeways and Arterials: 1999 to 2003.....	9
Earlier Congestion Measurement Efforts:.....	9
Employment in the Puget Sound Region .....	9
Highway Improvements Have Reduced Congestion .....	9
HOV Lane Performance.....	19, 23, 27
Induction Loop Detectors .....	5
Intelligent Transportation Systems in Washington State .....	5, 22
Lost Throughput Efficiency.....	19, 23, 27
Measuring Delay.....	19, 23, 27
More Work on Recurrent and Non-Recurrent.....	15
Peak Travel Times for 20 Routes .....	15
Peak Travel Times: Key Commute Routes .....	19, 23, 27
Percentage of Weekdays With Average Speeds 35 MPH or Below .....	27
Recurrent and Non-Recurrent Congestion.....	19
Sources of Congestion.....	15, 23, 27
Stamp Graphs.....	27
Traffic Speeds and Volumes on SR 520: 2000 and 2003 .....	9
Traffic Volumes at Seven Locations in March, 2000 to 2003 Average .....	9
Traffic Volumes on Nine Puget Sound Region Corridors.....	5
Travel Time Performance .....	19, 23, 27
Travel Time Reliability.....	6, 9, 15, 27
Travel Time to Work Comparison: State and County Rankings.....	5
Travel Times on 11 Puget Sound Region Corridors.....	5, 9
Travel Times With and Without Incidents.....	6
Travel Time Performance 2004 to 2006.....	27
Typical Freeway Traffic Volume Trend: 1993 to 2002.....	9
<b>Construction Program for State Highways</b>	
Advertisements Process.....	13
Advertisements by Subprogram: Planned, Actual & Deferred.....	4, 5
CIPP Value of Advertised & Deferred Projects by Subprogram .....	4, 5
Construction Program Cash Flow: Planned vs. Actual Expenditures .....	4-19, 23-29
Construction Program Delivery: Planned vs. Actual Advertisements.....	1-19, 23-29
Contracts Awarded: Award Amount to Engineer's Estimate.....	6, 10, 14, 18, 22, 26
Contracts Completed: Final Cost to Award Amount .....	6, 10, 14, 18, 22, 26
Contracts Completed: Final Cost to Engineer's Estimate .....	6, 10, 14, 18, 22, 26
End-of-Season Highway Construction Project Evaluations .....	12, 16, 20, 24, 28
FHWA Federal Performance Report Card.....	12
Hood Canal Bridge Update.....	11-29
Hot Mix Asphalt Pavement Delivery .....	3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 22, 23, 25-27, 29
Lane Miles Added to State Highway System.....	2, 13, 23
Rising Cost of Construction Materials .....	15, 19, 23, 25-29
Safety Construction Program: Planned vs. Actual Advertisements .....	3, 6-17, 19

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003, **13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005 **19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006 **25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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**Topic** **Edition**

Tacoma/Pierce County HOV I 5 Lane Additions.....	25, 26, 27, 28, 29
Tacoma Narrows Bridge Update.....	8-29

**Design**

Age Related Safety Issues.....	10
Cable Median Barrier Installation: Before and After Collision Data .....	12, 20
Driving Speeds on State Highways.....	4, 23, 27
Guardrail Retrofit Program.....	11, 24, 28
Roundabout Installation: Before and After Collision and Injury Data .....	12, 22, 26
Value Engineering .....	6, 10

**Environmental Stewardship**

Agencies Approve Projects.....	18,25
Air Quality.....	22,26
Compost Use.....	7
Congestion Mitigation Measures .....	26
Construction Site Erosion and Runoff Protection .....	4, 6, 9, 12, 16, 28
Chronic Riverbank Erosion - Hoh River.....	15
Diesel, Particulate Matter .....	17, 26
"Ecology Embankment" Pollutant Removal.....	8, 28
Endangered Species Act.....	23, 27, 28, 29
Environmental Assessments .....	18, 28
Environmental Compliance Assurance: Tracking .....	9, 12, 16, 18, 20, 23, 24, 25, 28
Environmental Impact Statement Processing Time .....	9, 13, 28
Environmental Impact Statement Concurrence Request Approval Rate.....	13
Environmental Management Systems Update.....	20, 24, 28
Erosion Control Preparedness.....	20, 24, 28
Fish Passage Barriers.....	4, 13, 17, 22, 26
GIS Workbench.....	14
Hazardous Materials Removal.....	15
Herbicide Usage Trends.....	5, 8, 12, 16, 24
Noise Impact .....	23, 26
Operational Improvements.....	22
Organic Recycling Award for WSDOT .....	12
Programmatic Permits.....	13, 17, 22, 26
Quieter Pavements .....	22, 24, 26, 28
Recycling Aluminum Signs.....	7
Stormwater Treatment Facilities .....	12, 16, 20, 24, 28
Violations.....	9, 12, 16, 24, 28
Water Quality Impacts .....	16, 20, 24, 28
Wetland Internship.....	14
Wetland Replacement (Mitigation) Monitoring .....	5, 9, 12, 16, 20, 24, 25, 28
Wetland.....	14, 16
Wildlife Crossings .....	18

