Washington State
Department of Transportation

Measures, Markers and Mileposts

The Gray Notebook for the quarter ending
June 30, 2007

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

Paula J. Hammond, P.E.
Interim 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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26th Edition, Published August 31, 2007

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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 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/Accountability/GrayNotebook/navigateGNB.htm

How to Find Current and Past Performance Information

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

Linking Measures to Strategic Objectives

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 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 below 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 www.wsdot.wa.gov/accountability/publications/StrategicPlanWEB.pdf

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).

The *Gray Notebook* tracks results as indicated in the table below.

Statewide Transportation Policy Goals

In 2002, the Legislature passed RCW 47.01.012, instituting the transportation benchmarks recommended in 2000 by the Governor-appointed Blue Ribbon Commission on Transportation. The benchmarks require WSDOT to report performance data related to nine policy elements to the Legislature and the Washington State Transportation Committee.

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.

WSDOT will measure against the new policy goals and work closely with OFM to ensure the performance measures used are clear and consistent. By December 2007, OFM will submit a first baseline report on the progress toward attaining the policy goals.

Linking Measures to Strategic Objectives

WSDOT Strategic Initiative	Linked to:	Key Performance Measure(s)	Reporting Cycle	Last Report[1]
1. Manage and operate state transportation facilities to improve the safety and reliability of state transportation systems for the benefit of travelers, shippers, and communities. *Transportation Policy Goal(s): Mobility and Safety*	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 26 pp. 68-69 GNB 24 pp. 61-62
	Incident Response	Number of over 90 min incidents; average clearance time Cabinet Strategic Action Plan Measure: Reduce the average length of over 90 minute incidents by 5%	Quarterly	pp. 74-77
	Delay and Congestion	Travel time performance for 35 Puget Sound routes; 95% Reliable Travel Time Duration of congestion	Annual	GNB 20 pp. 54-74
	Amtrak *Cascades*	Percent of trips on-time	Quarterly	pp. 92-93
	Ferries	Percent of trips on-time	Quarterly	pp. 87-91
2. Maintain structures, facilities, support systems, and services to optimize their short-term and long-term usefulness and enhance environmental performance in highway and ferry operations. *Preservation, environment*	Highway Maintenance	Rating for 33 maintenance activities tracked through the Maintenance Accountability Process (MAP)	Annual	GNB 24 pp. 72-74
3. Deliver asset and rehabilitation projects to preserve the state's existing infrastructure assets and utilize lowest lifecycle approaches to extend their useful life. *Preservation, mobility, safety*	Ferries	Life Cycle Preservation Performance: Planned projects vs. actual systems/structures preserved, change in cost rating	Quarterly	pp. 75-76
	Pavement Conditions	Percent of pavement in good, fair, or poor condition (cumulative and by type) Cabinet Strategic Action Plan Measure: Maintain 90% of roads in good or satisfactory condition	Annual	GNB 24 pp. 53-57
	Bridge Conditions	Percent of bridges in good, fair, or poor condition (cumulative) Cabinet Strategic Action Plan Measure: Maintain 97% of bridges in good or satisfactory condition	Annual	GNB 26 pp. 58-64
4. Deliver high quality capital projects that add to and improve the state's transportation systems on-time and on-budget *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. 1-17
5. Communicate transportation system performance and WSDOT agency performance to the public through clear and consistent project delivery and program management reporting. *Stewardship*	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 capability, efficiency, and safety of WSDOT's workforce *Stewardship*.	Workforce Training	Compliance ratings for 25 statutory training courses	Quarterly	pp. 52-54
	Workforce Safety	Recordable injuries per 100 workers per calendar year	Quarterly	pp. 49-51

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

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

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

Overall, 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. Bi-quarterly progress of the program is reported in the March and September editions of the *Gray Notebook*.

Project Reporting on the Capital Project Delivery Program

Project Information Roadmap

Home Page

Gray Notebook

Project Pages

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

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

Quarterly Project Reports (QPRs) summarize quarterly activities:

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

Project Pages

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

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

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

Project Pages provide a summary of the project status to date and are updated regularly to the best of WSDOT's ability. Project Pages can be found at www.wsdot.wa.gov/projects/

WSDOT'S Capital Project Delivery Programs

Executive Summary: Highway Construction Roll-Up of Performance Information

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 9 1/2-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 in the 828 PEF projects is reported programmatically in six categories of work. By contrast, each of the 136 Nickel and 183 TPA projects funded in the 2005-07 biennium 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 2006 Supplemental Budget. Updates to incorporate the 2007-2009 Biennial Transportation Budget will be made in a later *Gray Notebook*.

Performance Information *As of June 30, 2007, Dollars in Thousands*	**Nickel (2003)**	**Transportation Partnership Account (TPA, 2005)**	**Combined Nickel & TPA**	**Pre-Existing Funds**
Total Cumulative Number of Projects	155	233	388	N/A
Total Cumulative Program Value	$4,910,241	$10,026,517	$14,936,758	N/A
Schedule, Scope and Budget Summary: Results of Completed Projects				
Cumulative to Date, 2003 – June 30, 2007	See Pages 5-10	See Pages 5-10	See Pages 5-10	N/A
Total Number of Projects Completed	69	23	92	-
% of Projects Completed Early or On-Time	91%	91%	91%	-
% of Projects Completed Within Scope	100%	100%	100%	-
% of Projects Completed Under or On-Budget	88%	70%	84%	-
% of Projects Completed On-Time and On-Budget	81%	61%	76%	-
Current Legislative Expectation (Baseline)	$754,642	$14,919	$769,561	-
Current Estimated Cost to Complete (WSDOT)	$757,444	$15,191	$772,635	-
% of Total Program On or Under Budget	99.6%	98.2%	99.6%	-
Biennium to Date, 2005-07				
Total Number of Projects Completed	50	23	73	320
% of Projects Completed Early or On-Time	88%	91%	89%	-
% of Projects Completed Within Scope	100%	100%	100%	-
% of Projects Completed Under or On-Budget	88%	70%	82%	-
% of Projects Completed On-Time and On-Budget	78%	61%	73%	-
Current Legislative Expectation (Baseline)	$636,067	$14,919	$650,986	$497,650
Current Estimated Cost to Complete (WSDOT)	$638,994	$15,191	$654,185	$564,385
Advertisement Record: Results of Projects Advertised During 2005-07 and Currently in the Construction Phase				
Biennium to Date, 2005-07	See Pages 11-15	See Pages 11-15	See Pages 11-15	See Pages 33-35
Total Advertised	32	27	59	309
% Advertised Early or On-Time	56%	74%	64%	73%
Total Award Amounts to Date	$276,097	$334,351	$610,448	N/A
Advertisement Schedule for Projects in the Pipeline: Results of Projects Now Being Advertised for Construction or Planned to be Advertised				
July 1, 2007 through December 31, 2007	See Pages 16-17	See Pages 16-17	See Pages 16-17	NA
Total Projects Being Advertised for Construction	7	16	23	54
% On or Better than Schedule	86%	38%	52%	-

Data Source: WSDOT Project Control and Reporting

WSDOT's Capital Project Delivery Programs

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

For Rail construction project delivery, a total of five Nickel projects and two Transportation Partnership Account (TPA) projects have been delivered on-time and on-budget as of June 30, 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 December 31, 2007. To date the Ferry System has not completed any construction projects using Nickel or TPA funding.

Rail Project Delivery: Completed Projects
Results of Project Delivery for Biennium to Date

	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
Cumulative to Date, 2003 - June 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%

Rail Advertisement Record:
Results of Projects Advertised During 2005-07 and Currently in the Construction Phase

	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
As of June 30, 2007, Dollars in Thousands: Biennium to Date, 2005-07			
Total Advertised	0	1	1
% Advertised Early or On-Time	100%	100%	100%
Total Award Amounts to Date	$0	$1,330	$1,330

Rail Advertisement Schedule for Projects in the Pipeline:
Results of Projects Now Being Advertised for Construction or Planned to be Advertised

	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
July 1, 2007 through December 31, 2007			
Total in Pipeline	4	1	5
% On or Better than Schedule	0%	0%	0%

Ferries Advertisement Record and Schedule for Projects in the Pipeline:
Results of Projects Advertised During 2005-07 and Currently in the Construction Phase

	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
Bienium To Date, 2005-2007			
Total Advertised	0	0	0
% Advertised Early or On-Time	N/A	N/A	N/A
Total Award Amounts To Date	$0	$0	$0
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

WSDOT'S Capital Project Delivery Programs

Nickel and TPA Project Delivery Performance Overview

WSDOT Delivers 13 Nickel and TPA Projects During the 4th Quarter of FY 2007

During the 8th quarter of the 2005-07 biennium, 13 Nickel and TPA projects were completed. Of the 13 projects, 11 (85%) were completed on-time and ten (77%) were completed on or under budget. As a result, WSDOT's cumulative project delivery record was slightly down from the prior quarter in on-time performance (92%), a 1% decrease from previous quarter), on-budget performance (a 84%, a 2% decrease), and on-time and on-budget performance (76%, a 2% decrease). However, overall program delivery remained strong, with the current cumulative estimated cost to complete the 92 projects being within 0.5% of the $769 million current legislative expectation.

Project delivery highlights for the quarter ending June 30, 2007 include the three largest Eastern Washington projects completed to date (SR 24/I-82 to Keys Rd - Add Lanes, SR 240/I-182 to Richland Y - Add Lanes, and SR 240/Richland Y to Columbia Center I/C - Add Lanes). These projects were completed at a cost of $118 million. All three were completed on-time and on budget. In contrast, the overall value of the three projects that were completed over budget during the quarter totaled only $2 million, and were over budget by approximately $211,000.

During the 2005-07 biennium, WSDOT completed 73 Nickel and TPA Highway Construction projects, 89% were completed on-time or early. Although only 81% were completed on or under budget, the sum of the total project costs was a little more than 0.5% above the total budgeted amount of $665 million for those projects.

Report Definitions

Schedule, Scope and Budget Summary: Lists Nickel and TPA projects that have been completed through the end of the quarter being reported.

Advertisement Record: Lists Nickel and TPA projects that are currently being constructed.

Projects to be Advertised: Lists Nickel and TPA projects that are scheduled to be advertised in the next six months. This is often called the Six-Month Pipeline.

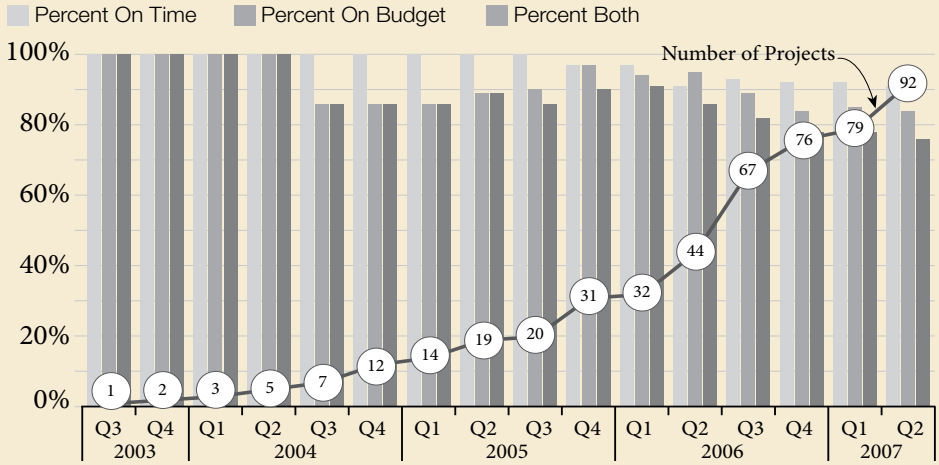
Selected Capital Project Delivery Highlights: WSDOT reports project accomplishments that were better than planned – ahead of schedule, over budget, or some significant risk was mitigated successfully.

"Watch List" Projects – Cost and Schedule Concerns: Projects with significant risks are identified and progress tracked until risks are mitigated or realized.

