

Measures, Markers and Mileposts

The Gray Notebook for the quarter ending December 31, 2007

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.

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Measures, Markers and Mileposts

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Navigating the Gray Notebook

How is the Gray Notebook Organized?

Measures, Markers and Mileposts, also called 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, 2005 Transportation Funding Package, and Pre-Existing Funds. 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 on-line at http://www.wsdot.wa.gov/Accountability/GrayNotebook/gnb_archives.htm .

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

Beige Pages

The *Beige Pages* is WSDOT's project delivery performance report on the Nickel, Transportation Partnership Account, and Pre-Exisiting 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 Pavement Condition, Congestion, and Bridge Condition.

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 Directions' 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 vi-vii). 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/Accountabil-ity/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 .

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

Business Directions: WSDOT's 2007-11 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. The plan also reflects WSDOT's internal performance management needs, Priorities of Government (POG) responsibilities, the Government Management and Accountability Performance (GMAP) process, the Cabinet Strategic Action Plan, the Legislative Transportation Benchmarks, the Office of Financial Management (OFM) Budget Activities, and the Washington State Transportation Plan's current investment priorities.

WSDOT's Plan Supports Priorities of Government and Government Management Accountability and Performance (GMAP)

"Priorities of Government" (POG) is the statewide approach used by the Governor to identify results as the basis for budget decision-making. This approach facilitates strategic thinking and uses performance evidence to make 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. WSDOT's GMAP forums support the POG process by evaluating and improving the effectiveness of POG activities and reporting its progress in the *Gray Notebook*. The agency's strategic plan (2007-11 Business Directions) supports the "Improve statewide mobility of people, goods, and services" POG.

WSDOT actively supports POG goals through the agency's six initiatives (objectives) defined in the agency's strategic plan (2007-11 Business Directions). By tracking the progress of WSDOT's initiatives with key performance measures, the Gray Notebook connects WSDOT's initiatives 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/PerformanceReporting/StrategicPlan.htm .

Cabinet Strategic Action Plan

The Cabinet Strategic Action Plan is 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 sets 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: Reduce the average length of over 90 minute incidents by 5% (in coordination with the Washington State Patrol).
- Reduce highway fatalities by 4% (in coordination with the Washington State Patrol).

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 a first baseline report on the progress toward attaining the 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 out in October 2008. The first baseline report is available at http://www.wsdot.wa.gov/Accountability/ PerformanceReporting/Attainment.htm.

Linking Measures to Strategic Objectives

			Reporting	
WSDOT Strategic Initiative	Linked To	Key Performance Measure(s)	Cycle	Last Report
1. Manage and operate state transportation facili- ties to improve the safety and reliability of state transporta- tion systems for the benefit of travelers, shippers, and	Highway Safety	Fatality rates (Vehicle) Before and After collision analysis for safety projects Fatality rates (Bicyclists, Pedestrian) 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
communities. Transportation Policy Goal(s): Mobility and Safety	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. 78-80
	Delay and Conges- tion	Travel time performance for 25 Puget Sound routes; 95% Reliable Travel Time Duration of Congestion	Annual	GNB 27 pp. 57-86
	Amtrak Cascades	Percent of trips on-time	Quarterly	pp. 86-87
	Ferries	Percent of trips on-time	Quarterly	pp. 82-85
2. Maintain structures, facili- ties, support systems, and services to optimize their short-term and long-term usefulness and enhance environmental performance in highway and ferry opera- tions. <i>Preservation, environment</i>	Highway Mainte- nance	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 rehabili- tation projects to preserve the state's existing infrastruc-	Ferries	Life Cycle Preservation Performance: Planned projects vs. actual systems/structures preserved, change in cost rating	Quarterly	pp. 82-85
ture assets and utilize lowest lifecycle approaches to extend their useful life. <i>Preservation, mobility,</i>	Pavement Condi- tions	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
Salely	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 transpor- tation systems on-time and on-budget Stewardship, Mobility, Safety.	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. 1-42
5. Communicate transpor- tation system performance and WSDOT agency perfor- mance to the public through clear and consistent project delivery and program management reporting. <i>Stewardship</i>	Performance Reporting	The Gray Notebook (Governor, WSTC, Public) GMAP Quarterly Review (Governor) Priorities of Government (OFM) Budget Activities (OFM)	Quarterly Quarterly Biannual Quarterly	
6. Assure the capabil-	Workforce Training	Compliance ratings for 25 statutory training courses	Quarterly	pp. 52-53
ity, efficiency, and safety of WSDOT's workforce <i>Stewardship</i> .	Workforce Safety	Recordable injuries per 100 workers per calendar year	Quarterly	pp. 50-51

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 capital delivery program, including the 2003 Transportation Funding Package, the 2005 Transportation Funding Package, and the Pre-Existing Funds Program. Much of the detailed information can be found on-line at the WSDOT website. The *Gray Notebook*, in these special Beige Pages, highlights each quarter's progress and reports on financial and other program management topics as well as detailed information on key projects.

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

- Overview of the Three Capital Delivery Mandates
- 2003 and 2005 Transportation Funding Package Project Delivery
- Financial Information
- Pre-Existing Funds
- Special Project Updates
- 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.

Navigation to the Home Page and the Project Pages

The Home Page (shown below) has several links that allow access to the individual Project Pages. The **Accountability** navigation bar provides access to the on-line version of the *Gray Notebook* which provides some project "hot links." The **Projects** navigation bar provides direct links to several of the state's largest projects and access to WSDOT's Projects Page. The Projects Page can also be accessed from any WSDOT web page by clicking on the **Projects** tab at the top of every page. WSDOT's home page can be found at www.wsdot.wa.gov/ .

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 management and streamline reporting of the expanded Capital Program.

Incremental funding has been given by the Legislature, including an additional \$9.5 million in 2007-09 to continue with the development and deployment of PMRS. Biquarterly progress of the program is reported in the March and September editions of the *Gray Notebook*.

The WSDOT Website (homepage above), provides information related to projects, accountability, traveler information, and Washington State Ferries.

Project Reporting on the Capital Project Delivery Program

Project Information Roadmap





Home Page

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/.

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





Executive Summary: Highway Construction Roll-Up of Performance

Each quarter WSDOT provides a detailed update on the delivery of the highway capital programs through the Gray Notebook, and on the web through the Project Pages and Quarterly Project Reports. As WSDOT's primary delivery report, the Gray Notebook includes the Beige Pages for the purpose of providing the current status of the Capital Improvement and Preservation Programs: major Pre-Existing Fund (PEF) projects, the projects funded by the 2003 5-cent gas tax (Nickel), and the 2005 91/2-cent gas tax (Transportation Partnership Account, TPA). 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. By contrast, each of the 153 Nickel and 238 TPA projects funded has a line item budget and is monitored and reported at the individual project level. Program budgets for PEF, Nickel, and TPA in this edition of the Gray Notebook are based on the 2007 Budget.

Performance Information <i>As of December 31, 2007, Dollars in Thousands</i>	Nickel (2003)	Partnership Account (TPA, 2005)	Combined Nickel & TPA	Pre-Existing Funds
Total Cumulative Number of Projects ¹	153	238	391	-
Total Cumulative Program Value ²	\$3,965,112	\$8,870,540	\$12,835,652	-
Schedule, Scope and Budget Summary: Results of	Completed Project	S		
Cumulative to Date, 2003 – December 31, 2007	See Pages 5-8	See Pages 5-8	See Pages 5-8	See pages 33-38
Total Number of Projects Completed	89	36	125	-
% of Projects Completed Early or On-Time	90%	94%	91%	-
% of Projects Completed Within Scope	100%	100%	100%	-
% of Projects Completed Under or On-Budget	89%	75%	85%	-
% of Projects Completed On-Time and On-Budget	81%	69%	78%	-
Current Legislative Expectation (Baseline)	\$1,213,975	\$88,646	\$1,302,621	-
Current Estimated Cost to Complete (WSDOT)	\$1,210,338	\$88,018	\$1,298,356	-
% of Total Program On Budget	100.3%	100.7%	100.3%	-
Biennium to Date, 2007-09		-		
Total Number of Projects Completed	20	13	33	130
% of Projects Completed Early or On-Time	85%	100%	91%	-
% of Projects Completed Within Scope	100%	100%	100%	-
% of Projects Completed Under or On-Budget	90%	85%	88%	-
% of Projects Completed On-Time and On-Budget	80%	85%	82%	-
Current Legislative Expectation (Baseline)	\$459,333	\$73,727	\$533,060	\$348.401
Current Estimated Cost to Complete (WSDOT)	\$456,302	\$73,037	\$529,339	\$359,769
Advertisement Record: Results of Projects Adverti	sed During 2003-07	and Currently in the Cons	truction Phase	
Cumulative to Date, 2003 - December 31, 2007	See Pages 9-13	See Pages 9-13	See Pages 9-13	See Pages 33-38
Total Number of Projects In Construction Phase	25	32	57	N/A
% of Projects Advertised Early or On-Time	56%	75%	67%	-
Total Award Amounts to Date	\$486,661	\$557,780	\$1,044,441	-
Biennium to Date, 2007-09	See Pages 9-13	See Pages 9-13	See Pages 9-13	See Pages 33-38
Total Number of Projects In Construction Phase	4	15	19	54
% of Projects Advertised Early or On-Time	100%	80%	84%	83%
Total Award Amounts to Date	\$9,851	\$46,387	\$54,865	N/A
Advertisement Schedule for Projects in the Pipelin	e			
Results of Projects Now Being Advertised for Construction	on or Planned to be A	dvertised		
January 1, 2008 through June 30, 2008	See Pages 14-16	See Pages 14-16	See Pages 14-16	NA
Iotal Projects Being Advertised for Construction	7	36	43	87
% ON SCREdule OF Early Data Source: WSDOT Project Control and Reporting	86%	97%	95%	-

e total number of reportable projects with construction phase

²The 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.

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 December 31, 2007 (100% on-time, 100% on-budget) for \$29.650 million. There are currently four rail projects that are planned to be advertised prior to September 30, 2007.

To date the Ferry System has not completed any construction projects using Nickel or TPA funding.

Rail	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
Project Delivery: Completed Projects Results of Project Delivery for Biennium to Date			
Cumulative to Date, 2003 - Sept 30, 2007	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%
Advertisement Record: Results of Projects Entering into the Construction Phas	e		
As of Sept 30, 2007, Dollars in Thousands: Biennium to Date, 2005-07			
Total Advertised	1	1	2
% Advertised Early or On-Time	100%	100%	100%
Total Award Amounts to Date	\$1,854	\$1,330	\$3,184
Advertisement Schedule for Projects in the Pipeli Results of Projects Now Being Advertised for Construc	ne: tion or Planned to be A	dvertised	
April 1, 2007 through September 30, 2007			
Total in Pipeline	2	3	5
% On or Better than Schedule	100%	100%	100%
Ferries	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
Advertisement Record: Results of Projects Entering into the Construction Phas	e		
Cummulative to Date, 2005-2007			
Total Advertised	1	1	2
% Advertised Early or On-Time	100%	100%	100%
Total Award Amounts To Date	\$6,435	\$46,826	\$53,261
Advertisement Schedule for Projects in the Pipeli Results of Projects Now Being Advertised for Construc	ne: tion or Planned to be A	dvertised	
April 1, 2007 through September 30, 2007			
Total In Pipeline	0	0	0
% On or Better Than Schedule	N/A	N/A	N/A

Data Source: WSDOT Project Control and Reporting Office

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 \$1.303 Billion to date.
- 91% of Nickel and TPA projects combined are early or ontime-- up 1% from last quarter.
- 85% of Nickel and TPA projects
 combined are under or on budget-- up 1% from last quarter.
- 78% of Nickel and TPA projects combined were on-time and onbudget-- up 3% from last quarter.

WSDOT has Successfully Delivered 125 Nickel and TPA Projects Under the \$1.303 Billion Legislative Budget

Since 2003, WSDOT has delivered a total of 125 Nickel and TPA projects for \$1.298 billion - almost \$4 million less than the \$1.303 billion legislative budget expectation. In early January 2008, WSDOT reported that 128 projects had been completed (WSDOT Highway Project Delivery, folio dated January 2008). Subsequent data review identified that two projects were non-reportable contributions to local projects. A third project (SR 167/ 15th - 15th- Add HOV lanes) was reported as completed, but the completion date has been delayed until April 2008. The Nickel and TPA project count, as reported in this edition of the Gray Notebook, has been corrected to 125 and represents the most recent capital highway project delivery information for the quarter ending December 31, 2007.



WSDOT Delivers 15 Nickel and TPA Projects During the 2nd Quarter of FY 2008

WSDOT's capital program delivery performance continues to show improvement in delivering projects on-time and on-budget through the second quarter of FY 2007, as another 15 Nickel and TPA projects were completed. The projects were all completed within scope, and 13 were completed both on-time and on-budget. Nine of the projects completed had budgets that were more than \$20 million and, all were completed within budget. In total, the 15 highway projects were completed for \$276.3 million, \$2.5 million less than the total legislative budget of \$278.8 million.

On-Time and On-Budget Performance on Individual Projects Improves

For the 125 highway projects completed through December 31, 2007,

• Cumulative on-time delivery performance is 91%, a 1% improvement from the previous quarter.

- Cumulative on-budget performance is currently 85%, a 1% improvement over the previous two quarters.
- Cumulative on-time and on-budget project delivery performance improved by 3%, from 75% last quarter to 78% this quarter.

57 Nickel and TPA Projects are Either Currently Under Construction or Have Been Advertised for Construction

This quarter, 14 new projects were advertised for construction. Six projects are pending contract awards, and will be reported next quarter. Eight projects have been awarded for a cumulative construction contract total of \$41.5 million. Delays in the issuance of permits affected two projects' ability to meet their advertisement dates on-time.

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 Bienr	nia						Curren Biennia	t I	Future Bienni	а												
'01 ∣	'02 	'03 	'04 ∣	'05 ∣	'06 	ʻC	7 '08 ∣	' 0	9 '10 Pre-Ex	11' ا isting	12 ا Fundir	'13 ∣ ng (PE	'14 ا F) Prog	'15 ∣ gram	'16 ∣	'17 	'18 ∣	'19 ∣	'20 	'21 	'23 	3
									Assum Facilitie Improve Preserv Traffic \$	ed Le es \$13 ement vation \$78.6	vels .8 \$1,460 \$2,551	F F L	erries \$ lail \$10 ocal \$1	653 3.4 26.8		1	0 year 34.99 b	total illion				
					Subto	al	\$1,359)	30% 2003 Fi	unding	g Pack	age (N	lickel)	Progra	am							
									Improve Preserv Ferries Rail \$18 Local \$	ement vation \$301.4 80.3 2.7	\$1,828 \$191 5	3										16 year total \$2.5 billion
					Subto	al	\$991		21% Transp	ortatio	on Parl	nersh	ip Acc	ount (TPA) P	rogra	m					
									Improve Preserv Ferries Rail \$98 Local \$	ement vation \$780. 8.8 196	\$8,022 \$544.7 7	2										16 year total \$9.64 billion
			Tota	l for 2	Subto 007-20	al 09	\$2,261 \$4,611		49% 100%													

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.

Schedule, Scope, and Budget Summary

One-Hundred Twenty-Five Highway Projects Completed as of December 31, 2007

Funded with Nickel and Transportation Partnership Accounts, Dollars in Thousands

Project Deceministics	Fund	On-Time	On-Time	Within	Baseline Estimated Cost at	Current Estimated Cost at	On	Completed On-Time and On
Cumulative to Date	туре	Advertised	Completed	Scope	Completion	Completion	Budget	Budget
2003-05 Biennium Summary See the <i>Gray Notebook</i> for quarter ending September 30, 2006, for project listing. May be accessed at http://www.wsdot.wa.gov/Accc	19 Nickel	4 early 15 on-time Notebook/gnb_arch	6 early 13 on-time ives.htm.	19	118,575	118,450	9 under 8 on-bud- get 2 over	17 on-time and on-budget
2005-07 Biennium Summary See the <i>Gray Notebook</i> for quarter ending June 30, 2007, for project listing.	50 Nickel 23 TPA	20 early 48 on-time 5 late Notebook/gnb_arch	49 early 16 on-time 8 late	73	650,986	652,896	27 under 33 on-bud- get 13 over	53 on-time and on-budget
Current Biennium (Ending Decem	ber 31. 20	07)						
Pierce and Thurston Co - Roadside Safety Improvements (Thurston, Pierce) *Project was part of the Statewide Roadside Safety	TPA Improvements	√ Program as identifie	Early ed in C 518, L 07, P	√ V (ESHB 1094	1,000 4, SL).	1,000	\checkmark	\checkmark
US 2/Pickle Farm Road and Gunn Road - Add Turn Lanes (Snohom- ish) *Advertisement delay to address design deviations a	Nickel	Late*	√ f to ensure timely de	livery of the p	1,322	1,343	V	\checkmark
US 2/Dryden - Install Signal (Chelan)	Nickel	\checkmark			498	498	\checkmark	\checkmark
SR 3/Imperial Way to Sunnyslope - Add Lanes (Kitsap) *Delay is due to unresolved utilities issues.	TPA	Late*	Early	\checkmark	2,911	1,609	Under	\checkmark
I-5/Pierce Co Line to Tukwila Inter- change - Add HOV Lanes (King) *The delay in Operational Complete date from May	Nickel 2007 to July 20	Early	Late*	ed the numbe	142,593 er of workable contrac	140,124 et days.	\checkmark	
I-5/S Seattle NB Viaduct - Bridge Paving (King) *Project is over budget due to increased quantities t	TPA for polyester co	√ oncrete, project secu	Early urity, and additional of	√ contractor inc	14,360 entive payment.	16,072	Over *	
I-5/SB Viaduct, S Seattle Vicinity - Bridge Repair (King) *Project is over budget due to increased traffic cont	TPA	nal contractor incent	Early tive payment.	\checkmark	1,108	1,266	Over*	
I-5/Lexington Vicinity - Construct New Bridge (Cowlitz)	Nickel	\checkmark	\checkmark	\checkmark	5,000	5,000	\checkmark	\checkmark
SR 7/SR 507 to SR 512 - Safety Improvements (Pierce) *The Operationally Complete Date was delayed due	Nickel	ime needed for signa	Late* al system installation	n, which result	20,268 red in delaying the par	20,775 ving and sidewalk wo	√ ĸ.	
SR 9/108th Street NE (Lauck Road) Add Turn Lanes (Snohomish)	Nickel	\checkmark	\checkmark		1,846	1,822		\checkmark

Schedule, Scope, and Budget Summary

One-Hundred Twenty-Five Highway Projects Completed as of December 31, 2007

Funded with Nickel and Transportation Partnership Accounts, Dollars in Thousands

Project Description	Fund Type	On-Time Advertised	On-Time Completed	Within Scope	Baseline Estimated Cost at Completion	Current Estimated Cost at Completion	On Budget	Completed On-Time and On Budget
US 12/Attalia Vicinity - Add Lanes (Walla Walla)	Nickel	\checkmark	Early		16,201	15,891	\checkmark	
SR 17/Pioneer Way to Stratford Rd - Widen to Four Lanes (Grant)	TPA	\checkmark	Early	\checkmark	20,989	20,985	\checkmark	\checkmark
I-90/EB Ramps to SR 18 - Add Signal and Turn Lanes (King)	Nickel	\checkmark	Early	\checkmark	5,012	5,012	\checkmark	\checkmark
I-90/EB Ramps to SR 202 - Construct Roundabout (King)	Nickel	\checkmark	\checkmark	\checkmark	1,832	1,843	\checkmark	\checkmark
I-90/Harvard Rd Pedestrian Bridge - Construct Bridge (Spokane)	TPA	\checkmark	\checkmark	\checkmark	1,333	1,360	\checkmark	\checkmark
SR 99/S 284th to S 272nd St - Add HOV Lanes (King)	Nickel	\checkmark	\checkmark	\checkmark	15,404	15,153	\checkmark	\checkmark
SR 516/208th and 209th Ave SE - Add Turn Lanes (King) *Right-of-way and environmental permitting issues.	Nickel	Late*	Late*	\checkmark	1,881	2,663	Over *	
SR 531/Lakewood Schools - Construct Sidewalks (Snohomish)	TPA	Early	\checkmark	\checkmark	705	612	Under	\checkmark
Current Quarter (Ending Decembe	r 31, 2007	7)						
US 2/Fern Bluff to Sultan Startup - Stormwater Drainage mprove- ments (Snohomish)	TPA	\checkmark	Early	\checkmark	1,012	1,012	\checkmark	\checkmark
US 2/10th St Intersection Vic - Stormwater Drainage Improve- ments (Snohomish)	TPA	\checkmark	\checkmark	\checkmark	534	534	\checkmark	\checkmark
SR 3/SR 303 Interchange (Waaga Way) - Construct Ramp (Kitsap)	Nickel	\checkmark	\checkmark	\checkmark	24,828	24,828	\checkmark	\checkmark
SR 9/SR 522 to 228th St SE, Stages 1a and 1b - Add Lanes (Snohomish)	Nickel	\checkmark	\checkmark	\checkmark	22,840	24,474	Over*	
*Project was completed on time but over budget. Ac control and water removal. The work on the project	lditional funds was suspende	were needed to con ad in Dec. 07 and m	mplete the retaining noved to Feb. 08 to a	wall and ramp avoid adverse	widening work due t impacts to wetlands	o higher than anticipa adjacent to the projec	ated costs associa ct site during incle	ited with erosion ment weather.
SR 9/228th St SE to 212th St SE (SR 524), Stage 2 - Add Lanes (Snohomish)	Nickel	\checkmark	\checkmark	\checkmark	31,181	32,193	\checkmark	\checkmark
SR 20/Thompson Road - Add Signal (Skagit)	TPA	Early	\checkmark	\checkmark	1,038	1,038		
SR 25/Spokane River Bridge - Upgrade Bridge Rail (Stevens,	Nickel	\checkmark	\checkmark	\checkmark	369	316	Under	\checkmark

Lincoln)

Lincoin

*This project was part of the Statewide Bridge Rail Program as identified in C 518, L 07, PV (ESHB 1094, SL).

Schedule, Scope, and Budget Summary

One-Hundred Twenty-Five Highway Projects Completed as of December 31, 2007

Funded with Nickel and Transportation Partnership Accounts, Dollars in Thousands

Project Description	Fund	On-Time	On-Time	Within	Baseline Estimated Cost at	Current Estimated Cost at	On Budget	Completed On-Time and On Budget
SR 25/Columbia River Bridge - Upgrade Bridge Rail (Stevens) *This project was part of the Statewide Bridge Ra	Nickel	entified in C 518, L 0	√ 7, PV (ESHB 1094,		468	468	√	√
US 101/Mt Walker - Add Passing Lane (Jefferson) *Advertisement was delayed for possible redesign	TPA n of structural ele	Late* ments. Redesign wa	√ as deemed unneces	sary and the p	3,550 project was advertised	2,397 d in 04/07.	Under	
SR 169/SE 291st St Vicinity (Formerly SE 288th Street) - Add Turn Lanes (King)	TPA	\checkmark	\checkmark	\checkmark	2,606	2,669	\checkmark	
SR 270/Pullman to Idaho State Line - Add Lanes (Whitman)	Nickel	Late*		\checkmark	31,188	31,188	\checkmark	\checkmark
*The advertisement of this project was delayed du contractor significant claim that WSDOT is curren	ue to environmen tly negotiating wi	ital permitting issues ith the contractor.	and Corps of Engir	neers mitigatio	n negotiations. The p	roject was completed	within budget; ho	owever, there is a
SR 401/US 101 to E of Megler Rest Area Vic - Upgrade Guardrail (Pacific) *This project was part of the Statewide Guardrail F	Nickel tetrofit Program a	Early as identified in C 518	Early 3, L 07, PV (ESHB 11	√ 094, SL).	296	152	Under	V
I-405/SR 520 to SR 522 - Widen- ing (King)	Nickel	\checkmark	\checkmark	\checkmark	87,293	81,753	Under	
SR 522/I-5 to I-405 - Multimodal Improvements (King)	TPA	Early	Early	\checkmark	22,581	22,483	\checkmark	\checkmark
SR 543/I-5 to Canadian Border - Add Lanes (Whatcom)	Nickel	Late	Early	\checkmark	49,013	50,796	\checkmark	\checkmark

	% On-Time Advertised	% On-Time Completed	% Within Scope	Current Legislative Expectation (Baseline)	Current Estimated Cost to Complete	% of Budgets on Time	% of Projects On-Time and On- Budget
Totals Current Quarter (December 31, 2007)	80%	100`%	100%	\$278,797	\$276,311	93%	93%
9 Nickel Projects	78%	100%	100%	\$247,476	\$246,178	89%	89%
6 TPA Projects	83%	100%	100%	\$31,321	\$30,133	100%	100%
Totals Biennium to Date (2007-2009)	82%	91%	100%	\$533,060	\$529,339	88%	82%
20 Nickel Projects	80%	85%	100%	\$459,333	\$456,302	90%	80%
13 TPA Projects	85%	100%	100%	\$73,727	\$73,037	85%	85%
Totals Cumulative to Date	91%	91%	100%	\$1,302,621	\$1,298,356	85%	78%
89 Nickel Projects	92%	90%	100%	\$1,213,975	\$1,210,338	89%	81%
36 TPA Projects	89%	94%	100%	\$88,646	\$88,018	75%	69%

Schedule, Scope, and Budget Summary

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).

Advertisement Record

Fifty-Seven Projects in Construction Phase as of December 31, 2007

Nickel and Transportation partnership Account (TPA) Projects, Dollars in Thousands.

Project Description	Fund Type*	On-Time Advertised	Ad Date	Contractor	Operationally Complete Date	Award Amount
Cumulative to Date						
SR 116/SR 19 to Indian Island - Upgrade Bridge Rail (Jefferson)	Nickel	Late ¹	May-07	Petersen Broth- ers, Inc	Jan-08	368
US 12/Wynoochee River Bridge - Upgrade Bridge Rail (Grays Harbor)	Nickel	Late ²	Jun-07	Petersen Broth- ers, Inc	Mar-08	564
US 101/Quinault River Bridge - Upgrade Bridge Rail (Grays Harbor)	Nickel	Late ³	For const	ruction efficiencies, tl	his project was combi	ned with the one above.
SR 105/Johns River Bridge - Upgrade Bridge Rail (Grays Harbor)	Nickel	Late ⁴	For const	ruction efficiencies, tl	his project was combi	ned with the one above.
Adams and Franklin Co - Roadside Safety Improvements (Adams, Franklin)	TPA	Late ⁵	Jun-07	Frank Gurney, Inc.	Apr-08	2,039
Whitman and S Spokane Co - Roadside Safety Improvements (Spokane, Whitman)	TPA	Late ⁶	For const	ruction efficiencies, tl	his project was combi	ned with the one above.
SR 260,263, and 278 - Upgrade Guardrail (Franklin, Spokane, Whitman)	Nickel	Late ⁷	For const	ruction efficiencies, tl	his project was combi	ned with the one above.
SR 20/Ducken Rd to Rosario Rd - Add Turn Lanes (Skagit, Island)	Nickel	Late ⁸	Jan-07	Strider Construction Inc.	May-08	4,544
SR 202/Jct SR 203 - Construct Roundabout (King)	Nickel	\checkmark	Dec-06	Tri-State Construction, Inc.	Jun-08	1,391
SR 542/Boulder Creek Bridge - Replace Bridge (Whatcom)	TPA	Late ⁹	Apr-07	Pacific Road & Bridge Co.	Jun-08	3,749
I-5/S 48th to Pacific Ave - Add HOV Lanes (Pierce)	Nickel	\checkmark	Mar-05	Kiewit Pacific Co.	Jun-08	72,869
I-5/SR 526 to Marine View Drive - Add HOV Lanes (Snohomish)	Nickel	Early	Oct-04	Atkinson CH2M Hill A Joint Venture	Jun-08	184,993
I-5/41st St Interchange - Widening and Rebuild Ramps (Snohomish)	TPA	Early	For const	ruction efficiencies, tl	his project was combi	ned with the one above.
SR 167 HOT Lanes Pilot Project - Managed Lanes (King)	TPA	Early	Mar-07	Signal Electric Inc.	Jul-08	7,087
I-90/Latah Creek and Lindeke St Bridges - Upgrade Bridge Rail (Spokane)	Nickel	√10	Jun-07	Frank Gurney, Inc.	Jul-08	529
SR 9/Schloman Rd to 256th St NE - New Align- ment (Snohomish)	Nickel	Late ¹¹	Jan-07	Scarsella Bros. Inc.	Nov-08	10,748
SR 9/252nd St NE Vicinity - Add Turn Lane (Snohomish)	Nickel	Late ¹²	For const	ruction efficiencies, tl	his project was combi	ned with the one above.
SR 9/268th St Intersection - Add Turn Lane (Snohomish)	Nickel	Late ¹³	For const	ruction efficiencies, tl	his project was combi	ned with the one above.

Project Delivery - GNB | 9

Advertisement Record

Fifty-Seven Projects in Construction Phase as of December 31, 2007

Nickel and Trasportation partnership Account (TPA) Projects, Dollars in Thousands.

Project Description	Fund Type*	On-Time Advertised	Ad Date	Contractor	Operationally Complete Date	Award Amount
US 395/NSC-Francis Ave to Farwell Rd - New Alignment (Spokane)	Nickel	Late ¹⁴	Jan-04		Mar-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 Construc- tion 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 Vic - Grading and Structures (Spokane)	Nickel		Jan-07	Steelman-Duff	Nov-08	10,571
US 395/NSC-Freya St to Farwell Rd - PCCP Paving (Spokane)	Nickel		Feb-07	Acme Concrete Paving	Mar-09	19,490
US 395/NSC - BNSF RR Tunnel (Spokane)	Nickel		Sep-07	Scarsella Bros. Inc.	Mar-09	17,295
SR 112/Hoko and Pysht Rivers - Erosion Control (Clallam)	TPA	Early ¹⁵	Aug-06	(State Forces)	Mar-09	200
SR 167/15 th St SW to 15th Street NW - Add HOV Lanes (King)	Nickel	\checkmark	Dec-05	Icon Materials, A Division of CPM	Apr-08	27,849
SR 509/SR 518 Interchange - Signalization and Channelization (King)	TPA	Early	Apr-07	Tri-State Construction, Inc.	Jun-09	26,631
SR 518/SeaTac Airport to I-5 - Eastbound Widening (King)	TPA	\checkmark	For constru	ction efficiencies, th	is project was combi	ned with the one above.
SR 104/Hood Canal Bridge - Replace E Half (Kitsap, Jefferson)	TPA	\checkmark	Feb-03	Kiewit-General, A Joint Venture	Jun-09	204,000
SR 509/I-5 to Sea-Tac Freight & Congestion Relief (King)	TPA	Late ¹⁶	Jun-06	Tri-State Construction, Inc.	Jun-09	344
I-5/SR 502 Interchange - Build Interchange (Clark)	Nickel	\checkmark	Dec-06	Kerr Contrac- tors, Inc.	Jun-09	28,394
I-90/Two Way Transit - Transit and HOV - Stage 1 (King)	TPA	Late ¹⁷	Oct-06	Max. J. Kuney Co.	Aug-09	28,532
SR 20/Fredonia to I-5 - Add Lanes (Skagit)	Nickel	\checkmark	Nov-06	Scarsella Bros., Inc.	Oct-09	15,139
SR 20/Quiet Cove Rd Vicinity to SR 20 Spur - Widening (Skagit)	Nickel	\checkmark	May-07	Marshbank Construction, Inc.	Oct-09	6,129

Advertisement Record

Fifty-Seven Projects in Construction Phase as of December 31, 2007

Nickel and Trasportation partnership Account (TPA) Projects, Dollars in Thousands.

Project Description	Fund Type*	On-Time Advertised	Ad Date	Contractor	Operationally Complete Date	Award Amount
I-405/NE 10th St - Bridge Crossing (King)	TPA	Early	Sep-06	Max J. Kuney Company	Dec-09	0
 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	0
I-5/Rush Rd to 13th St - Add Lanes (Lewis)	Nickel	\checkmark	Mar-07	Scarsella Bros., Inc.	Dec-09	33,750
I-405/112th Ave SE to I-90 - NB 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	For constru	iction efficiencies, th	is project was combi	ined with the one above.
US 101/Lynch Road - Safety Improvements (Mason)	TPA	\checkmark	Dec-05	Mason County	Mar-10	1,000
SR 167/S 180th St to I-405 - SB Widening (King)	TPA	Early	Feb-07	Bilfinger/ Tri-State Joint Venture	Jun-10	91,500
I-405/I-5 to SR 181 - Widening (King)	TPA	Early	For constru	iction efficiencies, th	is project was combi	ined with the one above.
I-405/SR 181 to SR 167 - Widening (King)	TPA	Early	Feb-07		Jun-10	
 I-405/I-5 to SR 169 Stage 1 - Widening (King) 	TPA		For construct 167/S 180th S	tion efficiencies, this St to I-405 - SB Wid	project was combin ening	ed with SR
 I-405/Springbrook Creek Wetland and Habitat Mitigation Bank (King) 	TPA		Aug-06	Scarsella Bros., Inc.	Mar-09	12,539
SR 520/W Lake Sammamish Parkway to SR 202, Stage 3 - Widening (King)	Nickel	Late ¹⁸	Jan-07	Tri-State Construction, Inc.	Dec-11	9,988
Biennium to Date (2007-09)						
US 2 and SR 92 - Roadside Safety Improve- ments (Snohomish)	TPA	√ ¹⁹	Aug-07	Petersen Broth- ers	Feb-08	502
SR 4/Svensen's Curve (Wahkiakum)	Nickel		Sep-07	State Forces	Jun-08	75
SR 99/Alaskan Way Viaduct Yesler Way Vicinity - Stabilize Foundation (King)	TPA	$\sqrt{20}$	Aug-07	C. A. Carey Corp.	Apr-08	3,023
SR 515/SE 182nd St to SE 176th St Vic - Construct Traffic Island (King)	TPA	Late ²¹	Sep-07	Icon Materi- als, a Division of CPM	Jul-08	1,373
US 2/US 97 Peshastin E - New Interchange (Chelan)	Nickel		Sep-07	KLB Construc- tion, Inc.	Oct-09	9,776
Quarter Ending December 31, 2007						
SR 99/N of Lincoln Way - Construct Sidewalks (Snohomish)	TPA		Oct-07	Wilder Construction Co.	Jun-08	665

Advertisement Record

Fifty-Seven Projects in Construction Phase as of December 31, 2007

Nickel and Trasportation partnership Account (TPA) Projects, Dollars in Thousands.