**Ferries (WSF)**

2007 State Audit.....	27
Capital Expenditure Performance: Actual vs. Authorized .....	19, 20, 21, 23, 24, 25, 26
Capital Expenditure Performance: Planned vs. Actual .....	4-18, 21-26, 29
Customer Comments.....	3-29
Capital Project Delivery Executive Summary: Ferries .....	24, 25, 26, 27, 28, 29
Electronic Fare System and Smart Card.....	17, 25, 26, 27
Environmental Stewardship.....	26
Fare Comparison: WSF to Other Auto Ferries.....	4
Farebox Recovery Comparison: WSF to Other Auto Ferries and Transit .....	5
Farebox Recovery Rate.....	5, 12, 16
Farebox Revenues by Month .....	3-14, 16-29
Fleet Condition: Ferry Ages by Class of Vessels.....	13, 21
Life Cycle Preservation Performance: Planned vs. Actual .....	12-29
On-Time Performance.....	3-29
Operating Costs Comparison: WSF to Other Ferry Systems .....	3
Ridership by Month .....	3-24, 29
Terminal and Vessel Incidents .....	26, 29
Trip Planner.....	17, 18
Trip Reliability Index and Trip Cancellation Causes .....	3-29
Trip Completion and On Time Performance Comparison to Washington Transit Services.....	25

**GPS at WSDOT**

Tour the State Highway system- SR view Development of the "Smart Map" .....	13
---	----

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003  
**13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16** = Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005  
**19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006  
**25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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**Topic** **Edition**

**Maintenance of State Highways**

Achievement of Biennial Maintenance Targets (Maintenance Accountability Process [MAP]).....	3, 4, 8, 12, 16, 24, 28
Anti-Icer Evaluation.....	17, 18, 21, 25, 29
Anti-Litter Campaign Update.....	5, 11
Automated Anti-Icing Systems.....	7
Avalanche Control.....	15, 21, 29
Capital Facilities Construction Projects.....	18, 22, 26
Cooperative Maintenance Partnerships with Counties and Cities.....	25
Costs of State Highway Maintenance .....	4, 16, 25
Culvert Management System.....	27
Customer Satisfaction with WSDOT Highway Maintenance Activities.....	3
Debris Pusher Maintenance Attachment .....	6
Emergency Operations Centers.....	27
Facilities .....	19, 22, 26
Facilities Condition Rating.....	18, 22, 26
Global Positioning Satellite Use for Snow and Ice Control.....	13
Guidepost Driver.....	11
Herbicide Usage Trends.....	5, 8, 12, 16, 24, 28
Highway Sign Bridges: Planned vs. Actual Repairs .....	3, 4, 6, 8
Highway Signs: Number of Maintenance Actions .....	6, 8
Integrated Vegetation Management.....	5, 12, 16, 20, 24, 28
Landscape .....	19
Litter Removal from State Highways .....	5, 6, 8, 11, 15
Litter Violations Issued by WA State Patrol .....	23
Living Snow Fence on SR 25.....	9
Mountain Pass Highway Closures.....	7, 9, 17, 21, 25, 29
Pavement Striping: How Do They Paint the Stripes So Straight?.....	6
Pavement Striping: Planned vs. Actual Miles Painted.....	3, 4, 6, 8
Pavement Striping: Winter Field Test .....	18
Road Kill on State Highways.....	5, 23
<b>Safety Rest Areas</b>	
Safety Rest Area Condition Report.....	21, 25, 29
Safety Rest Area Improvement Program.....	21, 25, 29
Safety Rest Area Locations and Amenities .....	9, 13, 17, 19
Safety Rest Area Level of Service .....	17, 21, 25, 29
Safety Rest Area Preservation .....	17, 21, 25, 29
Safety Rest Area Survey.....	9, 17, 21, 25, 29
Safety Rest Area Truck Parking and Security .....	17, 21, 25, 29
Safety Rest Area Visitors .....	21, 25, 29
Safety Rest Areas Wireless Internet Access .....	19, 25, 29
Salt Pilot Project .....	7, 10, 17, 18
Snow and Ice Control Operations .....	4, 7
Snow and Ice Expenditures .....	17, 21, 25, 29
Survey on Pass Travel Conditions and Anti-Icer Use.....	2, 13, 17
Suspender Cable Painting.....	23
Sustainability Initiatives and Programs .....	26
Tools for Winter Driving.....	17, 25, 29
Traffic Signals: Annual Energy Costs and Incandescent Bulb Conversion.....	3
Trucks to Get Through the Winter .....	17
Vortex Generators .....	5
Water Conservation .....	19
West Nile Virus .....	16
Winter Overtime Hours and Snowfall Amount .....	7, 9
Winter Roadway Condition Level of Service and Anti-Icer Chemicals .....	9, 13, 17, 21, 25, 29
Winter Severity and Snow and Ice Expenditures.....	4, 9, 13, 17, 21, 25, 29