69 Nickel and TPA Projects Under Construction

As of June 30, 2007, 69 projects are in construction, including major projects, such as the North Spokane Corridor (US 395/NSC-Francis Ave to Farwell Rd - New Alignment) and I-5/S 48th to Pacific Ave - Add HOV Lanes. Of the 59 of these projects that were advertised during the biennium, thirty-eight were advertised on-time or early. The 19 projects advertised during the 8th quarter (April through June) represent $115 million in total project costs.

Cumulative Performance for Nickel and TPA Projects



Source: WSDOT Project Control & Reporting

24 Nickel and TPA Projects Begin Construction in the Next Six Months

In the next six months, WSDOT intends to advertise 24 Nickel and TPA projects. Major construction projects include I-5/Grand Mound to Maytown Stage One - Add Lanes and SR 539/Tenmile Road to SR 546 – Widening. Eleven of these projects are still on their original schedule.

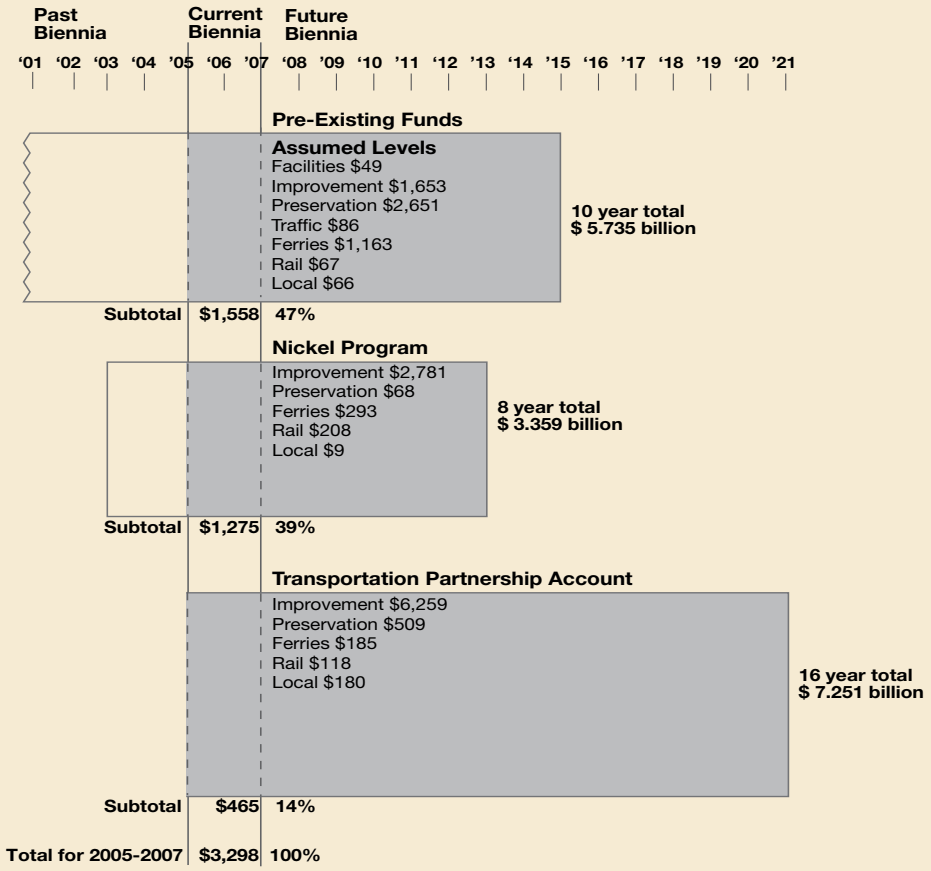
WSDOT's Capital Project Delivery Programs

Overview of WSDOT's Three Capital Project Delivery Mandates

WSDOT's Capital Program: Current and Future Biennium Outlook

2006 Supplemental Budget

Dollars in Millions



2005-07 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 10-year investment plan for the 2003 Transportation Funding Package as well as beginning the 16-year investment plan associated with the 2005 Transportation Funding Package.

In the 2005-07 biennium, based on the 2006 supplemental budget, capital funds total approximately $3.3 billion. Approximately $1.275 billion will be spent on projects associated with the 2003 Funding Package (Nickel), $465 million will be invested in projects from the 2005 Funding Package (Transportation Partnership Account - TPA), and $1.558 billion will be invested from pre-existing funding sources.

For the 2007-09 biennium the Department's capital budget is $4.558 billion.

2005-07 Transportation Budget, Section 603

Section 603 of the Transportation Budget authorizes the Office of Financial Management (OFM) to make funding adjustments to capital projects under certain circumstances. On September 20, 2006, OFM approved $9.6 million TPA, $18.5 million Nickel, and $12 million multimodal transfers; totaling $40.1 million as the final action of the first "Section 603" process. The Department has identified projects that were under spending this biennium, in both the TPA and the Nickel Accounts to offset the increases authorized by the transfers. The Department's request for adjustments is within the legislatively-approved budget and does not exceed the current biennial appropriation.

The funding adjustment request is necessary to correct specific project budget shortfalls that impede the ability to successfully deliver those capital projects. The biennial funding shortfalls were the result of recent construction materials cost escalation, increased preliminary engineering effort, inflation, and difficulty acquiring Right of Way.

WSDOT's Capital Project Delivery Programs

Schedule, Scope, and Budget Summary

Ninety-Two Highway Projects Completed as of June 30, 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
Cumulative to Date								
I-5/Puyallup River to Fife Interchange (Pierce)	Nickel	√	√	√	338	262	Under	√
SR 9/SR 528 Intersection - Signal (Snohomish)	Nickel	√	Early	√	750	753	√	√
SR 18/Covington Way to Maple Valley - Add Lanes (King)	Nickel	√	√	√	68,525	68,504	√	√
SR 25/N of Davenport - Upgrade Guardrail (Lincoln, Stevens)	Nickel	√	Early	√	1,104	1,020	Under	√
I-90/Bridge Rail Retrofit,Elk Heights Rd Br 90/147 (Kittitas)	Nickel	√	√	√	117	102	Under	√
I-90/Cle Elum River Br. 90/134N (Kittitas)	Nickel	√	√	√	1,272	789	Under	√
I-90/Bridge Rail Retrofit,Thorp Prairie Rd (Kittitas)	Nickel	√	√	√	68	55	Under	√
I-90/Highline Canal to Elk Heights (Kittitas)	Nickel	√	√	√	4,666	4,961	Over*	
*After the project was awarded, construction cost was revised. However, during excavation for a new lane, a large amount of saturated clay -- unsuitable roadway material, was found. The cost increase put the project construction total 1.5% over the original allocation but 7% over the revised budget.								
I-90/Ryegrass Summit to Vantage (Kittitas)	Nickel	Early	√	√	9,316	9,615	√	√
I-90/Geiger Rd to US 2 - Median Barrier (Spokane)	Nickel	Early	Early	√	781	760	√	√
I-90/Sullivan Rd to Idaho State Line - Install Cable Guardrail in Median (Spokane)	Nickel	Early	Early	√	817	772	Under	√
US 97A/Entiat Park Entrance - Turn Lanes (Chelan)	Nickel	√	√	√	196	137	Under	√
SR 124/East Jct US 12 - Reconstruction (Walla Walla)	Nickel	√	√	√	317	308	√	√
I-182/US 395 I/C - Roadside Safety (Franklin)	Nickel	√	√	√	86	69	Under	√
SR 203/NE 124th/Novelty Rd Vicinity - Construct Roundabout (King)	Nickel	√	Early	√	3,634	3,643	√	√
SR 231/Spokane River Bridge - Upgrade Bridge Rail (Lincoln)	Nickel	√	Early	√	147	148	√	√
US 395/Kennewick Variable Message Sign (Benton, Franklin)	Nickel	√	√	√	357	378	Over*	
*Contract bid was slightly higher than historical costs for this type of work.								
US 395/Nordhein Road Vicinity Guardrail (Franklin)	Nickel	√	√	√	49	44	Under	√
SR 500/NE 112th Ave - Build Interchange (Clark)	Nickel	Early	√	√	26,035	26,130	√	√

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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
Biennium to Date (2005-07)								
NC Regionwide - Upgrade Guardrail (Chelan, Douglas, Grant, Okanogan)	Nickel	√	Early	√	849	801	Under	√
I-5/NE 175th St to NE 205th St - Add NB Lane (King)	Nickel	√	Early	√	8,915	8,915	√	√
I-5/52nd Ave W to SR 526 - Roadside Safety and Ramp Improvements (Snohomish)	Nickel	√	Early	√	2,642	2,782	Over*	
			*This project was completed over budget due to higher mobilization and construction materials cost.					
I-5/300th St NW Vic to Anderson Rd Vic - Install Cable Barrier (Skagit, Snohomish)	TPA	Early	Early	√	1,288	1,288	√	√
I-5/2nd Street Bridge-Replace Bridge (Skagit)	Nickel	√	Early	√	14,333	14,412	√	√
I-5/SR 11 Vic to Weigh Station Vic - Install Cable Barrier (Skagit)	TPA	Early	Early	√	436	436	√	√
I-5/SB Ramps at SR 11/Old Fairhaven Parkway - Add Ramp Lane (Whatcom)	Nickel	√	Early	√	2,404*	2,423	√	√
				*Estimated cost to complete includes $757,000 of local agency funds added work.				
I-5/SR 11 to 36th St - Install Cable Barrier (Whatcom)	TPA	Early	Early	√	68	104	Over*	
			*This project is over budget due to the replacement of regular cable barrier with high-tension cable barrier.					
I-5/SR 542 Vicinity to Bakerview Rd - Install Cable Barrier (Whatcom)	TPA	Early	Early	√	202	254	Over*	
			*This project is over budget due to the replacement of regular cable barrier with high-tension cable barrier.					
I-5/Main St to SR 548 - Install Cable Barrier (Whatcom)	TPA	Early	Early	√	409	409	√	√
I-5/Blaine Vicinity - Median Cross Over Protection (Whatcom)	TPA	√	Early	√	245	245	√	√
I-5/Salmon Creek to I-205 - Widening (Clark)	Nickel	Early	Early	√	43,109	44,588	√	√
I-5/Roanoke Vicinity Noise Wall (King)	Nickel	√	Late*	√	3,764	3,764	√	
			*The noise wall panels, designed in agreement with the neighborhood, required a longer time for approval and procurement than anticipated by the design office.					
SR 9/Nooksack Rd Vicinity to Cherry St - New Alignment (Whatcom)	Nickel	√	Early	√	18,010	18,027	√	√
US 12/Montesano Vicinity to Elma - Install Cable Barrier (Grays Harbor)	TPA	√	Early	√	1,620	1,923	Over*	
						*Increase due to extensive slope work.		
US 12/SR 124 to McNary Pool - Add Lanes (Walla Walla)	Nickel	√	√	√	12,299	12,092	√	√
US 12/Columbia, Garfield, and Whitman Co - Upgrade Guardrail (Columbia, Garfield)	Nickel	√	Early	√	302	192	Under	√