Project Description	Fund Type*	On-Time Advertised	Ad Date	Contractor	Opera- tionally Complete Date	Award Amount
US 12/Clemons Rd Vicinity - Intersection Improvements (Grays Harbor)	TPA	\checkmark	Dec-07	Nova Contract- ing, Inc.	Jul-08	646
SR 241/Rattlesnake Hills Vicinity - Roadside Safety (Yakima, Benton)	TPA	Late ²²	Nov-07	M. A. Deatley Construction, Inc.	Aug-08	890
SR 503/Gabriel Rd Intersection (Clark)	TPA	$\sqrt{23}$	Oct-07	State Forces	Sep-08	20
SR 823/Goodlander to Harrison Rd - Build Sidewalk (Yakima)	TPA	\checkmark	Oct-07	Granite North- west, Inc. D.B.A.	Sep-08	382
SR 24/SR 241 to Cold Creek Rd - Add Passing Lanes (Benton, Yakima)	TPA	\checkmark	Dec-07		Oct-08	
SR 410/Rattlesnake Creek - Stabilize Slopes (Yakima)	TPA	\checkmark	Dec-07		Oct-08	
SR 410 and SR 164 - Roadside Safety Improve- ments (King)	TPA	\checkmark	Oct-07	Apply-A-Line	Dec-08	719
US 12/Naches River N of Yakima - Stabilize Slopes (Yakima)	TPA	\checkmark	Nov-07	Scarsella Bros., Inc	Dec-08	1,516
SR 14/Lieser Rd Interchange - Add Ramp Signal (Clark)	TPA	Early	Dec-07	(Award Pending)	Dec-08	
SR 539/Tenmile Road to SR 546 - Widening (Whatcom)	Nickel	\checkmark	Dec-07	(Award Pending)	Oct-09	
US 12/Frenchtown Vicinity to Walla Walla - Add Lanes (Walla Walla)	TPA	\checkmark	Dec-07	(Award Pending)	Oct-09	
SR 522/University of Washington Bothell - Build Interchange (King)	TPA	Late ²⁴	Oct-07	Mowat Construction Company	Jun-10	36,651
I-5/Grand Mound to Maytown Stage One - Add Lanes (Thurston)	Nickel		Dec-07	(Award Pending)	Jul-10	

Advertisement Record

Fifty-Seven Projects in Construction Phase as of December 31, 2007

Nickel and Trasportation partnership Account (TPA) Projects. Dollars in Thousands.

	On Time Advertised	Award
		Amount
Totals for Current Quarter (Quarter Ending December 31, 2007	86%	\$41,489
2 Nickel Projects	100%	\$0
12 TPA Projects	83%	\$41,489
Totals for Biennium to Date (2007-09)	84%	\$56,238
4 Nickel Projects	100%	\$9,851
15 TPA Projects	80%	\$46,387
Totals for Cumulative to Date	67%	\$1,044,441
25 Nickel Projects	56%	\$486,661
32 TPA Projects	75%	\$557,780

Project Details

¹Advertisment delay due to DAHP (Historic Preservation) review required for this project. This project was part of the Statewide Bridge Rail Program as identified in C 518, L 07, PV (ESHB 1094.SL).

²Delay is to tie with another project for efficiency. This project was part of the Statewide Bridge Rail Program as identified in C 518, L 07, PV (ESHB 1094.SL)

³Advertisement date changed to balance with Nickel Bridge Rail retrofit allocation. This project was part of the Statewide Bridge Rail Program as identified in C 518, L 07, PV (ESHB 1094.SL). ⁴Advertisement date changed to balance with Nickel Bridge Rail retrofit allocation. This project was part of the Statewide Bridge Rail Program as identified in C 518, L 07, PV (ESHB 1094.SL). ⁵Advertisement date delay due to the delay in completing Cultural Resource survey and environmental permits. The Operationally Complete Date was delayed until spring due to the delay and length of time required for contractor to purchase and receive steel components of the guardrail system. This project was part of the Statewide Roadside Safety Program as identified in C 518, L 07. PV (ESHB 1094.SL).

⁶Advertisment date delay due to the delay in completing Cultural Resource survey and environmental permits. The Operationally Complete Date was delayed until spring due to the delay and length of time required for contractor to purchase and receive steel components of the guardrail system. This project was part of the Statewide Roadside Safety Program as identified in C 518, L 07, PV (ESHB 1094.SL).

⁷Advertisment date delay due to the delay in completing Cultural Resource survey and environmental permits. The Operationally Complete Date was delayed until spring due to the delay and length of time required for contractor to purchase and receive steel components of the guardrai system. This project was part of the Statewide Guardrail Retrofit Program as identified in C 518, L 07, PV (ESHB 1094.SL).

⁸Advertisment date was delayed due to environmental permitting issues.

⁹Advertisment date delay due to time required to analyze alternative bridge footings, which delayed environmental review and permitting process

¹⁰The Operationally Complete Date was delayed until summer due to the delay and length of time required for contractor to purchase and receive steel components of the guardrail system. This

project was part of the Statewide Bridge Rail Retrofit Program as identified in C 518, L 07, PV (ESHB 1094.SL)

¹Advertisment date was delayed due to environmental permitting issues.

²Advertisment date was delayed due to environmental permitting issues

¹³Advertisment date was delayed due to environmental permitting issues.

⁴Right-of-Way Acquisition Delay. ¹⁵Deficiencies are being corrected by state forces. First repair was completed in December 2006

and additional repair is being developed along SR 112. ¹⁶The original planned advertisement date of November, 2005, was unrealistic. Funding on this TPA project was uncertain until Initiative I-912 was decided in November, 2005. The unrealistic schedule was overlooked when updating the project list for the 2006 Legislative Budget. ¹⁷Agreement of Access with Mercer Island delayed the advertisement to 10/16/06.

¹⁸The advertisement for the Flyover ramp portion of this project has been delayed to January, 2007 due to stormwater and wetland design changes. The widening portion of the project will be

advertised at a later date. ⁹This project was part of the Statewide Roadside Safety Program as identified in C 518, L 07, PV

(ESHB 1094.SL). ²⁰This 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).
²¹Advertisement date delay due to Utility relocation issues.

²²Advertisment date delay due to environmental permitting issues. This project was part of the Statewide Roadside Safety Program as identified in C 518, L 07, PV (ESHB 1094.SL).
²³Delayed awaiting legislative decision on project deletion (GNB 23 Pg. 16)

This project was part of the Statewide Roadside Safety Program as identified in C 518, L 07, PV (ESHB 1094.SL).

²⁴Advertisement date delay due to environmental permit issues. The project was originally advertised in January, 2007 and then pulled from ad due to budget constrains. The project was re-advertised in October, 2007 and is currently pending award.

Projects To Be Advertised

Forty-Three Projects in the Delivery Pipeline for January 1, 2008 Through June 30, 2008

Nickel and Transportation Partnership Account (TPA) Projects Now Being Advertised for Construction or Planned to be Advertised Dollars in Thousands

Project Description	Fund Type*	Original Planned Ad Date	Current Planned Ad Date	On Schedule	Baseline Estimated Cost at Completion	Current Estimated Cost at Completion
SR 9/176th St SE Vicinity to SR 96 - Add Signal and	Nickel	Jan-08	Jan-08	√	6,198	6,257
Turn Lanes (Snohomish)				,		
SR 9/Marsh Rd Intersection - Safety Improvements (Snohomish)	TPA	Jan-08	Jan-08	\checkmark	4,764	9,455
SR 9/SR 96 to Marsh Rd - Add Lanes and Improve Intersections (Snohomish)	TPA	Jan-08	Jan-08	\checkmark	40,833	38,240
SR 502/10th Ave to 72nd Ave - Safety Improvements (Clark)	TPA	Apr-09	Jan-08	Advanced	1,786	749
SR 704/Cross Base Highway - New Alignment (Pierce)	TPA	Jun-08	Jan-08	Advanced	42,954	42,934
I-405/Bridges - Seismic (King)	TPA	Feb-08	Feb-08	\checkmark	1,265	2,131
SR 11, SR 525, and SR 900 - Roadside Safety Improvements (Snohomish, Skagit, King)	TPA	Feb-08	Feb-08	\checkmark	800	686
SR 542 and SR 547 - Roadside Safety Improvements (Whatcom)	TPA	Mar-08	Feb-08	\checkmark	1,284	676
SR 9, SR 11, and SR 20 - Roadside Safety Improvements (Skagit)	TPA	Feb-08	Feb-08	\checkmark	1,400	2,123
US 2/Roadside Safety Improvements - Safety (Chelan)	TPA	Feb-08	Feb-08		800	800
US 101/W Fork Hoquiam River Bridge - Replace Bridge (Grays Harbor)	TPA	Jan-08	Feb-08	\checkmark	3,165	3,165
US 101/W Fork Hoquiam River Bridge - Replace Bridge (Grays Harbor)	TPA	Jan-08	Feb-08	\checkmark	2,151	2,157
US 12/Waitsburg to SR 127 - Roadside Safety Improvements (Garfield, Columbia, Walla Walla)	TPA	Feb-08	Feb-08	\checkmark	266	266
US 12/SR 127 to Clarkston - Roadside Safety Improvements (Garfield, Columbia)	TPA	Feb-08	Feb-08	\checkmark	307	307
I-5/5th Ave NE to NE 92nd St - Noise Wall (King)	TPA	Jan-08	Feb-08	\checkmark	14,144	14,712
US 101/SR 3 On Ramp to US 101 NB - Add New Ramp (Mason)	TPA	Oct-08	Feb-08	Advanced	3,886	4,102
SR 7/Lewis Co - Roadside Safety Improvements (Lewis)	TPA	Feb-08	Feb-08	\checkmark	1,700	1,700
SR 432/Roadside Safety Improvements (Cowlitz)	TPA	Apr-08	Feb-08	Advanced	606	612
E Olympic Peninsula - Roadway Safety Improvements (Jefferson, Kitsap, Mason, Clallam)	TPA	Feb-08	Feb-08	\checkmark	2,900	2,900
SR104/Port Angeles Graving Dock Settlement and Remediation (Jefferson)	TPA	Feb-08	Feb-08	\checkmark	6,840	6,840
SR 112/Neah Bay to Seiku - Roadside Safety Improvements (Clallam)	TPA	Feb-08	Feb-08	\checkmark	10,373	10,405
SR 112/Seiku Vicinity to US 101 - Install Guardrail (Clallam)	TPA	Feb-08	Feb-08	\checkmark	1,800	1,800

Projects To Be Advertised

Forty-Three Projects in the Delivery Pipeline for January 1, 2008 Through June 30, 2008

Nickel and Transportation Partnership Account (TPA) Projects Now Being Advertised for Construction or Planned to be Advertised Dollars in Thousands

Project Description	Fund Type*	Original Planned Ad Date	Current Planned Ad Date	On Schedule	Baseline Estimated Cost at Completion	Current Estimated Cost at Completion
W Olympic Peninsula - Roadway Safety Improvements (Grays Harbor, Jefferson, Clallam)	TPA	Feb-08	Feb-08	√	2,000	2,000
SR 500/I-205 Interchange - Extend Merge Lane (Clark)	TPA	Apr-08	Mar-08	Advanced	981	1,002
SR 14/Benton Co - Roadside Safety Improvements (Benton)	TPA	Mar-08	Mar-08	\checkmark	1,691	1,679
SR 542/Nooksack River - Redirect River and Realign Roadway (Whatcom)	TPA	Jan-10	Mar-08	Advanced	16,196	16,576
SR 161/SR 167 EB Ramp - Realign Ramps (Pierce)	Nickel	Mar-08	Mar-08	\checkmark	2,967	3,055
SR 16/Burley-Olalla Interchange - Build Interchange (Kitsap)	Nickel	Mar-08	Mar-08	\checkmark	25,143	27,246
I-5/Boston St to E Shelby St - SB I-5, Westside - Noise Wall (King)	TPA	Mar-08	Mar-08	\checkmark	19,418	10,057
SR 519/ I-90 to SR 99 Intermodal Access Project - I/C Improvements (King)	Nickel	Apr-09	Mar-08	Advanced	74,400	74,400
SR 9/Lake Stevens Way to 20th St SE - Improve Intersection (Snohomish)	TPA	Apr-08	Apr-08	\checkmark	14,151	14,516
US 2/Wenatchee - Build Trail Connection (Chelan)	TPA	Apr-08	Apr-08	\checkmark	1,589	1,659
SR 6/S Fork Chehalis River Bridge - Replace Bridge (Lewis)	TPA	Apr-08	Apr-08	\checkmark	14,627	15,041
US 97/Klickitat Co - Roadside Safety Improvements (Klickitat)	TPA	Apr-08	Apr-08	\checkmark	1,000	1,000
SR 142/Roadside Safety - Roadside Improvements (Klickitat)	TPA	Apr-08	Apr-08	\checkmark	1,900	1,900
SR 900/SE 78th St Vic to I-90 Vic - Widening and HOV (King) *Ad date delayed to allow time to redesign retaining walls in a potential landslide.	Nickel	Nov-07	Apr-08	Delayed*	40,846	45,943
SB 26/Othello Vicinity - Install Lighting (Grant Adams)	TPA	Apr-08	Apr-08	1	193	258
I-205/Mill Plain Exit (112th Connector) - Build Ramp (Clark)	Nickel	Apr-08	Apr-08	V	12,672	12,528
I-205/Mill Plain Interchange to NE 18th St - Stage 1 (Clark)	TPA	Apr-08	Apr-08	\checkmark	11,088	10,712
SR 902/Medical Lake Interchange - Intersection Improvements (Spokane) *Ad date delayed as rapid development growth and increased traffic have made timprovements	TPA design analys	Oct-07 is more complic	Apr-08 ated. Additional	Delayed* time is needed to d	726 etermine the most cost-effe	811 ective intersection
SR 305/Unnamed Tributary to Liberty Bay - Fish Barrier (Kitsap)	TPA	May-08	May-08	\checkmark	1,889	1,821
US 101/Blyn Vicinity - Add Passing Lanes (Clallam)	Nickel	Jun-08	Jun-08	\checkmark	4,390	4,348
US 101/Hoodsport Vicinity - Stabilize Slope (Mason)	TPA	Jun-08	Jun-08	\checkmark	499	533

Projects To Be Advertised

Forty-Three Projects in the Delivery Pipeline for January 1, 2008 Through June 30, 2008

Nickel and Transportation Partnership Account (TPA) Projects Now Being Advertised for Construction or Planned to be Advertised Dollars in Thousands

		Baseline	Current
	On	Estimated Cost	Estimated Cost
	Schedule	at Completion	at Completion
Total (January 1, 2008 through June 30, 2008)	95%	\$398,588	\$400,103
7 Nickel Projects	86%	\$166,616	\$173,777
36 TPA Projects	97%	\$231,973	\$226,326

Data Source: WSDOT Project Control and Reporting Office *As established by the 2005 Legislative Evaluation and Accountability Program (LEAP) commit-tee. However, dollars shown are for all fund types, not just Nickel or Transportation Partnership

Account funds

Construction Highlights

SR 169/291st St Vicinity (Formerly SE 288th Street) – Add Turn lanes (King)

This project rebuilt the intersection of SR 169 and 291st Street to reduce the risk of collisions and accommodate increased traffic volumes. A northbound left-turn lane and a southbound right-turn lane were constructed to improve traffic flow through the intersection. The new turn lanes were opened to traffic on October 25, 2007, on-time and on-budget.

SR 522, I-5 to I-405 Multimodal Project (King)

This project improved pedestrian access to the transit center, installed a transit signal in the City of Lake Forest Park and replaced a two-way, left-turn lane with a raised median to improve traffic safety. In partnership with the City of Lake Forest Park, WSDOT also extended a new sidewalk along SR 522.

The project was completed one month ahead of schedule and within budget with the activation of the new signal system at NE 153rd Street on October 17, 2007. Minor clean up work and median landscaping work remains to be done.

SR 543/I-5 to Canadian Border – Add Lanes (Whatcom)

This project adds lanes to alleviate congestion between Boblett Street and the Canadian border, and address safety issues on SR 543. In addition, a new interchange was built to improve traffic flow, and a retaining wall was improved.

The project was completed ten months ahead of schedule and within budget. In November, the new truck lane realignment around the Duty Free Store opened, the new "D" Street overpass opened, and the new lanes on SR 543 opened. The "FAST" lane was opened to pre-approved commercial vehicles on December 5, 2007.

SR 3/SR303 Interchange (Waaga Way) – Construct Ramp (Kitsap)

This \$20.2 million dollar project provides a single point Urban Interchange (SPUI) to better accommodate current and future traffic needs. Included is a new signal system at the Waaga Way over-crossing in operation, a new signal system at the new connection to SR 303 and Clear Creek Road, and a new off ramp for SR 303 to southbound SR 3.

This project was completed on-budget and on-time, November 2007.

I-5, 48th to Pacific (Pierce)

This \$79.2 million project prepares I-5 for future HOV lanes from 48th Street to Pacific Avenue. It also improves safety on I-5 by adding a northbound collector-distributor lane for safer merges on and off the freeway from 38th Street and SR 16 to I-705. A new off-ramp to downtown Tacoma was completed and opened to traffic on December 8, with the new exit just north of 38th Street and prior to the SR 16 curve. Other accomplishments include the completion of a mile-long, four-lane northbound collector-distributor roadway between the Tacoma Mall and the Tacoma Dome, a new on-ramp to northbound I-5 from 38th Street (Tacoma Mall), and a new connection from eastbound SR 16 to northbound I-5.

The project is on schedule for completion in the Spring of 2008.

I-90/East Easton Bridge – Emergency Removal and Repair (Kittitas)

This project replaced a bridge span over eastbound I-90 that was damaged beyond repair by an over-sized truck load on October 31, 2007. The collision forced the closure of the I-90 eastbound lanes and traffic was detoured onto the Easton interchange ramps. WSDOT and the emergency contractor demolished the damaged bridge section and re-opened the eastbound lanes of I-90 within 24 hours of the collision. Secretary of Transportation Paula Hammond challenged WSDOT engineers to "get creative – get this bridge replaced as quickly and effectively as possible." WSDOT met the challenge and opened the repaired bridge on December 15, within 45 days, facing many obstacles including freezing temperatures, snow storms, and extra traffic on I-90 due to travelers trying to avoid the flooding on I-5 in Chehalis.

I-405 / NE 10th Street Bridge Crossing (King)

This project will build a new freeway crossing at NE 10th Street in Bellevue to draw traffic away from the very congested I-405 interchange at NE 8th Street.

The second stage of this project was awarded in November 2007 at 10% below the Engineer's Estimate, and is within budget and on schedule. Work will begin in February 2008 and is expected to be completed in December 2009.

I-405 / SR 520 to SR 522 Widening (King)

This project is Stage 1 of the Kirkland Nickel project. The project added one lane in the northbound and southbound directions from NE 85th Street to NE 124th Street. This project also replaced the I-405 bridge over NE 116th Street to accommodate future widening.

These Stage 1 improvements were accelerated and completed four years in advance of the original 2003 Legislative schedule due to dividing the original project into two stages.

--WSDOT celebrated the completion of this project two months ahead of schedule in October 2007 with a ribbon-cutting ceremony. The project was completed on-budget.

"Watch List" - Cost and Schedule Concerns

Watch List Summary

New to the Watch List	Project Type	Watch List Issue
I-5/172nd Street NE (SR 531) Interchange – Rebuild Interchange	Highway	Right-of-Way Acquisitions
SR 167/15th St SW to 15th St NW -Add HOV Lanes	Highway	Budget Shortfall
SR 522/Snohomish River Bridge to US 2 – Add Lanes	Highway	Timing and Budget
SR 530/Sauk River (Site #2) – Stabilize River Bank	Highway	Design Issues
US101/Dawley Road Vicinity to Blyn Highway – Add Climbing Lane	Highway	Land Acquisition
US101/Hoh Site (Site #2) – Stabilize Slope	Highway	Design Issues
SR116/SR19 to Indian Island - Upgrade Bridge Rail (aka SR 116/Portage Canal Bridge Rail)	Highway	Utility Relocations
SR305/Unnamed Tributary to Liberty Bay - Fish Barrier	Highway	Environmental
I-5/Chehalis River Flood Control – Construct Levies	Highway	Local Concerns
SR 433/Lewis and Clark Bridge – Painting	Highway	Dispute Resolution Pending
I-5/SR 161/SR 18 Interchange Improvements	Highway	Budget Shortfall, Fish Passage/Permitting Issue
SR 542/Boulder Creek Bridge Replace Bridge	Highway	Inclement Weather
Adams and Franklin Counties Roadside Safety Improvements	Highway	Construction Materials Procurement
SR 202/Junction of SR 203 Construct Roundabout	Highway	Inclement Weather
Keystone Special Ferry Project	Ferries	Budget Realignment
Everett – Curve Realignment and Storage Tracks	Rail	Wetland Mitigation/Permitting Delay
Updated Since September 30, 2007	Project Type	Watch List Issue
SR 500/St John's Blvd – Build Interchange	Highway	Environmental, Budget Shortfall, Fish Passage Barrier Issue
SR 9/SR 522 to 228th St SE Stages 1a and 1b – Add Lanes SR 9/228th St SE to 212th St SE (SR 524) Stage 2 – Add Lanes	Highway	Design, Environmental
SR 20, Fredonia to I-5 – Add Lanes	Highway	Cost Increase, Scheduling
SR 99/Aurora Ave George Washington Memorial Bridge – Seismic	Highway	Geological, Design Issues
SR 169/SE 416th – Interchange Improvements	Highway	Design, Local Concerns
SR 529/Ebey Slough Bridge – Replace Bridge	Highway	Geological, Design Issues
SR 532/270th St NW to 72nd Ave NW – Improve Safety SR 532/Sunrise Blvd to Davis Slough – Improve Safety SR 532/General Mark W. Clark Memorial Bridge – Improve Safety SR 532/64th Ave NW to 12th Ave NW – Improve Safety	Highway	Budget Shortfall
SR 539/Tenmile Road to SR 546	Highway	Land Acquisition
SR 542/Nooksack River – Redirect River and Realign Roadway	Highway	Right-of-Way Acquisitions
SR 900/SE 78th St Vic to I 90 Vic – Widening and HOV	Highway	Geological, Design Issues, Right-of-Way Acquisition
SR 285, George Sellar Bridge – Additional Eastbound Lane	Highway	Design Issues, Cost Increase
SR16/Burley -Olalla Interchange – Build Interchange	Highway	Wetland Mitigation
US 101/Purdy Creek – Bridge Replacement	Highway	Right-of-Way Acquisitions
US 12/SR 124 Intersection – Build Interchange	Highway	Land Exchange/Acquisition
SR 167/8th Street East Vicinity to South 277th Street Vicinity	Highway	Budget Shortfall
Eagle Harbor Maintenance Facility	Ferries	Pending Litigation
New 144-Auto Ferry Project	Ferries	Schedule Delay, Budget Shortfall
Mukilteo Multimodal Ferry Terminal	Ferries	Geological, Design Issues

Measures, Markers and Mileposts - December 31, 2007

"Watch List" - Cost and Schedule Concerns

Bellingham – Waterfront Restoration, Bellingham – GP Area Upgrades	Rail	Budget Shortfall, Archeological Issues
Geiger Spur/Airway Heights - New Rail Connection	Rail	Right-of-Way Acquisitions
Tacoma Rail & Puget Sound and Pacific RR – Reconfigure Rail Phase 1A	Rail	Right-of-Way Acquisition, Budget Shortfall
Tacoma Rail & Puget Sound and Pacific RR – Reconfigure Rail Phase 1B	Rail	Budget Shortfall
White Swan/Toppenish - Yakama Sawmill Traffic Upgrades	Rail	Scope Change
Vancouver - Rail Bypass and West 39th Street Bridge	Rail	Right-of-Way Acquisitions, Budget Shortfall
Tacoma – Bypass of Pt. Defiance	Rail	Right-of-Way Acquisitions, Design Issues
Mount Vernon – Siding Improvements	Rail	Local Concerns, Litigation
Stanwood – New Station, Stanwood – Siding Upgrades	Rail	Scope Increase, Federal Approval, Wetland Mitigation
Removed from Watch List	Project Type	Watch List Issue
SR 9/Marsh Road Intersection – Safety Improvements SR 9/SR 96 to Marsh Road – Add Lanes and Improve Intersections SR 9/176th Street SE Vicinity to SR 96 – Add Signal and Turn Lanes	Highway	Cost Increases: Transfer of cost savings from other SR 9 projects offsets shortfall
SR 9/Lake Stevens Road to 20th St SE – Improve Intersection	Highway	Construction Cost Increases: 2008 Legisla- ture will address
I-5/SR 11 Interchange Josh Wilson Rd Rebuild Interchange	Highway	Cost Increase Due to Wetland Mitigation: 2008 Legislature will address
SR 520/West Lake Sammamish Parkway to SR 202Stage 3 – Widening	Highway	Construction Cost Increase: 2008 Legisla- ture will address
SR 28, East End of the George Sellar Bridge - Construct Bypass	Highway	Cost Increase: Resolved
I-5/ Grand Mound to Maytown	Highway	Budget Shortfall: 2008 Legislature will address
SR 109/Moclips River Bridge – Replace Bridge	Highway	Cost Increase: New schedule and Budget
SR 112/Murphy Road to Charley Creek Weel Road – Pedestrian Safety (PEF) SR 112/Seiku Vicinity to US 101 – Install Guardrail SR 112/Neah Bay to Seiku – Roadside Safety Improvements	Highway	Permitting: Project realigned and is now on schedule within the budget of the three original projects
SR 142/Roadside Safety – Roadside Improvements	Highway	Right-of-Way Acquisition: Project redesigned into two parts to allows for the early start date
US 12/Frenchtown Vicinity to Walla Walla – Add Lanes	Highway	Right-of-Way Acquisition: Resolved
US 12/Naches River North of Yakima – Stabilize Slopes	Highway	Permitting Delay: Permit received on-time
SR 22/I-82 to Toppenish – Safety Improvements (aka SR 22/I 82 to McDonald Road - Widen Roadway)	Highway	Project Realignment: Cost-effective solution found
SR 241, Rattlesnake Hills Vicinity - Roadside Safety	Highway	Property Acquisition: Land acquired

New to Watch List

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

This project will improve the interchange by constructing a new two-lane ramp, realigning and widening a southbound off-ramp and northbound on-ramp, and connecting these ramps to the recently completed six-lane bridge over I-5.

Right-of-way costs have increased by \$2.3 million due to real estate escalation in the project vicinity and a cost reassessment for closing a private road. Local development mitigation fees will address \$300,000 of the funding shortfall.

The advertisement date for this project has been delayed from October 2008 to January 2009 because WSDOT anticipates needing extra time to negotiate and acquire all right-of-way parcels in this area. However, this is not expected to impact the December 2010 completion date.

"Watch List" - Cost and Schedule Concerns

SR 167/15th St SW to 15th St NW -Add HOV Lanes

To relieve congestion, increase capacity and mobility, and provide a travel time advantage to transit and HOV traffic, a northbound HOV lane will be constructed between 15th Street SW and 15th Street NW. An existing southbound general purpose lane will be converted to an HOV lane between 15th Street NW and 37th Street SW. This project will also install an Intelligent Transportation System (ITS), construct HOV ramp bypasses, and correct off ramp tapers at interchanges between 15th Street SW and S 180th Street.

Construction on this project is nearing completion. A northbound HOV lane and two widened bridges are expected to be fully open to traffic in the Spring of 2008. But there have been a significant number of change orders and quantity overruns during construction due to funding uncertainty during the preliminary engineering phase of the project. Project design was suspended and restarted contributing to errors in quantity estimates and resulting in a budget overrun in excess of \$1 million. The shortfall will be addressed by the 2008 Legislature.

Paving work still remains and the project will be operationally complete in April 2008, a delay of four months. Other remaining items of work include roadway lighting, electronic traffic control systems, final overlay, and striping.

SR 522/Snohomish River Bridge to US 2 – Add Lanes (Snohomish)

This project will improve the safety and capacity of the existing two-lane roadway by constructing two additional lanes to form a four-lane divided highway stretching from the Snohomish River Bridge to US 2 in the City of Monroe.

WSDOT is considering re-scheduling the construction on this project. A design-build approach to deliver this project would meet the June 2012 operationally complete date, but would require accelerating \$50 to \$60 million in expenditures from 2011-2013 to 2009-2011, which cannot accommodate this shift in expenditures. If WSDOT pursues the design-bid-build contracting approach to deliver the project, construction must stay within the May to October 2009 finish window. The advertisement date would need to be delayed from February 2009 to December 2009.

Because the construction work start date will be delayed into 2010, the project cost will increase by \$7.4 million due to inflation and the planned operationally complete date will be delayed from June 2012 to July 2012.

SR 530/Sauk River (Site #2) – Stabilize River Bank (Skagit)

In 2003, the Sauk River eroded the riverbank, resulting in a partial lane washout of SR 530. This project will realign a two-mile section of SR 530 away from the river channel to prevent future damage. It will also restore riverbank and aquatic habitat that have been disturbed by temporary emergency repairs.

Since Fall 2006, changes in the Sauk River's course now threaten SR 530 and could undermine the current project site. WSDOT is looking into alternatives to address and revise the scope of work to stabilize the riverbank. An update will be provided in the next *Gray Notebook*.

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 project schedule will be delayed because extra time is needed to purchase property from the Department of the Interior for required stormwater mitigation. Approval from the United States Congress is required, therefore the advertisement will be delayed from September 2008 to January 2009 to place it in a favorable, winter bidding environment and allow sufficient time for a Congressional decision.

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

This project will stabilize the Hoh River bank to prevent the loss of roadway due to erosion.

An analysis of the lower Hoh River has identified the need for additional preventive measures at this location in order to avoid future emergency work. The project schedule will be delayed for an unknown length of time due to the iterative nature of river hydraulic analyses used for designing the engineered log jams, and the process of gaining acceptance from the various resource agencies. WSDOT is assessing the schedule impacts and will report the new schedule next quarter.

SR116/SR 19 to Indian Island – Upgrade Bridge Rail (Jefferson County) (aka SR 116/Portage Canal Bridge Rail)

This project will upgrade the existing bridge rail to meet current safety standards and enhance motorist safety. The project was planned to be completed November 29, 2007. The schedule has been compromised due to ongoing challenges with utility relocations. These challenges are currently estimated to delay completion of the project to February 2008.

"Watch List" - Cost and Schedule Concerns

SR 305/Unnamed Tributary to Liberty Bay – Fish Barrier (Kitsap)

This project eliminates a fish passage barrier by replacing the existing culvert with a new concrete structure allowing migratory fish unhindered access to new habitat. It also realigns approximately 400 feet of the creek to assist with fish migration. The advertisement date for this project was advanced from the initial date of March 2009 to May 2008 to combine it with another fish barrier removal project, SR 305, Bjorgen Creek Fish Barrier Removal, in a single contract. Combining the design/ construction contracts would minimize local traffic congestion and achieve delivery efficiencies.

During design finalization in May 2007, Washington Department of Fish and Wildlife determined the proposed barrier removal project could potentially impact the Puget Sound Steelhead, a threatened species under the Federal Endangered Species Act (ESA). The ESA compliance review process will extend the design schedule and delay the current advertisement date back to March 2009, the initial date.

I-5/Chehalis River Flood Control – Construct Levies

This project was originally a partnership with Lewis County, the Cities of Centralia and Chehalis, and the Army Corps of Engineers to design and construct a comprehensive flood control project for the Chehalis River Basin. WSDOT was a partner due to the flood impacts to I-5. In 2005, with the support of local agencies, the legislature decreased WSDOT's \$30 million contribution to \$2.5 million for elevating and widening Airport Way west of I-5. Since then, the project has been on hold because the local agencies have been undecided about whether to proceed with the Airport Road improvements.

In October 2007, the Cities again stated their reluctance to continue participation in the comprehensive flood control project. They requested that the State elevate I-5 to ensure access to their hospital during flood events, and widen/update I-5 to ensure citizens' safety as well as improve local and interstate commerce.

A storm in December 2007 caused severe flooding, and I-5 was closed for several days. The Governor is proposing a \$50 million state contribution towards an Army Corps of Engineers flood control project. WSDOT would lead the state effort and prepare all necessary agreements to move the project forward.

SR 433/Lewis and Clark Bridge – Painting

This \$14.6 million, bridge-painting contract is approximately 23% complete. The mile-long, 77-year-old Lewis and Clark Bridge connecting Longview, Washington to Rainier, Oregon contains 14,800 tons of painted steel.

After beginning work, the contractor wrote a letter of protest and disputed the intent of the contract. To address the contractor's dispute, a Dispute Review Board (DRB) has been added to the contract. A pre-DRB meeting has been held, DRB members visited the work site on October 22nd, 2007, and DRB hearing dates have been set for January 14th and 15th, 2008. The results of the hearings may impact the scope, schedule and/or budget.

The cost of this federally-funded project is being shared with the State of Oregon. No Nickel or TPA funds are involved.

I-5/SR 161/SR 18 -- Interchange Improvements (aka "The Triangle Project")

This project will reduce congestion and improve safety at the I-5/ SR18/SR161 interchange - one of the most dangerous interchanges in the state. The interchange will be modified to eliminate the current weave situations on southbound I-5 and westbound SR 18. This includes construction of a direct westbound to southbound freeway-to-freeway ramp, construction of a frontage road on the west side of the interchange connecting directly to SR 161, and reconstruction of the southbound I-5 to eastbound SR 18 freeway-to-freeway ramp connection. Additionally, it has been determined that culverts located under major sections of freeway must be replaced or modified to comply with fish passage regulations.

A risk analysis determined that the total project cost would exceed the project's \$109 million budget. To resolve this, WSDOT is re-evaluating the elements of the project to determine what can be constructed within budget that will provide the greatest benefit and safety improvements for the traveling public. Options for revising the project will be proposed to the legislature for their input in the 2008 session.

SR 542/Boulder Creek Bridge -- Replace Bridge

Construction will replace the existing bridge with a new bridge designed to current standards. Due to severe weather, construction activities slowed and the operationally complete date has been delayed to June 2008

Adams and Franklin Counties -- Roadside Safety Improvements This project will install guardrails and enhance motorist safety by reducing the severity of collisions on several state routes. Due to the time required to procure the steel components for the guardrail system, this project has been delayed to April 2008.

SR 202/Junction of SR 203 -- Construct Roundabout

This project will construct sidewalks and two roundabouts. Due to severe weather conditions, the operationally complete date on this project has been delayed to June 2008.

"Watch List" - Cost and Schedule Concerns

Ferries

Port Townsend - Keystone Special Ferry Project (Island)

WSDOT and the Governor are currently proposing to use a fast-track process to build three new, smaller vessels similar to recently constructed Pierce County ferries, to be used on the Port Townsend/Keystone ferry route. Funding from the 144-Auto Ferry budget is proposed for reprogramming for this purpose, which may limit the New 144-Auto Ferries' contract to three larger vessels instead of four.