**Pavement Conditions on State Highways**

Bridge Condition by Deck Area .....	26
Chip and Seal Pavements .....	28
Concrete Pavement .....	16
Concrete Pavement Lane Miles by Age and Dowel Bar Retrofit Status .....	12
“Due” Pavement Rehabilitation Needs .....	4, 8, 28
Pavement Condition of Various Pavement Types.....	2
Pavement Condition Trends .....	4, 8, 12, 16, 20, 22, 24, 28
Pavement Lane Miles, Annual Vehicle Miles Traveled, and Programmed Dollars .....	12, 16
Pavement Ratings .....	20, 24, 28
Pavement Smoothness Rankings by State .....	4, 8, 12, 16, 20, 24, 28
Portland Cement Concrete Pavement .....	16, 28
Selecting Pavement Types .....	16

**Program Activities Highlights**

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003, **13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005 **19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006 **25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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<b>Topic</b>	<b>Edition</b>
Project Starts, Completions, Updates .....	20, 21, 23-29
Highlights .....	20, 21, 23-29
<b>Project Reporting (Beige Pages)</b>	
Capital Project Delivery: Executive Summary .....	26, 27, 28, 29
Capital Project Delivery: Executive Summary, Rail and Ferries .....	24, 25, 26, 27, 28, 29
Construction Cost .....	20-29
Construction Employment Information .....	20, 21, 22, 23, 24, 25, 26, 27
Construction Safety Information .....	20, 21
Current Project Highlights and Accomplishments.....	10-19, 21-29
Environmental Documentation, Review, Permitting and Compliance .....	20, 24, 25, 26, 27, 28, 29
Financial Information .....	10-19, 21-29
Transportation 2003 (Nickel) Account.....	20-29
Multimodal Account.....	20-29
Transportation Partnership Account.....	20-29
Pre-Existing Funds.....	20-29
Hot Mix Asphalt .....	21, 23-27, 29
Nickel Program: 2003 Transportation Funding Package .....	20-29
Overview of WSDOT's Three Capital Project Delivery Mandates .....	20-29
Partnership Program: 2005 Transportation Funding Package .....	20-29
Planned vs Actual Number of Projects.....	20-29
Pre-Existing Funds Project.....	20-29
Program Management Information.....	10-29
Project Delivery .....	11-29
Right of Way Risks.....	20, 22, 24, 26, 28
Roll-Up of Performance Information .....	20-29
Special Project: Hood Canal Bridge.....	20-29
Special Project: Tacoma/Pierce County HOV program .....	25, 26, 27, 28, 29
Special Project: Tacoma Narrows Bridge.....	20-29
Utilities.....	20, 22, 24, 26, 28
<b>Rail: Freight</b>	
2005 Results Flatline.....	18
Freight Rail Study .....	25
Grain Train - Long Term.....	18
Grain Train Carloads .....	5-9, 11-29
Grain Train Car Demand .....	26, 28
Grain Train Route Map.....	5, 9, 29
Palouse River Coulee City Railroad: State Acquisition .....	24
Washington Fruit Express: Car Loadings Per Week.....	5, 8
<b>Rail: State-Supported Amtrak Cascades Service</b>	
Amtrak Funding Update .....	17, 18
Amtrak's Future .....	5, 6, 7, 9, 10, 17, 18
Budget Update.....	10
Canadian Service .....	25
Capital Improvement Program and WSDOT Service Goals.....	2, 26
Capital Project Delivery Executive Summary: Rail .....	24
Customer Satisfaction .....	2-4, 7, 9, 12, 14, 16, 21, 23-27
Farebox Recovery Percentage by Train.....	4, 8, 12, 16, 20, 24, 28
Internet Reservations and Automated Ticketing .....	6
Investment in Intercity Rail Comparison.....	5
New Crossovers and additional service.....	18
On-Time Performance .....	2-29
Operating Costs.....	4
Passenger Trips by Station .....	6, 20
Rail Plus Program .....	15, 16, 19, 20
Revenue by Month .....	27
Ridership by Funding Entity.....	25, 26, 27, 28, 29
Ridership by Month .....	2-29
Ridership by Year.....	20, 24
Ridership by Year: Long-Term Trends.....	2, 4, 8, 12, 16
Ridership Patterns by Segment (Seats Sold) .....	3
Route Map: Amtrak in Washington .....	6
Schools on Trains.....	18
Station Update.....	11, 13, 14, 15, 16, 17, 22
Vehicles Diverted Annually from I-5 by Cascades .....	2