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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
SR 14/Riverside Dr and E Camas Slough Bridge - Upgrade Bridge Rail (Clark)	Nickel	√	√	√	340	323	Under	√
SR 14/Columbia River Gorge - Upgrade Guardrail (Skamania)	Nickel	Early	Early	√	765	529	Under	√
SR 14/W of Paterson - Upgrade Guardrail (Benton)	Nickel	√	Early	√	320	285	Under	√
SR 16/I-5 to Tacoma Narrows Bridge - Add HOV Lanes (Pierce)	Nickel	√	Early	√	118,201	118,101	√	√
SR 16/36th St to Olympic Dr NW - Add HOV Lanes (Pierce)	Nickel	Early	Early	√	8,914	7,890	Under	√
SR 17/N of Mesa - Upgrade Guardrail (Franklin)	Nickel	√	Early	√	114	86	Under	√
SR 18/SE 304th to SR 516 - Install Cable Barrier (King)	TPA	Early	Early	√	250	250	√	√
SR 18/Maple Valley to Issaquah/ Hobart Rd - Add Lanes (King)	Nickel	√	Late*	√	115,429	127,922	Over*	
					*Heavy rain delayed the project and resulted in significantly higher cost for erosion control, street sweeping, storm water treatment, and storm water detention ponds.			
SR 21, 23, 27, and 272 - Upgrade Guardrail (Adams, Franklin, Lincoln, Whitman)	Nickel	√	Early	√	858	785	Under	√
SR 24/Vernita Bridge - Upgrade Bridge Rail (Benton, Grant)	Nickel	√	Early	√	402	263	Under	√
SR 31/Metaline Falls to Canadian Border - All Weather Road (Pend Oreille)*	Nickel	√	√	√	18,862	17,392	Under	√
	*The baseline budget included $1.6 million in dedicated FHWA federal funding. The funding was not required and, with FHWA approval, the funding was transferred to the SR 31/Pend Oreille County Bridge Project. This project's Estimated Cost to complete is now within 5% of the adjusted baseline.							
I-90/Silica Road to East of Adams Road - Median Cross Over Protection (Grant)	TPA	Early	Early	√	322	294	Under	√
I-90/SR 17 to Grant/Adams County Line - Median Cross Over Protection (Grant)	TPA	Early	Early	√	787	749	√	√
I-90/Potato Hill Bridge - Add Pedestrian Access (Grant)	TPA	√	Early	√	750	750	√	√
I-90/Moses Lake Area - Replace Bridges (Grant)	Nickel	√	Early	√	8,056	7,928	√	√
I-90/Pines Rd to Sullivan Rd - Add Lanes (Spokane)	Nickel	Early	√	√	17,894	15,821	Under	√
I-90/Argonne Rd to Pines Rd - Add Lanes (Spokane)	Nickel	Early	√	√	18,468	17,845	√	√
US 97/Ellensburg Vic to Tonasket Vic - Roadside Safety Improvement (Chelan, Douglas, Kittitas, Okanogan)	TPA	√	Early	√	1,000	978	√	√

WSDOT's Capital Project Delivery Programs

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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
SR 99/SR 599 to Holden St - Install Cable Barrier (King)	TPA	Late*	Early	√	380	437	Over*	
				*Advertisement delayed to complete Shoreline Permitting requirements. This project is over budget due to the replacement of regular cable barrier with high-tension cable barrier.				
SR 105/Smith Creek Bridges - Bridge Rail Retrofit (Pacific)	Nickel	√	√	√	514	514	√	√
SR 105/Smith Creek Bridge to Alexson Rd - Guardrail Upgrade (Pacific)	Nickel	√	√	√	314	314	√	√
SR 106/Skobob Creek - Improve Fish Passage (Mason)	Nickel	√	√	√	1,777	1,780	√	√
SR 122/Cinebar Rd to Jerrells Rd - Guardrail Upgrade (Lewis)	Nickel	Early	Early	√	180	208	Over*	
				*The project costs increased due to materials cost escalation for guardrail items.				
SR 124/E of Pasco - Upgrade Guardrail (Walla Walla)	Nickel	√	Early	√	494	439	Under	√
SR 127/N of Dodge - Upgrade Guardrail (Garfield)	Nickel	√	Early	√	281	224	Under	√
SR 128/Clarkston Vicinity - Upgrade Guardrail (Whitman)	Nickel	√	Early	√	68	52	Under	√
SR 161/Jovita Blvd to S 360th St, Stage 2 - Widen to Five Lanes (King, Pierce)	Nickel	√	Early	√	30,164	26,173	Under	√
SR 161/204th St to 176th St - Widen Roadway (Pierce)	Nickel	Late*	Early	√	16,789	15,401	Under	√
		*This project was the second of a two-stage project. Advertisement date was delayed to better accomodate construction work and lessen impacts to the public.						
SR 161/234th St to 204th St E - Add Lanes (Pierce)	Nickel	√	Early	√	17,231	15,635	Under	√
SR 167/Ellingson Rd Interchange NB Off Ramp - Add Signal and Turn Lane (King)	Nickel	√	√	√	869	854	√	√
SR 167/SR 410 to Pierce/King Co Line - Install Cable Barrier (King, Pierce) *	TPA	Early	Late	√	487	487	√	
			*This project was combined and advertised with a statewide contract for efficienicy which resulted in a savings.					
SR 194/SW of Colfax - Upgrade Guardrail (Whitman)	Nickel	√	Late*	√	1,079	1,030	√	
				*The Operationally Complete Date was delayed until the harvest season was complete to allow for the free flow of trucks. Although previously reported as over-budget, WSDOT has determined that the total final project cost was within budget after considering unused contract contingencies.				
SR 202/244th Ave NE Intersection - Add Signal and Turn Lane (King)	Nickel	√	Early	√	1,104	1,210	Over*	
			*This project was completed ahead of schedule but over budget due to cost escalation and higher prices on construction materials.					
SR 202/Jct 292nd Ave SE - Add Signal and Turn Lane (King)	Nickel	√	√	√	586	609	√	√
I-205/Mill Plain SB Off Ramp - Add Turn Lane (Clark)	TPA	Early	Early	√	633	779	Over*	
					*Increase in construction cost due to higher fuel and asphalt prices.			
SR 260/Connell to Kahlotus - Upgrade Guardrail (Franklin)	Nickel	√	Early	√	642	546	Under	√
SR 261/Lyon's Ferry Vicinity - Upgrade Guardrail (Columbia, Garfield)	Nickel	√	Early	√	273	215	Under	√

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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
SR 410/Traffic Ave to 166th Ave E - Install Cable Barrier (Pierce)	TPA	Early	Late*	√	245	245	√	
					*This project was combined and advertised as a statewide contract for efficienicy.			
SR 410/Cliffdell Vicinity - Upgrade Guardrail (Yakima)	Nickel	√	Early	√	331	241	Under	√
SR 522/N Creek Vic to Bear Creek Vic - Install Cable Barrier (King)	TPA	Early	Early	√	271	275	√	√
SR 527/132nd St SE to 112th St SE - Add Lanes (Snohomish)	Nickel	√	√	√	20,933	21,051	√	
US 730/S of Wallula - Upgrade Guardrail (Walla Walla)	Nickel	√	Early	√	91	77	Under	√
SR 823/Selah Vicinity - Upgrade Guardrail (Yakima)	Nickel	√	Early	√	25	33	Over*	
			*This project was part of a contract involving twelve projects. The contract as a whole was completed 21% below budget. Traffic control and contract administration costs for this project were underestimated.					
Projects Completed This Quarter (Ending June 30, 2007)								
SR 3/SR 106 S Belfair - Install Signal (Mason)	TPA	√	√	√	1,059	796	Under	√
I-5/SR 532 NB Interchange Ramps - Add Turn Lanes (Snohomish)	Nickel	√	Early	√	8,106	8,117	√	√
US 12/Wildcat Creek to I-82 - Roadside Safety Improvements (Yakima)	TPA	√	√	√	507	537	Over*	
			*This project was completed on schedule but slightly over budget due to higher prices on construction materials.					
US 12/40th Ave Interchange - Interchange Improvements (Yakima)	TPA	√	Early	√	2,170	2,163	√	√
SR 16/NW of Tacoma Narrows to SE of Burley - Install Cable Barrier (Kitsap, Pierce)	TPA	Late*	√	√	923	1,000	Over*	
			*Delayed to avoid construction conflicts with the Nickel Project SR 16/36th Ave. to Olympic within the project limits. For efficiency, this project was combined into a single contract with another median barrier project that had a later ad date.					
SR 24/I-82 to Keys Rd - Add Lanes (Yakima)	Nickel	Early	Early	√	50,234	52,692	√	√
I-90/Columbia River Bridge - Upgrade Bridge Rail (Grant, Kittitas)	Nickel	Late*	√	√	447	551	Over*	
		*This project combined in the same contract for cost efficiency with another bridge retrofit project, SR 397/Bridge Rail Retrofit - Columbia River Bridge West of Kennewick, which was delayed for redesign. See note for SR 397/Bridge Rail Retrofit - Columbia River Bridge West of Kennewick.						
SR 165/Carbonado Vicinity - Upgrade Guardrail (Pierce)	Nickel	√	Late*	√	870	901	√	
			*The planned completion date was set in error. The baseline construction schedule provided only one month to construct the project.					
SR 240/I-182 to Richland Y - Add Lanes (Benton)	Nickel	Early	Early	√	23,140	22,880	√	√
SR 240/Richland Y to Columbia Center I/C - Add Lanes (Benton)	Nickel	√	Early	√	43,194	43,190	√	√
SR 397/Columbia River Bridge - Upgrade Bridge Rail (Franklin)	Nickel	Late*	Late*	√	1,081	891	Under	
		*The existing bridge rail required development of a unique bridge rail retrofit that would be compatible. In addition, this project was tied to the I-90/Columbia River Bridge - Upgrade Bridge Rail which provided economy of scale over advertising separately.						
SR 410/Morse Creek to US 12 - Roadside Safety Improvements (Yakima)	TPA	√	√	√	692	710	√	√
SR 821/Selah to Ellensburg - Roadside Safety Improvements (Kittitas, Yakima)	TPA	√	√	√	175	82	Under	√

WSDOT's Capital Project Delivery Programs

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Funded with Nickel and Transportation Partnership Accounts
Dollars in Thousands

	% 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 (June 30, 2007)	77%	85%	100%	$132,598	$134,510	77%	62%
7 Nickel Projects	71%	71%	100%	$127,072	$129,222	86%	57%
6 TPA Projects	83%	100%	100%	$5,526	$5,288	67%	67%
Totals Biennium to Date (2005-07)	**93%**	**89%**	**100%**	**$650,986**	**$654,185**	**82%**	**73%**
50 Nickel Projects	94%	88%	100%	$636,067	$638,994	88%	78%
23 TPA Projects	91%	91%	100%	$14,919	$15,191	70%	61%
Totals Cumulative to Date	**95%**	**91%**	**100%**	**$769,561**	**$772,635**	**84%**	**76%**
69 Nickel Projects	96%	91%	100%	$754,642	$757,444	88%	81%
23 TPA Projects	91%	91%	100%	$14,919	$15,191	70%	61%

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).

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 +/- five percent of the current Legislative expectation (baseline).

WSDOT's Capital Project Delivery Programs

Advertisement Record

Sixty-Nine Projects in Construction Phase as of June 30, 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 7/SR 507 to SR 512 - Safety Improvements (Pierce)	Nickel	√	Jun-05	Scarsella Bros.	Jul-07	13,745
I-90/EB Ramps to SR 18 - Add Signal and Turn Lanes (King)	Nickel	√	Sep-03	KLB Construction	Oct-07	2,599
SR 9/SR 522 to 228th St SE, Stages 1a and 1b - Add Lanes (Snohomish)	Nickel	√	Jan-96	Wilder Construction	Nov-07	17,993
SR 9/228th St SE to 212th St SE (SR 524), Stage 2 - Add Lanes (Snohomish)	Nickel	√	May-05	For construction efficiencies, this project was combined with the one above.		
I-5/S 48th to Pacific Ave - Add HOV Lanes (Pierce)	Nickel	√	Mar-05	Kiewit Pacific	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 construction efficiencies, this project was combined with the one above.		
I-5/Pierce Co Line to Tukwila Interchange - Add HOV Lanes (King)	Nickel	Early	Nov-04	Icon Materials, A Division of CPM	Jun-08	35,847
US 395/NSC-Francis Ave to Farwell Rd - New Alignment (Spokane)	Nickel	Late[1]	Jan-04		Mar-09	
• NSC-Farwell Road Lowering (Spokane)	Nickel		Jan-04	Max J. Kuney	Jul-05	4,976
• NSC-Gerlach to Wandermere - Grading - CN (Spokane)	Nickel		Nov-04	KLB Construction	Sep-06	9,987
• NSC-Francis Avenue to US 2 Structures - REBID (Spokane)	Nickel		May-06	Max J. Kuney	Oct-07	17,236
• US 395/NSC-Freya to Fairview Vicinity - Grading and Structures (Spokane)	Nickel		Jan-07	Steelman-Duff	Nov-08	10,571
• US 395/NSC-Freya St to Farwell Rd - PCCP Paving (Spokane)	Nickel		Feb-07	Acme Concrete	Mar-09	19,490
SR 104/Hood Canal Bridge - Replace E Half (Jefferson, Kitsap)	TPA	√	Feb-03	Kiewit-General, A Joint Venture	Jun-09	204,000
Biennium to Date (2005-07)						
SR 99/S 284th to S 272nd St - Add HOV Lanes (King)	Nickel	√	Apr-06	SCI Infrastructure	Aug-07	8,615
I-90/Harvard Rd Pedestrian Bridge - Construct Bridge (Spokane)	TPA	√	Dec-06	Wesslen Construction	Aug-07	892
SR 531/Lakewood Schools - Construct Sidewalks (Snohomish)	TPA	Early	Mar-07	Wilder Construction	Aug-07	227
US 2/Dryden - Install Signal (Chelan)	Nickel	√	Oct-06	Central Washington Asphalt	Sep-07	3,319
SR 516/208th and 209th Ave SE - Add Turn Lanes (King)	Nickel	Late[2]	Jan-06	Road Construction NW	Sep-07	678