Rail

Everett – Curve Realignment and Storage Tracks (Snohomish)

This project will improve passenger service on the Seattle-Vancouver, BC route. In order to realign the curves, it is necessary for BNSF Railway to fill wetlands on their properties. Obtaining the required permits from the Army Corps of Engineers delayed the start of construction from April 2007 to October 2007. It is now anticipated that the permitting delays will push construction to April or May 2008.

Updated Since September 30, 2007

SR 500/St. Johns Blvd – Build Interchange (Clark)

This project will replace the current signalized intersection at SR 500 and St. John's Blvd with a freeway-style interchange as a safety improvement. It is scheduled to go to advertisement in April 2009.

The project has a number of complex construction elements, including tall retaining walls, high voltage power lines, underground utilities, culverts, a multi-use trail and a park. The project includes a fish passage barrier culvert estimated to cost approximately \$4 million to replace, presenting a challenge to the budget.

A recent Value Engineering (VE) Study developed several options to reduce overall project costs. WSDOT is currently evaluating and verifying the VE recommendations, including a recommendation to avoid replacing the expensive and unfunded fish passage barrier.

SR 9/SR 522 to 228th St SE Stages 1a and 1b – Add Lanes (Snohomish) and

SR 9/228th St SE to 212th St SE (SR 524) Stage 2 – Add Lanes (Snohomish)

These two projects widen and enhance safety on 1.8 miles of congested state highway by adding lanes and installing new guardrails and median barriers. As anticipated last quarter in the *Gray Notebook*, the new lanes on SR 9 were opened to traffic on November 4, 2007, and the remaining signal work was

completed in mid-December. However, the ramp widening and retaining wall work were suspended earlier this year and are now scheduled to be completed in February 2008. The delay is to avoid adverse impacts to wetlands adjacent to the project site during inclement weather. Higher than expected costs associated with erosion control and water removal at the project site have increased the cost by \$1.6 million.

SR 20, Fredonia to I-5 – Add Lanes (Skagit)

This project will be constructed in three stages to relieve traffic congestion and improve safety. Stage 1 is currently underway. Stages 2 and 3 will add two new eastbound lanes, widen and resurface two westbound lanes, construct four new bridges on SR 20 and one new overpass on SR 536, and widen the bridge over Higgens Slough. The contract for Stages 2 and 3 is scheduled to be advertised in January 2008.

Last quarter, WSDOT reported the overall project budget increased by \$5.7 million due to the new construction cost inflation factors. This cost increase will be addressed by the 2008 Legislature.

SR 99/Aurora Ave George Washington Memorial Bridge – Seismic (King)

This project will complete the remaining seismic retrofit work on the SR 99 Aurora Avenue-George Washington Memorial Bridge to reduce the probability of catastrophic damage from an earthquake.

The \$1 million design cost increase reported in the last *Gray Notebook* for additional geotechnical and structural analysis was included in the 2008 Supplemental Budget to the Legislature. The analysis is expected to be complete in late May 2008. An update will be provided in the March 31, 2008 *Gray Notebook*.

SR 169/SE 416th – Interchange Improvements (King)

This project will construct intersection improvements to reduce the risk of collisions occurring at this intersection.

As reported last quarter in the *Gray Notebook*, the project is on hold because of local community concerns with the proposed design. WSDOT is reviewing a modified intersection design that will add turn lanes without the need to acquire adjacent farm land property. An update will be provided next quarter.

SR 529/Ebey Slough Bridge – Replace Bridge (Snohomish)

This project will replace the existing Ebey Slough Bridge with a new, fixed-span structure designed to current standards. As reported last quarter in the *Gray Notebook*, the advertisement date has been delayed 11 months to January 2010. There may be a significant construction cost increase due to recent seismic design code changes for bridges in high risk areas of soil insta-

bility during earthquakes. Further geotechnical analyses to quantify the risk and recommend design revisions are expected in February 2008. An update will be provided next quarter.

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) and

SR 532/64th Ave NW to 12th Ave NW – Improve Safety (Snohomish)

Since last quarter, the decision was made to consolidate these four projects into one design-build contract for delivery efficiency. The combined project will increase traffic flow and enhance motorist safety at several intersection chokepoints and consolidate private driveway access. The highway connections to the new General Mark W. Clark Memorial Bridge will also be widened.

As reported last quarter in the *Gray Notebook*, the estimated cost range of the combined SR 532 corridor project was \$86 to \$96 million. Now the estimated cost range is \$95 to \$105 million due to new seismic design code requirements for bridges in high risk areas of soil instability during earthquakes. The design for the General Mark W. Clark Bridge foundation had to be changed and will increase the cost of the bridge by \$9 million.

As a result, the funding shortfall is between \$14.2 and \$24.2 million. Therefore, either the scope of the corridor project may be reduced to stay within current legislative appropriations, or additional funding may be sought through the legislative process. An update will be provided in the March 31, 2008 *Gray Notebook*.

SR 539/Tenmile Road to SR 546 (Whatcom)

This project will add one lane in each direction from Ten Mile Road to SR 546 near the town of Lynden to reduce congestion and improve safety. The project includes a study to determine the better of two alternatives to improve traffic flow.

This quarter, a \$5 million cost increase for design and construction has been identified with \$500,000 of the increase for redesigning the Nooksack Bridge to eliminate a right-of-way encroachment, for additional design efforts to resolve open water mitigation site selection, and for environmental permitting issues reported in earlier *Gray Notebooks*. The remaining \$4.5 million of the increase is primarily due to higher construction costs for steel pile-driving and steel truss bridge work.

Last quarter, WSDOT reported concerns about potential construction schedule impacts due to difficulties in acquiring possession and use of two parcels of land that are needed for utility relocations and drainage improvements. These concerns have yet to be resolved. The project was advertised on December 17, 2007, and bid opening is scheduled for February 13, 2008. However, WSDOT must obtain possession and use of the remaining two parcels before the project can be awarded.

SR 542/Nooksack River – Redirect River and Realign Roadway (Whatcom)

This project will consider whether to realign SR 542 further away from the Nooksack River, or divert it further away, in order to reduce seasonal flood damage and road closures.

As reported last quarter in the *Gray Notebook*, there was a \$400,000 construction cost increase to address poor soil infiltration conditions, and to schedule risk as a result of a late start for the right-of-way acquisition process. The cost increase will be addressed by the 2008 Legislature, and was reviewed by the Office of Financial Management in December 2007. Verbal agreement has been reached on three of the five properties needed for the project. WSDOT's offers on the remaining two properties are being reviewed by owners. An update will be provided in the next *Gray Notebook*.

SR 900/SE 78th St Vic to I 90 Vic – Widening and HOV (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 has revealed a much smaller risk of hillside instability than initially anticipated. Several retaining walls must be redesigned to increase their underground tieback anchors, and the longer anchors will require purchasing additional right-of-way. This has delayed both the advertising date from November 2007 to April 2008 and the operationally complete date from August 2009 to October 2009. It has also increased the project by \$4.8 million.

SR 285, George Sellar Bridge – Additional Eastbound Lane (Douglas)

This project will provide an additional eastbound lane to ease heavy congestion and traffic delays coming from both ends of the George Sellar Bridge.

WSDOT is reassessing the cost risk to this project due to more extensive construction costs not originally included in the design as a result of in-depth structural analysis. The re-design will provide structural support for bridge inspection vehicles and replace the bridge bearing pads. WSDOT continues to address the structural impacts of the project on the bridge and work with the railroad to acquire the necessary easements. The preliminary estimate indicates the total project cost of \$10.9 million will increase to \$13.5 million.

"Watch List" - Cost and Schedule Concerns

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. As reported last quarter in the *Gray Notebook*, WSDOT is continuing to conduct negotiations with resource agencies to address project-related wetland mitigation that could impact the project cost and schedule. WSDOT is also evaluating strategies to stay on schedule and within budget. The project's operationally complete date could be delayed from December 2009 to August 2010.

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. As reported last quarter in the *Gray Notebook*, costs increased due to redesign efforts to eliminate impacts to a fish hatchery pond, and relocation of a Qwest connection facility. Redesign efforts have eliminated impacts to these features. This quarter, the project schedule is at risk due to right-of-way acquisition challenges.

US 12/SR 124 Intersection Build Interchange (Walla Walla)

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

WSDOT needs to acquire land from the McNary Wildlife Refuge in order to build the new interchange. WSDOT is working closely with the Wildlife Refuge and US Fish and Wildlife Service to identify a suitable replacement parcel to exchange as payment for the needed Refuge property. Further delays in this process may affect the project schedule and increase costs due to inflation. This may also increase the total project cost.

Risks to the project schedule and budget are now primarily centered on the land exchange process. WSDOT has worked with concerned community members to reduce the likelihood of budget risks mentioned in the previous *Gray Notebook* that were due to possible design modifications.

SR 167/8th Street East Vicinity to South 277th Street Vicinity (King)

A new lane will be constructed as a HOT lane to remain compatible with the SR 167 High Occupancy Toll (HOT) Lane Project and to operate the lanes safely and efficiently.

As reported last quarter in the *Gray Notebook*, the scope of this project requires clarification that the project will be constructed as a HOT lane. A request for an additional \$17.4 million is included in the 2008 Supplemental Budget submitted to the Legislature, who will also address scope clarification for this project.

The length of the HOT lane will need to be reduced if additional funding is not received. However, as reported in the September 2007 *Gray Notebook*, a number of factors have already caused a budget shortfall of \$17.8 million.

Ferries

Eagle Harbor Maintenance Facility (Kitsap)

The second phase of this project, the maintenance building and dock rehabilitation and the Slip E bridge structure, is currently delayed due to the pending litigation with the City of Bainbridge Island. Oral arguments were heard before Superior Court on October 23, 2007. The court's decision is anticipated in January 2008 although the court has six months with which to deliberate. The advertisement date was postponed from June 2006 to June 2008 while the case is being resolved.

Currently, the project is estimated to need an additional \$3 million (materials escalation, project delays, and other costs related to the litigation). However, the complete cost impact cannot be determined until the case is resolved.

New 144-Auto Ferry Project (aka Construct Four 144-Car Replacement Auto-Pass Ferries)

This project will build up to four new 144-Auto Ferries using the modified Design/Build RFP process required by RCW 47.60.810 – 822. Major machinery items (e.g., engines and diesel generators) are purchased under separate contracts and will be provided to the shipyards as owner-furnished equipment.

A two-part contract was signed in December 2007. Part A of the contract, due September 2008, pertains to a technical proposal and a construction price proposal. After negotiation of the construction price with the prime contractor, Todd Shipyards, Part B of the contract will proceed in October 2008 to build the number of ferries afforded by the budget. Delivery of the first ferry is anticipated in Summer 2010.

The current budget does not account for recent project delays and contingencies to the sole source price for the Shipyards' perception of risk in the joint, single proposal. The increase is estimated to be approximately \$29.5 million, which raises the total cost to \$377 million.

Mukilteo Multimodal Ferry Terminal (Snohomish)

This project will relocate the terminal, provide a new terminal building, improve options for connecting to other modes of transportation, and alleviate local traffic congestion.

This project is subject to the new Legislative requirements mandated in ESHB 2358 and the Transportation Budget, ESHB 1094. The scope, schedule, and budget will be updated after compliance with the new mandates and acceptance from

the Legislature on the project's scope and budget. (See writeup on new legislative requirements in the March 2007 *Gray Notebook*.)

The updated cost estimates, ranging from \$222 million to \$311 million, predict substantial increases for both alternatives. The increase is due to poor soil conditions (which require deeper piling), the decision to avoid using hollow core concrete piles because of seismic performance, Tribal settlements, and additional inflation due to delays in the project. WSF is taking several steps to identify ways in which to reduce the additional financial impact while still meeting the project's core objectives, such as performing additional soils investigation and analysis for the conceptual design.

Rail

Bellingham – Waterfront Restoration, Bellingham – GP Area Upgrades (Whatcom)

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

The current estimated cost for the track relocation is approximately \$11 million – more than double the available funds. In addition, preliminary evidence of ancient fishing activities has been discovered by the City. The archeological issue and the lack of funds to complete both the rail project and roadway project put this project at risk. Without additional funds, it is unlikely that construction will begin during the 2007-09 biennium.

WSDOT intends to use the federal funds (approximately \$140,000) to perform additional cultural resource investigations. WSDOT will also work with the City, Port and BNSF to investigate ownership and potential reversionary property rights along the proposed route.

Geiger Spur/Airway Heights – New Rail Connection (Spokane) This 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.

Unsuccessful attempts to acquire right-of-way continue to delay the project from going to construction by 18 months. Spokane County, however, continues to try to reach an agreement with the property owners while moving forward with condemnation proceedings.

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

This is the first of six phases of the project and 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 per hour at the Y intersection; installs a centralized traffic control from BNSF to Blakeslee Junction; and reconfigures BNSF signal spacing on Napavine Hill, south of Chehalis.

BNSF and Tacoma Rail presented a new proposal on October 30, 2007. This proposal relocates the tracks within the Centralia Yard and increases the speed limit through the junction. However, it would entail purchasing right-of-way that was not envisioned in the original project scope. These changes increase the cost of the project from \$7.4 million to \$11.9 million, putting the project on hold until a new plan and funding are agreed upon.

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

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

The project cost is estimated at \$7.5 million to \$8.4 million. The Legislature has provided \$5.4 million. At a meeting with BNSF and Tacoma Rail, held on October 30, 2007, the Railroads presented a new plan for the entire project (see Phase 1A above) that proposes the phase be constructed per the original plan. However, as Phase 1A severs the line at Blakeslee Junction, the Railroads request that both phase 1A and 1B be constructed at the same time. Since both projects are underfunded, the project is on hold until a new plan is agreed to and funded

White Swan/Toppenish – Yakama Sawmill Traffic Upgrades (Yakima)

This Nickel-funded grant project upgrades the rail line to accommodate increased traffic from two sawmills, providing access to low cost freight transportation. Originally the project was to be completed in June 2007. However, the project came under negotiation when Yakima County expressed desire for the funding to cover cost of materials only. The construction costs, including labor and equipment, could be covered by the Railroad in exchange for a longer lease. Despite the intent to resolve by October 2007, negotiations were not successful. In November 2007, Yakima County notified WSDOT they would

like to contract with a third party for the rail upgrades. This new direction may change the scope of the project, and is currently under assessment to be completed by March 2008.

Vancouver – Rail Bypass and West 39th Street Bridge (Clark) This Bypass 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.

The design of the West 39th Street Bridge is over 60 percent complete and the cost estimate remains unchanged from last quarter. However, to obtain the needed right-of-way, the advertisement date for construction has been delayed six to nine months to March 2008. This will delay the project completion date. WSDOT and BNSF are reviewing the delay to the bridge construction and its effect on the overall project schedule.

As reported last quarter in the *Gray Notebook*, the latest cost estimate for the rail project is \$11.8 million higher than currently funded. This is due to increases in the amount of Right-of-Way required, inflation not accounted for in the previous estimate, and increasing the contingency amount for the project from 25 percent to 30 percent. Due to the contingency already included in the cost estimate, it is not known, at this time, whether additional funds will be required. WSDOT has authorized BNSF to begin property purchases for the rail improvements and to begin construction on the first phase of the rail project. Construction will most likely begin in January 2008.

Tacoma – Bypass of Pt. Defiance (Pierce)

This project constructs a 20-mile bypass route through Lakewood, in coordination with Sound Transit. This will result in a six-minute reduction in the Amtrak *Cascades* schedule between Seattle and Portland.

The advertisement date is delayed from February 2008 to March 2008 pending the acquisition of right-of-way.

A recent issue has surfaced with the Berkeley Street interchange on I-5. The traffic impacts at a crossing are being reviewed by WSDOT's Olympic Region. If the proposed designs are inadequate to ensure the trains will not significantly impact traffic, the scope of the project will include traffic improvements at the interchange which will delay completion and likely increase costs.

Mount Vernon – Siding Improvements (Skagit)

As previously reported in the *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 Utili-

ties Transportation Commission (WUTC) to close the crossing in April 2007. The anticipated WUTC hearing date has now been delayed to January 2008.

In October, the City of Mount Vernon filed a lawsuit against the WSDOT Rail Office for filing improper notice in preparation for the closure of the Hickox Road crossing. WSDOT is working closely with the State Attorney General's (AG) Office to properly reissue notice of the Determination of Non Significance and the State Environmental Protection Act checklist to ensure broad and appropriate notice to the local community. The AG is working closely with BNSF to coordinate responses to the lawsuit.

Stanwood – New Station, Stanwood – Siding Upgrades (Snohomish)

This project will design and construct a new passenger platform and other facilities at Stanwood, and will be served by Amtrak *Cascades* trains. Delays on the project are due to scope increase, additional financial impacts, and federal decisions. Though 90 percent of the design is complete, the rest of the design cannot be finalized until the Federal Rail Administration finishes their rule-making process to set the height of new platforms, which has been delayed.

As previously reported in the *Gray Notebook*, BNSF Railway has notified WSDOT that an extension to the siding at Stanwood will be required before Amtrak *Cascades* trains can serve the station facility. These improvements to the siding are beyond the scope of the siding upgrade project under design and are approximately \$16 million beyond the funding. Further analysis of wetland impacts and mitigation will confirm the cost estimate.

Construction of the new station will not begin until the platform height issue is resolved and additional funding for the siding extension is provided. In the meantime, designs for utility relocation are underway with relocation work expected to be completed in Spring 2008.

Removed from Watch List

SR 9/Marsh Road Intersection – Safety Improvements SR 9/SR 96 to Marsh Road – Add Lanes and Improve Intersections

SR 9/176th Street SE Vicinity to SR 96 – Add Signal and Turn Lanes

These three projects have been combined into one contract and are scheduled to be advertised in January 2008. Together these projects will widen SR 9 to two lanes in each direction between SR 96 and Marsh Road, and improve four intersec-

tions along SR 9. The improvements will increase traffic flow and enhance motorist safety along the SR 9 corridor between the towns of Clearview and Arlington.

As reported last quarter in the *Gray Notebook*, there was an overall contract cost increase of \$1.7 million due to new construction cost inflation factors. This cost increase will be addressed by the 2008 Legislature. Additionally, there will be a transfer of cost savings from the 'SR 9/SR 96 to Marsh Road' to offset the \$4.5 million construction cost increase on the 'SR 9/Marsh Road Intersection' project.

SR 9/Lake Stevens Road to 20th St SE – Improve Intersection (Snohomish)

This project adds new lanes and upgrades existing infrastructure at the intersection. The \$365,000 cost increase due to new construction cost inflation factors reported last quarter will be addressed by the 2008 Legislature. Assuming the funding is approved, the project remains on schedule to be advertised in April 2008.

SR 11/ I-5 Interchange Josh Wilson Rd Rebuild Interchange (Skagit)

This project reduces congestion and accidents within the interchange and connecting streets. It is coordinated with the *SR 11/Chuckanut Park and Ride Project* and the City of Burlington's 'Burlington Boulevard Widening' project.

As reported in the last two quarters in the *Gray Notebook*, the project is currently \$1 million over budget because additional property has to be acquired and developed to mitigate the larger wetland impact. The cost increase will be addressed by the 2008 Legislature.

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

This project increases roadway capacity, improves traffic operations and safety. The \$2.7 million cost increase due to new construction cost inflation factors will be addressed by the 2008 Legislature. The project is currently on schedule for advertisement in October 2008.

SR 28, East End of the George Sellar Bridge - Construct Bypass (Douglas)

This project will ease heavy congestion and traffic delays on the bridge in East Wenatchee. This construction phase is currently funded at \$10.3 million. As reported last quarter in the *Gray Notebook*, WSDOT refined the design, performed a Cost Risk Analysis, and addressed previously unaccounted for items. The construction estimate increased by \$3.3 million.

I-5/ Grand Mound to Maytown (Thurston)

This project was advertised on schedule this quarter. It constructs one additional northbound lane and southbound lane from south of the interchange with US 12 at Grand Mound to the interchange at Maytown. Work will include replacing several bridges and extending both on- and off-ramps for improved safety. As reported last quarter in the *Gray Notebook*, this project experienced cost increases and a schedule delay due to environmental permitting, right-of-way acquisition and utility relocation which will be addressed by the 2008 Legislature

SR 109/Moclips River Bridge Replace Bridge (Grays Harbor)

This project will replace the existing bridge, reducing the need for continual maintenance and the associated environmental impacts. As reported last quarter in the *Gray Notebook*, this project experienced a 17-month delay from February 2008 to December 2009, with an estimated Operationally Complete date in December 2010. There is a cost increase of \$3.46 million due primarily to design changes. The project delivery is proceeding within the new schedule and budget.

SR 112/Murphy Road to Charley Creek Weel Road – Pedestrian Safety (PEF) (Clallam)

SR 112/Seiku Vicinity to US 101 – Install Guardrail (Clallam) SR 112/Neah Bay to Seiku – Roadside Safety Improvements (Clallam)

These three projects will install a sidewalk on the south side of SR 112 in Clallam Bay to increase pedestrian access to a school, and install guardrails and remove fixed objects for the entire 61 miles of SR 112. Construction will decrease the high number of run-off-the-road collisions in this corridor.

As reported last quarter in the *Gray Notebook*, the work from these three projects will be completed in two separate contracts, 'SR 112/Makah Reservation to US 101 – Safety Stages 1 and 2' for efficiencies. The first contract will address off-road accident locations that have little or no impact to environmental resources. The second contract will address accident locations and sidewalk construction that require a lengthy engineering phase addressing right-of-way purchases and environmental compliance. The work will be completed in October 2008 on-time and within the total budget of the three projects.

SR 142/Roadside Safety – Roadside Improvements (Klickitat) This project will undertake guardrail installation, slope flattening, and other safety improvements on SR 142 from Lyle to Goldendale. As reported last quarter in the *Gray Notebook*,

right-of-way acquisition, necessary for safety improvements along Bowman Grade, would delay the project start by two years. The current plan splits this project into two stages to maintain the early start.

Stage 1 work will include all safety items identified that can be organized into a contract that meets the original April 2008 advertisement date. Work will include 1.7 miles of new guardrail and other safety improvements. Stage 2 work will include all other safety items that need time for right-of-way acquisition. Advertisement for construction of Stage 2 will be in early 2010. Work will include approximately 2.2 miles of new guardrail, slope flattening, and other safety improvements. Completion of the total project will still be extended by one year.

US 12/Frenchtown Vicinity to Walla Walla – Add Lanes (Walla Walla)

This project is the fourth of six construction phases to widen US 12 between SR 125 and the City of Walla Walla. It will construct a new four-lane divided highway to add traffic capacity and improve safety. Work includes realigning county roads, constructing four, non-signalized intersections, and building an interchange with three roundabouts.

Last quarter, it was reported in the *Gray Notebook* that the condemnation process might begin in order to acquire one of the land parcels. After further negotiations, however, the right-of-way issues were resolved and the project was advertised December 17, 2007 without a delay.

The completion date has been delayed from June 2009 to October 2009 and will be addressed by the 2008 Legislature.

US 12/Naches River North of Yakima – Stabilize Slopes (Yakima)

This project will correct chronic bank erosion problems threatening US 12 and the aquatic habitat in the Naches River north of Yakima. WSDOT will shift the Naches River channel away from US 12 and construct a bio-engineered structure to protect the roadway and habitat from future flood damage.

Last quarter, the October 2007 advertisement date had the potential of being delayed to the end of the year due to the unexpected requirement for a more lengthy permitting process required by the US Army Corps of Engineers. During the quarter the permit needed was received and the project went on advertisement without delay, in November.

SR 22/I-82 to Toppenish – Safety Improvements (Yakima) (aka SR 22/I-82 to McDonald Road – Widen Roadway) This project will increase safety by rehabilitating the pavement, widening the shoulders, flattening slopes, installing guardrail, and other improvements.

The original project description includes replacing the Yakima River Bridge on SR 22. Recent discussions with resource agencies indicate the new bridge should be extended 1000 feet to replace the Yakima River Slough Bridge. The longer span would allow for channel migration and reduce the potential for major damage or complete destruction of the Slough Bridge during flooding. However, the increase in scope would double the project cost to approximately \$20 million.

WSDOT has determined a more cost-effective solution for corridor safety would be achieved by continuing the safety improvements south towards Toppenish instead of replacing the Yakima River and Yakima River Slough Bridges at this time. WSDOT will schedule the replacement of these two bridges as sufficient funding becomes available. The additional safety work would include intersection improvements and new sidewalks to connect sections of existing sidewalk. These proposed changes will be addressed by the 2008 Legislature.

SR 241, Rattlesnake Hills Vicinity - Roadside Safety (Yakima) This realignment project will improve safety on a halfmile stretch known for higher than average, run-off-the-road accidents. This project will also add guardrail and signs throughout the corridor.

As reported last quarter in the *Gray Notebook*, WSDOT delayed advertisement of this project from April 2007 to November 2007 to allow time for the Bureau of Land Management (BLM) to complete an environmental process before right-of-way could be purchased. After acquiring the last parcel from the BLM, WSDOT advertised this project as planned on November 13, 2007. The delayed advertisement is not expected to affect the operationally complete date of August 1, 2008.
Project Delivery Summary Reports

Schedule Milestone Tracking for Nickel Projects

Milestone Results for all Nickel Projects with One or More Milestone Activities

	Scheduled	Scheduled Milestones	Scheduled	Scheduled Milestone	Milestones
Milestone	Milestones to Date	Achieved to Date	Milestones not Achieved	Achievement Rate [*]	Achieved Early
Project Definition Complete					
Biennium to Date (2007-09)	2	3	0	100%	1
Cumulative to Date	146	151	0	100%	5
Begin Preliminary Engineering					
Biennium to Date (2007-09)	7	6	0	86%	0
Cumulative to Date	150	151	0	100%	1
Environmental Documentation Complete					
Biennium to Date (2007-09)	7	4	3	57%	1
Cumulative to Date	123	116	9	94%	2
Right-of-Way Certification					
Biennium to Date (2007-09)	7	5	2	71%	0
Cumulative to Date	80	66	16	83%	2
Advertisement Date					
Biennium to Date (2007-09)	9	5	2	56%	0
Cumulative to Date	116	114	2	98%	0
Operationally Complete					
Biennium to Date (2007-09)	28	21	4	75%	2
Cumulative to Date	90	90	4	100%	4

Data Source: WSDOT Project Control and Reporting Office

Baseline Data: Baseline milestone dates are derived from the original Legislative expectation (2005-2007 budget). Advertise Project and Operationally Complete Milestones are considered on-time if completed within the scheduled baseline calendar quarter. All other milestones are reported as on-time if they are completed within +/- 6 weeks of baseline date.

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. Preconstruction 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

This is 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

This 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.

Project Delivery Summary Reports

Schedule Milestone Tracking for Transportation Partnership Account (TPA) Projects

Milestone Results for all TPA Projects with One or More Milestone Activities

	Scheduled	Scheduled Milestones	Scheduled	Scheduled Milestone	Milestones
Milestone	Milestones to Date	to Date	Milestones not Achieved	Achievement Rate [*]	Achieved Early
Project Definition Complete					
Biennium to Date (2007-09)	26	28	5	100%	2
Cumulative to Date	208	200	12	96%	4
Begin Preliminary Engineering					
Biennium to Date (2007-09)	34	33	4	97%	2
Cumulative to Date	213	215	4	100%	6
Environmental Documentation Complete					
Biennium to Date (2007-09)	38	41	7	100%	7
Cumulative to Date	117	112	16	96%	11
Right-of-Way Certification					
Biennium to Date (2007-09)	18	18	2	100%	3
Cumulative to Date	50	56	5	100%	11
Advertisement Date					
Biennium to Date (2007-09)	15	14	1	93%	1
Cumulative to Date	67	68	1	100%	2
Operationally Complete					
Biennium to Date (2007-09)	21	14	3	67%	4
Cumulative to Date	35	37	3	100%	5

Data Source: WSDOT Project Control and Reporting Office

Baseline Data: Baseline milestone dates are derived from the original Legislative expectation (2005-2007 budget). Advertise Project and Operationally Complete Milestones are considered on-time if completed within the scheduled baseline calendar quarter. All other milestones are reported as on-time if they are completed within +/- 6 weeks of baseline date.

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. Preconstruction 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.

Paying for the Projects: Financial Information

2003 Transportation Funding Package

Revenue Forecast Update

The following information incorporates the November 2007 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 November 2007 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.

Transportation 2003 (Nickel) Account Revenue Forecast

March 2003 Legislative Baseline Compared to the November 2007 Transportation Revenue Forecast Council Dollars in Millions



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 3.1% in the ten-year outlook.

Multimodal Account (2003 Package) Revenue Forecast*

March 2003 Legislative Baseline Compared to the November 2007 Transportation Revenue Forecast Council Dollars in Millions



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

Paying for the Projects: Financial Information

Transportation Partnership Program

Revenue Forecast Update

The accompanying chart compares the current November 2007 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 November 2007 forecast for gas tax receipts over the 16 year period decreased by 5.3% 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 the November 2007 Transportation Revenue Forecast Council Dollars in Millions



*Forecast figures may not add due to rounding

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)

Pre-Existing Funds 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 six PEF projects that were selected due to size and visibility on a quarterly basis (see page 35).

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

Number of Projects with Milestones, 2007-09 Biennium-to-Date, Milestone and Expenditure Achievement-to-Date Dollars in Millions

	Beg	in			Operati	onally		
	Engine	ering	Advertised	for Bids	Comp	lete	Expenditures	
Programmatic Categories	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Pavement Preservation	37	37	19	20	78	80	102	90
Bridges (Preservation/Replacement)	18	18	11	8	11	7	35	20
Slope Stabilization	8	9	5	7	5	6	4	9
Safety (roadside, rumble strips, median cross-over, etc.)	25	25	9	13	20	17	49	24
Environmental Retrofit (fish passage improvement, stormwater runoff)	8	10	0	1	4	4	3	3
Other facilities (rest area, weigh stations, etc.)	5	7	7	5	10	16	59	46
Totals	101	106	51	54	128	130	253	191

Data Source: WSDOT Project Control and Reporting Office

*While elements of one or more categories may be included in some of the projects (such as a bridge preservation project that improves safety), every project has been assigned to one primary category for reporting purposes

Pre-Existing Funds Advertisement Record

Advertisement Record: Fifty Six Advertised as of December 31, 2007

Biennium to Date (2007-09)

The 2007-09 Highway Construction Program includes a commitment to advertise 271 Pre-Existing Funds (PEF) projects. There were 51 PEF advertisements planned through the quarter ending December 31, 2007. Fifty-four advertisements were achieved in those two quarters. Of the 51 scheduled, eight were delayed to future quarters of this biennium, one was deferred to a future biennia, and no projects were deleted.

Current Quarter (October 1 - December 31, 2007)

For the quarter there were 45 planned PEF advertisements. Thirty-six of these projects were advertised as scheduled. Six 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 three advanced, three emergent, and four delayed projects advertised.

The table below summarizes the status of PEF projects advertised during the first quarter of the 2007-09 Biennium.

Highway Construction Program Advertisements Pre-Existing Funds Projects

Planned vs. Actual Number of Projects Advertised 2007-2009 Biennium, Quarter 2 ending December 31, 2007 Project Count







Pre-Existing Funds Projects: A Snapshot of Quarterly Progress and Total Biennial Progress to Date

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.

Pre-Existing Funds Advertisement Record

Advertisement Record: Projects Scheduled for and/or Advertised This Quarter

October 1, 2007- December 31, 2007

Project Description	On-Time Advertised	Project Description	On-Time Advertised
US 2/Sunset Fall Slide - Slope Stabilization	\checkmark	I-90/W of George - Paving	Early
US 2/Goodwin Rd Cashmere Area - Signal	\checkmark	I-90/Asahel Curtis to Easton - Delineation Upgrade	Delayed ⁶
US 2/97 West of Cashmere - Median Barrier	\checkmark	I-90/East Easton Bridge - Emergency Removal and Repair	Emergent ⁷
US 2/7 Miles E of Coles Corner - Unstable Slope	\checkmark	I-90/Yakima River Bridge - Deck Repair	
US 2/Creston to Rocklyn Rd - Paving	\checkmark	US 97/Biggs Rapids Bridge - Deck Replacement	Early
US 395 and US 195 Intersection Low - Cost Improvements	Late ¹	US 97/Branch Road RR Crossing - Signal Improve- ments	\checkmark
I-5/West Marginal Way - Bulbouts - Safety Improvements	\checkmark	US 97/Fort Road Intersection Improvement	$\sqrt{8}$
I-5/Spokane St Interchange - Illumination	\checkmark	US 101/Triton Cove to Jorsted Creek - Paving	\checkmark
I-5/Spring St/SB On Ramp - Traffic Signal	Delayed ²	US 101/Vicinity Dosewallips River Bridge to N of Webster Ln - Paving	\checkmark
I-5/Burlington Vic Bridges - Seismic	\checkmark	US 101/Vicinity W Uncas Rd to Vicinity Fuller Rd - Paving	\checkmark
I-5/Maytown/Scatter Creek - Sewer Hookup	\checkmark	US 101/Walker Creek Bridge - Replace Bridge	\checkmark
I-5/Scatter Creek Safety Rest Area - Truck Parking Addition	\checkmark	US 101/Mud Bay Bridges - Special Repair	\checkmark
I-5/47th Ave SW to 48th St Vicinity - Median Barrier Replacement	Advanced	SR 104/5th Ave NE to 15th Ave NE - Sidewalk	Late ⁹
I-5/Kelso Vicinity Median Crossover Prevention - Install Cable Barrier	Emergent ³	SR 104/SR 307 to E of Balmoral PI NE - Paving	\checkmark
SR 8/Mud Bay Bridges - Seismic Retrofit	Deferred ⁴	SR 106/SR 106 Vicinity Webb Hill Road - Unstable Slope	Emergent ¹⁰
SR 17/US 2 to SR 174 - 2008 Chip Seal	\checkmark	SR 169/SE 231st St Vic to 196th Ave SW Vic - Paving	\checkmark
SR 17/Bridgetport Area - 2008 Chip Seal	\checkmark	SR 173/Bridgeport to Brewster - 2008 Chip Seal	\checkmark
SR 17/Othello to Moses Lake - 2008 Chip Seal	\checkmark	SR 207/Coles Corner North - 2008 Chip Seal	\checkmark
SR 17/One Mile South of I-90 - Turn Lanes	Advanced	SR 282/Ephrata East - 2008 Chip Seal	\checkmark
SR 17/Moses Lake North - Paving	\checkmark	SR 410/Nile Road Vicinity - Erosion	$\sqrt{11}$
SR 20/Wauconda Area - 2008 Chip Seal	\checkmark	SR 504/Tower Road to Reynolds Road Vicinity - Safety Improvements	\checkmark
SR 22/First Ave Intersection - Safety Improvements	Late ⁵	SR 526/Paine Field Blvd - Signal Rebuild	Delayed ¹²
SR 24/Othello South - 2008 Chip Seal	\checkmark	SR 526/Airport Rd to Seaway Blvd - Signal and Illumination Rebuild	Delayed ¹³
SR 25/Bossburg to Canada - Paving	Advanced	SR 526/Sign Structure Replacement	Delayed ¹⁴
SR 26/Othello East - 2008 Chip Seal	\checkmark	SR 528/I-5 to SR 529 Vic - Paving	Delayed ¹⁵
SR 28/Rock Island Dam - Unstable Slopes	\checkmark	SR 530/Centennial Trail Crossing - Pedestrian Safety	\checkmark
I-82/Military Road OC - Deck	\checkmark	SR 900/I-405 Vic to Harrington Ave NE - Paving	Late ¹⁶
I-82/Selah Creek to Yakima - Paving	\checkmark		
Data Source: WSDOT Project Control and Reporting Office			

Pre-Existing Funds Advertisement Record

Project Details

Advertisement delayed to reprioritize additional intersections within the corridors. ²Advertisement date delay due to combining this project with the "I-5/NE 50th 5t" signal project. The two projects will be advertised under the same contract for contracting efficiency. ³This project is an excellent opportunity to use the cable rail system that was recently installed on I-5 in the vicinity of Maytown. The system will be removed during the I-5/Grand Mound to Maytown project and transported to the project limits for reassembly on this project in the Kelso area. This will save substantially on material and labor costs as this work will be added to the Grand Mound to Maytown contract.