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003  
**13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16** = Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005  
**19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006  
**25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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<b>Topic</b>	<b>Edition</b>
<b>Safety on State Highways</b>	
Age-Related Safety Issues .....	10
Alcohol-Related Fatalities: State Comparison .....	7
Alcohol-Related Fatality Rate .....	12, 22
Before and After Collision Data for Highway Safety Improvement Projects .....	12, 16, 20, 24, 26, 27, 28
Bicycle and Pedestrian Safety: Federal Benchmark .....	9
Bicyclist Fatality Locations and Relatable Actions .....	28
Bicyclist Fatality Rates: State Comparison .....	9, 20, 24, 28
Cable Median Barrier Installation: Before and After Collision Data .....	12, 20, 24
Corridor Safety Program Case Study.....	27
Corridor Safety Program Results .....	8, 19, 23, 27
Demographics of Pedestrian Risk .....	20
Driving Speeds on State Highways.....	4, 23, 27
Fatal and Disabling Collisions: Circumstances and Type .....	8, 27
Fatal and Disabling Collisions: at Intersections .....	9
Fatal and Disabling Crashes and VMT, Percent Change.....	3, 7, 11, 16, 22, 26
Fatal and Disabling Accident Rates by County .....	22, 26
Fatalities and Fatality Rates in Washington .....	13, 16, 22, 26
Fatalities by Gender and Age Group .....	10, 27
Fatalities per Capita by State .....	13, 22, 26
Fatality Rates: State Highways, All State Public Roads & U.S.....	3, 7, 11, 16
Guardrail Retrofit Program .....	11, 24, 28
High Accident Corridors and Locations by Region.....	4
High Accident Corridors and Locations Statewide .....	3, 15, 20
Intermediate Driver's License Program .....	13
Low Accident Locations and Corridors in Cities Over 22,500.....	20
Low Cost Safety Enhancement Program: Planned vs. Actual Projects .....	3, 4, 5
Low Cost Safety Enhancement Program: Sample Projects.....	4, 6
Low Cost Enhancement Safety Program: Before and After Analysis .....	20, 26
Motorcycle Fatalities and Injuries .....	23, 27
Motorcycle Safety .....	23, 27
Pedestrian Factors in Vehicle/Pedestrian Collisions.....	8, 28
Pedestrian Fatality Rates by State .....	8, 16, 20, 24, 28
Pedestrian Safety in Washington .....	16
Photo Enforcement .....	16
Roadside Improvements.....	24
Roundabout Installation: Before and After Collision and Injury Data .....	12, 18, 22, 27
Rumble Strips.....	14, 18, 26
Safe Routes to Schools Grant Program Status .....	9, 12
Safety Construction Program: Planned vs. Actual Project Advertisements .....	3, 6-13, 15-17
Washington State Safety Data .....	13
Safety Laws: Booster Seats and Mandatory Seat Belts .....	5
Seatbelt Use: State Comparison .....	7, 11, 22, 26
Seatbelt Use: By Type of Road .....	26
Safety Enhancements .....	20
<b>Safety Rest Areas</b>	
Safety Rest Area Level of Service Trends .....	13, 17, 21, 25, 29
Safety Rest Area Locations and Amenities .....	9, 13, 17, 21, 25, 29
Safety Rest Area Preservation: Capital Investment Program 2003-05.....	13, 17, 21, 29
Safety Rest Area Program .....	13, 17, 21, 25, 29
Safety Rest Area Survey.....	9, 17, 21, 25, 29
Safety Rest Area Truck Parking and Security.....	17, 21, 25
Safety Rest Area Usage .....	13, 17, 21, 25, 29
Speeding Enforcement.....	23
Top Ten High Accident Corridor: 2007-09 Biennium .....	20
Top Ten High Accident Locations: 2007-09 Biennium .....	20
Wildlife Crossings .....	18
<b>Special Features</b>	
2 Dots 2 Safety.....	23
Ecosystem Initiative Award .....	23
Eruption Watch.....	15
Guardrail Sign Mount.....	15
Legislative Changes to Statewide Transportation Performance Reporting .....	26
Overweight and Oversize Permit .....	16
Performance Audits and Reviews.....	16
Photo Enforcement .....	16
Portable Incident Screens .....	20, 22
"Smart Map" Development .....	13
Tour the State Highway System with WSDOT's SR view.....	13