WSDOT's Capital Project Delivery Programs

Advertisement Record

Sixty-Nine Projects in Construction Phase as of June 30, 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
SR 3/SR 303 Interchange (Waaga Way) - Construct Ramp (Kitsap)	Nickel	√	Aug-05	Scarsella Bros.	Oct-07	16,744
SR 17/Pioneer Way to Stratford Rd - Widen to Four Lanes (Grant)	TPA	√	Jun-06	Central Washington Asphalt	Oct-07	14,607
I-90/EB Ramps to SR 202 - Construct Round-about (King)	Nickel	√	Jan-07	Tri-State Construction	Oct-07	1,164
SR 270/Pullman to Idaho State Line - Add Lanes (Whitman)	Nickel	Late[3]	Mar-06	North Central Construction	Oct-07	18,090
Pierce and Thurston Co - Roadside Safety Improvements (Pierce, Thurston)	TPA	√	Nov-06	Petersen Brothers	Oct-07	576
SR 112/Hoko and Pysht Rivers - Erosion Control (Clallam)	TPA	Early	Aug-06	(State Forces)	Oct-07	200
SR 3/Imperial Way to Sunnyslope - Add Lanes (Kitsap)	TPA	Late[4]	Feb-07	ACE Paving Co.	Oct-07	953
SR 20/Thompson Road - Add Signal (Skagit)	TPA	Early	Oct-06	Rinker Materials West, LLC DBA	Oct-07	1,437
SR 167/15th St SW to 15th St NW - Add HOV Lanes (King)	Nickel	√	Dec-05	Icon Materials, A Division of CPM	Oct-07	27,849
SR 9/108th Street NE (Lauck Road) - Add Turn Lanes (Snohomish)	Nickel	√	Feb-07	Pacific Road & Bridge Co.	Nov-07	882
SR 202/Jct SR 203 - Construct Roundabout (King)	Nickel	√	Dec-06	Tri-State Construction	Nov-07	1,391
SR 522/I-5 to I-405 - Multimodal Improvements (King)	TPA	Early	Jun-06		Nov-07	
• SR 522 Corridor Improvement,153RD Signal & Roadway Widening (King)	TPA		Jun-06	Tri-State Construction	Nov-07	4,038
US 12/Attalia Vicinity - Add Lanes (Walla Walla)	Nickel	√	Dec-05	Apollo	Dec-07	11,222
SR 169/SE 291st St Vicinity (Formerly SE 288th Street) - Add Turn Lanes (King)	TPA	√	Nov-06	Tri-State Construction	Dec-07	1,195
I-405/SR 520 to SR 522 - Widening (King)	Nickel	√	Jul-05	Kiewit Construction Company	Dec-07	47,500
SR 20/Ducken Rd to Rosario Rd - Add Turn Lanes (Island, Skagit)	Nickel	Late[5]	Jan-07	Strider Construction	May-08	4,544
I-5/S Seattle NB Viaduct - Bridge Paving (King)	TPA	√	Mar-07	Concrete Barrier,	Sep-08	11,918
I-5/SB Viaduct, S Seattle Vicinity - Bridge Repair (King)	TPA	√		For construction efficiencies, this project was combined with the one above.		
SR 543/I-5 to Canadian Border - Add Lanes (Whatcom)	Nickel	Late[6]	Nov-05	IMCO General Construction, Inc.	Oct-08	28,315
SR 401/US 101 to E of Megler Rest Area Vicin-ity - Upgrade Guardrail (Pacific)	Nickel	Early	Mar-07	Lakeside Industries	Nov-08	97
SR 509/I-5/SeaTac to I-5 (King)	TPA	Late[7]	Jun-06	Tri-State Construction, Inc.	Jun-09	344

WSDOT's Capital Project Delivery Programs

Advertisement Record

Sixty-Nine Projects in Construction Phase as of June 30, 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-5/SR 502 Interchange - Build Interchange (Clark)	Nickel	√	Dec-06	Kerr Contractors	Jun-09	28,394
I-90/Two Way Transit - Transit and HOV Improvements (King)	TPA	Late[8]	Oct-06	Max J. Kuney Co.	Aug-09	28,532
SR 9/Schloman Rd to 256th St NE - New Alignment (Snohomish)	Nickel	Late[9]	Jan-07	Scarsella Bros.	Sep-09	10,748
SR 9/252nd St NE Vicinity - Add Turn Lane (Snohomish)	Nickel	Late[10]		For construction efficiencies, this project was combined with the one above.		
SR 9/268th St Intersection - Add Turn Lane (Snohomish)	Nickel	Late[11]		For construction efficiencies, this project was combined with the one above.		
SR 20/Fredonia to I-5 - Add Lanes (Skagit)	Nickel	√	Nov-06	Scarsella Bros.	Oct-09	15,139
I-405/NE 10th St - Bridge Crossing (King)	TPA	Early	Sep-06		Dec-09	
• I-405/NE 10th St Bridge Crossing (King)	TPA		Sep-06	City of Bellevue	Apr-08	
I-5/Rush Rd to 13th St - Add Lanes (Lewis)	Nickel	√	Mar-07	Scarsella Bros.	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 construction efficiencies, this project was combined with the one above.		
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 construction efficiencies, this project was combined with the one above.		
I-405/SR 181 to SR 167 - Widening (King)	TPA	Early	Feb-07		Jun-10	
• I-405/Springbrook Creek Wetland and Habitat Mitigation Bank (King)	TPA		Aug-06	Scarsella Bros.	Dec-08	12,539
SR 520/W Lake Sammamish Parkway to SR 202, Stage 3 - Widening (King)	Nickel	Late[12]	Jan-07		Dec-11	
• SR 520/W Lake Sammamish Pkwy. to SR 202 - Flyover Ramp (King)	Nickel		Jan-07	Tri-State Construction	Dec-07	9,988
Quarter Ending June 30, 2007						
US 2/Pickle Farm Road and Gunn Road - Add Turn Lanes (Snohomish)	Nickel	Late[13]	Apr-07	Wilder Construction Company	Sep-07	669
US 101/Mt Walker - Add Passing Lane (Jefferson)	TPA	Late[14]	Apr-07	Lakeside Industies	Oct-07	1,496
SR 25/Spokane River Bridge - Upgrade Bridge Rail (Lincoln, Stevens)	Nickel	√	May-07	Frank Gurney, Inc.	Nov-07	502
SR 25/Columbia River Bridge - Upgrade Bridge Rail (Stevens)	Nickel	√		For construction efficiencies, this project was combined with the one above.		
I-90/Latah Creek and Lindeke St Bridges - Upgrade Bridge Rail (Spokane)	Nickel	√	Jun-07	(Award pending)	Nov-07	

WSDOT's Capital Project Delivery Programs

Advertisement Record

Sixty-Nine Projects in Construction Phase as of June 30, 2007

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

Project Description	Fund Type*	On-Time Advertised	Ad Date	Contractor	Operationally Complet Date	Award Amount
Adams and Franklin Co - Roadside Safety Improvements (Adams, Franklin)	TPA	Late[15]	Jun-07	Frank Gurney	Nov-07	2,039
Whitman and S Spokane Co - Roadside Safety Improvements (Spokane, Whitman)	TPA	Late[16]		For construction efficiencies, this project was combined with the one above.		
SR 260,263, and 278 - Upgrade Guardrail (Franklin, Spokane, Whitman)	Nickel	Late[17]		For construction efficiencies, this project was combined with the one above.		
SR 116/SR 19 to Indian Island - Upgrade Bridge Rail (Jefferson)	Nickel	Late[18]	May-07	Petersen Brothers, Inc	Dec-07	368
US 12/Wynoochee River Bridge - Upgrade Bridge Rail (Grays Harbor)	Nickel	Late[19]	Jun-07	(Award Pending)	Mar-08	
US 101/Quinault River Bridge - Upgrade Bridge Rail (Grays Harbor)	Nickel	Late[20]	Jun-07	(Award Pending)	Mar-08	
SR 105/Johns River Bridge - Upgrade Bridge Rail (Grays Harbor)	Nickel	Late[21]	Jun-07	(Award Pending)	Mar-08	
SR 167 HOT Lanes Pilot Project - Managed Lanes (King)	TPA	Early[22]	Mar-07	Signal Electric Inc.	Aug-08	7,087
US 2/Fern Bluff to Sultan Startup - Stormwater Drainage Improvements (Snohomish)	TPA	√	Jun-07	Pacific Road & Bridge Co.	Dec-08	391
US 2/10th St Intersection Vicinity - Stormwater Drainage Improvements (Snohomish)	TPA	√		For construction efficiencies, this project was combined with the one above.		
SR 542/Boulder Creek Bridge - Replace Bridge (Whatcom)	TPA	Late[23]	Apr-07	Pacific Road & Bridge Co.	Dec-08	3,749
SR 509/SR 518 Interchange - Signalization and Channelization (King)	TPA	Early	Apr-07	Tri State Construction, Inc.	Apr-09	26,631
SR 518/SeaTac Airport to I-5 - Eastbound Widening (King)	TPA	√		For construction efficiencies, this project was combined with the one above.		
SR 20/Quiet Cove Rd Vicinity to SR 20 Spur - Widening (Skagit)	Nickel	√	May-07	Marshbank Construction, Inc.	Oct-09	6,129

	On-Time Advertised	Award Amount
Totals Current Quarter June 30, 2007)	**47%**	**49,061**
10 Nickel Project	40%	7,668
9 TPA Projects	56%	41,393
Totals Biennium to Date (2005-07)	**64%**	**610,448**
32 Nickel Projects	56%	276,097
27 TPA Projects	74%	334,351
Totals Cumulative to Date (Projects Underway)	**68%**	**1,204,754**
40 Nickel Projects	63%	666,403
29 TPA Projects	76%	538,351

Data Source: WSDOT Project Control and Reporting Office
*As established by the 2005 Legislative Evaluation and Accountability Program (LEAP) committee. However, dollars shown are for all fund types, not just Nickel or Transportation Partnership Account funds.
**Indicates project is on the Watch List

WSDOT's Capital Project Delivery Programs

Advertisement Record

Project Details

[1]Right-of-Way acquisition delay.
[2]Right-of-way and environmental permitting issues.
[3]The advertisement of this project was delayed due to environmental permitting issues and the need for redesign to stay within budget after geological conditions, right-of-way cost increases, and Corps of Engineers mitigation negotiations.
[4]Delay is due to unresolved utilities issues.
[5]Advertisment date was delayed due to environmental permitting issues.
[6]Advertisement date delay due to Right of Way acquisition delay.
[7]The 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.
[8]Ad date was delayed due to environmental permitting issues.
[9]Advertisement date was delayed due to environmental permitting issues.
[10]Advertisement date was delayed due to environmental permitting issues.
[11]Advertisement date was delayed due to environmental permitting issues.
[12]Advertisment delay to address design deviations and late addition of consultant staff to ensure timely delivery of the project.
[13]Advertisement delay to address design deviations and late addition of consultant staff to ensure timely delivery of the project.
[14]Advertisement was delayed for possible redesign of structural elements. Determination was made that redesign is not necessary and the project was advertised in 4/07.
[15]Advertisement date delay due to the delay in completing Cultural Resource survey and environmental permits.
[16]Advertisement date delay due to the delay in completing Cultural Resource survey and environmental permits.
[17]Advertisement date delay due to the delay in completing Cultural Resource survey and environmental permits.
[18]Advertisement delay due to DAHP (Historic Preservation) review required for this project.
[19]Advertisment date changed to balance with Nickel Bridge Rail retrofit allocation.
[20]Advertisement date changed to balance with Nickel Bridge Rail retrofit allocation.
[21]Advertisement date changed to balance with Nickel Bridge Rail retrofit allocation.
[22]The Toll Vendor RFP was advertised in August 2006. The Civil Contract was advertised in March 2007. All sebsequent bids were rejected. The contract was readvertised in May 2007.
[23] Advertisement date delay due to time required to analyze alternative bridge footings, which delayed environmental review and permitting process.