⁴After a thorough review of the program priorities, this project was deferred to help keep the program within appropriate level.

⁵The advertisement date was delayed. Additional design was necessary to accommodate a lower cost solution within budget and minimize need for additional Right-of-Way acquisition.

⁶ Advertisement date was delayed six months because additional design time was needed to develop the appropriate solution. The construction is scheduled to be completed within the 2008 constriction season as scheduled.

⁷ The project was added to the program after an overheight truck struck the bridge.

⁸ After a thorough review of program priorities this project has been deferred to keep the program within the appropriation level. This revised schedule will also allow WSDOT to coordinate work with a county project on the crossroads.

 ⁹ Ad date delay due to time required to redesign the stormwater system. The relocation and the modification of existing electrical and utility facilities also contributed to the delay.
 ¹⁰ This project is being constructed by Port Orchard maintenance office; work will be performed

by regular maintenance. ¹¹ (1/18/07 prh) The construction phase has been deferred to align with the SR 410/Rattlesnake

Creek project. ¹² Advertisement date delay is a result of combining several Signal and Illumination projects with "SR 526/SR 525 Vicinity to Casino Road" paving project. The projects will be advertised under

the same contract for contracting efficiency and reducing interruption to traveling public. ¹³ Advertisement date delay is a result of combining several Signal and Illumination projects with "SR 526/SR 525 Vicinity to Casino Road" paving project. The projects will be advertised under the same contract for contraction efficiency and reducing interruption to traveling public.

the same contract for contracting efficiency and reducing interruption to traveling public. ¹⁴ Advertisement date delay is a result of combining several Signal and Illumination projects with "SR 526/SR 525 Vicinity to Casino Road" paving project. The projects will be advertised under the same contract for contracting efficiency and reducing interruption to traveling public. ¹⁵ Ad 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.

^{1e} Originally this project was scheduled for advertisement in March, 07. Due to drainage pipe redesign and the need for updated Hydraulic Report, the Advertisement date was delayed until April, 07. The only bidder on this project was 37% higher than the Department's estimate which resulted in rejecting the bid and re-advertising the project in October 07.

Pre-Existing Funds: Financial Information

Paying for the Projects: Financial Information

WSDOT submitted an expenditure plan to the Legislature for the second quarter of the biennium totaling approximately \$279 million. As of December 31, 2007, actual expenditures totaled \$192 million, a variance of approximately \$87 million, or 31%, from the biennium plan. The variance as of the end of the second quarter for the Highway Construction Program was divided between the Improvement and Preservation programs.

The Preservation Program planned cash flow was \$168 million, and actual expenditures were \$126 million. This was \$41 million under plan, or 25%.

The Improvement Program planned cash flow was \$111 million, and actual expenditures were \$65 million. This was approximately \$46 million under plan, or 41%.

Preservation Program Cash Flow Pre-Existing Funds



Improvement Program Cash Flow Pre-Existing Funds

Planned vs. Actual Expenditures

2007-2009 Biennium, Quarter 2 ending December 31, 2007 Dollars in Millions



Data Source for all graphs: WSDOT Project Control and Reporting Office

Pre-Existing Funds Reporting by Program

Six Individually Tracked PEF Projects: Results through December 31, 2007

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	Schedule Date to be Operationally Complete
US 2 / Ebey Island Viaduct and Ebey Slough Bridge (Snohomish) ¹	\$32.1 (2002)"	\$6.2	Dec-98	\checkmark	Nov-00	\checkmark	Dec-03
US 2 / 50th Avenue SE to SR 204 Bridge Rehabilitation (Snohomish)		\$10.8	Jul-06		Feb-07		Sep-07
US 2 / 43rd Ave SE to 50th Ave SE Bridge Rehabilitation (Snohomish)		\$22.6	Jan-09		Aug-10		Dec-11
SR 202/SR 520 to Sahalee Way - Widening (King)	\$36.9 (2001-03)	\$82.7	May-98	\checkmark	Aug-05	\checkmark	Dec-08
SR 539/Horton Road to Ten mile Road - Widen to Five Lanes (Whatcom)	\$32.0 (2001-03)	\$65.9	Oct-90	\checkmark	Jan-07	\checkmark	Oct-08
SR 28/E End of the George Sellar Bridge - Construct Bypass (Douglas)	\$9.4 (2004)	\$17.0	May-04	\checkmark	Oct-09	\checkmark	Sep-11
US 101/Purdy Creek Bridge - Replace Bridge (Mason)	\$6.0 (2004)	\$13.0	Aug-04	\checkmark	Mar-08	\checkmark	Jan-10
SR 303/Manette Bridge Bremerton Vicinity - Replace Bridge (Kitsap)	\$25.5 (2002)	\$64.9	Sep-96	\checkmark	Mar-10	\checkmark	Jun-13

Data Source: WSDOT Project Control and Reporting Office

Future Reporting: Current WSDOT Estimate of Cost at Final Completion is the critical number toward which all modern project management is pointed. Today WSDOT engineers and program managers can only back into these values as best as possible without the management information systems that allow schedule and budgets to be used as the basis for value-earned management systems. WSDOT is considering ways to use estimating techniques to approximate these values until new management information systems are installed and project data is loaded. Baseline Data: Baseline Data: Baseline basis for value-earned management information systems are installed and project data is loaded. Completed within the scheduled baseline calendar quarter. The Begin Preliminary Engineering milestone is reported as on-time if completed within +/- 6 weeks of baseline date. This is stage one of the original "US/Ebey Viaduct and Ebey Slough Bridge" project

²Construction phase has been delayed to balance the financial pla 07-09 biennium Legislative book

Milestone Definitions

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. The preliminary engineering marks the start of the project design and is usually the first capital spending activity in the delivery process.

Advertisement Date

This is 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

This 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.

16,

Special Report: Tacoma Narrows Bridge Construction and Tolling Operations, Quarterly Update

New Bridge Construction

As of December 31, 2007 design-builder Tacoma Narrows Constructors (TNC) has completed 98.7% of construction on the SR 16 Tacoma Narrows Bridge project. Last quarter, TNC completed finish work on the exterior and interior of the anchorages, as well as installation of the heaters and exhaust fans in the splay chambers at the anchorages.

During the rest of the quarter, TNC completed the finish work on the exterior and interior of the towers as well as the installation of the electrical appurtenances that reside within the towers, which include electrical conduits, boxes and accessory objects. TNC completed the installation and inspection of the Tacoma Tower elevator. Other work that was completed included the fiber grate installation, electrical installation and painting of the bridge, with some minor touch-up work remaining.

Roadway/Existing Bridge Retrofit Construction

During the past quarter, TNC completed the paving of the add/drop lane on westbound SR 16 on the Tacoma and Gig Harbor side, and paved the access road and maintenance building parking lot on the Tacoma side. TNC also completed the guardrail on the south side of the 1950 bridge. TNC continued the guardrail installation work on the north side



Crews remove the existing rub rail on the north side of the 1950 bridge.

Tacoma Narrows Bridge Progress

As a	of D	eceml	ber 3	31,	2007
------	------	-------	-------	-----	------

Design	99.9%
Construction	98.7%
Total ¹	98.8%
Source: WSDOT Engineering and Regional Operat	ione

Veighted 7% Design progress and 93% Construction Progress

of the 1950 bridge, and constructing the concrete barrier at the approaches. TNC also began and continues to address the remaining tasks, working towards WSDOT acceptance. TNC continues to maintain landscaping and erosion control measures throughout the project.

Nearly 65% of Drivers Use Electronic Tolling to Cross Bridge

Over 6.2 million vehicles crossed the new Tacoma Narrows Bridge during its first five months of operation, with more than 65% using the electronic *Good To Go!* toll collection system. This option is particularly popular among morning commuters, with over 75% using the electronic toll lanes. By the end of December, over 91,000 *Good To Go!* accounts had been established, with more than 213,000 transponders distributed.

Only 2.6% of drivers failed to pay the toll during this quarter – far below the doubledigit violation rates experienced in tolling facilities across the nation. Nearly 70,000



Crews install the new guardrail on the south side of the 1950 bridge.

citations have been issued to date. Over 90% of the violations occurred in the electronic toll lanes, when drivers without *Good To Go!* accounts bypassed the toll booths and stayed in the electronic lanes, becoming toll violators.

A daily average of 39,000 vehicles crossed the new Tacoma Narrows Bridge eastbound during this quarter. This level is comparable to traffic levels from the previous year, despite the initial prediction that tolls would lead to a 10% to 15% decrease in traffic.

Thanksgiving Traffic Proves

Importance of Electronic Tolling Thanksgiving Day provided a real-life indication of what traffic might have been like had the Good To Go! program not been successful. From the onset, WSDOT traffic engineers had warned that at least 50% of drivers had to use the electronic toll lanes to keep traffic flowing. That theory was proved correct on Thanksgiving Day when the Tacoma Narrows Bridge toll plaza faced its first surge of holiday travelers. A high volume of holiday travelers, coupled with long waits at the Bremerton Ferry terminal that led travelers to take the bridge rather than waiting for the ferry, resulted in significant backups on SR 16.

Over two-thirds of the vehicles crossing between 5 PM and 10 PM that evening used the cash toll booths – as compared to the one-third that uses them on a typical Thursday. As a result, the manual toll lanes backed up into the mainline highway, causing heavy congestion for several miles. All of the manual toll lanes were fully staffed in anticipation of heavy holiday traffic, but they reached full capacity. Although transactions were handled quickly, congestion occurred over a fivehour period between 5-10 p.m.

As a result of the Thanksgiving Day backups, WSDOT developed contin-

Special Report: Tacoma Narrows Bridge Construction and Tolling Operations, Quarterly Update

gency plans to ensure traffic moved as smoothly as possible over the Christmas holidays. Bridge users were warned to plan ahead for holiday slowdowns in December and those with Good To Go! accounts were urged to use the 24th Street on-ramp that bypasses the toll booth plaza. The traffic management team was prepared to open the HOV lanes to all Good To Go! customers, if it was deemed necessary. Fortunately, traffic was not as concentrated at any given time over the Christmas holidays as it had been on Thanksgiving night, so such contingency plans were unneeded.

Toll Revenue on Target

An average of \$83,000 each day was collected in electronic and cash tolls on the Tacoma Narrows Bridge this quarter. The discounted toll rate of \$1.75 for Good To Go! customers, compared to \$3.00 for cash toll payers, will continue through June 30, 2008. The TNB Citizen Advisory Committee will be making recommendations to the Transportation Commission this spring regarding future toll rates. Unless the Transportation Commission takes action to change the toll rates, all drivers will pay \$3.00 for a two-axle vehicle beginning July 1, 2008.

A total of \$14 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

Manual Toll Lane Usage Versus Average Speeds Thanksgiving Day 2007

At Olympic Drive, Nov. 22, 2007



Data Source: WSDOT Tolling Operations

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. Therefore, the two variables offset one another and ultimately led to actual revenues which are on target for the first six months of operation.

Approximately 58% of every toll is allocated to make the bond payments used for construction of the bridge. The remaining 42% is allocated for the toll operations contract, WSDOT oversight, maintenance and preservation, enforcement, and insurance. By 2014 approximately 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 Biennium Budget enacted by the legislature includes \$41,882,000 to pay for debt service and \$28,218,000 for the two-year period to pay for the maintenance and operation of the bridge. The Governor's proposed 2008 Supplemental Budget request includes a \$5.3 million supplemental request for costs related to the processing and fulfillment of over 200,000 Good To Go! transponder orders, four times the expected amount. The budget proposal also calls for a total of \$3.2 million in budget reductions in staff, consultant contract cuts, and the tow truck program.

Tacoma Narrows Bridge Toll Payment Sources and Revenue¹

		Electronic		Manual		Potential V	iolations ²	Exempt ³	Revenue ^₄
	Total Eastbound Traffic	# of Vehicles	% of Total	# of Vehicles	% of Total	# of Vehicles	% of Total	# of Vehicles	
October	1,242,451	865,723	69.7%	336,892	27.1%	37,401	3.0%	2,435	\$2,617,678
November	1,165,676	803,517	68.9%	331,007	28.4%	29,094	2.5%	2,058	\$2,483,630
December	1,168,397	806,125	69.0%	334,675	28.6%	25,403	2.2%	2,194	\$2,495,720
Total⁵	6,801,842	4,452,928	65.5%	2,075,588	30.5%	260,985	3.8%	12,341	\$14,440,405

Data Source: WSDOT Tolling Operations

This preliminary, unaudited data is subject to revisions

²Potential violations include a number of vehicles which upon review may be identified as Good To Go! customers; their toll charges will be applied to their accounts and they will no longer be viewed as violators

³Vehicles performing maintenance on the bridges and emergency vehicles on a bonafide emergency are exempt from tolls

⁴Revenue does not include income from violations ⁵Total from July 16 to December 31, 2007.

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

Overall Project Is 65% Complete

As of December 31, 2007, the SR 104 Hood Canal Bridge Project was 65% complete. WSDOT moves toward delivering a new east-half bridge during the bridge closure in May-June 2009. An important milestone reached this quarter:

• December: crews finished assembling pontoons to form the "U" shape around the location where the draw span's retractable assembly units pull back.

Pontoon Construction 75% Complete

The third cycle of pontoon construction began in May 2007 and continues at Tacoma Concrete Technology. These pontoons are scheduled for completion by the end of February 2008.

West-Half Leak Detection System 90% Complete

Crews continue installing the electrical components that sense water inside each of the 19 pontoons. Similar systems are being installed in the new east-half pontoons as they are constructed.

Schedule Diagram of Hood Canal Bridge Pontoon Construction Cycles

Aerial View



Third Cycle (ZC, ZD, V, X). Scheduled Completion: April 2008.

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

Source: WSDOT Hood Canal Bridge Project Office



Hood Canal Bridge weathers a storm, October 18, 2007.

Second Cycle (NA, NB, YD, YE, YF). Completed: July 2007. Fourth Cycle (U, W). Scheduled Completion: September 2008.

Upcoming Work and Milestones

Following on the heels of the finished draw span assembly, the first quarter of 2008 will see the completion of the third cycle of pontoons for the Hood Canal Bridge Project. In this cycle, pontoons V and X will connect the eastern-most portion of the bridge to a new transition span and yet-to-be-built fourth cycle pontoons U and W (see bridge diagram above). Cycle three pontoons ZC and ZD comprise the final pieces of the new draw span assembly, and will serve as the retractable pontoons on the structure. Float-out for these four pontoons is expected in March 2008.

Prior to the bridge's closure in May-June 2009, upcoming major milestones will include: roadway assembly of pontoons ZC and ZD in March 2008 as well as the addition of the superstructure in July 2008; completion and float out of the fourth cycle pontoons U and W in August 2008, their assembly with pontoons V and X in September 2008; and the addition of superstructure to U, V, W and X in April 2009.

Y pontoon is submerged

to connect with other

pontoons on the Hood Canal Bridge.

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. All projects are scheduled to be completed in 2023, and current available funding for this program is nearly \$1.2 billion. Five projects are operationally complete, three are under construction, nine are in design, and five are unfunded.

Completed Projects

	On-Time	On-Budget
I-5 - 38th St. Interchange	\checkmark	\checkmark
SR 16 - Sprague Ave. Interchange to Snake Lake	\checkmark	Over
SR 16 - Pearl St./6th Ave. to Jackson Ave.		\checkmark
SR 16 - 36th 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.

HOV Program Delivers Projects On-time

To date, five projects in the program have been designated operationally complete; three were on-time and on-budget. The SR 16 - Sprague Avenue Interchange to Snake Lake project was over budget for three reasons. First, an engineering plan error required that portions of the bridge be constructed one side at a time rather than concurrently; second, a water treatment pond needed to be redesigned; and finally, a slope failure required the redesign of a retaining wall, delaying project work.

The SR 16 - Union to Jackson Avenue project was operationally complete in March 2007, however the project will not be considered completed until project closure negotiations between WSDOT and contractor Tri-State are done. Complicating those negotiations are issues such as recurring theft of copper wire, clean-up costs, and wetlands mitigation. The next project scheduled for completion will be I-5 - 48th Street to Pacific in Spring 2008.

Highlighted Projects in the Design Phase

The first two design projects scheduled for construction are SR 16 Westbound Nalley Valley, and I-5 Port of Tacoma Road to King County Line.

SR 16 - Westbound Nalley Valley

The design for this project is scheduled to be completed in July 2008. It is anticipated that the project will be advertised and awarded between July and September 2008, with construction lasting from September 2008 to February 2011.

Work currently underway as of December 31, 2007 includes the development of an interagency agreement with the City of Tacoma, preparing the final draft of plans for work zone traffic control and detours, and full production on final plan sheets for alignment, right-of-way, paving, pavement marking, drainage, drainage profiles, drainage details, and site preparation.

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

This project is on track for design completion in December 2008 and is expected to be advertised between January and June of 2009. Construction of this project is expected to take place from April 2009 to May 2010. At the end of December 2007, conceptual construction staging and drainage design quality review have been completed. Currently, ongoing tasks include refinements to the base map, floodplain mitigation and storm drainage designs, working on plans for construction staging, signing and illumination, and assessing utility impacts.

Highlighted Project in the Construction Phase

I-5 – 48th Street to Pacific

On December 8, WSDOT opened a relocated exit to downtown Tacoma. The exit is now just north of 38th Street prior to the SR 16 curve, about one mile south of its previous location. At the same time, WSDOT opened a mile-long, four-lane northbound collector-distributor roadway between the Tacoma Mall and the Tacoma Dome, a new on-ramp to northbound I-5 from 38th Street (Tacoma Mall), and a new connection from eastbound SR 16 to northbound I-5.

The new connections are designed to eliminate the weaving that occurred between SR 16 drivers merging onto I-5 and I-5 drivers merging to the City Center exit. WSDOT estimates that eliminating this weave will eliminate up to 75 collisions each year. Two new bridges over I-5 are scheduled to open in January. The project is scheduled to be complete on time in spring 2008. For more information about the Tacoma/Pierce County HOV Program and its individual projects, visit www.wsdot.wa.gov/ projects/piercecountyhov/.



Map of the I-5/S 48th Street to Pacific Avenue Project area

Right-of-Way

100% of Certifications Completed On-Time

Before a project is advertised for bidding, WSDOT must certify that all rights necessary to construct, operate and maintain the project are acquired. WSDOT's business practices regarding acquiring real estate are strictly guided by state and federal regulations (such as Title 8 and Title 47 RCW, Title 468 WAC, 23 and 49 CFR, and Title 23 USC: the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 [as amended]). WSDOT's goal is to deliver 100% on-time certification for all projects.

On-Time Right-of-Way Certification Biannual Results

	Jan-Jun 2007	Jul-Dec 2007
Number of projects with a right-of-way phase	6	45
Number of projects with a right-of-way certification related delay	0	0
Percent of projects with a right-of-way phase that had an on-time certification	100%	100%

Data Source: WSDOT Real Estate Services

Acquisition Projections

There were 227 total parcel acquisitions for the second half of 2007. This was comparable to the 228 parcel acquisitions in first half of the year. Total acquisitions for 2007 were about 10% less than the annual yearly average of the past five years. This trend is projected to continue through 2008.

Acquisitions for All PEF, TPA and Nickel Projects

January 1, 2007 - June 30, 2008, Actuals and Projections



Forty-five projects with a right-of-way phase were scheduled to be certified for July through December 2007. All 45 certifications took place on time. Though 11 baseline certification dates slipped, all remained within the scheduled quarter.

Right-of-Way Condemnations

Condemnation rates continue to show a steady, slow upward trend as previously forecast. Condemnation involves legal action to acquire property by operation of law. There were 47 new condemnation cases in 2007 and 27 Judgments and Decrees.

Condemnations for All PEF, TPA and Nickel Projects 2003-2009, *Actuals and Projections*

003-2009, Actuals and Projections



Right-of-Way Watch List Projects - Cost and Schedule Concerns

There were no projects delayed due to right of way processes for the first and second quarters (July 1 through December 31) of fiscal year 2008. If a project is delayed, for example due to a redesign, it often extends the right-of-way process. For the purposes of this measure, only projects delayed due to issues originating with the right-of-way process are counted. See page 18 for more information on delayed projects, and the causes.

Utilities

Utilities Performance Roll-Up:

From July 1, 2007 to December 31, 2007, 20 Nickel, TPA, and PEF projects were advertised

Of these 20 projects, eight experienced delays related to utilities work

Some WSDOT projects present challenges in coordinating construction with existing utilities. Utilities such as water, electricity, sewer, storm drains, telephones, cable, and internet locations often need to be accommodated, and sometimes even relocated. WSDOT's goal is to use active planning to avoid such conflicts and potential delays before and during construction.

When existing utilities are in the way of highway construction projects, affected utility companies are given reasonable time to design and relocate facilities. In order to deliver construction projects on time, risk levels related to utilities are assigned to individual projects in order to better prioritize WSDOT's coordination between engineers, contractors and utilities groups.

WSDOT tracks utility risks for all Nickel, TPA and PEF projects. Twenty projects were advertised between July 1, 2007 and December 31, 2007. Of these projects 12 were assigned the lowest utilities risk, Risk Level 1. The remaining projects include two projects assigned Risk Level 2 and six assigned at Risk Level 3 for utility concerns. The three different levels of risk are explained in the gray box to the right.

What Does a Utility Risk Mean for a Project?

When a project is given a risk assessment for utilities, it is based on the severity of existing conflict between project planning and utilities. WSDOT has procedures regarding the handling of utilities situations at each given risk level.

Risk Level 1

A project is assessed to have no impact on utilities, or impacted utilities will be relocated prior to a project going to bid.

Risk Level 2

A conflict between a project and existing utilities is discovered. This risk level requires engineers to continually coordinate with utilities crews and agencies in order to resolve the conflict before it goes to bid. If the work is not completed under the assigned time frame, a project's bid may be delayed.

Risk Level 3

This risk level is assigned when a project is found to have serious conflicts with utilities prior to and after a project bid. The assigned risk requires specific windows to be set within the project schedule to coordinate relocation efforts between WSDOT, contractors, and utility agencies. If utilities work is not completed within the specified windows, project delay costs may be incurred.

Utilities Risk Levels for Projects Going to Advertisement

Projects Going to Advertisement by Reporting Period Jan-Jun 2007 Jul-Dec 2007 Level Description Level 1 Utilities have been relocated, and/or are clear of construction. 20 12 Level 2 Utility companies are actively pursuing relocation and the department has assurances 9 2 the utilities will be clear by the date bids are opened. Level 3 Utilities have not been relocated, and will not be relocated by the bid opening date 8 6 that has been cited in the contract provisions. The department has assurance that the utility company will be able to meet the date stipulated on the contract. 37 20 Total

Data Source: WSDOT Utilities Office

Utilities

Projects Advertised at Risk Level 2 and 3 for Utilities

(July 1, 2007 to December 31, 2007) Nickel Funded Projects

I-5 - Grand Mound to Maytown – Stage One (Risk Level 3)

Verbal agreements were reached with telecommunications and power companies to relocate their facilities. These agreements and ultimate relocations are scheduled to be completed prior to contract work being started.

SR 539 - Ten Mile to SR 546 Stage 2 (Risk Level 3)

Right-of-Way acquisition became necessary prior to conducting numerous utility relocations. The construction contractor is required to provide windows to allow utilities to be relocated in joint locations.

US 2/US 97 Peshastin East Interchange (Risk Level 3)

Utility relocation work, along with some buildings and trees needed to be relocated/removed, could not start until the local pear harvest was completed. Utility relocation work began on October 1, 2007 and is scheduled to be completed prior to the beginning of construction, which is scheduled to start on March 17, 2008. Existing utility locations are shown and addressed in the Contract Plans and Special Provisions documentation.

US 12- Frenchtown Vicinity to Walla Walla (Risk Level 2)

The City of Walla Walla asked WSDOT to include additional water and sewer lines in the project's contract. The agreements that needed to go before the city council for approval did not happen until after the project went to ad.

TPA Projects

US 12- Clemons Road Vicinity Intersection Improvements (Risk Level 3)

This project involves the relocation of utility poles on the south side of US 12. The power company is preparing justification for leaving the utility poles on the south side of US 12 in place. If utility poles require relocation, this can be accomplished after construction is complete. Relocation involves removing the poles from the 'clear' zone, but relocation is not required to perform the contract work. Utility poles on the north side of US 12 will require relocation during construction. The contract addresses requirements for the contractor to provide notice to the utility for performing clearing work and to provide time for the utility to relocate prior to proceeding with other work in the area. The power company has agreed to perform the work within the specified timeframes.

PEF Projects

I-5- Burlington Vicinity Seismic Retrofit (Risk Level 2)

Permission was required from BNSF to allow access to utilities that were in conflict with the retrofitting of the bridge column. The project went to advertisement with the permit from BNSF still pending. The project has since received the necessary permit.

SR 25 - Bossburg to Canada Paving (Risk Level 3)

Qwest has about 1000 feet of buried telephone cable to be relocated and would prefer to wait for better weather before doing so. This should have no impact on WSDOT's contractors schedule.

US 2 - North Foothills Drive to Houston Ave (Risk Level 3) Contractor needs to preform additional work before the utilities can be relocated.

Construction Material Costs

WSDOT collects construction cost information and calculates a Construction Cost Index (CCI). WSDOT's CCI is a composite of unit price information from low bids on seven of the most commonly used construction materials which include Hot Mix Asphalt (HMA), structural concrete, roadway excavation, crushed surfacing, structural steel, steel reinforcing bar, and concrete pavement. These items reflect a composite cost for a completed item of work and include the costs of labor, equipment and material.

Like other state transportation agencies, WSDOT prepares construction cost estimates based on recent bids. Because it is difficult to accurately predict future market conditions, engineers use recent bids and past records to create and inflate project estimates. WSDOT experiences contractors' bids exceeding engineers' estimates and available budgets during times when prices for materials escalate rapidly as they did from 2004 to 2006. In 2007, bid prices for the materials most commonly used on WSDOT construction contracts showed both increases and decreases. The net result was a modest increase in the overall construction cost index for the year. Unfortunately, WSDOT does not see the recent slowing of inflation as a return to the low growth rate that the index experienced between 1990 and 2001.

Construction Cost Index Increased 1% in 2007

The graph at right illustrates the past 18 years of CCI data for Washington State. This is plotted against the CCI of the Federal Highway Administration (FHWA) and a line representing the combined CCIs of several Western states: California, Colorado, Oregon, South Dakota and Utah.

WSDOT's CCI held steady at about 1.5% growth per year from 1990 through 2001. Between 2002 and 2006, the annual growth rate averaged 10.6% per year. In 2007, WSDOT's CCI increased by 1% from 2006. This appears to be a balancing to the 30% increase in 2006, which is the largest annual increase the CCI has recorded. Of the materials included in the CCI, HMA is 48.5%, or almost half the weight of the index. HMA prices rose 7.4% during 2007, however inflation as measured by the index was held back by a recorded 36.3% drop in structural steel prices and a 49.6% decline in price for concrete pavement. The 2007 bid prices for structural steel and concrete pavement appear to be the result of increased quantities compared to 2006 and not a downward trend in construction cost.

While cost escalation leveled off in 2007, a return to the 1.5% average annual growth rate experienced between 1990 and 2001 is unlikely. Crude oil prices recently exceeded \$100 per barrel and, although they have since decreased, industry analysts expect crude oil prices to be higher in 2008 than they were in 2007. Many construction materials include crude products or require fuel-intensive processes to place or prepare the materials. The higher price of crude oil will eventually lead to higher prices for construction activities and construction materials. 46 | GNB - Construction Material Costs





Note: WSDOT 2007 Index covers the entire year. The FHWA Index was discontinued in 2007. Other States 2007 data includes Quarters 1, 2, and 3 for California, Colorado, Oregon, and Utah. South Dakota data includes Quarters 1 and 2. Note: 2003 and 2004 WSDOT CCI data points adjusted to correct for spiking bid prices on structural steel.

Average Number of Bidders Increased in 2007

WSDOT's goal is to have three or more bidders for each highway construction contract. Since 2003 there has been a trend of fewer bidders on WSDOT projects due to a greater number large public and private construction projects for bidders to choose from.

The average number of contractors bidding on each WSDOT contract increased 12.3% in 2007, from an average of 3.1 bidders in 2006 to an average of 3.5 bidders in 2007. WSDOT is optimistic that the recent increase in bidding competition could lead to more favorable prices on WSDOT contracts. The size of WSDOT's construction program has increased due to the passage of the Nickel and Transportation Partnership Account. A reduction in bidding competition is a sign that contractors have a full workload. The recent increase in competition leads WSDOT to believe that the contracting community is now able to better assist WSDOT in delivering these large programs.

Average Number of Bidders

By Size of Contract



Data Source: WSDOT Construction Office

End-of-Season Highway Construction Project Evaluations

Each spring, WSDOT selects a handful of highway construction projects from each of the six regions for a year-end evaluation of the projects' construction phase. The 2007 Construction Highlights Report provides the results of this self-assessment of on-time and on-budget performance. WSDOT has learned from over 100 years of constructing highway projects that there are few challenges that cannot be overcome by effective construction management and the strong partnerships that have developed between WSDOT and its contractors.

These 25 projects provide a snapshot of the variety, complexity, and size of the construction program. Project evaluation standards focus on design, construction administration, schedule, and cost, rating each project in these categories. This report represents a sampling of the many projects that were under construction in 2007. There were 219 active construction projects ranging in cost from \$61,353 to \$615 million (the construction contract amount for the Tacoma Narrows Bridge). These 219 projects represent approximately \$2.5 billion in ongoing construction work. Below are 25 selected construction projects that were completed, or nearly completed, during the 2007 construction season. The complete report, which provides details of how and why the project received its rating, can be found at http://www.wsdot.wa.gov/Projects/Highlights/ .

End-of-Season Highway Construction Project Evaluations

Rating: ***** = lowest, ******** = highest

Project	Design	Construction Management	Schedule	Cost	Contractor
I-5 Woodland Vic. To Ostrander Creek	****	****	****	****	Granite Northwest
US 12 – 40th Ave Interchange	****	****	****	****	Superior Paving
SR 165 Carbon river Bridge Vicinity	****	****	****	****	Dirt & Aggregate Interchange
I-90 Downtown Spokane Viaduct	****	****	****	****	Degerstrom-Acme Joint Venture
SR 28 East Wenatchee 31st to Hadley	****	****	****	****	Goodfellow Bros.
SR 99, South 284th to South 272nd HOV	****	****	****	****	Sci Infrastructure
US 2 West Stevens Pass Paving	****	****	****	***	Wilder Construction
I-90 EB off-ramp to SR 18 Stage 2	****	****	****	****	Klb Construction
SR 104, 224th St SW to 190th Stage 2	***	****	****	****	Rinker Materials
SR 202, Junction SR 203 Roundabout	****	****	****	****	Tri-State Construction
SR 397 – US 395 Ainsworth to Foster Wells	****	****	****	****	Granite Northwest
I-5 Pierce Co. Line to Tukwila HOV	****	***	****	****	Cpm Corp (Inland, Icon, Central, Acme)
US 12 Attalia Vicinity	****	****	****	****	Apollo
I-5 Et. AI – Fiber Optic ATIS	****	****	***	****	Mill Plain Electric
SR 17 Pioneer Way to Stratford Rd	****	****	**	****	Central Washington Asphalt
SR 520 Westbound Off-ramp to NE 51st	***	****	****	**	Tri-State Construction
SR 20 Sidney St. to Scenic Heights	****	****	****	****	G.G. Excavation
SR 7 – SR 507 to SR 512	****	****	***	****	Scarsella Bros.
SR 9 – 108th St NE Channelization	**	***	****	****	Pacific Road & Bridge
I-90 Harvard Road Pedestrian Bridge	****	****	**	****	Wesslen Construction
SR 3 Imperial Way	****	**	****	****	Ace Paving
SR 270 Pullman to Idaho State Line	****	**	****	****	North Central Construction
SR 502, NE 199th Street Signal	****	***	*	****	Northeast Electric
SR 3 – SR 303 Interchange Ramps	***	****	***	**	Scarsella Bros.
SR 9 – SR 522 to 212th St SE	**	***	****	*	Wilder Construction

Data Source: WSDOT Design Office

Endangered Species Act Compliance

ESA Compliance Overview

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 listed species undergo consultation either informally or formally with 'the Services': US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA Fisheries). WSDOT projects with no effect on federally listed species do not undergo consultation with the Services.

Nickel Projects with ESA Components

There are 24 planned Nickel construction projects in the 2007-09 biennium. Fourteen of these projects have completed an ESA review. One project is currently undergoing reinitiation of informal consultation as a result of the recent Puget Sound Steelhead listing (*SR 16/Burley-Olalla Interchange*). The remaining projects consist of two informal consultations, one formal consultation and six internal ESA reviews.

Transportation Partnership Account Projects with ESA Components

Of the 104 Transportation Partnership Account (TPA) funded projects in the 2007-09 biennium, 50 have completed an ESA review or consultation. The quarter ended with three projects in formal consultation:

- US 101/Hoodsport Vicinity Stabilize Slope
- I-405/SR167 to SR 169 (NB Widening) and
- I-405/SR 515 New Interchange

Prior to the end of the quarter, WSDOT reinitiated informal consultation on the *SR 704/Cross Base Highway* to reflect new species listings and information obtained since the original consultation completed in 2003. One other project (*SR 305/Unnamed Tributary to Liberty Bay Fish Passage*) was completing an informal consultation at both Services.

The remaining TPA funded projects in the 2007-09 biennium include 12 informal consultations, five formal consultations, 14 internal ESA reviews and 18 projects that do not have enough information to determine consultation need at this time.