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003, **13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005 **19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006 **25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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<b>Topic</b>	<b>Edition</b>
Traffic Signal Operations.....	17
Using Plain English at WSDOT.....	17
Water Conservation Activities.....	17
West Nile Virus.....	15
<b>Traffic Operations on State Highways</b>	
Blocking Disabled Vehicles and Debris - Trends .....	15
FHWA Self-Assessment.....	9
<b>Incident Response Program</b>	
Governor's Strategic Action Plan for Incident Response.....	25, 26, 27, 28
History of Incidence Response .....	16
Incidents On I-5- Everett to Seatac.....	15
A Day in the Life of IR.....	19
Anatomy of a 90-Minute Incident.....	18
Anatomy of a 20-Hour Incident.....	27
Average Duration of Over 90 Minute Incidents by Route.....	26, 27, 28
Average Duration of Over 90 Minute Incidents on I-90 .....	26
Calls Responded to by Region .....	2
Clearance Times.....	2-5, 8-14, 16-29
Customer Comments.....	8
Economic Analysis .....	10
Extraordinary Incidents.....	26, 27, 28, 29
Instant Tow Program.....	27, 28, 29
Non-Collision Response Types.....	8-14, 19-29
Program Activities on Urban Commute Routes.....	15
Program: Construction Zone Traffic Management.....	19
Program: Types of Responses.....	9-14, 17-29
Roving Units Compared to Response by Called-Out Units.....	13, 14, 18
Service Actions Taken.....	7, 10-14, 18, 22-29
Teams Go to the Olympics .....	5
Teams: Location and Type.....	7
Then and Now .....	16
Time line .....	6
Times .....	2, 3, 4, 5
Total Number of Responses by Month .....	7-13, 15-18
Total Number of Responses by Quarter.....	19-23, 25-29
Incidents with Clearance Times Over 90 Minutes.....	6-14, 16, 18-29
Injury Collisions in Over 90 Minute Blocking Incidents .....	25, 26
Joint Operations Policy Statement between WSDOT and Washington State Patrol .....	5, 17
Number of Responses to Incidents.....	18, 20, 23-29
Operational Efficiency Program Strategies .....	2, 29
Over 90 Minute Blocking Incidents by Type .....	25
Over 90 Minute Fatality and Non-Fatality Incidents on 9 Key Corridors .....	26
Over 90 Minute Accidents by Duration Period.....	28
Overall Average Clearance Time.....	20, 27, 28, 29
Response Modes.....	16
Responses to Fatality Collisions.....	20-29
Roving Coverage.....	16, 18
Service Patrols Contacts .....	3, 4
Spokane Interstate 90 Peak Hour Roving Service Patrol Pilot.....	5
Traffic Incident Management Self Assessment .....	17
Training & Recruiting Incident Responders .....	16, 29
Induction Loop Detectors .....	5
Intelligent Transportation Systems in Washington State .....	5, 27
<b>Travel Information</b>	
Award for Traveler Information Web Site.....	11
Calls to 1-800-695-ROAD and 511 .....	7-14, 18-24, 26, 28
Camera Views .....	7, 8
Evaluation Survey.....	10
Three-Year Milestones .....	22
Traveler Information Services Overview.....	7, 26
Types of Information Requested to 511.....	18, 20, 23, 24, 26, 28
Web site Daily Usage.....	7-14, 18-26, 28
Web site Feedback .....	8, 9
Web site Mobile Device Usage.....	26