WSDOT's Capital Project Delivery Programs

Projects to be Advertised

Twenty-Three Projects In Delivery Pipeline for July 1, 2007 through December 31, 2007

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
I-5/Lexington Vicinity - Construct New Bridge (Cowlitz)	Nickel	Jan-08	Jul-07	Advanced	5,000	5,000
US 2 and SR 92 - Roadside Safety Improvements (Snohomish)	TPA	Apr-07	Aug-07	Delayed [1]	1,200	1,200
US 2/US 97 Peshastin E - New Interchange (Chelan)	Nickel	Sep-07	Sep-07	√	17,548	21,573
SR 4/Svensen's Curve (Wahkiakum)	Nickel	Jan-06	Sep-07	Delayed [2]	7,838	1,637
SR 515/SE 182nd St to SE 176th St Vicinity - Construct Traffic Island (King)	TPA	Mar-07	Sep-07	Delayed [3]	1,080	2,202
I-5/Grand Mound to Maytown Stage One - Add Lanes (Thurston)	Nickel	Oct-07	Oct-07	√	76,206	87,815
SR 503/Gabriel Rd Intersection (Clark)	TPA	Apr-07	Oct-07	Delayed [4]	877	441
SR 823/Goodlander to Harrison Rd - Build Sidewalk (Yakima)	TPA	Mar-07	Oct-07	Delayed [5]	765	1,106
SR 99/N of Lincoln Way - Construct Sidewalks (Snohomish)	TPA	Oct-07	Oct-07	√	1,303	1,443
SR 241/Rattlesnake Hills Vicinity - Roadside Safety (Benton, Yakima)	TPA	Jun-07	Oct-07	Delayed [6]	1,665	2,170
SR 410 and SR 164 - Roadside Safety Improvements (King)	TPA	Oct-07	Oct-07	√	1,200	1,200
SR 522/University of Washington Bothell - Build Interchange (King)	TPA	Mar-06	Oct-07	Delayed [7]	30,120	40,732
US 12/Naches River N of Yakima - Stabilize Slopes (Yakima)	TPA	Jun-06	Oct-07	Delayed [8]	2,162	2,984
SR 902/Medical Lake Interchange - Intersection Improvements (Spokane)	TPA	Oct-06	Oct-07	Delayed [9]	600	726
US 12/Frenchtown Vicinity to Walla Walla - Add Lanes (Walla Walla)	TPA	Nov-06	Oct-07	Delayed [10]	50,473	66,465

WSDOT's Capital Project Delivery Programs

Projects to be Advertised

Twenty-Three Projects In Delivery Pipeline for July 1, 2007 through December 31, 2007

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 900/SE 78th St Vic to I-90 Vic - Widening and HOV (King)	Nickel	Nov-07	Nov-07	√	34,304	40,846
US 12/Clemons Rd Vicinity - Intersection Improvements (Grays Harbor)	TPA	Nov-06	Nov-07	Delayed [11]	2,711	3,366
SR 410/Rattlesnake Creek - Stabilize Slopes (Yakima)	TPA	Nov-07	Nov-07	√	281	359
SR 539/Tenmile Road to SR 546 - Widening (Whatcom)	Nickel	Oct-07	Nov-07	√	85,577	134,474
SR 24/SR 241 to Cold Creek Rd - Add Passing Lanes (Benton, Yakima)	TPA	Oct-07	Dec-07	√	4,268	5,145
SR 9/176th St SE Vicinity to SR 96 - Add Signal and Turn Lanes (Snohomish)	Nickel	Dec-07	Dec-07	√	5,942	6,186
SR 9/Marsh Rd Intersection - Safety Improvements (Snohomish)	TPA	Apr-08	Dec-07	Advanced	4,145	4,762
SR 9/SR 96 to Marsh Rd - Add Lanes and Improve Intersections (Snohomish)	TPA	Jan-10	Dec-07	Advanced	123,000	40,833
Total (July 1, 2007, through December 31, 2007)				**52%**	**$458,265**	**$472,665**
7 Nickel Projects				86%	$232,415	$297,531
16 TPA Projects				38%	$225,850	$175,134

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

Project Details

[1]Advertisement date delayed due to permitting issues and the need for right-of-way easement in some sections of the national forest service lands. Also due to the weather conditions (snow) that prevented biologists from delineating wetlands and surveying of these areas.
[2]Advertisement date delay due to right-of-way issues. 2007 Legislature provided for low cost enhancements in 2007-2009 biennium.
[3]Advertisement date delay due to utility relocation issues
[4]Advertisement date delay due to right-of-way costs and lowered accident potential. 2007 Legislature provided for low cost enhancements in 2007-2009 biennium.
[5]Advertisement date delayed to accommodate the lengthened project schedule necessary to acquire numerous right-of-way parcels.
[6]Advertisement date delay due to environmental permitting issues.
[7]Advertisement date delay due to environmental permit issues. The project was originally advertised in January, 2007 and then pulled from ad due to budget constraints. The project will be re-advertised in October, 2007.
[8]Advertisement date delay due to the delay to an unanticipated slow approval process of the environmental permits.
[9]Advertisement date delayed to better align with adjacent local county projects.
[10]Project advertisement was delayed to modify a portion of the proposed U.S. 12 alignment in order to accommodate the cultural and historical preservation of Frenchtown and due to additional work associated with the Pine Street Interchange.
[11]Baseline was originially shown incorrectly. Correct current baseline for ad is 11/07.

WSDOT's Capital Project Delivery Programs

Selected Capital Project Delivery Highlights

CONSTRUCTION HIGHLIGHTS

SR3/SR106 South Belfair Signal – Safety (Mason)
This project installed a signal at the intersection of SR 3 and SR 106, providing a left-turn lane and right-turn pockets on both state routes. As a result, the intersection is safer and reduces delays for merging traffic.

This project was awarded in December 2006 at 8.8 % over the WSDOT estimate. It was completed May 16, 2007, on time and delivered within the budget.

SR7/SR507 to SR512 – Safety (Pierce)
The project improves traffic flow along SR 7 by constructing curbs, sidewalks and road approaches along the entire corridor. Other safety improvements include new signals and improved highway illumination.

This safety project was awarded in September 2005. Now 95% complete, it is on budget and expected to be completed by July 31, 2007.

US 12/40th Avenue Interchange Improvements (Yakima)
This project added a second eastbound on-ramp to US 12, relieving congestion at this major choke point in the Yakima area. Bicycle and pedestrian access to the Yakima Greenway trail were also improved.

This project was completed May 30, 2007, under budget and five months ahead of schedule.

SR 24/I-82 to Keys Road – Add Lanes (Yakima)
This project widened SR 24 by adding one lane in each direction from I-82 to Riverside Road and also modifed the interchange, providing a new four-lane bridge over the Yakima River, and thus replacing the existing bridge.

This $52 million project to relieve congestion and improve safety was completed six months ahead of schedule. The only significant work remaining is the demolition of a bridge that is no longer on the roadway alignment. Currently, the project is expected to be completed on budget, though final project cost will be verified once this work is finished.

SR 165/Carbonado Vicinity - Upgrade Guardrail (Pierce)
This project replaced outdated sections of beam and cable guard-rails with new beam guardrails, pre-cast concrete barriers, and updated guardrail ends. Wooden bridge rails were upgraded to meet current standards.

This project was awarded in December 2006 within 2% of the WSDOT estimate, and completed May 31, 2007, on time and delivered within budget. The project provides a safer roadway and eliminates existing maintenance problems.

SR 240/I-82 to Richland Y – Add Lanes (Benton)
SR 240/Richland Y to Columbia Center Interchange – Add Lanes
These two projects together provide additional lanes on SR 24 and a modern roundabout. The U.S. Department of Energy's Hanford site is now linked with I-82. WSDOT celebrated the completion of the project on June 7th in a ribbon cutting ceremony.

The work was completed under a single contract valued at $58 million, on budget and five months ahead of schedule.

I-5, Rush Road to 13th Street (Lewis)
This project widens four miles of I-5 between Rush Road and 13th Street in Lewis County. Also, a new interchange will be constructed at LaBree Road.

This project was awarded at 1.5% under the Engineer's Estimate in May 2007. The project is currently on schedule. A ground breaking ceremony took place on July 3, 2007.

WSDOT's Capital Project Delivery Programs

"Watch List" Projects - Cost and Schedule Concerns

Watch List Summary

New to the Watch List	Project Type	Watch List Issue
SR 11/I-5 Interchange & Josh Wilson Rd - Rebuild Interchange	Highway	Environmental costs
SR 9/SR 522 to 228th Street S.E., Stages 1a and 1b – Add Lanes	Highway	Design, Environmental
SR 9/228th Street S.E. to 212th Street S.E. (SR 524), Stage 2 – Add Lanes	Highway	Design, Environmental
SR 9/Lake Stevens Road to 20th Street S.E. – Improve Intersection	Highway	Budget
SR 520/West Lake Sammamish Parkway to SR 202, Stage 3 – Widening	Highway	Cost increase, contract preparations
SR 900/SE 78th Street Vicinity to I-90 Vicinity – Widening and HOV	Highway	Design, cost increase
Blaine – Customs Facility Siding	Rail	Funding availability
Bellingham – Waterfront Restoration	Rail	Budget
Tacoma Rail & Puget Sound and Pacific RR – Reconfigure Rail Phase 1A	Rail	Third party agreement
Tacoma Rail & Puget Sound and Pacific RR – Reconfigure Rail Phase 1B	Rail	Third party agreement
Updated Since March 31, 2007	**Project Type**	**Watch List Issue**
SR 539/Tenmile Road to SR 546 – Widening	Highway	Environmental costs
SR 522, I-5 to I-405 Multimodal Project (King)	Highway	Utility relocations
SR 241, Rattlesnake Hills Vic-Roadside Safety	Highway	Right of way acquisition
SR 285, George Sellar Bridge-Additional EB Lane (Douglas)	Highway	Right of way acquisition
SR 28, East End of the George Sellar Bridge-Construct Bypass (Douglas)	Highway	Design cost increases
I-5/Grand Mound to Maytown (Thurston)	Highway	Environmental costs
US 12/SR 124 Intersection – Build Interchange (Walla Walla)	Highway	Property acquisition
US101/Purdy Creek Bridge Replacement (Mason)	Highway	Design, environmental documentation
SR109/Moclips River Bridge – Replace Bridge (Grays Harbor)	Highway	Design, environmental documentation
SR 500, Saint John's Boulevard – Build Interchange (Clark)	Highway	Fish passage barrier, budget
U.S. 395/NSC – Frances Ave to Farwell Road – New Alignment (Spokane)	Highway	Third party agreement
SR 515/SE 182nd Street to SE 176th Street Vicinity - Construct Traffic Island (King)	Highway	Advertisement delays
SR 516/208th and 209th Avenue SE - Add Turn Lanes (King)	Highway	Utilities relocation
SR 167 / 8th Street East Vicinity to S. 277th Street Vicinity - Southbound Managed Lane (King/Pierce)	Highway	Refining estimate, environmental costs
Eagle Harbor Maintenance Facility (Kitsap)	Ferries	Litigation
Mukilteo Multimodal Ferry Terminal (Snohomish)	Ferries	Increased costs, contingencies
New 144-Auto Ferry Project	Ferries	Multiple party contract negotiations
Mount Vernon – Siding Improvements (Skagit)	Rail	Access, environmental costs
Stanwood - Commuter Rail Station; Siding Upgrades (Snohomish)	Rail	Project Scope, budget, federal approval
Vancouver - Rail Bypass and West 39th Street Bridge (Clark)	Rail	Increased contingencies
White Swan/Toppenish - Yakama Sawmill Traffic Upgrades	Rail	Third party agreement
Removed from Watch List	**Project Type**	**Watch List Issue**
SR 20/Quiet Cove Road Vicinity to SR 20 Spur – Widening (Skagit)	Highway	Advertisment delays. Right of Way issue was resolved
I-405, I-5 to SR 169 Stage 1 – Widening (King)	Highway	Budget. Funding increase from legislature results in the removal of project from watch list