Pre-Existing Funds Projects with ESA Components

Slightly more than half (139) of the 274 2007-09 biennium Pre-Existing Funds (PEF) projects have completed an ESA review or consultation. One project (SR 305/Bjorgen Creek Fish Passage) was completing informal consultation as of December 31, 2007. This project was a combined consultation with the SR 305/ Unnamed Tributary to Liberty Bay Fish Passage described under the TPA funded projects. One hundred five projects currently have Biological Assessments in preparation or will be finishing an internal ESA review. The remaining 29 projects do not have sufficient information to determine consultation need at this time.



New information on locations of the threatened species 'Water Howellia' has affected the review of the *SR 704/Cross Base Highway* Project Photo Courtesy of US Fish and Wildlife Services

Endangered Species Act Compliance Status for all Projects That Have Yet to be Advertised

Status	2007-09 Nickel Projects	2007-09 TPA Projects	2007-09 PEF Projects
Projects under review at the Services	1	5	1
ESA Review or Biological Assessment Underway	9	31	105
Projects which lack sufficient information to start the Biological Assessment ¹	0	18	29
ESA Review Complete ²	14	50	139
Total Number of Projects	24	104	274

Data Source: WSDOT Environmental Services

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

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

Worker Safety: Quarterly Update

WSDOT Employees: Recordable Injuries and Illnesses

Safety is and always has been important to WSDOT managers and staff; however, there is always room for improvement. WSDOT has set a goal to reduce OSHA-recordable injuries and illnesses among WSDOT employees by 50% from the FY 2006 baseline of 466 injuries to 231 injuries by the end of FY 2008

WSDOT Reports 109 OSHA-Recordable Injuries and Illnesses During 2nd Quarter of FY 2008

During the second quarter of FY 2008, WSDOT experienced 109 OSHA-recordable injuries and illnesses. This is more than double the number of injuries sustained in the first quarter of FY 2008, and 16 more than the same quarter last year. Because of the winter months, one may assume this increase was due to inclement weather, but after individually reviewing the injuries, the majority appear to have been preventable incidents.

Cumulative OSHA Recordable Injuries

Cumulative Number of Injuries FY 2006 - 2nd Quarter FY 2008 500 400 2006 - FY 2006 Baseline = 466 Injuries 300 200 2007 FY 2008 100 Target = 231 Injuries 2008 0 Q1 02 Q3 04 July-September October-December January-March April-June Data Source: WSDOT Safety Office

WSDOT's goal for 2008 is to reduce OSHArecordable injuries and illnesses by 50% (231 injuries/illnesses or less) from the FY 2006 baseline (466 injuries/illnesses).

As of December 31, 2007, there have been 157 OSHArecordable injuries/illnesses for FY 2008 compared to 162 injuries through the second quarter of 2007.

The most common injury among WSDOT employees are Sprains and Strains -- 47% of all injuries this quarter.

Four Regions Have Fewer Cumulative OSHA-Recordable Injuries

With 157 injuries through the end of the second quarter, WSDOT has sustained 68% of its targeted 231 injuries for FY 2008. Five of the eight regions are on track towards meeting their safety goals to reduce OSHA-recordable injuries by 50% from the baseline of FY 2006. The Olympic region has missed its FY 2008 target of 27 injuries, having sustained 31 injuries. As of December 31, 2007, ferry employees and the Northwest region have not exceeded their safety goals, but both regions have exceeded the number of injuries recorded through the same quarter last year. The North Central and Southwest regions are well below their targets and have decreased their sprain/strain injuries by 75% and 85% respectively.

Progress Towards Achieving OSHA-Recordable Injury Reduction Goal by Region

FY 2008 through Quarter 2 (July 2007 - December 2007); Target Goal: 50% reduction in OSHA-recordable injuries

Region	FY 06 Baseline	FY 07 through Q2	FY 08 through Q2	FY 08 Target	Comments	On Track to Achieve Goal
South Central	33	17	10	16	This region sustained four Sprain/Strain injuries and three Hearing Loss/STS.	Yes
Northwest	81	27	32	40	This region has sustained 32 (80%) of its targeted 40 injuries for FY 2008. Of the injuries sustained, 12 were Sprain/Strain (one more than the same period in FY 2007).	1
Olympic	54	24	31	27	Having sustained 31 injuries, this region has missed its FY 2008 target of 27 injuries. Of the injuries, 12 were Hearing Loss/STS and 10 were Sprain/Strain.	No
Eastern	56	11	9	28	Of the nine injuries sustained in FY 2008, six were Sprain/ Strain.	Yes
North Central	33	9	5	16	Sprain/Strain injuries were down by 75% in this region as compared to this time last year.	Yes
Southwest	30	8	4	15	Sprain/Strain injuries were down by 85% in this region as compared to this time last year.	Yes
Headquarters	23	12	7	11	Of the seven injuries sustained, five were Sprain/Strain injuries.	Yes
Ferry System	156	54	59	78	Ferries have sustained four more injuries than this time last year. They also account for 40% of FY 2008's goal of 85 Sprain/Strain injuries with 34.	1
WSDOT Total	466	162	157	231	The agency as a whole has sustained 74 (87%) of its targeted 85 Sprain/Strain injuries for FY 2008.	Yes

 $^{\rm 1-}{\rm Has}$ exceeded the number of injuries sustained during the first two quarters of FY 07 Data Source: WSDOT Safety Office

Measures, Markers and Mileposts – December 31, 2007

Worker Safety: Quarterly Update

WSDOT Workers: Recordable Injuries and Illnesses

As of December 31, 2007, 74 (47%) of the 157 injuries have been attributed to sprains and strains. To mitigate these and other injuries, WSDOT has implemented an aggressive safety awareness program which entails greater communication with employees and supervisors, pre-activity safety plans, more field visits by safety personnel, and help to employees in identifying and correcting hazards in the work that they do.

OSHA Recordable Injury and Illness Rates¹: Annualized

Highway, Street, and Bridge Construction Workers

Through this quarter, the annualized injury rate for WSDOT Highway, Street, and Bridge Construction workers was 4.9 per 100 workers which is 2 more than the previous quarter and 0.3 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 1.1 in this industry classification.

Ferry System

The ferry workers annualized injury rate through the second quarter was 7.5 injuries per 100 workers. This is 2.7 more per 100 workers than the previous quarter and 0.5 more than the same period last FY.

Number of OSHA-Recordable Injuries by WSDOT Worker

Highway Maintenance Workers

For this quarter, highway maintenance workers reported 55 injuries, 50% of all injuries agency-wide. This was 34 more than the preceding quarter and 14 more than the same quarter in FY 2007. There were a total of 407 days away from work associated with these injuries. The most frequent injury was to the back with 13 injuries.

Highway Engineering Workers

For this quarter, highway engineering workers reported 12 injuries, 11% of all injuries agency-wide. This was four more than the previous quarter and four less than the same quarter in FY 2007. There were two days away from work associated with these injuries. The most frequent injury was to the ear with five OSHA-recordable Standard Threshold Shifts.²

Ferry System

For this quarter, ferry workers reported 40 injuries, 37% of all injuries agency-wide for the quarter. This was 21 more than the previous quarter and eight more than the same quarter in FY 2007. There were a total of 229 days away from work associated with these injuries, 34 of which were sprain/strain injuries.

Administrative Staff

There were two injuries to WSDOT Administrative staff for this quarter. This is two more than the previous quarter and two more than the same quarter in FY 2007.

Yearly OSHA-Recordable Injuries and Illnesses Rate for Maintenance and Engineer Workers: Annualized

OSHA-Recordable Injury Rate per 100 Workers¹





Yearly OSHA-recordable Injuries and Illnesses Rate for Ferry System Workers: Annualized

OSHA-Recordable Injury Rate per 100 Workers¹



Rates are cumulative for each FY

¹OSHA-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 second aid. The U.S. Bureau of Labor Statistics provides the selected 2006 national average benchmark. One worker equals 2,000 hours per year.

Number of Work Injuries by Type

October through December 31, 2007 (2nd Quarter FY 2008)



Data Source: WSDOT Safety Office and Washington State Ferries ¹An 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. ²Calculated by subtracting the above subtotals from the total reported injuries for the quarter.

"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 second aid. The U.S. Bureau of Labor Statistics provides the selected 2006 national average benchmark. One worker equals 2,000 hours per year.

^{2°}OSHA-recordable Standard Threshold Shifts" (STS) occur where a hearing test reveals that an employee experienced STS in hearing in one or both ears, where the total hearing is 25dB or more above audiometric zero (averaged at 2000, 3000, and 4000 Hz) in the same ear(s) as the STS.

Workforce Level and Training: Quarterly Update

Number of Permanent Full-Time Employees

This quarter, WSDOT employed 7,214 permanent full-time employees, an increase of 48 employees from the previous quarter. This total does not account for permanent part-time, seasonal, or on-call workers. The chart to the right 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.

Diversity Training Compliance Improves Slightly

This quarter, a total of 1,294 WSDOT employees attended diversity training modules offered by WSDOT. This is a decrease of 138 employees trained compared to last quarter (this number includes all individuals who attended one or more training modules this quarter). This quarter, WSDOT made progress towards compliance for the mandatory training Diversity Modules Valuing Diversity a 5% increase and Diversity Module Sexual Harassment/Discrimination a 2% increase. The compliance level for the Disability Awareness Module maintained the same percentage as last quarter at 70%. The increased workforce creates a corresponding increase in the number of employees needing basic training.

"No Shows" Significantly Decrease This Quarter

This quarter the number of "No Shows" for the mandatory diversity modules decreased to 8% (112). This is a decrease from the 293 "No Shows" or 17% for the preceding quarter, which translates into a 53% decrease between the two quarters. The total number of "No Shows" for all regions, the Urban Corridors Office, Washington State Ferries, and Headquarters are reported to the Senior Management Team regularly.



Number of Permanent Full-Time Employees at WSDOT

Secretary's Office Leads in Diversity Training

The Secretary's Office is leading the way in Diversity Training compliance. Currently all but one senior manager is compliant with the new legislatively mandated sexual harassment training (WAC 357-34) that is required every three years for supervisors and managers. Future meeting agendas for senior managers will include mandatory Disability Awareness and Valuing Diversity training sessions.

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 a Computer Based Training (CBT) for the Diversity Training Refresher Course. The increased workforce of 8,352 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 656 last quarter to 1,041 this quarter. The estimated number of WSDOT employees subject to more frequent sexual harassment training is approximately 3,400. WSDOT will continue to discuss the development of a comprehensive diversity CBT in addition to other training strategies so that WSDOT achieves diversity training goals.

Worker Compliance with Mandatory Training for All WSDOT Workers

Training Course	Employees Requiring Training	Basic Training Completed to Date	Employees Needing Basic Training	Employees Needing Refresher Training	Completed Training Reported Quarter	Total in Compli- ance	% in Compli- ance	% Change From Previous Quarter
Disability Awareness	8352	6118	2234	293	430	5825	70%	0%
Ethical Standards	8352	7933	419	1228	748	6705	80%	-10%
Security Awareness	8352	6530	1822	N/A	116	6530	78%	-1%
Sexual Harassment/ Discrimination	8352	6638	1714	437	481	6201	74%	2%
Valuing Diversity	8352	6193	2159	311	383	5882	70%	5%
Violence that Affects	8352	6707	1645	N/A	205	6707	80%	-1%

the Workplace

Data Source: WSDOT Office of Human Resources, Staff Development

Workforce Level and Training: Quarterly Update

Statutorily Required Training for Maintenance Workers Statewide

WSDOT's goal is to achieve 90% compliance for statutorily required maintenance employee training. To deliver training and increase compliance rates, regional maintenance and safety trainers are utilizing a variety of approaches to increase compliance rates. These methods augment traditional instructor led training and are comprised of computer based and online training, other distance learning approaches, and safety training days. These approaches allow maintenance employees to gain required WSDOT work place training. Additional efforts are underway to convert several statutorily required courses into an e-learning format to augment instructor led training.

	Total Training	Total in	Current Quarter Percent in	Change from	Past (2005-07) Biennium	Current (2007-09) Biennium
Training Program	Requirements	Compliance	Compliance	Last Quarter (%)	Average	Average
Blood Bourne Pathogens ¹	589	380	65%	8%	56%	69%
Confined Space Entry	510	426	84%	1%	79%	83%
Electrical Safety Awareness	309	193	62%	5%	57%	60%
Fire Extinguisher ¹	1376	1218	89%	11%	57%	72%
First Aid ²	1458	1353	93%	13%	83%	78%
Hearing Conservation ¹	1340	1281	96%	23%	76%	78%
Lead Exposure Control ¹	83	57	69%	9%	35%	52%
Lockout/Tag out	570	475	83%	-1%	72%	84%
Personal Protective Equipment	1391	1167	84%	2%	83%	85%
Fall Protection	730	587	80%	-2%	84%	81%
Flagging & Traffic Control ²	1135	1099	97%	7%	92%	91%
Respirator Protection ¹	201	146	73%	42%	17%	32%
Supervisor Return to Work	203	160	79%	5%	73%	76%
Hazard Communications	1395	1217	87%	-2%	84%	88%
Proper Lifting	1447	1103	76%	-3%	71%	78%
Railway Work Certification ¹	27	26	96%	15%	69%	85%
Drug & Alcohol Certification	1223	1071	88%	-2%	90%	89%
Drug Free Workplace	336	312	93%	5%	87%	90%
Forklift	1106	964	87%	-2%	89%	88%
Hazardous Materials Awareness ¹	810	765	94%	10%	73%	81%
Aerial Lift	176	164	93%	-1%	87%	93%
Bucket Truck	376	302	80%	-2%	82%	81%
Excavation, Trenching & Shoring	395	330	84%	-2%	81%	85%
Emissions Certification ³	75	66	88%	4%	57%	78%
Total	17261	14862	86%	4%	78%	84%

Data Source: WSDOT Office of Human Resources, Staff Development

²Refresher Training Required Every Three Years

³Refresher 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 and its headquarters in Olympia. 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 fourth quarter of 2007. The Eastern and Southwest regions were well above the 90% goal at 96% and 95%, respectively.

Required Maintenance Training by Region

Region	Current Quarter Percent in Compliance	Change from Last Quarter (%)	Past (2005-07) Biennium Average	Current (2007-09) Biennium Average
Northwest	74%	-2%	70%	75%
North Central	78%	-8%	79%	82%
Olympic	74%	-1%	71%	74%
Southwest	95%	3%	91%	93%
South Central	82%	-3%	79%	83%
Eastern	96%	1%	91%	95%
Headquarters -Olympia	74%	0%	53%	74%

Data Source: WSDOT Office of Human Resources, Staff Development

¹Refresher Training Required Annually

Asset Management: Pavement Assessment **Annual Update**

WSDOT maintains approximately 20,099 lane miles of highway, including ramps, collectors, and special use lanes. WSDOT uses three different pavement types: chip seal, Hot Mix Asphalt, and Portland Cement Concrete. These are discussed in more detail below and on page 57. Each pavement type has an associated pavement life, rehabilitation treatment, and rehabilitation cost. This update reports on 2006 pavement condition survey data.

WSDOT Again Exceeds Cabinet Strategic Action Plan Pavement Condition Goal

The Governor's Cabinet Strategic Action Plan goal for pavement is to maintain 90% of all state highway pavements in good or fair condition. According to the 2006 pavement condition survey, WSDOT again exceeded the goal with the percentage of all pavements in good/fair condition remaining at 93.5%, the same percentage as in 2005. The high percentage of pavements in good or fair condition is the result of past investments, and is not likely to continue due to current and future funding constraints. In

State Highway Pavement Trends



Data Source: WSDOT Materials Lab

Annual Pavement Performance Highlights:

Roughly 93.5% of pavement was in good condition in 2006 (6.5% in poor), the same percentage as in 2005

Approximately 129 Iane miles (66%) of I-5 in King County is in need of rehabilitation or reconstruction

Washington State ranks 28th nationally for pavement smoothness, as of 2005

Preliminary noise results show barely audible differences between quieter asphalt pavements and typical WSDOT hot mix asphalt pavements

2000, there were 1,068 lane miles (6.1%) of pavements in poor condition, while in 2006 the total in poor condition was 1,162 lane miles (6.5%).

Hot Mix Asphalt (HMA) pavements in poor condition increased by 62 lane miles (or 0.35% of all lane miles) from 2005 to 2006. While HMA preservation backlogs were significantly reduced over the past three decades, they are now beginning to grow due to rising construction costs. Thirty lane miles of Portland Cement Concrete (PCC) (or 0.17% of total) improved out of poor condition in 2006. PCC pavement condition improved slightly due to several concrete rehabilitation projects in the Federal Way to Seattle area. PCC pavement represents 13% of total lane miles statewide, while it handles 27.7% of total vehicle miles traveled.

Pavement Conditions and Funding Programmed By Pavement Type

	Total Lane	Annual VMT ³ 2007				2007-0 Prog	9 Dollars Irammed	2009- Pro	11 Dollars grammed
Pavement Type	Miles ¹	(Billions) ²	Rating	2005	2006		(Millions) ²		(Millions) ²
Chip Seal Pavements or Bituminous Surface	4,365	1.2							
Treatments (BST)	(23.7%)	(3.8%)	Good/Fair	91%	91%				
A chip seal or BST is a durable surface that provides									
six to eight years of performance life at approximately									
\$20,000 per lane-mile.4			Poor	9%	9%	\$23.1	9.5%	\$35.0	12.6%
Hot Mix Asphalt Pavements	11,624	21.8							
Hot mix asphalt pavements surface life, between	(63.3%)	(68.6%)							
rehabilitation treatments, ranges from 6 to 18 years			Good/Fair	95%	94%				
(based on actual pavement performance) at approxi-									
mately \$200,000 to \$250,000 per lane mile.4			Poor	5%	6%	\$172.3	70.7%	\$218.5	78.7%
Portland Cement Concrete (PCC) Pavements	2,384	8.8							
WSDOT has experienced Portland Cement Concrete	(13.0%)	(27.7%)	Good/Fair	91%	93%				
pavement life ranging from 25 to 45 years with an									
approximate cost of \$600,000 per lane mile for									
dowel bar retrotit and \$2.5 million per lane mile for full			Deeu	00/	70/	¢40.4	10.00/	0 04.0	0.70/
replacement.*			Poor	9%	1%	\$48.4	19.8%	\$24.3	8.7%
				16,617	16,474				
			Good/Fair	(93.5%)	(93.5%)				
				1,162	1,152				
Total	18,373	31.8	Poor	(6.5%)	(6.5%)	\$243.8		\$252.5	

¹Data Source: State Highway Log Planning Report 2005- includes all lane miles

²Data Source: Transportation Data Office - excludes ramps, collector - distributors or frontage roads ³Vehicle Miles Traveled: A measure of the amount of vehicular travel. One vehicle traveling one mile = 1 VMT

⁴These numbers are approximations and do not include other improvements that may be planned for roadway sections, such as safety enhancements: They cannot be used for budgeting specific projects

Pavement Management at Lowest Life Cycle Cost (LLCC)

The basic management principles behind LLCC are rather simple: if rehabilitation is done too early, pavement life is wasted, if rehabilitation is done too late, very costly repair work may be required, especially if the underlying structure is compromised. WSDOT continually looks for ways to balance these basic principles while making adjustments to traditional paving practices.

Study Reveals 129 Lane Miles of I-5 PCC Pavement in King County is in Need of Rehabilitation or Reconstruction

WSDOT initiated a study to examine the performance of the Portland Cement Concrete (PCC) pavements on I-5 in King County. The primary objective of this study is to determine when and how PCC pavements will fail. Extensive pavement condition/distress data provided by WSDOT for I-5 in King County was summarized and analyzed to communicate the condition of the I-5 PCC pavement. PCC pavement condition data was summarized and the results are as follows:

• The I-5 PCC pavement in King County has been in service for over 40 years, twice its planned design life.

- The field study on I-5 at MP 175 shows that the condition of I-5 PCC pavement is deteriorating. The faulting, cracking, and spalling observed are worse than recorded in 1986—as expected. Furthermore, many of the new cracks are currently propagating across the slabs, suggesting that panel cracking is accelerating.
- The overall assessment reveals that the I-5 PCC pavement in King County is in poor condition. Diamond grinding and other rehabilitation efforts will help this condition, but only temporarily;
- Of the approximately 196 lane miles of PCC pavement examined, the study determined that about 129 lane miles of I-5 in King County is in need of rehabilitation or reconstruction.



Cracked and rutting PCC pavement on I-5 through Seattle at NE 130th St.

PCC Pavement through Seattle will Reach a Heavily Distressed Condition in Ten Years Without Substantial Rehabilitation and Replacement

Time Frame	Expected PCC Pavement Distress During Time Frame	Required WSDOT Activities
0 to 5 Years	Increased faulting of the transverse joints and, to a lesser degree, slab cracking, with localized areas of increased cracking. Pavement wear depths due to studded tires will generally exceed safe levels (main concern is hydroplaning). Surface friction will be low throughout the corridor for PCC that has not been ground or resurfaced.	Continuing WSDOT maintenance will be required by addressing localized problem areas—mostly broken slabs. Contract rehabilitation should include a focus on grind- ing the PCC surface to remove faulting and broken slab replacement. Major rehabilitation or reconstruction should be designed, funded, and under way. The traveling public will complain about the pavement condition and related noise.
5 to 10 Years	If only limited work is performed during the preceding five years, major faulting of the transverse joints throughout I-5 in King County is expected. A significant increase in slab crack- ing will occur. Without extensive grinding, pavement wheel path wear depths will continue to worsen, but slowly.	WSDOT Maintenance will be challenged to keep up with replacement/repair of broken slabs. Major rehabilitation or reconstruction must be designed, funded, and well under way. The traveling public will express increasing concern about the condition of the roadway including pavement related noise.
Greater than 10 Years	If limited work is performed during the preceding ten years, I-5 will be highly distressed, largely in the form of major fault- ing of the transverse joints, extensive slab cracking, and wheel path wear depths. In essence, a heavily distressed condition.	WSDOT will be in a triage mode with respect to I-5. The required repair work will be extensive. The structural capac- ity of I-5 will be at risk. WSDOT can expect strong public complaints about the condition of the roadway.

Source: Mahoney, J.P., Hansen, M.A., Jackson, N.C., Hunter, C.A., Pierce, L.M. (2007) Assessment of the I-5 Portland Cement Concrete Pavements in King County, WA-RD 682.2, Washington State Department of Transportation

Asset Management: Pavement Assessment Annual Update



Sample PCC Pavement Condition on I-5: King County Between Northgate Way NE and NE 175th Street

Use of Chip Seal Pavement (BST) Surfaces Will Be Expanded on State Highways

In 2005, WSDOT initiated the Bituminous Surface Treatment (BST) Protocol study with the University of Washington to investigate current chip seal application practices, determine whether chip seals can be applied to higher trafficked routes (greater than current practice of routes with less than 2000 vehicles per day), and determine the statewide economic impacts in its chip seal applications if they were increased.

This study used the HDM-4¹ software to test the average annual daily traffic (AADT) and equivalent single axle load (ESAL) levels appropriate as criteria for selecting the application of BSTs to WSDOT pavements. It verified the feasibility of using BSTs to maintain pavements with higher traffic levels than have been applied in the past. It also determined the validity of alternating the application of BST resurfacings and 0.15 feet of Hot Mix Asphalt overlays.

- Chip seal application, as a lower volume pavement preservation option, will increase. An additional 140 lane miles per year could receive chip seal application rather than a Hot Mix Asphalt overlay.
- The life cycle cost of a chip seal is ¹/₄ the cost of a Hot Mix Asphalt overlay on low volume roadways.
- Pavement roughness could increase due to chip seal application (this is a function of the aggregate particles and not the condition of the roadway). Increased use of chip seals will likely result in poorer pavement ratings relating to roughness. Chip seals are typically rougher than HMA overlays.
- Chip seal surfaces are less durable when applied to highways that experience greater volumes. Additionally, the use of chip seal surfaces on highways that experience heavier traffic increase the likelihood of property damage, such as windshield damage.

¹Highway Development and Management Model v4.0) is economic evaluation software developed by the World Bank which models pavement deterioration and vehicle operating costs: http://www.worldbank.org/transport/roads/rd_tools/hdm4.htm

Washington Ranks 28th in Pavement Roughness Compared with Other States

FHWA's annual Highway Statistics report includes information on pavement condition reported by each of the 50 states and the District of Columbia. FHWA's rating is based only on the International Roughness Index (IRI). In contrast, WSDOT measures pavement performance using three ratings: pavement structural condition, rutting, and roughness (see page 59). The total miles reported in FHWA's report include the interstate system and principal arterials owned by the state, cities, and counties, and a sampling of other functional classes. Washington state is currently ranked 28th in smooth roads. The FHWA publication can be viewed at http://www.fhwa.dot.gov/policy/ohim/hs05/.

WSDOT Helps Local Governments Report on the Condition of Local Road Pavements

In April 2003 the Legislature established planning and efficiency goals for the state and local transportation network. Among other provisions in the legislation is a requirement for cities to report pavement condition data for their arterial and collector streets. City streets and county roads make up 67% of total miles in the state, and carry more than 42% of the traffic.

WSDOT assists local governments in the analysis and reporting of pavement conditions. To assist small cities, WSDOT's Materials Laboratory uses its automated data collection van to survey arterials and collectors in the state's small cities and forward the results of the survey to WSDOT's Highways and Local Programs for analysis and reporting. Results from the 2006 *Washington's City Arterials Condition Report* show that 61% of the pavement on local roadways is in good to excellent condition. The 2006 report can be found at: http://www.wsdot.wa.gov/TA/T2Center/ Pavement/pdf/ArterialReport2006.PDF Since 2003, Washington State has continued to drop in smoothness ranking according to the FHWA Highway Statistics report. Data reported in the FHWA Highway Statistics does not incorporate all state highways and includes some roadways that are on city and county networks. In 2003, WSDOT had 3.6% (or 194 miles) of pavements in poor condition; in 2004, there was 7.7% (or 447 miles) and in 2005 there was 4.6% (or 192 miles). For the 2005 rating, the number of miles in poor condition (according to smoothness alone) in Washington State actually decreased, but WSDOT's ranking increased. An additional factor in the the decline in Washington state's smoothness rating may be associated with the increased use of chip seal pavements on roadways.

2005 Nationa	l Pavement	Smoothness	Ranking ¹
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		Total Miles	# of Miles in Poor	% in Poor
Rank	State	Reported	Condition	Condition
1	Georgia	11118	9	0.1%
2	Nevada	2924	20	0.7%
3	Florida	10791	126	1.2%
4	Kentucky	5671	67	1.2%
5	Utah	3724	48	1.3%
6	Minnesota	11796	201	1.7%
7	Montana	6971	131	1.9%
8	Idaho	3930	81	2.1%
9	Wyoming	4370	101	2.3%
10	South Carolina	6593	180	2.7%
17	Oregon	6665	321	4.8%
27	Missouri	9907	805	8.1%
28	Washington	6256	544	8.7%
29	Wisconsin	10646	950	8.9%
49	New Jersey	2989	901	30.1%
50	Rhode Island	625	215	34.4%
51	District of Columbia	126	113	89.7%

Data Source: Highway Statistics 2005, U.S. Department of Transportation ¹ FHWA 2006 roughness rankings were unavailable at the time of publication

Quieter Pavement Update

Traffic noise is a growing concern for many people who live near major roadways and fast moving highways. WSDOT continues to research and test quieter pavement to determine whether a material exists that provides reduced noise impacts while also meeting the legislative mandate for lowest life cycle pavements. WSDOT conducts this research throughout the state by using test sections of pavement to collect data. All quieter pavement test sections will be evaluated according to pavement durability (which includes skid resistance, smoothness, cracking and studded tire damage), quality and quantity of noise reduction and length of noise suppression over time. Pavement durability will be measured using high speed lasers and cameras for measuring the amount of wear and tear on the roadway. To measure the amount of noise reduction, crews will use special microphones placed on the side of the freeway as well as microphones attached inside and outside of the vehicle. Preliminary noise results show barely audible differences between quieter asphalt pavements and typical WSDOT Hot Mix Asphalt pavements. WSDOT will continue to monitor the quieter pavement test sections. The following graphs show the noise measurements for the I-5 Lynnwood and SR-520 hot mix asphalt quieter pavement test sections and the I-5 Federal Way concrete quieter pavement test section. More information on all quieter pavement test sections can be found at http://www. wsdot.wa.gov/Projects/QuieterPavement/.

I-5 in Lynnwood Quieter Asphalt Pavement Test Section

Average Sound Intensity Level, dBA



Data Source: WSDOT Materials Lab

SR 520 Quieter Asphalt Pavement Test Section

Average Sound Intensity Level, dBA



Data Source: WSDOT Materials Lab

I-5 in Federal Way Concrete Quieter Pavement Test Section

Average Sound Intensity Level, dBA

4	sverse tining	Longitudinal t	ining		
2		Diamond grin	ding		
8 6					

Data Source: WSDOT Materials Lab

Asset Management: Pavement Assessment **Annual Update**

Basic Pavement Types and Ratings Summary

Pavement Types

Chip Seals

Asphalt is sprayed on the road surface and covered with a layer of rock chips, creating a flexible surface. As the asphalt cools it becomes solid. Chip seals are appropriate for roads that carry fewer than 2,000 vehicles and/or 200 trucks per day. Chip seal roads are typically rural and have six to eight years of performance life. It is often cost effective to combine small projects into larger, regional projects.





Hot Mix Asphalt (HMA)

HMA is a flexible surface, often used on roads with traffic volumes greater than 2,000 vehicles per day. In Western Washington, the average HMA pavement life is 16.5 years; in Eastern Washington it is 11.3 years due to seasonal temperatures. The state average is 14.7 years.



Portland Concrete Cement (PCC)

Existing PCC pavement life ranges from 25 to 45 years. PCC pavement is a rigid surface, typically placed on heavily traveled interstates, principal arterials, and intersections.



Pavement Ratings

WSDOT uses a combination of pavement ratings shown below to determine when pavement is due for rehabilitation, based on Lowest Life Cycle Cost (LLCC) management.

Pavement Structural Condition (PSC)

A pavement will develop structural deficiencies for two reasons: truck traffic and cold weather. The PSC is a measure based on distress, such as cracking and patching, which relates to the pavement's ability to carry



PSC Example

loads. PSC ranges from 100 (best condition) to 0 (worst condition). A roadway should be considered for rehabilitation when it falls within the PSC range of 40 to 60.

Rutting

Rutting is caused by heavy truck traffic or studded tire wear. Ruts deeper than 1/2 inch have the potential to hold water, increasing the risk of hydroplaning for high-speed traffic. A roadway should be rehabilitated when the rut depth is greater than 1/3 inch.



The International Roughness Index (IRI) is a procedure to measure pavement ride. A fullsized van, with a laser-measuring device mounted on the front bumper, measures the roughness of the pavement. A roadway Roughness Example should be rehabilitated when the IRI value is between 170 and 220 inches per mile.



Rutting Example



WSDOT Uses a Technologically Advanced Approach to Collect Pavement Condition Data

WSDOT is one of a few states to perform its pavement condition survey using an automated pavement condition vehicle on 100% of the surveyed lane. This allows WSDOT to complete an evaluation of all state highways. WSDOT's vehicle travels at highway speeds and collects data through the use of high-resolution digital imaging to determine the amount of cracking and patching, pavement roughness and rutting annually on all state highways.

Highway Safety Annual Update

Keeping citizens safe on Washington's highways is a top priority for WSDOT and the Governor. Washington State's *Strategic Highway Safety Plan, Target Zero*, outlines the goal to achieve zero traffic deaths and zero disabling injuries by the year 2030. In order to achieve this goal, the state must decrease traffic fatalities by 24 each year between 2005 and 2030.

WSDOT plays a key role in the statewide effort to achieve this goal. In order to demonstrate the effectiveness of strategies to improve highway safety, WSDOT collects and analyzes highway traffic incident data. This edition of the *Gray Notebook* presents the 2007 Before and After Safety Project Study, annual updates on pedestrian and bicycle fatalities and safety, and an update on the statewide guardrail and bridge rail retrofit programs.

Annual Before and After Safety Project Study

Each year, WSDOT completes a variety of safety improvement projects throughout the state highway system, ranging from adding turn lanes and traffic signals, to installing median barriers and rumble strips. As part of a continuing effort to determine the effects of these projects on reducing the number and severity of traffic collisions, WSDOT has conducted its fifth annual Before and After Safety Study.

Forty-Nine Before and After Projects Result in a 19% Reduction in all Injury and Fatal Collisions

Forty-nine projects resulted in a 6% reduction (73 collisions) for all types of collisions (1,118 compared to 1,191), and a 19% reduction (97 collisions) in all injury/fatal collisions (407 compared to 504). The number of property damage only collisions increased by 3% (24 collisions) for the same projects (711 from 687). Similar to the last report concerning safety projects, this report also states the results on collisions with serious injuries and fatalities. This information was included to show how safety enhancement projects are complementing the state's efforts to achieve *Target Zero*, the basis of Washington State's Strategic Highway Safety Plan. The plan was developed to identify

Before and After Results for All 49 Safety Projects

Collisions Per Year For All Projects

	All Types	Property Damage Only	All Injury/ Fatal	Serious Injury/ Fatal
Before Period	1190.8	687.2	503.7	30.5
After Period	1117.5	710.5	407.0	26.3
Percent Change	-6.2%	3.4%	-19.2%	-13.7%

Source: WSDOT Transportation Data Office

Highlights from the December 31, 2007 Highway Safety Annual Update:

49 Before and After projects result in a 6% reduction for all collisions and a 19% reduction in all injury and fatal collisions; pp. 58-59

Washington State ranked 15th lowest in the nation for pedestrian fatalities in 2006, one spot higher than 2005 (16th ranked); pp. 60-61

Washington State ranked 10th lowest in the nation for bicycle fatalities in 2006 with 7 total fatalities. The state ranked 25th last year; pp. 60-61

The guardrail retrofit program has replaced nearly 58 miles of nonstandard guardrail statewide as of December 2007; p. 62

Washington State's traffic safety needs and to guide investment decisions in order to achieve significant reductions in traffic fatalities and serious injuries.

Analysis shows that implementing these 49 projects have reduced fatal and serious injury collisions by 14% (5 collisions), which is 26 fatal and serious injury collisions in the after period versus 31 in the before period. Although the reduction figure for the "All Types" category is low, and the "Property Damage Only" category experienced an increase, the reduction in injury and fatal collisions, and more specifically the serious and fatal collisions, are in the 14% to 19% reduction range.