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003  
**13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16** = Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005  
**19** = Quarter 3, 2005, **20** = Quarter 4, 2005, **21** = Quarter 1, 2006, **22** = Quarter 2, 2006, **23** = Quarter 3, 2006, **24** = Quarter 4, 2006  
**25** = Quarter 1, 2007, **26** = Quarter 2, 2007, **27** = Quarter 3, 2007, **28** = Quarter 4, 2007, **29** = Quarter 1, 2008

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<b>Topic</b>	<b>Edition</b>
<b>Trucks, Goods, and Freight</b>	
Air Cargo Forecast.....	25, 29
Automatic De-icers Help Keep Truckers Safe.....	16
CVISN - Commercial Vehicle Information Systems and Networks.....	15, 26, 29
Cross Border Truck Volumes.....	6, 10, 16, 21, 25, 29
Freight Industry Survey.....	16
Freight Routes and Border Crossings in Washington.....	6, 10, 16, 21, 25, 29
Freight Shipments To, From, and Within Washington.....	10
Impediments to Truck Shipping: Bridges with Posted Weight Restrictions.....	6
Improvement Projects with Freight Benefits.....	10, 29
Intelligent Transportation Systems Use for Trucks.....	6, 10
Managing Over-Sized Truck Loads.....	6
Marine Cargo Forecast.....	16, 21, 25, 29
Osoyoos/Oroville Border Facts.....	10
Over dimensional Trucking Permits.....	6, 16
Projects with Freight Benefits.....	16, 21, 25, 29
Revenue Prorated to Washington for Trucks in Interstate Use.....	6, 10, 16, 21, 25, 29
Road Segment Ranking.....	16, 29
Severe Weather Closures.....	16, 21, 25, 29
Supply Chain Performance.....	25
Truck Registrations in Washington.....	6, 21, 25, 29
Truck Share of Total Daily Vehicle Volumes.....	6
<b>Worker Safety</b>	
Accident Prevention Activities.....	14-21, 23-29
Ferry Vessel Workers Recordable Injuries.....	2-21, 23-29
Highway Engineer Workers Recordable Injuries.....	2-21, 23-29
Highway Maintenance Workers Recordable Injuries.....	1-21, 23-29
North American Association of Transportation Safety and Health Officials Meeting.....	3
Number of OSHA-Recordable Injuries/Illnesses: WSDOT Regions and Ferry System.....	22, 23, 24, 25, 26, 27, 28, 29
Number of Work Injuries by Type.....	28, 29
OSHA-Recordable Injuries: Annualized Rate.....	22, 23, 24, 25, 26, 27, 28, 29
OSHA-Recordable Injuries: Quarterly Rate.....	22, 23, 24, 25, 26, 27
OSHA-Recordable Injuries: Fiscal-Year-to-Date.....	23, 24, 25, 26, 27, 28, 29
WSDOT Safety Stand-Down.....	26, 27, 28
<b>Workforce Levels and Training</b>	
Driver Safety Training.....	26, 27
Highway Maintenance Workers Safety Training.....	5-13, 16-29
Required Training for all WSDOT Employees.....	7-29
Required Training for Maintenance Workers by Region.....	20-29
Workforce Levels.....	5-29

### **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](http://www.wsdot.wa.gov)

For this or a previous edition of the *Gray Notebook*, visit [www.wsdot.wa.gov/accountability](http://www.wsdot.wa.gov/accountability)