"Watch List" Projects - Cost and Schedule Concerns

Removed from Watch List	Project Type	Watch List Issue
Anacortes Multimodal Terminal (Skagit)	Ferries	Rising Costs, advertisement delays. Changes to scope, schedule and budget are being made to this project
System-wide Catch-Up Preservation (Skagit, San Juan, King)	Ferries	Weather delays, rising costs. Budget overruns will be accommodated by deleting work of lower priority scheduled for the 2011-2013 biennium
Keystone Ferry Terminal (Island)	Ferries	Environmental permitting. Environmental issues are being managed with Whidbey Island
Port Townsend Ferry Terminal (Jefferson)	Ferries	Environmental permitting. Environmental issues are being managed with Port Townsend
Everett – Curve Realignment and Storage Tracks (Snohomish)	Rail	Third party permit acquisition. WSDOT is managing the delay in BNSF obtaining weland permit
Palouse River and Coulee City RR - Acquisition and Rehabilitation (Grant, Lincoln, Spokane, Whitman	Rail	Securing operating partner. WSDOT selected US Rail to operate the CW branch and Washington & Idaho Railroad to operate the P&L Branch
Geiger Spur/Airway Heights - New Rail Connection (Spokane)	Rail	Negotiations with county. WSDOT and Spokane County are close to signing an agreement to allow the project to move forward

New to Watch List this Edition

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

This project rebuilds the alignment of the northbound ramps, increasing the acceleration distance for north bound traffic merging with I-5 and reconstructs both the northbound and southbound ramp termini as roundabout intersections.

This project is currently $1 million over budget because additional property has to be acquired and developed to mitigate the larger wetland impact. This larger impact was caused when the previous property owner ceased his efforts to reduce the wetland area in 2006. After the land returned to its natural state over the winter, the May 2007 delineation of the wetland expanded to 2 ½ acres from the original 2006 delineation of 1,660 square feet (0.04 acre). The project is on schedule to be completed in Winter 2011.

SR 9/SR 522 to 228th Street S.E., Stages 1a and 1b – Add Lanes (Snohomish)

SR 9/228th Street S.E. to 212th Street S.E. (SR 524), Stage 2 – Add Lanes (Snohomish)

These projects widen and enhance safety on 1.8 miles of congested state highway by adding lanes and installing new guardrails and median barriers.

The contractor has identified potential costs associated with design errors and omissions, and with material cost increases. However, WSDOT is confident these impacts can be mitigated and negotiated to keep costs within the project's current $29.8 million construction budget.

Due to the presence of abundant ground water and nearby environmentally sensitive areas, WSDOT seeks to reduce environmental costs by advancing the completion date to Fall 2007, thus avoiding the cost of temporary dewatering and erosion control measures if construction activities contin-

"Watch List" Projects - Cost and Schedule Concerns

ued during the winter season. WSDOT and the contractor are exploring alternatives to reduce costs, construction time, and water runoff impacts to adjacent streams and wetlands.

SR 9/Lake Stevens Road to 20th Street S.E. – Improve Intersection (Snohomish)
This project will add north and south bound lanes, left and right-turn lanes and improve traffic flow along SR 9, and is on schedule to be completed in Fall 2009.

However, WSDOT and Snohomish County Public Works estimate that the construction cost for this project may be $700,000 over the currently approved budget. The County recently completed their 30 percent design review and identified a potential construction budget shortfall. WSDOT has scheduled a Value Engineering and Cost Risk Assessment (CRA) study for July to validate the estimate and identify potential cost savings.

SR 520/West Lake Sammamish Parkway to SR 202, Stage 3 – Widening (King)
This project will widen SR 520 to eight lanes between the West Lake Sammamish Parkway and the SR 202 interchange to help relieve traffic congestion, and is on schedule to be Operationally Complete in Winter 2011.

However, WSDOT estimates this project may cost $5.8 million more than the $86.7 million authorized in the 2007 Transportation Budget. This estimate is based on the results from an updated Cost Risk Assessment (CRA) completed in May 2007 which identified errors that were made in the baseline estimate used during the 2006 CRA. Contract preparation costs were underestimated by $3.4 million and construction costs for bridge structures, drainage, traffic control, and temporary erosion control measures were underestimated by $2.4 million. WSDOT is reevaluating the 2005 Value Engineering study cost savings recommendations. A cost estimate update is expected next quarter.

SR 900/SE 78th Street Vicinity to I-90 Vicinity – Widening and HOV (King)
This project will widen SR 900, and provide standard full depth shoulders for the I-90 westbound off-ramp to improve traffic flow and safety. It will also add turn lanes to improve intersection traffic flow, and remove fish barrier culverts.

WSDOT's use of new laser imaging revealed evidence of a historic slide area within this project's limits. The slide was not previously identified using conventional soil boring and analysis. WSDOT is weighing options for containing the slide, which may include redesigning the retaining walls and delaying the advertisement date to the first quarter of 2008 from November 2007. A secondary impact from any delays in the slide area is the possibility that stormwater treatment may need to be upgraded to meet more stringent environmental permitting requirements. Alternative options are being considered that would allow WSDOT to proceed in November 2007 to keep the project on schedule.

Rail

Blaine – Customs Facility Siding (Whatcom)
This project will increase rail line capacity at the Swift Customs Facility by building a new siding to keep trains off the main line while they are being inspected by Customs.

This was originally scoped as a $9 million project with funding to come from federal, state and local sources. The local funding has not materialized and WSDOT and BNSF are in discussion to update the scope of the project to stay within the $6 million available budget. Final design is anticipated to begin in August 2007, with construction to start in July 2008. The project is on schedule for completion in June 2009.

Bellingham – Waterfront Restoration (Whatcom)
This project will relocate the Burlington Northern Santa Fe (BNSF) mainline near Bellingham's central waterfront to allow redevelopment of the area from industrial land use to commercial and residential. The current estimated cost for the track relocation is approximately $11 million, which is more than double the funds that have been budgeted. Additionally, preliminary indications of ancient fishing activities have been discovered by the City. WSDOT will work with the City to track progress of the project and propose adjustments to the project in the 2008 Supplemental Budget.

Tacoma Rail & Puget Sound and Pacific RR – Reconfigure Rail Phase 1A (Lewis)
This phase is one of six parts of the larger project and will make a new connection between Tacoma Rail and Puget Sound & Pacific Railroad at Blakeslee Junction. In addition, the project includes refurbishment of the Skookumchuck Bridge; reconfiguration of the Centralia yard to create a passing track and improve speed to 20 miles per hour at the Y intersection; installation of a centralized traffic control from BNSF to Blakeslee Junction; and reconfiguration of BNSF signal spacing on Napavine Hill (south of Chehalis).

"Watch List" Projects - Cost and Schedule Concerns

An agreement signed in January 2007 between the State and Tacoma Rail required a "Trackage Agreement" to be in place between Tacoma Rail and Puget & Pacific, and also between Tacoma Rail and BNSF. The first was quickly obtained but the latter has not been forthcoming. Talks continue between BNSF, WSDOT, and Tacoma Rail. The project, in its current form, cannot move forward without the agreement.

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 includes right-of-way acquisition. The project cost is estimated at $7.5 million to $8.4 million, not including the acquisition of right-of-way. However, the Legislature only provided $5.4 million to complete this project. Additionally, the project scope is under discussion with the stakeholders of the project and WSDOT to determine options for moving forward with the project.

Updated Since March 31, 2007

SR 539/Tenmile Road to SR 546 – Widening (Whatcom)
This project will add one lane in each direction from Ten Mile Road to SR 546 near Lynden to reduce congestion and improve safety. The project includes a study to determine the best of two alternatives to improve traffic flow.

This project's schedule is still at risk due to delays in locating an acceptable open water site to mitigate the project's impact on Wiser Lake. Because of the delay, WSDOT was not able to submit associated environmental permit applications until April 2007. Although WSDOT is working closely with the permitting agencies, there is a high risk that WSDOT will not receive the permit approvals in time to advertise this project by the end of 2007. A delayed advertisement to the first quarter of 2008 should not impact the planned Fall 2009 completion date. The $16 million cost increase reported in the December 2006 *Gray Notebook* has been resolved in the 2007-2009 Legislative Budget.

SR 522, I-5 to I-405 Multimodal Project (King)
This project will provide pedestrian enhancements, a transit signal in the City of Lake Forest Park, and replace a two-way, left-turn lane with a raised median.

Utility relocation delays have impacted the project's construction schedule. Some cost risk still remains from the delayed utility relocations and contract schedule conflicts. WSDOT is exploring ways to mitigate the schedule delay. Possibilities include allowing the contractor to work longer shifts and on weekends to recover time; or allowing daytime closures to accelerate completion of construction work activities. The completion date is slated for the end of 2007.

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

WSDOT has delayed the advertisement of this project to October 8, 2007. The delay does not affect the completion date of August 1, 2008. Right-of-way is being purchased from the Bureau of Land Management (BLM) within the realignment portion of the project. BLM must complete an environmental assessment prior to selling their property, an additional step to WSDOT's normal environmental process, and the cause of the delay. An extended delay by BLM could result in a further delay of the advertisement.

SR 285, George Sellar Bridge-Additional EB Lane (Douglas)
This project will provide an additional eastbound lane is 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 right-of-way and the need to do more extensive construction not originally included in the design. The re-design will provide structural support for bridge inspection vehicles. Preliminary estimate indicates the total project cost of $10.9 million will likely increase by approximately $2.3 million in order to complete the project.

SR 28, East End of the George Sellar Bridge-Construct Bypass (Douglas)
This project will ease heavy congestion and traffic delays on the bridge. This construction phase is currently funded at $10.3 million. As WSDOT refines the design, it is likely that the construction estimate will increase by as much as $2.6 million. WSDOT is in the process of refining the design and assessing potential risk. The total increase is not known at this time and will be updated in the next *Gray Notebook*.

"Watch List" Projects - Cost and Schedule Concerns

I-5/Grand Mound to Maytown (Thurston)
This project adds one additional northbound and southbound lane. In addition to these improvements, construction will replace several bridges, improve a rest area, and extend both on and off-ramps for safety.

Numerous hydraulic and environmental issues have been discovered during the collection of field information for the bridge structures and have the potential to delay this project's schedule and increase the budget. WSDOT is evaluating the impacts and researching strategies to stay on schedule and within budget. Project design is currently 80% complete.

US 12/SR 124 Intersection – Build Interchange (Walla Walla)
This project constructs a new interchange and a bridge to replace two existing intersections.

Work on the project design phase continues, but any delay in locating and acquiring suitable replacement property for a land exchange could result in further delay of the project. Recent communication with U.S. Fish and Wildlife Service (USFWS) indicates the land exchange might be approved at their Regional level instead of requiring Congressional approval.

WSDOT estimates the current cost to complete the project is $25.9 million, which is the approved 2007-2009 Transportation Budget. Although WSDOT is within the current budget, the Cost Risk Assessment (CRA) has identified a risk that may increase the project cost by $10 to $12 million. This increase could occur if the Department is required to modify the design and environmental documentation to accommodate local community concerns over highway access.

US 101/Purdy Creek Bridge Replacement (Mason)
The project will eliminate closures at this location on US 101 due to flooding. It will replace the existing timber structure with a three-span concrete girder bridge on an elevated grade. Advertisement is scheduled for January 2008.

Challenges reported last quarter continue with preparation of the traffic design, engineering design and environmental documentation for this project. Any delay will further increase the right-of-way phase risk. By addressing the environmental commitments and potential geotechnical issues, the project is estimated to be $1.2 million over budget. However, the project is scheduled to go to advertisment in January 2008.