The date range for all completed projects used within the study is October 1, 2003 through September 30, 2005. This made it possible for each project to have 24 or 36 months of available before and after data. At the time of this study, the most current

Measuring Highway Safety Projects

WSDOT's safety projects are classified into two categories: collision reduction and risk prevention. Risk prevention projects improve roadways to lessen the risk of future collisions. As such, these types of projects typically do not show a significant decrease in collision results in Before and After studies. In the June 30, 2006 *Gray Notebook*, it was mentioned that Before and After collision reduction numbers may "level off" as WSDOT implements more risk prevention type projects. This study does reflect lower reduction percentages. WSDOT is still exploring performance measurement methods for better assessing the impacts of risk prevention type of projects.

Highway Safety Annual Update

Highway Safety Projects - Before and After Study

available collision data within the state repository was through September 30, 2007. Therefore, the date range for the completed projects within this study allows the possibility of incorporating projects with a minimum of 24 months of "after" period data (October 1, 2005 through September 30, 2007). For a list of all 49 projects in the Before and After study see: http://www.wsdot. wa.gov/Accountability/Publications/PerformanceDocuments. htm#graynotebook .

Data Collection Threshold

In the first *Gray Notebook* (December, 2003) on the Before and After study of safety improvement projects, projects with a minimum threshold of 18 months for the "before" period and 12 months for the "after" period were used. Subsequent reports involved minimum thresholds with an increase in the number of months for both time periods. This study, like the previous study, includes the most comprehensive before and after project data to date. As mentioned earlier, either 24 or 36 months for the Before period, and 24 or 36 months for the After period was used. Reporting on complete year increments mitigates potential of seasonal factors influencing the study.

All projects with more than 36 months of data for the After period were eliminated largely due to the "potential" effect of the following: 1) new road projects within the surrounding vicinity can change the intended benefits of an earlier completed project, and 2) changing demographics, i.e., new residential developments due to population growth, can affect road usage over the course of time. As in preceding editions, the data is annualized (12 month average) to make a valid comparison. The study reports "all projects combined per year".

Highlighted Projects from the Before and After Study

SR 16/Burley-Olalla Intersection, Kitsap Co.– Channelization This intersection had experienced a number of "entering at angle" collisions. This project provided an acceleration lane on Eastbound SR 16, and channelized the intersection to limit crossing and turning movements. The west approach of Burley-Olalla Road was limited to right-in, right-out movements only. The east approach of Burley-Olalla Road was limited to right-in, right-out movements, along with left turns to Eastbound SR 16, as well as from Eastbound SR 16. During the Before Period, this location was associated with 28 entering at angle collisions, with two of these collisions resulting in serious injuries. After the project was completed, there were 5 entering at angle collisions, with none of the collisions resulting in serious injuries.



This safety improvement project on SR 16 channelized the intersection at Burley-Olalla Road to limit crossing and turning movements and added an acceleration lane

SR 500/NE 112th Ave., Clark Co. - Build Interchange

This project constructed an interchange on SR 500 at NE 112th Avenue and Gher Road in Clark County, replacing the existing high-speed signalized intersection. The project location was identified as a High Accident Location before the construction of the interchange began in 2003. The new interchange has provided numerous benefits including improved safety and a reduction in total accidents. There were 206 recordable collisions in the 3-year period before construction, or an average of 69 accidents per year. There were 96 collisions in the 2 years since construction has completed, or 48 accidents per year. The project resulted in a 30% collision reduction despite traffic volumes increasing by over 20%.



The new interchange on SR 500 in Clark County resulted in a 30% reduction in collisions even with traffic volumes increasing by over 20%

Pedestrian and Bicycle Safety

Washington's Pedestrian and Bicycle Safety Rankings

Washington's ranking among other states for pedestrian and bicycle safety performance on all Washington roadways, as measured annually by the National Highway Traffic Safety Administration, has fallen slightly. For pedestrian safety, Washington placed 12th lowest nationally in 2004, 16th in 2005, and moved to 15th in 2006 with a crash rate of 1.03 pedestrian involved crashes per 100,000 people.

Washington's ranking also fell when compared nationally in bicyclist safety performance. Washington placed 10th nationally in 2004, dropped to 25th in 2005, and placed 11th in 2006 with a bicyclist involved crash rate of 1.09 per 1,000,000 people.

70% of Pedestrian Fatalities Occur in Urban Areas

Between 1999 and 2006, over 70% of these pedestrian fatalities occurred in urban areas, with approximately 38% of these on state highways or federal highways under state control. Close to 66% of crashes involving pedestrians occurred on city streets, and 74% of these crashes occurred on state routes within larger cities. This is consistent with national trends.

Additionally, pedestrians make up a larger portion of all traffic related fatalities within urban areas. Pedestrian traffic fatalities make up approximately 22% of all fatalities occurring in urban areas versus 5% of all traffic fatalities occurring in rural areas.

As shown in the pie chart below, of the fatal pedestrian traffic incidents that occurred at intersections between 1999 and 2006, half occurred at locations where no crosswalk was available. Only about 15% of all fatal pedestrian collisions occurred in marked crosswalks.

Pedestrian Incident Locations at Intersections, 1999-2006



Data Source: WSDOT Highways and Local Programs



A *Share the Road* bus sends a continuous moving traffic safety message to pedestrians, drivers and cyclists

2006 Pedestrian Fatality Rate by State

Fatalities per 100,000 People on All Roadways Statewide

Rank	State	All Pedestrian Fatalities	Pedestrian Fatality Rate
1	Vermont	0	0
2	New Hampshire	6	0.46
3	Nebraska	9	0.51
4	Idaho	8	0.55
5	North Dakota	4	0.63
6	Minnesota	38	0.74
7	Maine	10	0.76
8	Kansas	23	0.83
9	lowa	25	0.84
10	Ohio	96	0.84
11	South Dakota	7	0.9
12	Massachusetts	61	0.95
13	Wisconsin	55	0.99
14	Connecticut	36	1.03
15	Washington	66	1.03
16	Virginia	82	1.07
50	Florida	546	3.02
51	Delaware	27	3.16
52	New Mexico	69	3.53

Source: National Highway Traffic Safety Administration

2006 Bicyclist Fatality Rate by State

Fatalities per 1,000,000 People on All Roadways Statewide

Rank	State	Total Bicyclist Fatalities	Bicyclist Fatality Rate
1	District of Columbia	0	0
2	North Dakota	0	0
3	Vermont	0	0
4	Wyoming	0	0
5	West Virginia	1	0.55
6	Massachusetts	6	0.93
7	Rhode Island	1	0.94
8	Mississippi	3	1.03
9	Pennsylvania	13	1.04
10	Arkansas	3	1.07
11	Washington	7	1.09
12	Nebraska	2	1.13
50	Arizona	29	4.7
51	Puerto Rico	20	5.09
52	Louisiana	24	5.6

Source: National Highway Traffic Safety Administration

Highway Safety Annual Update

Pedestrian and Bicycle Safety and Mobility



Sharrows, arrow-like designs painted on roadways to mark a bicycling route, help reduce the number of bicycle related crashes and make roadways safer for motorists as well

Similar to pedestrian fatal collisions, over 60% of fatal bicycle crashes occur in urban areas. For cyclists, 35% of collisions occurred while crossing roadways and another nearly 30% occurred while riding with traffic. Riding with traffic includes crashes where drivers were following too closely, drivers were exceeding safe speeds, and bicyclists were hit by an opening car door while riding next to parked cars.

Speeds of 50 MPH or More Increase the Likelihood of Pedestrian Fatalities to Nearly 100%

The relationship between vehicle travel speeds and resulting severity of pedestrian injury indicates that higher vehicle speeds are strongly associated with both a greater likelihood of pedestrian crash occurrence and more serious resulting pedestrian injury. Pedestrians struck by a vehicles traveling at 20 miles per hour or less have a 95% survival rate. This compares with fatality rates of 40%, 80%, and nearly 100% for striking speeds of 30, 40, and 50 miles per hour or more, respectively. Based on the research to date, it appears that reductions in vehicle travel speeds on urban arterials can be a cost effective way to reduce traffic related fatalities for both pedestrians and bicyclists. Reductions in speed can be achieved through road redesigns, including raised medians, chicanes, and roundabouts. Comprehensive community-based speed reduction programs, which combine public information and education, enforcement, and roadway engineering, have the best outcomes.

Increasing Connectivity Improves Pedestrian and Bicycle Safety

Today, many transportation engineers and planners are working to improve, connect, or re-connect grid systems. A growing body of research that compares grid systems with hierarchical streets and discusses the benefits of grids in terms of safety, walkability,

Locations and Actions Relating to Bicycle Fatalities in Washington, 1999-2006

Location/Action	Percent
Cyclist Turned Into Path of Vehicle	10%
Fell Into Traffic	1%
Came From Behind Parked Vehicle	0%
Riding Against Traffic	11%
Riding with Traffic	27%
Crossing	35%
All Other Actions	7%
Unknown	9%
Total	100%

Source: WSDOT Highways and Local Programs

reduced traffic congestion, cost savings, and associated health and air quality benefits. Cul-de-sacs and busy intersections with high speed traffic are reduced or eliminated in grid systems. Pedestrians have an easier time walking between neighborhoods, shopping, schools and other destinations. Grid systems also enhance access to mass transit. In addition to improving safety, complete grid systems in and around congested urban areas, especially where state highways intersect with busy surface streets, may also help state highway infrastructure to maintain acceptable levels of service longer, and reduce maintenance costs.

Since 2005, Legislature has Funded 100 Pedestrian and Bicycle Safety Projects Statewide Totaling \$35 Million

In 2005, The Washington State Legislature included \$74 million to support pedestrian and bicycle safety projects such as pedestrian and bicycle paths, sidewalks, safe routes to school and transit.

The Pedestrian and Bicycle Safety Grants were established to address the nearly 400 statewide fatal and injury collisions involving pedestrians and bicycles each year. The following provides details for the Pedestrian & Bicycle Safety program.

To date, the Washington State Legislature has funded nearly 100 pedestrian and bicycle safety and safe routes to schools projects totaling \$35 million.

For a list of pedestrian and bicycle safety projects supported by WSDOT please see: http://www.wsdot.wa.gov/TA/ ProgMgt/Grants/LegislatureReport.pdf.

Highway Safety Project Update

Highway Roadside Safety Initiatives: Guardrail and Bridge Rail Upgrades

WSDOT continues to place an emphasis on improving roadside safety on state highways through its capital highway project delivery program. The Nickel package set aside \$20 million to replace existing guardrail barriers that were built to now-outdated safety standards. The Nickel Package also included \$10 million for the strengthening of nonstandard bridge rails statewide.

WSDOT Completes Approximately 58 miles of Outdated Guardrail Between May 2004 and December 2007

There are roads in Washington with guardrails that do not meet current safety standards. Current design standards require guardrails with steel rail placed on wood posts spaced 6 feet-3 inches apart on center. However, the nonstandard guardrails on Washington's roadways typically consist of concrete posts spaced 12 feet- 6 inches on center with cable, single half-moon ("C" shaped steel), or timber rail. Many of the nonstandard guardrails, although meeting design standards when initially installed, are now over 35 years old.

Outdated guardrails create a greater safety risk, since vehicles striking these guardrails are more likely to experience collisions of greater severity than if the guardrail had been up to current standards. Outdated guardrails are often located on rural roads with little traffic.

As of December 2007, WSDOT has replaced 306,644 lineal feet of nonstandard guardrail statewide. This work will reduce the likelihood of vehicles penetrating through the rail and going over embankments. See the above-right map for 11 projects that are completed, under construction, or are programmed for replacement. Remaining projects should be complete by December 2009. For more information on the program please see: http:// www.wsdot.wa.gov/Projects/StatewideGuardRailRetrofit/

Current Statewide Guardrail Projects *Eleven Projects on State Highways*



Data Source: WSDOT Systems Analysis and Program Development

Program Improves Bridge Rail Statewide

The Statewide Bridge Rail Retrofit Program is strengthening nonstandard bridge rails that do not meet the current safety standards for withstanding 10,000 pound impacts. The program decreases the likelihood of vehicles penetrating through the bridge rail. Work began in the 1990's. Nickel funding increased the pace of retrofitting bridge rail. Nickel work should be complete by the Summer of 2012. As of June 2007, WSDOT has replaced approximately 101,279 lineal feet of bridge rail statewide that comply with FHWA bridge rail safety standards.

Current Statewide Bridge Rail Projects

Nineteen Projects on State Highways



Data Source: WSDOT Systems Analysis and Program Development





BEFORE: Nonstandard bridge rail on SR153 near Carlton, Washington. This illustrates the safety risk posed by nonstandard bridge rail

AFTER: The replacement bridge rail meets current safety standards, and greatly reduces the possibility of vehicle penetration.

Environmental Programs Annual Update

2007 Introductory Performance Overview

Environmental Management Systems (Page 64)

WSDOT's Environmental Management Systems are integrated into everyday operations such as construction, maintenance, and ferry system activities.

There are seven core EMS activities that WSDOT is working to have substantially in place. As of December 31, 2007, six of the seven elements are fully developed and implemented, while the seventh is being improved.

Erosion Control Preparedness (Page 65)

WSDOT works to prevent erosion at active construction sites by developing on-site plans (Temporary Erosion Sediment Control/TESC) that manage activities and prepare for future rain. Annually, WSDOT surveys sites with plans to evaluate their effectiveness across thirteen different assessment measures.

Every category (13 total) in 2007 received a score of 80% compliance or higher, earning at least a "good" rating. This is an improvement over 2006, when only six of the 13 measures scored 80% or higher.

Construction Site Water Quality (Page 66)

WSDOT is required to sample waters at construction sites to determine its compliance with in-stream water quality permit requirements. During construction, WSDOT inspectors collect stream samples from sites where compliance with state standards is thought to be most challenging.

In 2007, WSDOT met water quality standards in 87% of the in-stream samples collected (73 out of 84). The majority of non-compliance events occurred during stream diversions and re-introduction of streams into channels.

Stormwater Treatment Facilities (Page 67)

Transportation facilities such as state highways and ferry terminals have impenetrable surfaces which can transfer surface pollutants to nearby waters, bypassing natural filtration processes. WSDOT constructs treatment facilities where required by stormwater permits to help filter and treat stormwater runoff.

In 2007, WSDOT constructed 48 additional stormwater treatment facilities. In King, Pierce, Snohomish, and Clark counties (the counties where WSDOT tracks facilities construction), WSDOT has built a total of 809 separate facilities since 1996.

Wetland Replacement Monitoring (Pages 68-70)

WSDOT works to avoid and minimize wetland disturbances, and when unavoidable, replaces wetlands according to state mandates (Executive Order 89-10). Unavoidable impacts require WSDOT to either construct replacement wetlands, enhance existing wetlands, or restore historic wetlands in order to avoid net loss of wetlands statewide.

Based on 47 wetland replacement sites where monitoring has been completed since 2001, WSDOT has produced a net gain of 6% in required wetland acreage across the state.

Environmental Compliance Assurance (Page 71)

WSDOT tracks compliance with environmental requirements for construction, maintenance, and ferry system activities, regardless of whether such events are considered formal violations or not.

In 2007, WSDOT recorded 248 non-compliance events in the areas of air/noise, fish habitat, water quality, hazardous materials, and wetlands. By the end of 2007, eight formal violations were handed down from these 248 events, two fewer then in 2006.

National Environmental Policy Act Documentation (Pages 72-73)

Under guidance from the Federal Highway Administration (FHWA), WSDOT has been tracking the processing time of documentation required under the National Environmental Policy Act (NEPA). This includes Environmental Impact Statement (EISs) and Environmental Assessment (EAs) documents required of WSDOT projects with federal funds, permits, or actions on federal lands. In October 2003, FHWA established nationwide goals for the processing durations of EISs and EAs.

Since the FHWA goal began, WSDOT has been reducing the processing times for both EISs and EAs.

Environmental Programs Annual Update

Environmental Management Systems

WSDOT's Environmental Management Systems (EMS) are integrated into everyday operations and help support the department's many environmental efforts. Reporting, which is the culmination of all EMS activities, facilitates self-evaluation of performance and allows future improvements. The updates below highlight select areas of EMS activity in 2007 and expected areas of focus for 2008.

Regional Environmental Compliance Plans

Three years have passed since the implementation of the Regional Environmental Compliance Plans intended to ensure compliance with environmental requirements during construction activities. A high-level evaluation of the plans was prepared and shared with WSDOT's regions in 2007. If the recommended changes are agreed upon, updates can occur in 2008.

Maintenance Facilities Stormwater Permits Under Development

In the future, WSDOT is seeking to include National Pollutant Discharge Elimination System (NPDES) municipal stormwater permits in its maintenance facilities' EMS in order to improve training, site inspection, monitoring, and reporting activities as well as improve the elimination of pollutants from stormwater at WSDOT facilities. When NPDES permits are issued, WSDOT will begin developing stormwater pollution prevention program plans for roughly 42 facilities that are likely to fall under the NPDES Phase I and II regulations. For more information on stormwater treatment activities at WSDOT, see page 67.

Methods of Implementation Into Contracts

In August 2007, WSDOT outlined an assessment process for evaluating how environmental permit conditions are incorporated into contracts. WSDOT incorporates these obligations into its contracts, making contractors' requirements clear and allowing them to budget for the required work. The risk of non compliance is reduced through clarity and understanding of both responsibilities and process components once construction begins. The process will carry over into the third quarter of fiscal year 2008 and will later result in a report detailing the methods of evaluation, results of the assessment, and a conclusion with a set of recommendations.

Commitment Tracking System Did Not Meet Implementation Goal

The Commitment Tracking System (CTS) tracks WSDOT's environmental commitments made to resource agencies, community organizations, and interest groups. CTS is intended to track environmental commitments from their inception, through project development and construction to the commitment's completion, or when a project is handed off to WSDOT's Maintenance division. As reported in the December 31, 2006 *Gray Notebook*, WSDOT did not meet its goal for implementing CTS.

Today, not all of WSDOT projects are tracking commitments in CTS. However, significant advances were made in 2007. Use of CTS tripled from approximately 50 projects in 2006 to 152 in the system at the end of 2007. WSDOT will continue striving for even greater use in 2008.

WSDOT Identifies High Risk Projects for 2008 Construction Season

In 2007, less than 3% of WSDOT projects were responsible for 57% of the total non-compliance events. These projects share common characteristics, such as being located in western Washington. They are also typically greater than five acres of disturbance, feature long/steep slopes, impervious soils, wet season work, and/or high ground water tables, and thus are considered "high risk." In late 2007 and in early 2008, WSDOT identified the upcoming construction projects for the 2008 construction season that have high risk characteristics. Project offices will be notified that they have a project that is considered high risk and that project team will be asked to conduct an additional assessment on the compliance risks and non-compliance prevention. The intent is to give these projects the greatest chance for success by promoting additional planning.

WSDOT's Progress on Core EMS Elements

= Element substantially in place. WSDOT will evaluate for improvement		= Element Partially in place. Gaps remain to be filled.	
Core EMS Element	Progress	Core EMS Element	Progress
Legal/other environmental requirements clearly outlined	•	Inspection, monitoring, and correction of any problems.	٠
Written procedures for work activities.	•	Documentation allows self evaluation and promotes internal and external communication.	٠
Training ensures work done in complying manner.	•	Performance compared with requirements and shared with WSDOT management and the public.	igodot
Roles/duties define expectations.			
Data Source: WSDOT Environmental Services Office			
Erosion Control Preparedness

Highway construction crews work hard to prevent rains from damaging sites and washing soils into streams. These crews prevent erosion by spreading straw, planting grass, building ponds, and taking other precautions to protect disturbed soils. These precautions are implemented according to detailed Temporary Erosion and Sediment Control (TESC) plans that are prepared by WSDOT project designers and required by permits. In addition to the weekly site inspections required by permits, each fall WSDOT inspects construction sites to document how thoroughly the TESC plans have been implemented, evaluate how prepared the sites are for preventing erosion, and identify areas for improvement.

Performance Improves Dramatically Since 2006

In October and November of 2007, WSDOT inspected 30 active projects (26 in western Washington and four in eastern Washington) with potential for erosion problems due to the project area's size, steepness, soil type, or proximity to sensitive waterways.

The table below contains the results from the annual site inspections from 2003 through 2007. The numbers represent the percentage of the 30 projects that met the particular assessment measure. For example, in 2007 all projects where dewatering was applicable, acceptable measures were in place. WSDOT's performance steadily improved from 2003 through 2005. However, the level of performance dropped in 2006 for several of the recorded measures. Performance in 2007 rebounded, and is at an all time high with all measures above 80% and with only one measure demonstrating a decrease. Access route stabilization to prevent tracking of mud onto streets dropped due to insufficient maintenance, inappropriate placement, or delayed installation of this Best Management Practice (BMP). Recommendations were made to fix the identified deficiency and prevent possible problems.

Three reasons were identified for the improved performance in 2007. First, due to forecasted wet weather, projects began preparing sites for winter earlier than in past years. Second, 13 out of the 30 projects requested the optional follow-up visit to document the improvements made to fix deficiencies that were identified during the initial site inspection. Third, 12 out of the 30 projects were nearing completion, so much of the site had been permanently stabilized.

While many of these projects are nearing completion, WSDOT has 10 very challenging projects due to ongoing construction through the winter. These projects are doing a good job of proactively preventing erosion, but will receive extra attention throughout the winter. One such project was flooded in early December by the Chehalis River, yet sustained little damage.

Strategy for Improving Performance

Despite having achieved the best results to date in 2007, there is always room for improvement. In the coming year, WSDOT will focus its training and technical support on stabilizing access routes and proactively preventing erosion. WSDOT will also work on creating clearer instructions for designing, installing and maintaining BMPs to strive for 100% performance in 2008.

Erosion and Sediment Control Assessment Results

Percentage of Activities in Compliance, 2003-2007

Rating	Assessment Measure	2003	2004	2005	2006	2007	Status
Excellent	Dewatering	71	100	100	100	100	Stable ¹
Good	Control flow rates	84	100	95	72	93	Improved
Good	Control other pollutants from impacting water quality	N/A ²	100	100	89	93	Improved
Good	Sediment control BMPs installed on time	90	100	95	61	92	Improved
Good	Storm drain inlet protection	82	83	86	93	92	Stable ¹
Good	Channels for temporary stormwater conveyance are stabilized	64	73	87	59	92	Improved
Good	Delineate clearing limits	100	100	95	94	90	Stable ¹
Good	Manage project erosion/sediment control BMPs proactively	75	80	90	92	90	Stable ¹
Good	Amount of disturbed soil covered with erosion control BMPs	45	65	70	74	83	Improved
Good	Erosion control BMPs installed on time (stabilize soils)	N/A ²	67	86	56	83	Improved
Good	Protect cut & fill slopes	50	89	79	56	83	Improved
Good	Access routes prevent tracking of mud onto streets	69	91	82	94	81	Decreased
Good	Maintain BMPs	70	50	67	44	81	Improved

Data Source: WSDOT Environmental Services

¹ Stable performance status was achieved for all measures that remained within 5% of the previous years' rating

² Assessment Measures added since the 2003 report

Construction Site Water Quality

87% of Water Samples Collected Meet State Quality Standards for Clarity When Working In Water

The Washington State Department of Ecology's (DOE) National Pollution Discharge Elimination System (NPDES) permits require sampling on 'in water' work projects for substantial water quality impacts. During in water work, WSDOT inspectors collect flowing water samples from sites where compliance with state standards is thought to be most challenging.

The following graph summarizes results comparing water quality upstream and downstream from 10 projects. Results show that 87% (73 out of 84) of the samples collected met state water quality standards for clarity. Of the 11 non compliance events, eight were associated with stream diversions and re-introduction of streams into stream channels. The remaining non-compliance events were associated with rock removal within a river (one recorded event), an undersized pump was ineffective in getting muddy water to a suitable upland area (one recorded event), and stream bank erosion caused by flow from a diversion pipe (one recorded event).

The month of August had the greatest number of non-compliance events because WSDOT is often required to compress all in-water work activities that pose the greatest water quality challenges into August "fish windows". "Fish windows" are periods of time to which regulatory agencies limit in-water work to minimize impacts to fish. August "fish windows" are often required to ensure that in-water work is completed before salmon return from the ocean to lay their eggs.



Out of Compliance



Monitoring for Alkalinity at Construction Sites

Water that comes in contact with curing concrete can have an unnaturally high pH level. If high pH water enters a nearby waterway it could harm aquatic life. State water quality standards and monitoring requirements have been established to protect fish in such instances. In 2007, four in water work projects collected pH samples in association with concrete work. Of the 21 pH samples collected, all but two of the samples met standards.

New Protocols for Water Quality Monitoring

In 2006 the DOE began requiring water quality sampling on construction sites with greater than five acres of soil disturbance as a condition of their general construction permit so they could gauge the effectiveness of their permit program in keeping the water clean. These projects are required to collect water clarity samples at all locations where stormwater leaves the construction site. DOE provides indicators of compliance, also called 'benchmark values', for these samples. The benchmark values are intended to estimate the likelihood of meeting water quality standards and are also indicators of properly functioning Best Management Practices (BMPs).

Discharges from construction sites less than 25 Nephelometric Turbidity Units (NTUs, the unit used to measure the cloudiness of water) are considered not likely to cause an exceedance of state water quality standards under most conditions, and BMPs are thought to be functioning well. Construction site discharges above 26 NTUs indicate BMPs are not functioning properly so action must be taken to correct problems. A discharge of 250 NTU or more has a higher risk of exceeding water quality standards. Consequently, DOE must be notified, and immediate corrective actions must be taken. The data WSDOT collected from October 2006 through October 2007 at all applicable locations is summarized in the graph below. Over the past year, only 4% (101 of 2309) of WSDOT's samples exceeded the 250 NTU benchmark.

Monthly Compliance with NPDES General Permit Benchmarks

October 2006 - October 2007 96% of Samples Below Benchmark of 250 NTUs Water Quality Measurements in Nephelometric Turbidity Units



Data Source: WSDOT Environmental Services Office

Why Is It Important For WSDOT To Keep The Water Clear?

WSDOT works to minimize the impacts its activities have on fish, wildlife, and natural habitats. The discharge from construction sites increases the turbidity of water, giving it a more 'muddy' appearance. If construction makes water too muddy, the mud can damage fish gills, smother eggs before they hatch, and kill the bugs that fish rely on for food.

Stormwater Treatment Facilities

WSDOT's Efforts To Minimize The Adverse Effects Of Stormwater Runoff From State Highways

WSDOT is engaged in efforts to control stormwater runoff from state highways and other transportation facilities, such as highways and ferry terminal parking lots. WSDOT highways and facilities include over 40,000 acres of impermeable surface that prevent rainwater from soaking into the ground. This water often flows to nearby streams carrying any pollutants that it washed off of the surface with it. Managing stormwater effectively cuts down on pollutants entering streams and rivers, reduces flooding and erosion, and is an important contributor to Puget Sound and salmon recovery efforts. WSDOT's stormwater management activities are guided by a federal Clean Water Act stormwater permit that was issued in 1995.

In accordance with federal stormwater permits, WSDOT has tracked the number of stormwater treatment facilities built in King, Pierce, Snohomish and Clark Counties since 1995. As most highways in Washington state predate federal stormwater regulations, only about 12% of state highways in the four permitted counties have stormwater treatment facilities. However, the percentage of Washington state highways with treatment facilities has steadily increased each year as new facilities are built. Additional treatment facilities outside the previously mentioned four counties have been built statewide and inventory efforts for these facilities are nearly completed.

WSDOT Stormwater Treatment Facilities 1997-2007

Number of Facilities Built in King, Pierce, Snohomish and Clark Counties



Case Study: Ecology Embankment on SR 18 Design and Function

The Ecology Embankment is a porous roadside shoulder containing a specialized filter mix for trapping dissolved metals. Embankments fit well into linear Right-of-Ways and often infiltrate large amounts of water. The facility shown in the photo below treats stormwater prior to discharge into Jenkins Creek alongside SR 18 in King County.

Pollutant Load Reduction

The combined capture of pollutants via concentration reduction and infiltration ensure that only a small fraction of the pollutants leaving the pavement reach the embankment outlet. The SR 18 facility was especially effective at preventing untreated water from reaching the creek because 64% of all runoff infiltrated after passing through the filter mix.

2007 Treatment Facility Effectiveness

Percent Reduction of Pollutants at SR 18 Site in King County





Ecology Embankment on the shoulder of SR 18 filters stomwater runoff before discharging into nearby Jenkins Creek

Wetland Replacement Monitoring

A wetland is defined as an area that is transitional between aquatic and terrestrial ecosystems, and is saturated by water for at least part of the growing season. WSDOT works to avoid and minimize wetland disturbances, and when unavoidable, replaces wetlands to address Washington State's Executive Order 89-10, that mandates that the actions of state agencies will result in no net loss of wetlands.

When transportation projects create unavoidable wetland impacts, wetlands are then enhanced, restored, created, or preserved to achieve the no net loss policy. The replacement wetlands then undergo monitoring to evaluate success. WSDOT has 158 replacement wetland sites totaling 890 acres.

Monitoring was initiated on 21 new replacement wetlands in 2007, totaling 149 acres. These sites added a total of 20 acres of created wetlands, 59 acres of enhanced wetlands, six acres of restored wetlands, 50 acres of buffer and 14 acres of preservation to WSDOT's inventory of replacement acreage.

WSDOT Replacement Wetlands, 1988-2007 Total Acreage of Wetland Projects





Data Source: WSDOT Environmental Services

Note: This chart includes nine replacement sites that are non-wetlands. They include stream bank stabilization, riparian restoration, separate buffer areas associated with wetland replacement sites, and mitigation for slide repairs.

none previously exists. (178 Acres)



SR 18 Maple Valley to Issaquah-Hobart Road mitigation wetland during its first year of monitoring

WSDOT Replacement Wetlands 1988-2007



Data Source: WSDOT Environmental Services

New Replacement Wetland Sites in 2007 Enhancement

- SR 9 Widening SR 522 to 212th Street Stage 2 (2 sites)
- SR 16 Union Avenue to Jackson Avenue HOV

Restoration

- SR 2 Everett Vicinity Bridges Seismic
- SR 504 Maratta Creek Waste Site and Wetland Restoration Site

Creation and/or Enhancement

- SR 3 Waaga Way Interchange
- SR 9 Nooksack Road Vicinity to Cherry Street All Weather Reconstruction (2 sites)
- SR 161 Milton Way to South 360th Stage 2
- SR 527 132nd St. SE to 112th St. SE Widening
- SR 543 I-5 to International Boundary

Multiple Strategies

- SR 18 Maple Valley to Issaquah-Hobart Road (4 sites) (Creation, Enhancement, Preservation)
- SR 164 King County Projects (Creation, Enhancement, Stream Relocation)
- SR 202 Improvement Project, SR 520 to Sahalee Way NE (Creation, Enhancement, Preservation)
- SR 509/ I-5 Freight and Congestion Relief Project (Restoration and Enhancement)
- SR 522 Paradise Lake Road to Snohomish River Bridge Intersection and Drainage (2 sites) (Creation, Enhancement, Restoration, and Preservation)
- SR 530 Arlington Heights (Creation and Preservation)

Wetland Replacement Monitoring

WSDOT Completes 94% of Recommended Site Management Activities

Most available literature agrees that replacement wetlands that are actively managed are more likely to be successful. However, it can take years for a site to develop and become self-sustaining. WSDOT identifies and tracks completion of management activities intended to improve site performance. Activities may include weed control and supplemental plantings. At the end of 2007, WSDOT regions have completed 94% (48 out of 51) of the recommended management activities.

WSDOT's Site Management Activities by Region

Calendar Year 2007

Region	Sites	Recommended	Completed
Northwest	21	25	23
Southwest	6	8	8
Olympic	6	6	6
South Central	3	4	4
North Central	5	8	7
Total	41	51	48
Data Original MODOT Frail			

Data Source: WSDOT Environmental Services

New Restoration Crew in the Northwest Region

Based on the excellent results of the Olympic Region and Headquarters Restoration crews, the Northwest Region has funded a third crew dedicated to managing replacement wetland sites. This crew is in the process of being assembled and trained, and will be based in Everett and operate north of Seattle. After the new crew becomes operational in Spring 2008, the Headquarters crew will spend less time traveling.

WSDOT Works Towards No Net Loss of Wetland Acreage

No net loss of wetland acreage and function is the foundation of WSDOT's approach to protecting wetlands as the agency improves the state's transportation system. With a variety of elements to examine, evaluating the success of mitigation activities is a challenge. Success standards, vegetative characteristics, habitat value, wetland functions and wetland acreage are some of the factors to consider. A mitigation site can be deficient, such as having higher than intended levels of non-native plant species, but still perform at an acceptable environmental level in terms of overall wetland function. Acreage is an important aspect, but in accordance with the Army Corps of Engineers guidance, and federal and state no net loss policies, acreage is considered on a program scale, not on a site-by-site basis. WSDOT staff measure the wetland area on mitigation sites twice during the monitoring period. WSDOT's first measurements are typically completed in the third year of monitoring. This provides an early warning if there are significant acreage shortfalls. Final measurements are done at the end of the monitoring period to determine the actual acreage achieved.

Site-by-Site Success is Mixed

Most replacement wetlands do not develop the exact amount of wetland acreage intended. In most cases, the mitigation site is either slightly larger or smaller than designed. To date, final delineations have been performed at 47 replacement wetlands.

Overall, WSDOT is Exceeding Program Goals

The graph below shows replacement wetland acreage data from the 47 WSDOT mitigation sites where final wetland area measurements have been completed. These sites provide 106% of the required mitigation acreage (106.07 actual/100.43 required).

Wetland Mitigation Acres 2001-2007

Number of Acres Achieved



Note: Two duplicate entries have been removed from the data since the December 31, 2006 report, and several small errors have been corrected



The SR 522 Paradise Lake Road to Snohomish River Bridge NW mitigation site in its first year of monitoring, 2007

Wetland Replacement Monitoring

WSDOT Mitigation Sites Replace or Improve Lost Functions

The replacement or improvement of wetlands function is an important aspect of successful mitigation. Wetland functions are defined broadly as the natural processes occurring within the wetland. One of the goals of wetland replacement is no net loss or improvement of functions between the wetlands that are removed during the construction process and those wetlands that WSDOT creates, restores or enhances to replace them.

By comparing the Washington State Department of Ecology's (DOE) rating scores for removed wetlands to scores for replacement sites, an indication of overall function and improvement can be described. The following table reports the acres of impacted wetlands and associated DOE ratings and the acres of replacement wetlands. WSDOT has been effective at avoiding and minimizing impacts to high quality wetlands that are difficult to replace. When impacts cannot be avoided, WSDOT typically replaces wetlands having lower ratings with wetlands of equal or higher ratings. This may indicate an overall increase in functions (statewide).