SR 109/Moclips River Bridge – Replace Bridge (Grays Harbor)
This project will replace the existing bridge, which will eliminate the need for continual maintenance and the associated environmental impacts. Over time, the river has changed directions, and gravel was deposited as the river slows due to the existing bridge. The river mechanics and the associated bridge design process has resulted in significant delays to the project design, environmental documentation and permitting process, as well as the construction. Alternatives continue to be evaluated.

With no local roads available for a detour, another significant challenge is to develop a detour route for the 1,500 vehicles per day that cross the bridge. The project is currently scheduled for advertisement in February, 2008.

SR 500, Saint John's Boulevard – Build Interchange (Clark)
This project will replace the current signalized intersection with a freeway-style interchange. The intersection of SR 500 and Saint John's Boulevard is classified as a high collision location. Constructing the new interchange will reduce the frequency of collisions, greatly improving safety for motorists. The project is on schedule for advertisement in the Spring of 2009.

While the $48 million provided by the 2007-09 Legislative budget for this safety improvement project covers the cost of a new interchange, it does not cover the $4 million cost of replacing a culvert. The old culvert was recently discovered to be an obstacle to the movement of fish in Burnt Bridge Creek. Removal of this fish passage barrier, which is within the project limits but outside the right-of-way of SR 500, will have significant environmental benefits. The magnitude of the work exceeds the budget plan of WSDOT's environmental retrofit program. A source of funding for the $4 million improvement has not yet been identified.

U.S. 395/NSC – Frances Ave to Farwell Road – New Alignment (Spokane)
The project's schedule has been affected by the delay in receiving design approval from Burlington Northern Santa Fe (BNSF) for the new railroad tunnel design.

The first and second contracts are completed; the third and fourth contracts are underway; and the fifth contract was awarded in May 2007, with construction beginning in October 2007. A tentative agreement was reached in June when the Region resolved with BNSF all outstanding railroad tunnel design issues. Assuming the agreement with BNSF is finalized in July 2007, the sixth contract could be advertised in Septem-

"Watch List" Projects - Cost and Schedule Concerns

ber 2007. However, if the Advertisement date is further delayed, then there is added risk to meet the completion date in March 2009.

SR 515/SE 182nd Street to SE 176th Street Vicinity - Construct Traffic Island (King)
This project improves safety by replacing an existing two-way, left-turn lane with a traffic island and U-turn pockets around the SE 176th Street/Carr Road intersection. The signal and illumination at this intersection will also be upgraded. This project was combined with a paving project for construction efficiencies.

This project has been successfully redesigned to eliminate utility conflicts resulting from the recent discovery of existing utility easements within the acquired property, and within the existing right-of-way. As a result, the project costs will stay within the 2007 Legislative Budget. Utility problems and the redesign have delayed the Advertisement date to late Summer 2007. All issues on this project have been resolved by the extensive design revisions.

SR 516/208th and 209th Avenue SE - Add Turn Lanes (King)
This project constructs turn lanes and a bus pull-out on SR 516. Improvements in drainage, illumination, signing, paving, and landscaping are additional benefits on this project.

Slow relocation of utilities and subsequent heavy rains delayed project completion from 2006 to Fall 2007. Construction costs increased as a result of the delay. The contractor and WSDOT are negotiating to determine the exact cost of the delay and work resumed on this project. The only task left to complete is the final signing of the project.

SR 167 / 8th Street East Vicinity to S. 277th Street Vicinity - Southbound Managed Lane (King/Pierce) in 2007

Original title in 2005 and 2006: SR 167/SR 410 to 15th St SW - HOV (King/Pierce)
This project to widen SR 167 and add a new HOV lane for additional capacity was last updated in the March 2007 *Gray Notebook* regarding a cost issue for culvert replacements. WSDOT continues to assess the situation for the most cost effective mitigation.

The original project's title included construction of both northbound and southbound managed lanes. The scope was first changed on this project when the project's limits, set by the original title, were revised through the 2007 Legislature to better align with the funding.

Another scope clarification will be presented at the 2008 Legislative session. The southbound lane can be constructed within the current budget of $80 million and will provide needed congestion relief and safety improvements. This lane would connect the existing HOV Lane from the current terminus to 8th Street East in Pierce County. Part of this scope revision involves postponing the construction of the northbound lane, which would require additional funding in the future.

WSDOT is continuing to refine the estimate for project components. Future updates will report on the high risk items that are impacting scope and budget, including the number of culverts that present barriers to fish passage and which may need to be replaced, the need to retrofit a bridge in the SR 18 interchange for seismic liquefaction, and the need for HOV bypasses at on-ramps.

Ferries

Eagle Harbor Maintenance Facility (Kitsap)
The second phase of this project, constructing the maintenance building and dock rehabilitation and the Slip E bridge structure, is currently delayed due to pending litigation with the City of Bainbridge Island.

The first court day was held in February 2007 and a ruling is expected by November 2007. The Advertisement date is postponed approximately one year while the case is being resolved. The project is currently estimated to need an additional $3 million due to materials escalation, project delays, and other costs related to the litigation.

WSDOT is examining various options, such as design changes, or moving funds from other projects, to mitigate the increase.

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 and conflicts.

The cost estimates have been updated recently and predict substantial increases for both alternatives currently being evaluated. The cost estimates range from $222 million to $311 million. The increase is mainly due to poor soil conditions requiring deeper piling, the decision not to use hollow core concrete piles

"Watch List" Projects - Cost and Schedule Concerns

because of seismic performance, additional contingencies for Tribal settlements, and additional inflation to account for the delays in the project. WSDOT is evaluating alternatives to try and bring the project costs down.

This project is subject to the new Legislative requirements mandated in ESHB 2358 to study ridership and market needs of the ferry system 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. For more information, please see the March 31, 2007 *Gray Notebook*.

New 144-Auto Ferry Project

This project builds four (4) new 144-Auto Ferries using the modified Design/Build Request for Proposal (RFP) process required by RCW 47.60.810 – 822. Major machinery items, such as engines and diesel generators, are being purchased by separate contracts, to be provided to the shipyards as owner-furnished equipment. The Design/Build RFP is currently delayed by legal action impacting schedule and budget. However, as a result of SHB 2378, the shipyards have provided a Notice of Intent to submit a joint/single proposal for the Design/Build Contract which may mitigate some, if not all, of the current legal action. Following contract negotiations and approval of their yet-to-be-prepared technical proposal, a sole source price negotiation should result in a contract award in January 2008. The current budget does not account for recent project delays or expectations that the shipyards will add contingencies to their sole source price to cover their perception of risk in the joint/single proposal.

Rail

Mount Vernon – Siding Improvements (Skagit)

This project will extend the existing siding to allow full-length freight trains and Amtrak Cascades trains to pass.

Delays to the schedule are resulting from the proposed closure of Hickox Road. As previously reported, costs for mitigating the Hickox Road closure, wetland mitigation, and rail control signals put the $3.8 million budget at risk. However, BNSF has determined they will fund costs above the $3.8 million budget.

As previously reported, the proposed closure of the Hickox Road crossing was met with resistance from residents and officials from the City of Mount Vernon and Skagit County. BNSF Railway petitioned the Washington Utilities Transportation Commission (WUTC) to close the crossing in April 2007. The hearing for this petition is anticipated to be late August or early September 2007. Considering this timeline, the project will not begin construction before September 2007. Therefore, the project will not be completed before January 2008, requiring reappropriation of funds into 2007-09 from the 2005-07 biennium.

Stanwood - Commuter Rail Station (Snohomish)

The original intent of this project was to establish the station facilities needed for a temporary commuter rail service to alleviate I-5 HOV construction in Snohomish and King Counties. In late 2006, the project was changed to an Amtrak Cascades Station.

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 are beyond the scope for the 'Stanwood – Siding Upgrades' project, currently in design.

Increased costs and additional scope have delayed the project. In June, WSDOT and a private party reached agreement on the price for right-of- way needed for this project. Ninety percent of the design was completed in June; however, the design cannot be finalized until the Federal Rail Administration finishes their rulemaking process to set the height of new platforms.

Also, the preliminary cost estimate for the siding extension is $16 million above the currently funded upgrades. The additional funding for the extension is not included in the 2007-09 Transportation Budget. WSDOT is moving forward with the existing siding upgrades.

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

This project will improve schedule reliability and is part of the improvements for the 5th Amtrak Cascades round trip.

The design of the West 39th Street Bridge is 60 percent complete, and the cost estimate and schedule remain unchanged from the previous quarter. The Legislature approved an additional $5 million for previously reported inflation and other cost increases associated with the bridge portion of the project.

In addition, the rail design is now 30 percent complete. The current estimate indicates the project will be $11.8 million higher than what is currently funded, due to additional right-of-way, inflation now accounted for (that was not identified in the previous estimate), and raising the contingency from 25 percent

"Watch List" Projects - Cost and Schedule Concerns

to 30 percent. Due to the increased contingency included in the recent estimate, it is not known yet whether additional funds will be required.

White Swan/Toppenish - Yakama Sawmill Traffic Upgrades (TS&W Yakima Sawmill Traffic Upgrades (Yakima))
The existing Toppenish Simcoe & Western line will be upgraded for increased traffic from Yakama Tribe sawmill, supporting 225 jobs.

As previously reported, on-going negotiations between the Columbia Basin Railroad and Yakima County have delayed the completion beyond June 30, 2007. In June, WSDOT, Yakima County and the Railroad met and determined to re-examine the needs of the rail line. Future investments must consider changes to existing shippers and the needs of future shippers. WSDOT will consider options for the project and meet with the County in August to develop future proposals.

Removed from Watch List

SR 20/Quiet Cove Road Vicinity to SR 20 Spur – Widening (Skagit)
The risk to the schedule (due to septic tank relocations affecting right-of-way certification) described in the previous *Gray Notebook* was resolved in time to advertise the project in May. The project was awarded in June for $6.1 million.

The milestone for completing the project is set for Fall 2009.

SR 3, Belfair Bypass (Mason)
As reported last quarter, the $15 million originally allocated for this project is only a fraction of the estimated $65-100 million necessary to complete the project. When significant development occurs on the project in the future, updates will be reported in future editions of the *Gray Notebook*.

SR 3, Belfair Area (Mason)
As previously reported, design parameter changes by Belfair for the sewer utility that needed to be completed prior to the project would require changes in WSDOT's project cost and schedule. WSDOT scaled down the project to avoid wetland impacts, the need for additionaly right of way, and the relocation of existing utilities. The signal became operational on May 16, 2007.

I-405, I-5 to SR 169 Stage 1 – Widening (King)
This project will widen I-405 from I-5 to SR 167, add one lane southbound on SR 167 and extend the southbound SR 167 HOV lane to I-405. This project was awarded in June for $91.5 million, an increase of $4.3 million above the 2007 legislatively approved budget after sales tax and other additional costs are included. Savings realized on another I-405 project, 112th Ave S.E. to S.E. 8th Street - Widening, compensate for the increase. The project is scheduled for completion in Summer 2010.

Ferries

Anacortes Multimodal Terminal (Skagit)
The project will replace the existing terminal building, improve pedestrian and vehicle access and safety, add connections to other modes of transportation, and increase the services and amenities available at the terminal. As previously reported, the project's costs have escalated approximately $22 million above the 2006 estimate. The Legislature planned for this increase in the 16-year program identified in the 2007-09 Transportation Budget. However, construction of the project is delayed until 2009, pending completion of the processes required by ESHB 2358 and ESHB 1094. Further impacts on scope, schedule and budget are possible due to these new requirements (See write-up on new legislative requirements in March 31, 2007 *Gray Notebook*). The project team's goal is to maintain the current legislative budget, and they have identified cost reduction opportunities through a recent Value Engineering workshop.