Scores for Removed Wetlands and Replacement Wetlands

Ecology Catagory	Removed	Replacement
LCOIOGY Category	Wetianus (Acres)	Wetlanus (Acres)
Category I	0.73	0.35
Category II	10.66	72.05
Category III	39.70	18.45
Category VI	0.16	0.00
Total	51.25	90.85

Source: WSDOT Environmental Services

Note: Discrepancies between the 2006 and 2007 data are due to the omission of one large site in 2007. This site is marginally successful and will be substantially renovated. This action makes this set of sites the same as the set of sites used to produce the bar graph on p. 68.

Department of Ecology Rating Scores

Category I wetlands are those that

- provide a high level of functions; or
- are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or
- are more sensitive to disturbance than most wetlands; or
- represent a unique or rare wetland type.

Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions.

Category III wetlands are

- wetlands with a moderate level of functions or
- coastal wetlands that develop between sand dunes that are between 0.1 and 1 acre in size.

Category IV wetlands have the lowest levels of functions and are often heavily disturbed.

Site Completion Documented

Historically, federal and state permitting agencies did not have a defined process to bring closure to successful wetland replacement sites. The US Army Corps of Engineers (USACE) (the primary federal wetlands permitting agency) and WSDOT have worked together to identify completion requirements for replacement sites. These elements may include providing required documents for the USACE files, a statement of current site conditions, wetland acreage achieved, and an analysis of functional replacement.

WSDOT's measure for site completion is based on the number sites for which it has submitted the above elements and the number of agreement letters that have been received from the USACE. By December 31, 2007, WSDOT proposed 30 sites for completion to the USACE. Sixteen of those have been accepted as successful replacement, and the USACE is considering their response to the remainder. The USACE has not disagreed with any proposed completed sites to date. WSDOT is in the process of transferring these sites to their respective maintenance divisions for their future care. By 2008, WSDOT hopes to have no backlog for the USACE closeout process.

WSDOT Wetland Site Completion Documentation 2006-2007

	April	October	Cumulative
Closeout Reports	2006	2007	Total
Sent to the USACE	20	9	29
Received Agreement	15	0	15
Percent Agreement	75%	0%	52%

Data Source: WSDOT Environmental Services



The SR 2 Snohomish River to Cavalero Corner Eastbound Bridge replacement wetland proposed for closeout to the USACE in October 2007

Environmental Compliance Assurance

As part of its Environmental Management System efforts, WSDOT tracks its compliance with environmental requirements for construction, maintenance, and ferry activities.

WSDOT's Formal Notifications from Resource Agencies Decrease from Ten to Eight

WSDOT self-monitors for non-compliance events regardless of whether or not such events are considered formal violations by resource agencies that monitor WSDOT. In 2007, WSDOT recorded 248 non-compliance events, 60 more than in 2006. Of these 248 events, eight led to the issuance of a formal corrective action from regulatory agencies.

In 2007, the majority of the 248 non-compliance events included 151 (64%) involving water quality issues associated with turbidity or suspended sediment. Seventeen (6%) involved wetlands, three (1%) involved wildlife habitat, 13 involved air/noise (5%), and 64 (24%) were categorized as "other". This "other" category consists mainly of spills and hazardous material issues.

WSDOT's Non-Compliance Events by Type Compared With Cumulative Capital Project Delivery 2003-2007

(Number of Events on Left Axis, Projects Delivered on Right Axis)



Data Source: WSDOT Environmental Services

The number of non-compliance events has been increasing since 2003. However, there are a number of factors that indicate that what WSDOT is experiencing may not be a negative trend.

Between 2003 and 2005, WSDOT instituted its Environmental Compliance Assurance Procedures (ECAP) and the environmental compliance for construction inspectors training course. Both actions have raised the general awareness of non-compliance events, with events being cited and quickly resolved with increasing numbers. WSDOT's non-compliance events are directly related to the activities it performs. There are more active construction projects that are financed through the 2003 Nickel and 2005 Transportation Partnership Account projects. Since the first Nickel project was delivered in late 2003, WSDOT has delivered 126 projects by the close of the quarter. WSDOT's 270,383 maintenance activities and 166,000 annual ferry sailings in 2007 are additional activities that can also produce non-compliance events.

Water Quality and Hazardous Material Events Have Biggest Changes in 2007

In 2007, there were 25% more non-compliance events reported than in 2006. WSDOT saw moderate changes in the distribution of non-compliance events associated with water quality tubidity or sediment issues (down 21%) and hazardous material (up 16%). The remaining areas, wetlands and fish habitat, changed very little (up 2% and down 3% respectively). Of the hazardous materials events, 1% involved water contact and the remaining 99% involved soil or pavement contact that was cleaned according to WSDOT specifications. Spills to water were handled according to WSDOT's ECAP, which outline the response and reporting requirements for such events. Although minor drips and spills to the ground or pavement are not immediately considered violations of permits, WSDOT responds to them through ECAP and tracks them just the same.

2007 Non-Compliance Events

By Type of Event and Month of Occurance



Non-Compliance Events Attributed to High Risk Projects

For most projects, the majority of non-compliance occurs during the wettest seasons and while conducting in-water work during the summer. However, there are some projects that have greater instances of non-compliance regardless of season and WSDOT is looking into ways to improve their performance . In 2007, three percent of projects were responsible for 57% of all non-compliance events. The distribution of types of non-compliance events among high risk projects is nearly identical to the statewide trend.

National Environmental Policy Act Documentation

All proposed WSDOT projects that involve federal funds, federal permits, and/or action on federal land must comply with the National Environmental Policy Act (NEPA). This procedural law requires an analysis of a proposed project's effects on both the natural and built environment. An environmental impact statement (EIS) is prepared if there is potential for significant effects and an environmental assessment (EA) is prepared when the effects are believed to be unknown.

Historically, EISs and EAs have taken a considerable amount of time to complete. The Federal Highway Administration (FHWA) reported that in 2001, the national average was 54 months (4.5 years) to complete an EIS and 18 months (1.5 years) to complete an EA. In October 2003, FHWA established a national goal of reducing the median processing time for EISs to 36 months (3) years) and EAs to 12 months (1 year) by 2007.

Duration of Environmental Impact Statement Processing Times Improving

WSDOT tracking data shows progress toward the FHWA goals. Between January 1997 and September 2003, WSDOT initiated EISs for 17 projects. Of those projects, 10 EISs were completed and the NEPA process time ranged from 31 to 99 months. The seven remaining EISs are in various stages of progress with current process times ranging from 71 to 97 months and growing. Since the FHWA goal began in October 2003, WSDOT has initiated three EISs. The current process times since October 2003 are within the target goal of 36 months.

Some causes of delay of project EIS documentation at WSDOT are start and stop funding, changes in project scope, identification of new or unknown public concerns that require resolution, and extended or delayed resource agency reviews. WSDOT is assessing the project specific reasons for EIS delays and will report on those in the next annual report in December 2008.

WSDOT Works With Regulatory Agencies

Along with the 2003 median completion time goal, FHWA also requested state DOTs to work with environmental regulatory agencies to negotiate and establish EA and EIS schedules.

FHWA established a national goal of meeting 90% of the agreed upon time frames by 2007. In order to work toward this objective, WSDOT developed a definitive set of reporting parameters. Known as negotiated time frames, these parameters will help keep projects on schedule. Currently, WSDOT has one active EIS and 11 active EAs that will report on negotiated time frames.

WSDOT will continue to track and report on median completion times for EAs and EISs. Also, the Washington Division of FHWA has requested that WSDOT continue its efforts on establishing and reporting negotiated time frames.

Duration of Processing Times for Environmental Impact Statements

Number of Months per Individual Project, 1997-2007



72 GNB - Environmental Documentation

National Environmental Policy Act Documentation

Duration of Environmental Assessment Processing Times Improving

A total of 27 EAs were initiated between January 1997 and September 2003 with a median processing time of 42 months, 30 months longer than the FHWA goal. Twenty five EAs have been completed and the median processing time ranged from 23 to 74 months. Two remaining EAs from this period are near completion. Since the FHWA goal began in October 2003, WSDOT has initiated 16 EAs. While the processing time for

Processing Times for Environmental Assessments

eight completed EAs is exceeding the 12 month target processing time, WSDOT has reduced its median time to 19 months. This is a 45% decrease in the median processing time in comparison to the EAs initiated prior to the FHWA goal. Eight incomplete EAs are in various stages of development and were initiated between six months and four years ago.

WSDOT is assessing the leading causes for delays of project EA documentation and will report on some of these causes in the next annual report in December 2008.



Highway Maintenance: Annual Update

Biennial Maintenance Targets

The Maintenance Accountability Process (MAP) measures the Level of Service (LOS) provided in 32 highway maintenance activities. For 14 of the 32 MAP activities data is collected through field condition surveys conducted twice a year on approximately 2,125 sites, chosen randomly from the 7,000 plus miles of highways. Data for the remaining 18 activities is collected in separate surveys conducted once each year. The results from all surveys are compared to the MAP criteria to determine the LOS delivered. LOS targets are expressed in terms of the condition of various highway features (for example, the percent of damaged

Maintenance Targets Achieved for 2007

Maintenance Activity	2006*	2007
Movable & Floating Bridge Operations	pass	pass
Traffic Signal System Operations	fail	fail
Snow & Ice Control Operations	pass	pass
Keller Ferry Operations	pass	pass
Urban Tunnel Systems Operations	pass	pass
Structural Bridge Repair	pass	fail
Regulatory/Warning Sign Maintenance	fail	fail
Slope Repairs	pass	pass
Intelligent Transportation Systems (ITS)	pass	pass
Maintain Catch Basins & Inlets	pass	fail
Pavement Patching & Repair	pass	fail
Crack Sealing	pass	**
Bridge Deck Repair	pass	fail
Guardrail Maintenance	pass	pass
Pavement Striping Maintenance	pass	fail
Raised/Depressed Pavement Markers	fail	fail
Control of Vegetation Obstructions	pass	fail
Rest Area Operations	pass	pass
Sweeping and Cleaning	pass	pass
Maintain Ditches	pass	pass
Highway Lighting Systems	pass	fail
Guidepost Maintenance	pass	fail
Safety Patrol	pass	pass
Maintain Culverts	fail	fail
Pavement Marking Maintenance	pass	fail
Noxious Weed Control	pass	pass
Shoulder Maintenance	pass	pass
Guide Sign Maintenance	pass	pass
Maintain Detention/Retention Basins	pass	pass
Bridge Cleaning & Painting	pass	pass
Nuisance Vegetation Control	pass	pass
Landscape Maintenance	fail	fail
Litter Pickup	pass	fail
Percent Achieved	85%	53%

Data Source: WSDOT Maintenance Office

*Note: Results have been recalculated using a new formula, and are not comparable to previous years. Recalculated 2006 data will not match what has been previously published **Note: This activity is now included in the pavement patching and repair activity

MAP 2007 Program Status

17 of 32 targets achieved (53%) in 2007

Inflation and an increase in infrastructure continue to challenge WSDOT

New scoring method focuses on system-wide results

guardrail within the survey sites). These targets are related to the level of funding provided by the legislature. In 2007, the MAP targets were established by the Legislature for the first time, covering the 2007-09 biennium.

WSDOT Develops New MAP Level of Service Formula

WSDOT has implemented a new scoring method for MAP which allows greater precision in MAP scoring by evaluating each level independently rather than only computing the lowest level directly, and using averages for all other calculations.

WSDOT now divides each of its six regions into areas, which are further sub-divided into sections. For MAP reporting, three regions report at the area level and three report at the section level. Level of Service (LOS) is measured by converting deficiencies into a numerical score on a scale of 1.0 to 5.9 with 1.0 being the highest. For 14 of the 32 MAP activities measurements are taken twice a year, in the spring and fall, and averaged together to calculate the yearly score.

Under the new system, determining the section score remains the same, but determining the score for the area, region, and state differs from the old method in that the raw data is used at every reporting level. In this case, assume that Olympic Region, Area 1, has 74 culverts within its 137 survey sites, with two of those deficient. The area would receive a numerical score of 2.23. The region score would be based on all culverts surveyed on all survey sites in the region and the statewide score would be based on the total number of culverts surveyed across the state.

In the past, a numerical score would be calculated at the lowest reporting level (section or area), then averaged with the other sections or areas to develop the next reporting LOS. This process was repeated in determining the region and statewide scores. Under the new system, averaging is only done to achieve a calendar year score for the 14 MAP activities that are surveyed twice a year.

Analysis of "Failed" Maintenance Activity Targets

During 2007, 17 of the 32 MAP activity targets were achieved; a 53% achievement rate. This is a continuation of a downward trend over the past few years, as inventories and the cost of doing business increase, while funding levels remain steady. Of the 15 targets missed, only two, Traffic Signals Systems Operations and Highway Lighting Systems, were missed in 2006, when the previous scoring method was used (See the gray box on previous page).

Using the previous method, 10 targets would have been missed. The categories that would have passed under the previous calculation method are Bridge Deck Repair, Control of Vegetation Obstructions, Guidepost Maintenance, Maintain Culverts, and Pavement Marking Maintenance.

Inventory Growth Increases Maintenance Burden

The 2003 Nickel Package and the 2005 Transportation Partnership Account (TPA) provided funding for 391 construction projects over a period of several years. Approximately 125 of these projects have been completed, increasing the infrastructure to be maintained. For example, the number of signal systems statewide increased from 904 in 2006 to 968 in 2007, an increase of 64 systems. In addition, the number of Intelligent Transportation System (ITS) components increased from 1,565 in 2006 to 1,735 in 2007, an increase of 170 components. Once construction is complete, the systems become the responsibility of maintenance personnel, including expenses such as the monthly electric bill.

Inflation Causes Some Costs to Double

In addition to the costs associated with added infrastructure, inflation continues to degrade WSDOT's spending power. The cost of electricity, hot mix asphalt, paint for striping, and other materials used to maintain highway systems, continues to climb. For example, in 2004, the average cost per gallon of white striping paint was \$4.36. In 2007, this same gallon cost \$9.17, a 110% price increase in three years. It takes 16.4 gallons of paint for one mile of stripe; a material cost of \$71.50 per mile of white striping in 2004, became \$150.39 in 2007. With over 7,000 miles of highway, and a minimum of three stripes per mile, this inflationary increase has a major impact on the pavement marking and maintenance program.

Lower Priority Maintenance Tasks Deferred

WSDOT continually seeks to improve the efficiency of its maintenance process. Since the inception of MAP, WSDOT has been required to rethink priorities and how it conducts maintenance. Changes were made that allowed WSDOT to do more with less; work methods were revised to be more efficient; activities were reevaluated to determine if they were an important component or were done merely for aesthetics. Prioritization of maintenance activities is central in the effort to make WSDOT more efficient.

With the effects of inflation and an increase in the maintenance burden, lower priority activities such as landscape maintenance and bridge cleaning and painting are increasingly being deferred. Striping data is being evaluated to determine where it may be possible to not stripe in 2008 due to the increased price of striping paint and fuel. The percentage of preventive maintenance tasks accomplished continues to decline.

The growing inventory of electronic systems increases the number of preventive maintenance tasks required to keep systems operating reliably. These tasks are often deferred because there are not enough resources to apportion between existing inventories, added inventories, and emergent needs. When preventive maintenance cannot be accomplished, system malfunctions increase. In 2007, only 28% of preventive maintenance tasks for signals and 20% of tasks for ITS were completed statewide. This is down from 34% of preventive tasks completed for signals and 27% of tasks for ITS completed in 2006.

2006-2007 Post Winter Report Will Provide In Depth Look at Snow Removal Challenges

Through mid-February, above average mountain snowfall has caused an unusually high number of pass closures. The annual Post Winter Report in the March 31, 2008 edition of the *Gray Notebook* will compare this winter to previous winters by analyzing snowfall, snow removal expenditures, and the amount of de-icer used on state highways. The report will also compare frequency and duration of pass closures.

Highway Maintenance: Annual Update

Integrated Vegetation Management

WSDOT's Integrated Vegetation Management (IVM) program goal is to create and support roadside plant communities which benefit the environment and provide for safe highway operations at the lowest possible life-cycle costs. While much of the responsibility for this work lies with maintenance, IVM also depends on roadside design and planting during highway construction projects. When soil is conserved and improved, and native vegetation is restored or established at the time of highway construction, the ongoing roadside maintenance requirements can be relatively low.

Herbicide Use Decreased by 20% in 2007

The primary measurement for WSDOT herbicide use is pounds of active ingredient. Herbicide use along state highways has decreased for the fourth straight year since 2003. In 2007, the agency's statewide herbicide use for roadside maintenance decreased by 20% from 2006. The majority of this reduction continues to come from the decreased reliance on annual spraying of a vegetation-free strip along the edge of pavement throughout the state. Prior to 2004, when this shift in practice began, the maintenance of a vegetation-free strip along the edge of pavement accounted for over 60% of all herbicide use. Herbicide use for maintenance of vegetation at the pavement edge between 2003 and 2007 has decreased by 86%. Overall, herbicide use during this same period is down by 70%.

It is expected that there may continue to be modest herbicide use reductions in coming years, however reductions are not likely to decrease at the pace set in the last four years. As herbicide use rates stabilize around the current level, WSDOT expects to see slight fluctuations as the result of seasonal conditions, weed pressure, newly listed species, and funding levels.

WSDOT Herbicide Use Trends 2003-2007



Area IVM Plan Development and Implementation

The use of IVM by WSDOT maintenance crews is being facilitated through the implementation of area specific Integrated Vegetation Management Plans for all highways in the state system. Over the past three years, plans have been completed for all maintenance areas throughout the state. These plans contain an inventory of roadside management aspects and detailed guidance on how maintenance personnel will effectively manage roadside vegetation.

The development of the area IVM plans is an ongoing, cyclical process which depends on continuous input from the crews, the public, and other external stakeholders. As roadside vegetation patterns grow and change over time, the plans, along with records kept by maintenance crews, serve as a reference for learning from successes and failures of past treatments. Plans are now in place for all areas of the state and WSDOT is engaged in an annual refinement process within each region and maintenance area. The annual process of plan refinement and implementation includes an annual review of practices, updates to plan documents, and training of maintenance crews.

Findings on Alternative Methods Due Out in 2009

WSDOT is continuing to refine its policy and practice for maintenance of vegetation at the edge of pavement through ongoing study of alternative practices in the field. Following research and investigation by the University of Washington in 2005, WSDOT is now conducting documented field trials on alternative methods. Thirty-eight sites were established in 2006 to monitor the cost and results of 19 alternative approaches for a three-year period. The final report on this research will be published in January 2009.

No Herbicide Use Violations in 2007

In 2006, WSDOT established precautions above and beyond existing legal mandates for the use of herbicides. This was done in response to a commissioned independent risk assessment of the types, rates and application methods used on Washington State highway roadsides. These state highway guidelines limit the types of herbicides allowed for use, and implement buffers in and around sensitive areas.

WSDOT also tracks compliance with laws that apply to use of herbicides for roadside maintenance. The Washington State Department of Agriculture conducts investigations of alleged herbicide misuse in response to public complaints for all types of application within the state. Between 2004 and 2006 no findings of violation and no public complaints were registered, however in 2007 two investigations were initiated as a result of public concern and WSDOT applicators were cleared of any fault.

WSDOT welcomes input on its IVM program and specific issues in any of the areas detailed in the article at any time. More information is available on the WSDOT website at: www.wsdot. wa.gov/maintenance/vegetation/default.htm.

Incident Response **Quarterly Update**

WSDOT's Incident Response (IR) program clears traffic incidents quickly and safely on state highways. Roving IR units, which operate during peak traffic periods, help motorists with flat tires and jump starts, relocate blocking vehicles, and provide other types of incident assistance. Additionally, IR units are called out to major incidents 24 hours a day, seven days a week to provide traffic control, traffic rerouting, mobile communications, and assistance in incident clearance and clean-up.

Overall Clearance Time Improves by 10.7% Compared to Quarter 4 of 2006; Number of Incidents Responded to Declines by 15.1%

In the fourth quarter of 2007, the WSDOT Incident Response Program responded to 12,560 traffic incidents. This is 6.3% fewer incidents than the previous quarter, and a decrease of 15.1% when compared to the same quarter last year. The average clearance time was 16.0 minutes this quarter, a 2.2% reduction from the 16.3 minute average last quarter, and a 10.7% decrease from the 17.9 minute average from the fourth quarter of 2006.

Both the third and fourth quarter of 2007 saw a reduction in the number of responses (17.2% and 15.1%, respectively) when compared to the same quarters in 2006.

WSDOT Clears 98.6% of Incidents in Less Than 90 Minutes During the fourth quarter of 2007, 7,848 (62.5%) of the 12,560

incidents were resolved in under 15 minutes, 3,841 (30.6%) took 15 to 90 minutes to resolve, and 182 (1.4%) took 90 minutes or longer to clear. The remaining 689 incidents (5.5%) involved the dispatch of IR responders that were unable to locate the incident.

WSDOT Incident Response Program Facts

Currently, there are 55 IRT vehicles that patrol 500 miles of state highways in Washington State. In addition to WSDOT incident response personnel, several other organizations play an integral part in IRT operations:

- Washington State Patrol troopers, communication center personnel, and cadets
- Local fire departments, police, and emergency medical service providers
- Private tow truck companies
- WSDOT Traffic Management Center personnel
- WSDOT maintenance crews (providing equipment and traffic control as needed)
- Privately sponsored motorist assistance vans
- Department of Ecology and US Coast Guard (when spill clean-up is necessary)

Incident Response Program Status

WSDOT clears 98.6% of incidents in less than 90 minutes

WSDOT IR units responded to 12,560 traffic incidents during the fourth quarter of 2007, with an average clearance time of 16 minutes

Since June 30, 2006 WSDOT and WSP have reduced the duration of incidents lasting 90 minutes or longer by 7% on 9 key highway segments

WSDOT's IR units provide 24-hours a day, seven days a week service, providing traffic control, traffic re-routing, mobile communications, incident clearance and clean up, and motorist assistance

Number of Responses and Overall Average **Clearance Time**

January 2002 - December 2007, Number in Thousands



Data Source: WSDOT Incident Response Tracking System Note: Program-wide data is available since January 2002. Prior to Q3 of 2003, number of responses by IRT are shown. From Q3-2003, responses by Registered Tow Truck Operators and WSP Cadets have been reported in the total. Average Clearance Time do not include "Unable-to-Locate" responses into calculation. Average number of responses does include UTLs, because this represents work performed on behalf of the Incident Response Program

Non-Injury Collisions 4%

Incidents Lasting Less Than 15 Minutes (7,848) 62.5%

Fatality, Injury and Non-Injury Collisions 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, (3,841) 30.6%

There were 10 Hazardous Materials and 24 Fire involved incidents in addition to or as a result of above incidents

Incidents Lasting 90 Minutes and Longer (182) 1.4%

There were 8 Hazardous Materials and 7 Fire involved incidents in addition to or as a result of above incidents.



Incidents Lasting 90 Minutes or Longer

WSDOT and WSP Meet Governor's GMAP Goal to Reduce the Duration of Incidents Lasting 90 Minutes or Longer

The Government Management Accountability and Performance Process (GMAP) is the Governor's accountability initiative. The Cabinet Strategic Action Plan (CSAP) implements measurements to achieve GMAP goals.

Through CSAP, Governor Gregoire has set a target to reduce the total average duration of over-90-minute incidents by 5% for nine key highway segments (from 174 to 165 minute or less). WSDOT and the Washington State Patrol (WSP) reduced the average duration of over-90-minute incidents on the nine key highway segments by 7%, surpassing the 5% goal. In the baseline period, between July 1, 2005 and June 30, 2006, the average duration of these incidents was 174 minutes; between July 1, 2006 and December 31, 2007, the average duration was reduced to 161 minutes (see the September 30, 2006 Gray Notebook for more information).

The data used to calculate CSAP performance measures is jointly provided by WSDOT and WSP, and the measure is calculated based on the duration of time between incident notification and when all lanes are open to traffic. This measure is used exclusively for CSAP; the working agreement for joint operations between WSDOT and WSP is based on calculating the complete clearance time, which is the duration of time between incident notification and when the last responder leaves the scene.

Stronger Relationships Among Responders, Common Goals are Major Factors in Achieving This Goal

One key factor in achieving this goal was the stronger working relationships among responders, policy-makers, and data analysts at WSP and WSDOT. Aware of their common goal, responders in the field strive to unblock the road quickly, and have taken greater care to record accurate opening times.

Building on this stronger working relationship, the two main responding agencies created the Washington Traffic Incident Management Coalition to help implement the National Unified Goal for incident management. Representatives from WSDOT, WSP, the Firefighter's Association, the towing industry, the trucking community, the Insurance Commissioner's Office, the Department of Ecology, the American Automobile Association, and others are leading this combined effort to increase responder safety, clear incidents quickly, and improve communications, coordination and cooperation.

Incident Duration Decreases on Six of Nine Key Routes The average incident duration dropped from the baseline period to the performance period on six of the nine routes. On two routes, the average duration increased slightly: 2.1% on SR

Average Duration of Over-90-Minute Incidents by Route

Quarter 3 2005 - Quarter 2 2006 (Baseline Period), Quarter 3 2006 - Quarter 4 2007 (Performance Period), Duration in Minutes

Duration in	101111111105		
	Baseline	Performance	
	Period	Period	%
Route	Duration	Duration	Change
I-5	172	162	-5.8%
SR 16	277	165	-40.4% ¹
SR 18	190	156	-17.9%
I-90	179	163	-8.9%
SR 167	195	165	-15.4%
I-205	170	205	20.6% ²
I-405	146	152	4.1%
SR 512	185	174	-5.9%
SR 520	140	143	2.1%

1Not a statistically significant change

21-205 experienced one extraordinary incident lasting 391 minutes during the performance period, which skews the route's average duration for that time period Data Source: WSDOT Traffic Office and WSP

Cabinet Strategic Plan Goal: Reducing the Average Time for Incidents Lasting 90 Minutes or Longer on Nine Key Highway Segments¹

In Minutes



Data Source: WSDOT Traffic Office and WSP

Data Source: WSLOOT fraince and WSP Baseline Data Source: 2005--WSDOT Incident Response Tracking System; 2006--WSP- Computer Aided Dispatch System '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 'Current Average Performance, annualized is the average quarterly duration of incidents lasting over 90 minutes for the performance tracking period for this measure

Incident Response Quarterly Update

Incidents Lasting 90 Minutes or Longer, Continued

520 and 4.1% on I-405. One route, I-205, posted an increase of 20.6%. I-205 experienced one extraordinary incident lasting 391 minutes during the performance period, which skews the route's average duration for that time period. If the extraordinary incident is removed, the average duration for the performance period is 168 minutes, a drop of 1.2% from the baseline period. Although SR 16 posted a 40% drop in incident duration, this is not a statistically significant change.

Trends Showing Shorter Over-90-Minute Incidents

Although there has not been a drop in the number of over-90minute incidents on the nine key highway segments, it appears that the duration of the over-90-minute incidents are decreasing. The proportion of over-90 incidents in the three to six hour range has been trending steadily downward since the start of the baseline period, from around 30% of all incidents a quarter to just under 20%. Meanwhile, the trend line for the proportion of incidents lasting 90 minutes to three hours has gone up, from

Percentage of Over-90-Minute Incidents by Quarter

Quarter 3, 2005 - Quarter 4, 2007



around 65% to just under 80%. Incidents that would have lasted three to six hours during the baseline period are gradually being reduced into the 90 minute to three hour category.

Operational Changes May Reduce the Incident Duration WSDOT and WSP have instituted two programs that could be contributing to the reduction of the length of over-90-minute incidents.

Coroner's Agreements

Off-site extrication agreements with 14 county coroners and medical examiners allow WSP to remove the deceased from the scene of a fatality incident. This reduces the exposure of responders on the road, and opens the road more quickly, which reduces backups and the chance for secondary accidents. The program also protects the dignity of the deceased. Fortunately, situations involving off-site extrication of the decreased are infrequent.

Agreements are in place with 14 of the state's 39 counties. WSP, the lead agency on the agreements, focuses on the most congested counties, so for many counties, these agreements may

not be a high priority. In addition, in some counties, the coroner is an elected position and acceptance of a coroner's agreement is at the discretion of that official. In some counties, such as Clark County there is not a formal agreement in place but off-site extrications are already taking place.

Major Incident Tow Program

The Major Incident Tow (MIT) program provides a \$2,500 incentive to tows removing disabled tractor-trailers from the road in under 90 minutes. On November 2, WSP and WSDOT declared a MIT incident in Pierce County for a semi rollover injury collision on SR 410 to SR 167. The lane was blocked for 113 minutes, and the recovery time (the time for the private tow company to remove the blockage) was 37 minutes. On November 7th, another semi rollover collision occurred on SR 512 at 104th St in Pierce County: a non-injury collision involving a load of lumber. The lane open time was 324 minutes and recovery time was 89 minutes. The third MIT activation of the quarter was also a non-injury semi rollover collision, involving a load of fencing rolls, on SR18 to SB I-5 in King County on November 12th. The lane was blocked for 316 minutes, and the recovery time was 78 minutes.

Both programs are relatively new. WSP and WSDOT will continue to watch these programs to see if they reduce incident times.

Four Extraordinary Incidents in the Fourth Quarter of 2007

Four extraordinary incidents over six hours in duration occurred this quarter. They include familiar events: semi rollovers, and major fatality and injury collisions requiring investigations. Both these types of incidents have been cited in past editions of the *Gray Notebook* as common causes for extraordinary incidents.

Extraordinary (6+ Hour) Incidents on Nine Key Puget Sound Routes

Quarter 4, 2007, Duration in Minutes

Date	Duration	Location	Description
Nov 4	472	I-5, MP 136	Semi rollover requiring cargo offload
Nov 12	316	WB SR 18 at I-5	Semi rollover requir- ing cargo offload, plus diesel spill
Nov 19	375	EB 512 at Portland Avenue	7-vehicle fatality colli- sion, cable median barrier damage
Dec 21	315	I-5, MP 191	4-vehicle injury colli- sion, fire, drugs/ alcohol involved

Data Source: WSDOT Traffic Office and WSP

Travel Information: Biannual Update

WSDOT provides real-time traffic information to motorists through two systems: the 5-1-1 telephone information system, and the Traffic and Travel Information website. Using these tools, motorists can access a diverse range of products from traffic camera images, to rest area locations or weather information,

WSDOT's 5-1-1 System Provides Users with "Real-Time" Travel and Traffic Information

The 5-1-1 system builds upon the Washington State Highway hotline previously accessed through 1-800 numbers. Updated every few minutes, the 5-1-1 system allows callers to get a variety of information such as mountain pass conditions, traffic conditions, ferry information, and contact numbers for airlines, local transit agencies, and passenger rail services.

In the third and fourth quarters of 2007, there were 832,590 calls made to WSDOT's 5-1-1 Travel Information System. Of those calls, 58% were made in December, which was also the heaviest month yet recorded for calls to the 5-1-1 system. The system received 482,145 calls, representing 9% of all calls since the program began in 2003. This surge was due mainly to heavy snowfall in the mountain passes; however, the system also experienced increases in calls for traffic and weather information, due to the flooding in Lewis County and the associated 3 day closure of I-5. During the third quarter of 2007, slightly more than half of the calls (54%) were for traffic information. This coincides with the partial closure of I-5 in Seattle during August. In the fourth quarter, 67% of calls were for mountain pass conditions.

Total Calls to Travel Information¹

4-Year Trend: FY 2005-FY 2008, Number in Thousands



1Starting January 2005, 1-800-ROAD and 206-DOT-HIWY numbers connect directly to 5-1-1, and the call counts are reported in 5-1-1 call total

Types of Information Requested to 5-1-1 Travel Information¹ July - December 2007

In Thousands

111 1110USUIIUS

500	Other	Ferry Tra	ffic/Roadway Inc	idents		
400-	Weather	Pass				
200-						
200-					_	
100-		_				
0_	Jul	Aug	Sep	Oct	Nov	Dec

Data Source: 5-1-1 Interactive Northwest Inc. Activity Summary-Combined Report, Avaya BCMS combined report of PBX and VDN Daily historical numbers, WSDOT Traffic Office ¹ Total number of information types will not add up to the total number of calls to 5-1-1 because more than one type of information may be requested in one call, or one caller may hang up without selecting a category. This system records only the number of calls that are completed

WSDOT Website Visits Decline by 7%

During the second half of 2007, WSDOT received 709,753,943 total page views at its public website. This represents a 7% decrease from the same period last year. There were an average of 3.9 million daily page views during this period, compared to a daily average of 3.6 million page views during the first half of the year, and 4.1 million daily page views for the second half of 2006. December saw the highest average with 6.4 million page views daily, this marked a 31% increase over the same month last year, and can be attributed to the storms and flooding as well as holiday travel.

This will be the last report WSDOT produces using the data supplied by the current website statistics vendor. Because of the change in vendors, new data will not be comparable to previously collected data. WSDOT faced this same situation in 2002 when it changed vendors.

The page count number WSDOT has been reporting includes both webpage views and camera image views. WSDOT will no longer be counting camera image views in an effort to better understand how users are accessing and using the site rather than focusing on raw numbers.

Travel and Traffic Website Usage Average Daily Page Views to WSDOT Cameras, Flow Maps and Travel Time Sites

January 2006 to December 2007, In Millions



Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov De Data Source: WSDOT Communication Office

Note: A page view is counted each time a visitor views a webpage on WSDOT's website. Each time a page is refreshed in a user's browser, a page view is recorded. Pages are comprised of numerous files. Every image in a page is a separate file. When visitors look at a page, they may see numerous images, graphics, pictures, etc., generating multiple hits by a user. For example, a page with 10 pictures will generate 11 hits (10 pictures and one for the html file). This is the reason WSDOT tracks page views and not hits.

Washington State Ferries Quarterly Report

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 critical 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.

Farebox Revenue Below Forecasted Levels

Farebox revenue was 7.8% below projected levels for the second quarter of fiscal year (FY) 2008. Farebox revenue totaled \$30,805,519, with a difference of \$2,591,060 from second quarter projections of \$33,396,579. Farebox revenue for the second quarter of FY 2008 was \$866,125 less than for the same quarter one year prior. During the second quarter farebox revenue levels were less than the prior quarter, as WSF ridership and farebox receipts are higher during the summer season. In addition, WSF year-to-date farebox revenue was \$240,221 more than year-to-date farebox revenues through the same time period last year.



Ridership

Washington State Ferries is unable to report ridership numbers for this reporting period. Previous editions of the *Gray Notebook* have reported technical problems with the software used in the new electronic fare system, *Wave2Go*. While the department has continued to make progress on correcting these issues, an appropriate technical solution to the problem has not been found.



A Steel Electric ferry being prepped for repair work in dry dock in Seattle

Quarterly Performance Highlights:

94% of trips departed as "on-time", a 13% improvement over the previous quarter

The average delay in on-time departures was 2.6 minutes, 46% better then the previous quarter

Customer complaints decreased for the third straight quarter, and average 6.8 per 100,000 customers

Construction program spending was \$11.2 million below biennium to date expectations of \$27.3 million

Port Townsend - Keystone Service Update

On November 20, 2007, WSDOT announced that all of the Steel Electric-class vessels would be pulled out of service due to safety concerns related to the deteriorating condition of the vessels' hulls. This decision meant that the Port Townsend – Keystone auto ferry route would be closed immediately until further notice. These 80 year old vessels, the M/V *Quinalt*, the M/V *Illahee*, the M/V *Klickitat*, and the M/V *Nisqually* were the oldest operating auto ferries in the US at the time of their service withdrawal.

Beginning on November 25, 2007, WSF began a passenger-only service using the regularly scheduled sailing times between Port Townsend and Keystone using its high-speed ferry, the M/V *Snohomish*. An additional effort was made in late December 2007 to provide passenger-only service between Seattle and Port Townsend during the Holidays to support local merchants effected by the loss of auto ferry service. The temporary route used the M/V *Snohomish* to transport travelers between communities while a leased vessel from Port Townsend, the *Puget Sound Express*, provided passenger-only service between Port Townsend and Keystone.

Soon after the Steel Electrics were pulled from service, preparations began to restore auto-ferry service to the Port Townsend-Keystone route. On February 9, 2008 the M/V *Steilacoom II* began auto service on the route. The 50-auto ferry is being temporarily leased from the Pierce County ferry system. In the future, the Port Townsend-Keystone route will be serviced by a new class of auto-ferries based on the M/V *Steilacoom II*. On February 14, 2008 Governor Gregoire signed into law legislation authorizing the fast-track construction of three smaller, 100-auto or less ferries.

Additional news on the Port Townsend-Keystone route and the new vessel construction is available online at: http://www. wsdot.wa.gov/ferries/commuter_updates/

Washington State Ferries Quarterly Report

Increased Cancellations Reduce Trip Reliability

In the second quarter of FY 2008, 40,852 sailing trips were scheduled. Of those trips, 405 were canceled, and an additional 10 make-up trips were completed, resulting in a total of 40,457 trips (40,852 scheduled trips - 405 cancelled trips + 10 replacement trips = 40,457 net trips).

Reasons for Trip Cancellations Second Quarter, Fiscal Year 2008



Data Source: WSDOT Ferry System

The Cancelled Service category consists of cancelled trips that are eliminated due to an unplanned change in scheduled service. In November, the Steel Electric Class vessels were

pulled from service, temporarily eliminating service between Port Townsend and Keystone.

Washington State Ferries' reliability index measures system-wide trip reliability averages, and utilizes a transportation industry based standard calculation to evaluate performance. Using this index, WSF had a cancellation rate of 3.9 trips annually, assuming 400 trips per year, per commuter.

On-Time Performance Comparison

Trip Reliability Index

400 trips per year.

Calculated Average of Missed Trips

Fiscal Year	Reliability Rating
Fiscal Year 2007 First Quarter	0.9
Fiscal Year 2007 Second Quarter	2.3
Fiscal Year 2007 Third Quarter	1.9
Fiscal Year 2007 Fourth Quarter	2.6
Fiscal Year 2008 First Quarter	3.2
Fiscal Year 2008 Second Quarter	3.9

Data Source: WSDOT Ferry System Note: Trip Reliability is based on the number of trips missed per year for one commuter making

The trip reliability rating for the second quarter of FY 2008 declined 22% from the previous quarter (3.2 trips missed per year). For the same quarter one year ago, the trip reliability rating was 2.3 trips missed per year.

Some of the factors for a decline in performance included significant service disruption on the Port Townsend - Keystone route when the Steel Electric-class vessels were pulled from service over safety issues. Scheduled trips were not provided when the Steel Electrics were pulled are categorized as 'Service Cancellations' (see the pie graph to the left), and are considered missed trips that affect the annual trip reliability rating for the ferry system as a whole.

On-Time Performance Improves 13% Over Previous Quarter

Washington State Ferries' quarterly on-time performance rating improved 13% over the previous quarter, with 94% of recorded trips being on-time. Last quarter, WSF achieved a 83% overall on-time performance average. WSF calculates its on-time

	Second Quarter, Fiscal Year 2007			Second Quarter, Fiscal Year 2008			
Route	Number of Actual Trips ¹	Percent of Trips Within 10 Minutes of Schedule ²	Average Delay from Scheduled Sailing Time (Minutes)	Number of Actual Trips ¹	Percent of Trips Within 10 Minutes of Schedule	Average Delay from Scheduled Sailing Time (Minutes)	
San Juan Islands (Domestic)	6,434	90%	3.7	6,063	92%	3.1	
Anacortes-Sidney, B.C. (International)	173	84%	5.4	143	91%	3.4	
Edmonds-Kingston	4,530	93%	3.7	4,264	94%	3.3	
Seattle-Vashon (Passenger Only)	96	99%	2.0	325	97%	3.7	
Fauntleroy-Vashon-Southworth	10,139	94%	3.4	9,347	93%	3.7	
Keystone-Port Townsend	1,804	85%	5.4	1,068	88%	5.0	
Mukilteo-Clinton	6,501	98%	2.4	6,453	99%	2.1	
Pt. Defiance-Tahlequah	3,048	96%	3.2	2,909	95%	3.6	
Seattle-Bainbridge Island	4,092	96%	2.3	3,898	96%	1.9	
Seattle-Bremerton	1,095	97%	3.3	2,405	96%	3.1	
TOTAL	37,912	94%	3.3	36,875	94%	3.1	

Data Source: WSDOT Ferry System

Number of Actual Trips represents trips detected by the Automated Tracking System. It does not count all completed trips during the quarter, nor are all trips counted as 'On-Time'.

²These percentages were rounded to the nearest whole percentage number, and may be different from the percentages reported in the December 31, 2006 Gray Notebook, which showed tenths of a percentage point

Washington State Ferries Quarterly Report

performance rating using an automated tracking system on each of its terminals to determine when a vessel leaves the dock. If a vessel is recorded as leaving the dock within 10 minutes of the scheduled departure time, the trip is then 'on-time'. WSF on-time performance rating is calculated based on the number of recorded trips from its automated tracking system. However, not all trips are counted, as a vessel may leave a terminal without being detected. This is due to marine and atmospheric conditions that can disrupt the accuracy of radio wave transmissions as these transmissions are used to detect when a vessel leaves a terminal.

Sailing Delay Time Improves 46% over Previous Quarter During the quarter Washington State Ferries reduced the average sailing delay time from 5.7 minutes to 3.1 minutes, an improvement in the average delay time of 2.6 minutes over the previous quarter. The average sailing delay is the duration between the 10 minute on-time "window" and when a vessel is detected as leaving its terminal. This performance improvement is a reduction of 46% in the average delay on sailings throughout the ferry system.

Customer Complaints Down For Third Consecutive Quarter

Washington State Ferries monitors customer complaints, comments, and compliments in order to evaluate its services. The department uses a quality ratio that measures the number of service complaints per 100,000 customers in order to make accurate performance comparisons over time and against other transportation service providers.

In the second quarter of FY 2008, WSF had an average of 6.8 complaints per 100,000 customers. This is a decrease of 4% over the previous quarter (7.1 complaints per 100,000 customers). Overall, there were 171 fewer complaints than in the last quarter, for a total of 357 complaints. This is the third consecutive quarter in which the number of complaints has been reduced.



Average Number of Complaints per 100,000 Customer

General Service Category Has Increase in Complaints During the quarter, the number of complaints categorized as 'general service' increased by 85 complaints, a threefold increase over the previous quarter. The rise in the number of complaints in this category is due to a decision to remove the Steel Electric class vessels on the Port Townsend – Keystone route for safety issues. WSF provided passenger-only service on this route, and added temporary passenger-only service between Seattle and Port Townsend during the holiday season, customers complained about a lack of auto-ferry service and issues with replacement passenger-only boats, including ADA access.

Common Complaints Per 100,000 Customers



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. The resulting infrastructure gives the ferry system the physical capability to deliver responsible and reliable marine transportation services to riders.

Construction Program Expenditures Washington State Ferry System

Through Second Quarter, 2007-2009 Biennium Cumulative Dollars in Millions, Authorized vs. Actual





Vessel Construction Biennium-To-Date

Vessel construction expenditures were under spending by \$11.2 million, a 41.3% variance from the authorized funds (\$27.3 million) for the quarter ending December 31, 2007. The shipyard work scheduled for both the M/V *Tacoma* and M/V *Hyak* was delayed on both vessels. For the new, 144-auto ferries, work on the propulsion systems by the manufacturer was not progressing as quickly as initially expected.

Terminal Construction Biennium-To-Date

Terminal construction expenditures were under spending by \$5.1 million, a 40.7% variance from the authorized funds (\$12.6 million) for the quarter ending December 31, 2007. 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 \$3.1 million, a 194.8% variance from the authorized funds (\$1.6 million) for the quarter ending December 31, 2007. Both the M/V *Quinault* and the M/V *Illahee*, required major repairs to their hulls following emergency inspections. These are two of the four vessels that are part of the Steel Electric class, which was pulled from active service on November 20, 2007 due to safety concerns. The M/V *Rhododendron* was still under repair for a "rudder flop" incident that occurred in June, 2007 when the rudder collided with the vessel's propeller.

Emergency Expenditures Washington State Ferry System

Through Second Quarter, Fiscal Year 2008 Cumulative Dollars in Millions Authorized vs. Actual Expenditures



System Preservation

In 2007, the Legislature amended the guidelines for using Life Cycle Models in preservation work for both vessels and terminals in the ferry system.

Vessel Preservation

Washington State Ferries uses 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 US 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 has planned on refurbishing or replacing 43 Category 1 systems and 50 Category 2 systems. So far this biennium, WSF has replaced one Category 1 component, which was a steel replacement on the hull of the M/V *Hyak*. There have been four Category 2 systems replaced, including three structural preservation activities on the M/V *Tacoma*, and one piping replacement on the M/V *Issaquah*.

Vessel Preservation Activities

Second Quarter Fiscal Year 2008, 2007-2009 Biennium

	Number of Systems Preserved (Cumulative)	Planned Number of Preservations
Category 1 Systems	1	43
Category 2 Systems	4	50
Total	5	93

Data Source: WSDOT Ferry System

Terminal Preservation

Following the 2007 legislative changes to life cycle preservation requirements, the ferry system adopted the WSDOT bridge structural condition rating system to evaluate its terminal facilities. Conditions were reported in the September 30, 2007 edition (p. 107) of the *Gray Notebook*. In the future, terminal conditions will be reported annually in the June 30th edition along side the annual Bridge Assessment report.



The M/V *Klickitat*, one of the four Steel Electric ferries, sits in dry dock in Seattle for inspections after all four vessels were pulled from service

Rail: Quarterly Update

State Supported Amtrak Cascades

Washington State is one of 13 states that 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 Cascades uses five European designed Talgo trains for daily operations. Three of the five trains are owned by Washington State, and the other two are owned by Amtrak.

Amtrak Cascades service is jointly funded by Amtrak, 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 routes.

Ridership Grows in 2007

State-supported Amtrak Cascades ridership totaled 457,498 for 2007, an increase of 9.5% over the previous year. Ridership on all Amtrak Cascades trains was 676,760 in 2007. This was a 7.4% increase over 2006.

This growth occurred despite service disruptions between August and October when the entire fleet of Amtrak Cascades Talgo trainsets was removed for service for repairs (see September 30, 2007 Gray Notebook). Limited schedules utilizing substitute equipment occurred during that time period.

State Supported Amtrak Cascades Monthly Ridership Number of Passengers



Data Source: Amtrak and WSDOT Rail Office

State Supported Amtrak Cascades Ridership by Funding Entity

Funding Partner	2006	2007 ¹
State of Washington	417,671	457,498
State of Oregon	102,164	106,755
Amtrak	110,161	112,507
Total Ridership	629,996	676,760

Data Source: Amtrak and WSDOT Rail Office

¹New Seattle-Portland daily round trip added in July 2006. This service is funded by the State of Washington

Note: Washington-funded service: Amtrak Cascades 501, 506, 507 (between Seattle and Portland), 508, 510, 513, 516, and 517

Oregon-funded service: Amtrak Cascades 500, 504, 507 (between Portland and Eugene), and 509 (between Portland and Eugene)

Amtrak-funded service: Amtrak Cascades 500 and 509 (between Seattle and Portland)

WSDOT Rail Program Status

Amtrak Cascades ridership totaled 457,498 for 2007, an increase of 7.4%

Amtrak Cascades on-time performance averaged 59.5% in 2007

Amtrak Cascades farebox recovery totaled \$28.3 million in 2007, an increase of 13%

2,359 carloads of grain were shipped in 2007, a 35% increase over 2006

On-Time Performance Remains Steady But Below Goal On-time performance for state-supported Amtrak Cascades trains averaged 61.4% in the fourth quarter of 2007, compared to 62% in the third quarter of 2007, and 43% on-time over the fourth quarter of 2006. Annual on-time performance for 2007 averaged 59.5%, a substantial improvement over the 45% on-time performance for 2006.

Although below WSDOT and Amtrak's goal of 80% on-time or better, the on-time arrival rate of 76.5% in October 2007 marked the best monthly performance for state-supported Amtrak Cascades trains in three years. WSDOT continues to work with BNSF and Amtrak to identify opportunities to improve on-time performance, including modifying operating practices.

State Supported Amtrak Cascades **On-Time** Performance



Note: The on-time performance goal for Amtrak Cascades is 80% or better. A train is considered on-time if it arrives at its final destination within 10 minutes or less of the scheduled arrival time.

Farebox Recovery Increases 2.35% More Than Costs in 2007 Farebox recovery measures the percentage of total operating costs offset by operating revenues. This measure helps reveal how well trains are performing financially, the level of public subsidy that is required to keep the trains in operation, and highlights areas where WSDOT and Amtrak should take action to improve ridership, revenues, and reduce costs where possible.

In FFY (Federal Fiscal Year) 2007, state-supported Amtrak Cascades trains had a farebox recovery of 49.4%. This is slightly better than the 48.4% farebox recovery in FFY 2006. State supported Amtrak Cascades operating costs totaled \$28.3 million in FFY 2007, which was 10.65% higher than the previous year. This increase was primarily driven by increased fuel costs and incentive payments to BNSF for improved on-time performance. Operating revenues totaled just under \$14 million in FFY 2007, which was 13% higher than the previous year.

Total taxpayer subsidies for Washington state-supported Amtrak Cascades trains were \$14.3 million in FFY 2007. This figure includes maintenance costs for the three state-owned trainsets used in Amtrak Cascades daily operations.





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.

2007 Demand for Grain Train Cars Exceeds 2006 by 35% Use of the grain cars remains extremely strong. Total carloads for the fourth quarter of 2007 increased 78% over the fourth quarter of 2006. There were 629 carloads shipped in the fourth quarter of 2007 compared with 353 in the fourth quarter of 2006. In total, 2,359 carloads were shipped in 2007 compared to 1,836 carloads in 2006, a 35% increase.

Washington Grain Train Carloads



Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Data Source: WSDOT Rail Office

*Previous editions of the GNB reported an incorrect yearly carload total for 2006; this edition reflects the corrected total

Grain Train: A Washington State Cooperative

In the early 1990s, a national shortage of rail hopper cars made it difficult and expensive for Washington State farmers to get grain to market. To help alleviate this chronic shortage of grain cars, the Washington State Energy Office and WSDOT used federal funds to purchase 29 used grain cars to carry wheat and barley from loading facilities in eastern Washington to export facilities in western Washington and Oregon.

Today, the Washington State Grain Train has over 2,500 cooperative members and owns 89 grain cars (71 are owned by the state, and 18 are owned by the Port of Walla Walla). The Union Pacific Railroad, BNSF Railway Company, and Washington short line railroads operate the cars and carry the grain to market. Since its beginning, the Washington State Grain Train program has carried over 9,000 carloads totaling more than 900,000 tons of grain from Washington to national and international markets.

Twenty-nine cars are positioned on the Columbia Basin Railroad that extends from Moses Lake to Connell. These cars are interchanged with BNSF Railway and are transported to ports in Vancouver, Portland, and Kalama. The remaining Grain Train cars continue to be used in a shuttle service between grain elevators on the PV Hooper line and the Blue Mountain line to a barge facility on the Columbia River. Barges then transport the grain to export terminals in Vancouver, Kalama, and Portland.

Highlights of Program Activities

Project Starts: Updates and Completions

Project Starts

SR 99 Alaskan Way Viaduct

Construction began October 15 on the first of six safety projects to repair or replace Seattle's Alaskan Way Viaduct. These "Moving Forward" projects will replace or repair about half of the seismically vulnerable viaduct by 2012. Crews began work to stabilize four viaduct column footings between Columbia Street and Yesler Way. The columns in this location have settled approximately five inches into the ground since the 2001 Nisqually earthquake. WSDOT previously determined that the threshold for emergency repairs was six inches, but chose to make the repairs sooner because of a trend of continued settlement. The repairs will take about six months to complete. This temporary repair improves safety for drivers until this section of the viaduct is replaced.



Crews began work to stabilize four viaduct column footings on the Alaskan Way Viaduct between Columbia Street and Yesler Way

SR 96 Snohomish

On December 11, crews began work to repair a damaged section of SR 96 (Seattle Hill Road) and reopen it to traffic. The project replaced a culvert that failed during the December 3 storms, washing out the ground under the roadway. Crews replaced the failed 18-inch pipe with a 10-foot by 5-foot box culvert, which will accommodate larger volumes of water and improve fish passage. In addition to the culvert replacement, crews also replaced a damaged retaining wall on the downhill side of the road, added a new retaining wall on the uphill side of the road, repaved the damaged section of SR 96, replaced the guardrail and handrail, and repaired the drainage system. The roadway was reopened to traffic on December 31.

SR 530 Darrington

In early October crews began a race against time and weather to protect SR 530 from collapsing into the rising Sauk River north of Darrington. They used more than 100 trees and 15,000 tons of rock to armor the riverbank and protect the road from the river. In November 2006, the river ate more than 40 feet of riverbank, moving within 15 feet of the highway in places. Crews completed the \$2 million emergency road protection project by the end of October.

Project Updates

I-5 Tacoma

A new four-lane, mile-long northbound collector-distributor (C-D) facility – the centerpiece of a \$72.9 million "Nickel" construction project – opened on I-5 in Tacoma on December 8. The new lanes and connections will dramatically improve safety and mobility at this major chokepoint in Tacoma. Northbound I-5 from SR 16 to the Tacoma Dome is one of the busiest stretches of pavement in the county, with about 220,000 vehicles a day – and also one of the highest accident locations in the state. In addition to the C-D lanes, changes include a new on-ramp to northbound I-5 from 38th Street (Tacoma Mall), and a new connection from eastbound SR 16 to northbound I-5. This project untangles the weave between SR 16 drivers moving left to get on I-5, and I-5 drivers moving right to get downtown. Eliminating the weave on this stretch of northbound I-5 is expected to reduce collisions by about 75 per year. This work is part of the I-5 HOV Improvements, 48th Street to Pacific Avenue, scheduled for completion next spring.



A new four-lane collector-distributor opened on northbound I-5 in Tacoma on December 8 *I-5 Everett*

Crews reached a major milestone on the I-5 Everett HOV expansion: placing the final bridge girder of the project. On December 20 and 21, crews placed six, 152-foot long girders. Each 80-ton girder, weighing as much as 16 elephants, required two cranes to lift them into place. Once the girders were positioned in their final locations, crews began building the lanes that will carry traffic on and below the bridge. The new bridge will carry southbound I-5 traffic. North and southbound I-5 HOV traffic headed to or from Broadway Avenue will travel under the bridge using the old left-hand Broadway exit. When the project is complete, crews will have widened or built 23 bridges using 251 girders made of 24 million pounds of steel and concrete - about the weight of 108 Boeing 787 airplanes.

Highlights of Program Activities

SR 9 Woodinville

Drivers on SR 9 from Woodinville to Maltby are now able to enjoy a new fourlane divided highway, nearly six months ahead of schedule. On November 5, crews put the final touches on improvements that transformed SR 9 from a two-lane road to a much safer four-lane divided highway. Over the past two years, crews have removed and replaced unstable material under and near the roadway, paved the two new lanes and median, built three stormwater runoff ponds and replaced culverts at Whistle Creek, Great Dane Creek, and Cutthroat Creek. Crews will continue to widen the ramps between SR 522 and SR 9 and install a new signal at the intersection of SR 524 and SR 9.

SR 18 Maple Valley

Widening SR 18 from two lanes to four lanes required clearing thousands of trees and shrubs along the three-and-a-half miles between Maple Valley and Issaquah Hobart Road. In addition, crews added a median, replaced culverts with bridges, and built detention ponds which meant the clearing of even more vegetation. Now WSDOT is restoring more than 63 acres of the SR 18 roadside affected by the widening project. In November crews started planting the first of more than 60,000 native trees and shrubs. The planting will be finished in mid-January, which is about a month ahead of schedule. As the plants and shrubs mature, they



WSDOT is restoring more than 63 acres of roadside affected by the SR 18 widening project

will help prevent erosion, improve water quality, restore the rural character of the roadside, provide a buffer between the highway and its neighbors, and serve as wildlife habitat and corridors.

SR 20 Anacortes

Drivers have a new signal directing traffic through the Thompson Road intersection on SR 20 near Anacortes. Dry weather allowed crews to paint the permanent lane markings at the intersection and turn the signal on October 23. The signal is expected to improve safety for the thousands of drivers who use the intersection every day, especially those that turn on and off the highway at Thompson Road. The signal will be interconnected with three other nearby signals stretching from Sharpes Corner to Reservation Road.

SR 123 Cayuse Pass

SR 123 within Mount Rainier National Park reopened September 28 following extensive flood damage repair. A 10.9-mile long segment of SR 123, from just south of Cayuse Pass (intersection with SR 410) to just north of the intersection with the Stevens Canyon Road, had been closed to all traffic since November 2006. Crews worked through most of October to restore vegetation at the repaired sites along SR 123. WSDOT closed the pass for the season on November 29.

SR 543 Blaine

On December 5, WSDOT opened new designated truck lanes to help improve freight mobility and relieve congestion on SR 543, the nation's fourth busiest commercial crossing on the U.S.-Canada border. The two new lanes north of D Street separate commercial trucks from passenger vehicles, align them with their border inspection booths, and provide more storage room as they wait to cross the border. The new lanes also open the door for the Free and Secure Trade (FAST) program. FAST functions by dedicating one lane to pre-approved truck drivers, carriers and importers so they can skip long lines and quickly cross the border, saving time and money. More than 700,000 trucks use SR 543 every year, and it is estimated that before the improvements were made, congestion cost trucking companies \$22 million annually. Trucks routinely backed up from the border more than a mile down the highway. The project was completed six months ahead of schedule and cost \$49 million.

I-405 Kirkland

Governor Gregoire officially opened new lanes and an improved interchange on I-405 in Kirkland on October 30. The project includes one new lane in each direction of I-405 between NE 85th and NE 124th Streets: three wetland restoration sites; an improved fish-passable culvert under I-405 at Forbes Creek; and three new noise walls. Crews widened the NE 116th Street bridge structure to accommodate the new highway lanes, along with future interchange and pedestrian improvements at NE 116th Street. The Kirkland Nickel Stage 1 Project increases highway capacity by one-third, allowing travelers to move through the "Kirkland Crawl" more quickly.



New lanes and the improved interchange on I-405 in Kirkland were officially opened to traffic on October 30

Project Completions

US 2 Stevens Pass

Crews completed work on an 8-mile-long paving project on US 2 at Stevens Pass in early October. This project provided a new driving surface on the west side of Stevens Pass from Deception Creek Bridge to the summit. In addition, crews added safety improvements including a new guardrail, new warning signs, centerline rumble strips, and new reflective pavement markers.

SR 3/SR 303 Bremerton

On November 7, WSDOT opened the new northbound SR 3 off-ramp to southbound SR 303 – providing a direct freeway-tofreeway connection and allowing vehicles to bypass the signals at both the Clear Creek Road and the Waaga Way overcrossing bridge. WSDOT also opened a new on-ramp from SR 303 to southbound SR 3 on November 13. Crews reconfigured the existing on-ramp to southbound SR 3 to restrict left turns, and removed a traffic signal, allowing continuous traffic flow at this location.

SR 17 Moses Lake

The ribbon was cut October 8 on a \$15.5 million project that expanded the last three mile, two lane segment of SR 17 in Moses Lake to four lanes between the Port of Moses Lake and I-90. The added lanes improve safety for drivers and increases access and mobility for freight haulers and shippers. There are 900 acres of quickly developing industrial property located at the airport three miles north of the project and another 350 acres just east of the project in the Wheeler Industrial Corridor.

SR 270 Pullman

SR 270 between Pullman and the Idaho border is now in its five-lane configuration, with one new lane in each direction and a center turn-lane. Crews activated the signal at Airport Road near Moscow, Idaho on November 8 and then completed installing new guideposts, signing, and guardrail.

SR 522 Lake Forest Park

Signal crews activated a new signal system at NE 153rd Street on SR 522 in Lake Forest Park on October 17. This was the final milestone in a project that improves transit access, traffic flow and safety on this busy stretch of SR 522. Crews built a new transit pullout at a safer location for buses to pick up riders with fewer traffic and transit delays. The new signal allows pedestrians safer access to the transit stops on both sides of the roadway. Crews began construction in fall 2006 and completed this project one month ahead of schedule. This \$8.5 million project is one of several projects collectively known as the SR 522 - I-5 to I-405 Multimodal Project.

Ferries

Steel Electric Ferries Pulled from Service

On November 20 Secretary of Transportation Paula Hammond announced that Washington State Ferries (WSF) would pull all Steel Electric class vessels out of service to ensure passenger safety. This closed the Port Townsend-Keystone car ferry route and brought the M.V. Snohomish into passenger-only service on this route. On December 13, WSF also added a temporary passenger ferry service between Port Townsend and Seattle to accommodate holiday shoppers. Washington State Ferries owns four 80-year-old Steel Electric class vessels - the Quinault, Klickitat, Illahee and Nisqually. These vessels predominantly serve the Port Townsend-Keystone and San Juan Islands inter-island routes. They are the only ferries in the system capable of operating in Keystone's narrow and shallow harbor. The ferries were pulled from service in order to perform extensive inspections of the Steel Electric hulls. Ongoing work on the Quinault revealed significant hull pitting along the keel that likely extends to all four Steel Electric vessels.

Public Transportation

WSDOT Awards Innovative Projects to Reduce Trips

In November WSDOT announced funding for 14 new projects for the 2007-2009 Trip Reduction Performance Program (TRPP). With an additional \$1 million provided by the Washington State Legislature in 2007, WSDOT was able to award a second round of projects that help employees get to work using fewer vehicles. Contractors will provide incentives that get people out of their cars and onto buses, trains, vanpools, and other commute alternatives. Together, these projects propose to remove 2,668 daily commute vehicle trips.

WSDOT Regional Mobility Grants Help Clark County Commuters

Clark County Transit System officials held a ribbon-cutting on November 16 to celebrate the completion of the new 99th Street Transit Center and expanded bus service. The 99th Street Transit Center will support expanded bus service on the highly congested I-5 route across the Washington/Oregon border. The transit center and 12 additional daily round trips by bus give Clark County commuters more options for leaving their cars at home. These projects were paid for in part through \$1.19 million in WSDOT Regional Mobility Grants. A 2005 WSDOT Regional Mobility Grant provided \$600,000 for access road and intersection improvements near the transit center. A 2007 grant provided \$590,000 for the express bus service from the transit center to Portland, Oregon. In addition to higher levels of rush hour service, the project adds a mid-day and late evening connection between downtown Portland, the 99th Street Transit Center and the Salmon Creek Park and Ride. Every day 130,300 vehicles cross the I-5 Interstate Bridge over the Columbia River.

Motorist/Project Information

A New Traffic Camera Added for Stevens Pass

New traffic camera images were added on the WSDOT web site for the summit of Stevens Pass. While an east view of US 2 at the summit has been available for nearly a decade, the new camera provides a view to the west. The new camera views the entrance to Stevens Pass Ski Area parking. The entire installation cost approximately \$10,000, far less than a typical traffic camera installation. Stevens Pass Ski Area allowed installation of the camera on the lodge building (at no cost), agreed to provide the electricity for its operation and assisted in the construction.

WSDOT Upgrades Seattle Traffic Computer

WSDOT's software engineers are in the process of updating the computer system that controls the WSDOT traffic map, freeway cameras, ramp meters, electronic message signs, and travel times in the greater Puget Sound area. The current mainframe computer is over 15 years old and in need of replacement. The computer was cutting edge technology when it was first used to power WSDOT's traveler information systems in the Seattle traffic management center. Today the computer handles eight times more data then when it was first turned on no longer has additional space to expand traveler information in the greater Puget Sound region. Before the switch to the new system occurs, WSDOT software engineers are currently putting the system through a series of rigorous tests over several months to make sure everything is in working order. They plan to finish testing and switch over to the new system by the first of the year. The new software

will allow for future expansions including expanded traffic data on I-5 through Everett in Spring 2008.

Rail

WSDOT Calls for Capital Freight Rail Projects that Advance Economic Development

WSDOT issued a call for projects that promote economic development through the advancement of freight rail activities. Railroads, port districts, rail districts, private companies and local governments can compete for Rail Bank project funds, totaling \$2.5 million for 2007-2009 projects. Funding for the Rail Bank may increase to \$5 million in future biennium. An organization can receive up to \$250,000 for rail capital projects, and must be matched by at least 20 percent of funds from other sources. Proposals were due on October 25, 2007. "The goal of the Rail Bank is to assist with the funding of smaller capital rail projects," said Scott Witt, State Rail & Marine Director. "By making these funds available, the legislature is helping to improve freight movement by rail throughout the state."

Aviation

WSDOT Extends Public Comment Period for LATS Phase III Draft Communication Plan

WSDOT Aviation extended the public comment period for the Long-Term Air Transportation Study (LATS) Phase III Draft Communication Plan to January 4, 2008. The draft communication plan outlines the key outreach objectives and strategies to ensure that the public is kept informed and involved throughout LATS Phase III. The comment period for the plan began on Nov. 19, 2007. All comments received during this period will be summarized and presented to the Aviation Planning Council for its review in February 2008.

Announcements, Awards, and Events

Governor Gregoire Announces Additional Safety Improvements Coming to US 2

On October 8, Governor Chris Gregoire announced the designation of US 2 as a safety corridor to improve driver safety on the highway. The safety corridor designation means that US 2 is eligible for grant funding for targeted education, engineering, and enforcement efforts. During the past decade, WSDOT has invested more than \$15 million to improve US 2 west of Stevens Pass. Next spring WSDOT will begin installing over 40 miles of rumble strips and high visibility permanent striping between Monroe and Stevens Pass. Immediately following the Governor's announcement, Washington State Patrol shifted resources, such as motorcycle troopers and nighttime patrols, to provide additional enforcement on US 2.

Paula Hammond Sworn in as Secretary of Transportation

Governor Chris Gregoire made Paula Hammond's appointment as Secretary of Transportation official on November 5 during a brief swearing-in ceremony in Olympia. Hammond became the first female to serve as Secretary of Transportation in Washington. She manages the agency and its more than 7,000 employees. The agency maintains 7,000 miles of highways and 3,300 bridges and tunnels. It also operates Washington State Ferries, with 29 boats that carry 26 million passengers per year. Hammond had been serving as Interim Secretary since August, when Doug MacDonald resigned.

WSF CEO Anderson Announces Retirement

On October 24 Washington State Ferries CEO, W. Michael Anderson announced his retirement after 34 years of service. Anderson began his career in 1973 as a ticket seller. Rising steadily through the ranks, he was tapped in 2004 for the top post by then-Secretary of Transportation Doug MacDonald. Prior to appointment as CEO, he served as Director of Operations. Anderson served until late December and is now exploring opportunities in the marine transportation industry.

WSDOT Video Introduces HOT Lanes and Wins National Award

The SR 167 HOT Lanes Pilot Project recently earned top honors for its instructional video entitled *Rachel's Drive*. The video, which takes viewers on a virtual tour of high occupancy toll (HOT) lanes, recently was selected as a winner in the 2008 Transportation Research Board competition, "Communicating with John and Jane Public." WSDOT is launching the state's first HOT lanes this spring on SR 167 between Renton and Auburn. It will be a four-year pilot project that allows solo drivers to pay a toll to use the carpool lanes.

Rachel's Drive competed against 80 entries submitted by transportation professionals around the world. The projects communicated with public audiences young and old and explained topics, such as the causes of traffic congestion, jobs in the transportation profession, bridge design and -- in the case of Rachel's Drive -- how to use HOT lanes. Rachel's Drive has been shown at local and regional public meetings. It appeared on print media Web sites and news broadcasts, and it toured the state, reaching key decision makers and editorial boards in six cities. The video is posted on the SR 167 HOT Lanes project site at http://www.wsdot. wa.gov/Projects/SR167/HOTLanes/.

SR 167 Extension Project Gets "Go Ahead"

The Federal Highway Administration signed a Record of Decision (ROD) for the SR 167 Extension project. The ROD is a critical milestone that completes the environmental documentation process and allows WSDOT to move forward with advanced engineering and design of the project. While it's not clear when construction funding for the SR 167 Extension will be identified, WSDOT is continuing to advance design and right-of-way purchase in the corridor. To date, the SR 167 Extension project has purchased 81 of the approximately 250 separate pieces of property needed to complete the highway. WSDOT is currently in negotiations to purchase nearly 20 additional parcels, while continuing to focus on undeveloped property.



WSDOT's HOT lane simulation video, *Rachel's Drive*, won top prize in TRB's 2008 *Communicating with John and Jane Public* competition

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Americans with Disabilities Act (ADA) Information

Persons with disabilities may request this information be prepared and supplied in alternate formats by calling the Washington State Department of Transportation at (360) 705-7097. Persons who are deaf or hard of hearing may call access Washington State Telecommunications Relay Service by dialing 7-1-1 and asking to be connected to (360) 705-7097.

Civil Rights Act of 1964, Title VI Statement to Public

Washington State Department of Transportation (WSDOT) hereby gives public notice that it is the policy of the department to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Persons wishing information may call the WSDOT Office of Equal Opportunity at (360) 705-7098.

Other WSDOT Information Available

The Washington State Department of Transportation has a vast amount of traveler information available. Current traffic and weather information is available by dialing 5-1-1 from most phones. This automated telephone system provides information on:

Puget Sound traffic conditions Statewide construction impacts Statewide incident information Mountain pass conditions Weather information State ferry system information, and Phone numbers for transit, passenger rail, airlines and travel information systems in adjacent states and for British Columbia.

For additional information about highway traffic flow and cameras, ferry routes and schedules, Amtrak *Cascades* rail, and other transportation operations, as well as WSDOT programs and projects, visit www.wsdot.wa.gov

For this or a previous edition of the *Gray Notebook*, visit www.wsdot.wa.gov/accountability

0401-0004