System-wide Catch-Up Preservation (Skagit, San Juan, King)
The "Catch-Up Preservation" program addresses the backlog of deferred terminal preservation work. Projects in the current biennium include dolphin replacements at both the Lopez Island and Anacortes terminals. Due to site conditions, a floating concrete dolphin at Lopez was added to the scope of work, increasing the budget. Savings from the Tahlequah catch-up preservation project was used to partially offset the cost increase. The project was completed approximately eleven months behind schedule and approximately $600,000 over budget. Several weeks were lost due to stormy weather in November and unanticipated vessel impacts to the temporary work, resulting in additional reconstruction costs. The cost overruns will be accommodated within the overall project budget by deleting work of lower priority planned for the 2011-13 biennium.

"Watch List" Projects - Cost and Schedule Concerns

Keystone Ferry Terminal (Island)
WSDOT and the Cities of Port Townsend and Whidbey Island have agreed to move forward with a project that maintains the existing Keystone Harbor terminal location.

WSDOT will begin a vessel planning study to identify vessel options for navigating within the existing harbor and accommodating tide conditions. Following the study will be a route Environmental Impact Statement (EIS), which includes the vessel assessment and the terminals at each end of the route. The vessel study will assess vessels that carry between 60 and 100 cars.

Port Townsend Ferry Terminal (Jefferson)
WSDOT and the Cities of Port Townsend and Whidbey Island have agreed to move forward focusing on a vessel solution to the issue of navigating Keystone Harbor. WSDOT will begin a vessel planning study, to be followed by a route Environmental Impact Statement (EIS) that includes the vessel assessment and the terminals at each end of the route. The vessel study will assess vessels that carry between 60 and 100 cars.

The scope, schedule and budget of this project are impacted by new Legislative requirements mandated in ESHB 2358 and ESHB 1094. The scope, schedule and budget will be updated after compliance with the new mandates and acceptance from the legislative budget. (See write-up on new legislative requirements in the March 31, 2007 *Gray Notebook*.)

Rail

Everett – Curve Realignment and Storage Tracks (Snohomish)
This project will realign curves to improve speeds for passenger trains, and guarantees the continued operation of the second train on the Seattle-Vancouver, B.C. route. BNSF is required to fill wetlands on their property, which then must be mitigated. BNSF informed WSDOT in March that the wetland permitting has delayed the start of construction from April to October. WSDOT anticipated BNSF would be delayed in obtaining the required permits, so $8 million was moved to budget for the 2007-09 biennium (from 2005-07). As a result of the latest information, the remaining $5 million will need to be reappropriated in the 2008 supplemental budget.

Palouse River and Coulee City RR - Acquisition and Rehabilitation (Grant, Lincoln, Spokane, Whitman)
WSDOT purchased the P & L and PV Hooper Branches of the Palouse River and Coulee City Railroad (PCC) from Watco Companies, Inc., in November 2004. The sale of the CW line was finalized in May. Watco continued to operate all three branches until May 31, 2007 and will operate the PV Hooper Branch after that. In March, WSDOT issued a Request for Proposals (RFP) for operating the P & L and CW Branches, selecting US Rail to operate the CW branch and Washington & Idaho Railroad to operate the P&L branch.

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. As previously reported, an additional $2 million is needed to construct the project, and was appropriated in the 2007-09 Transportation Budget. WSDOT and Spokane County are close to signing an agreement which will allow the project to move forward.

WSDOT's Capital Project Delivery Programs

Project Delivery Summary Reports

Schedule Milestone Tracking for Nickel Projects

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

Milestone	Scheduled Milestones to Date	Scheduled Milestones Achieved to Date	Scheduled Milestones not Achieved	Scheduled Milestone Achievement Rate[1]	Milestones Achieved Early[2]
Project Definition Complete					
Biennium to Date (2005-07)	23	21	2	91%	1
Cumulative to Date	140	138	2	99%	3
Begin Preliminary Engineering					
Biennium to Date (2005-07)	33	31	2	94%	0
Cumulative to Date	143	139	4	97%	0
Environmental Documentation Complete					
Biennium to Date (2005-07)	57	54	3	95%	5
Cumulative to Date	115	112	3	97%	6
Right of Way Certification					
Biennium to Date (2005-07)	35	31	4	89%	4
Cumulative to Date	60	55	5	92%	4
Advertisement Date					
Biennium to Date (2005-07)	62	57	5	92%	2
Cumulative to Date	113	107	6	95%	2
Operationally Complete					
Biennium to Date (2005-07)	48	40	8	83%	10
Cumulative to Date	67	59	8	88%	10

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.
[1]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.
[2]Project Milestones Achieved Early were originally scheduled beyond the current quarter and are not included in this quarter's Scheduled Achievement Rate

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 Protection Act (NEPA) and the State Environmental Protection 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.

WSDOT's Capital Project Delivery Programs

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

Milestone	Scheduled Milestones to Date	Scheduled Milestones Achieved to Date	Scheduled Milestones not Achieved	Scheduled Milestone Achievement Rate[1]	Milestones Achieved Early[2]
Project Definition Complete					
Biennium to Date (2005-07)	134	122	12	91%	7
Cumulative to Date	176	162	14	92%	7
Begin Preliminary Engineering					
Biennium to Date (2005-07)	131	128	3	98%	5
Cumulative to Date	168	165	3	98%	5
Environmental Documentation Complete					
Biennium to Date (2005-07)	76	58	18	76%	6
Cumulative to Date	88	67	21	76%	7
Right of Way Certification					
Biennium to Date (2005-07)	36	23	13	64%	4
Cumulative to Date	41	27	14	66%	5
Advertisement Date					
Biennium to Date (2005-07)	60	45	15	75%	5
Cumulative to Date	62	47	15	76%	5
Operationally Complete					
Biennium to Date (2005-07)	17	14	3	82%	9
Cumulative to Date	17	14	3	82%	9

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.
[1]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.
[2]Project Milestones Achieved Early were originally scheduled beyond the current quarter and are not included in this quarter's Scheduled Achievement Rate

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 Protection Act (NEPA) and the State Environmental Protection 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.

WSDOT's Capital Project Delivery Programs

Paying for the Projects: Financial Information

2003 Transportation Funding Package

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 fee

Revenue Forecast Update

The following information incorporates the June 2007 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 issues, the 2005 Legislature moved several preservation projects into the 2013-15 biennium. Both cumulative ten-year totals and individual biennial amounts are shown.

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 June 2007 forecast for gas tax receipts and licenses, permits, and fees for the Transportation 2003 (Nickel) Account is slightly lower than the baseline forecast, causing a minor decrease in the ten-year outlook for the account (-3.3%).

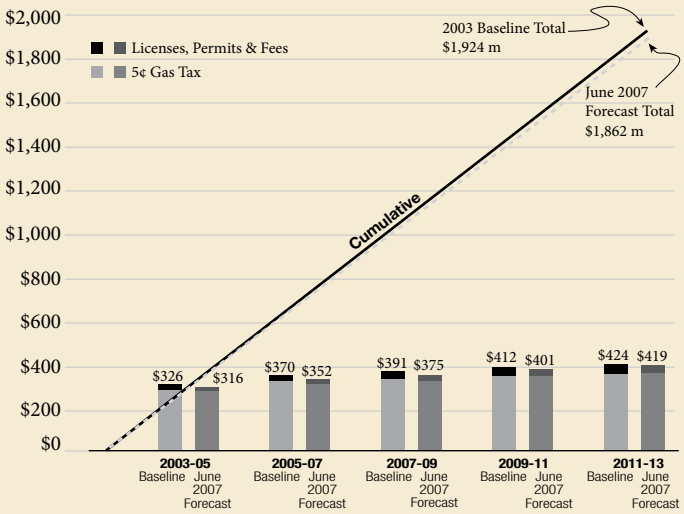
Multimodal Account projections for the vehicle sales tax is slightly higher than the baseline forecast, resulting in a slight increase in the ten-year outlook (+2.6%).

Forecasted revenues are still closely aligned with the legislative baseline projection for both accounts.

Transportation 2003 (Nickel) Account Revenue Forecast

March 2003 Legislative Baseline Compared to the June 2007 Transportation Revenue Forecast Council

Dollars in Millions

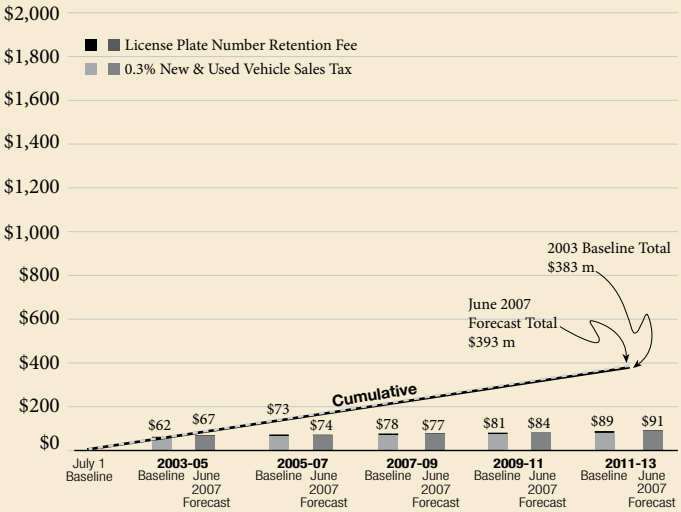


Numbers may not add due to rounding.
Data Source: Office of Financial Planning.

Multimodal Account (2003 Package) Revenue Forecast

March 2003 Legislative Baseline Compared to the June 2007 Transportation Revenue Forecast Council

Dollars in Millions



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

WSDOT's Capital Project Delivery Programs

Paying for the Projects: Financial Information

Transportation Partnership Program

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 pounds
- Farm vehicles are exempt from the increase

A $75 fee for all motor homes

Fee increases to various driver's license services

- Original and Renewal License Application increased to $20 (previously $10)
- Identicards, Driver Permits and Agricultural Permits increased to $20 (previously $15)
- Commercial Driver License and Renewal increased to $30 (previously $20)
- License Reinstatement 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)

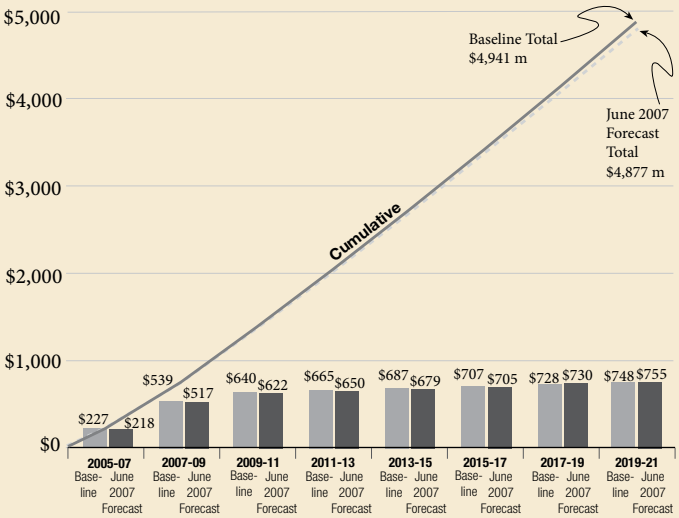
Revenue Forecast Update

The accompanying chart compares the current June 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 June 2007 forecast for gas tax receipts over the 16-year period decreased slightly (-1.3%); however, forecasted revenues are still closely aligned with the legislative baseline projection.

Transportation Partnership Account
Gas Tax Revenue Forecast
March 2005 Legislative Baseline Compared to the June 2007 Transportation Revenue Forecast Council

Dollars in Millions



Numbers may not add due to rounding.

WSDOT's Capital Project Delivery Programs

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 36).

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, Biennium-to-Date
Milestone and Expenditure Achievement-to-Date
Dollars in Millions

	Begin Engineering		Advertised for Bids		Operationally Complete		Expenditures	
Programmatic Categories	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**
Pavement Preservation	178	176	168	147	160	151	228	219
Bridges (Preservation/Replacement)	50	46	45	40	49	35	209	203
Slope Stabilization	7	27	11	32	19	35	46	47
Safety (roadside, rumble strips, median cross-over, etc.)	43	57	49	52	67	65	99	96
Environmental Retrofit (fish passage improvement, stormwater runoff)	9	10	10	11	13	12	19	16
Other facilities (rest area, weigh stations, etc.)	20	32	28	27	32	22	439	383
Totals	**307**	**348**	**311**	**309**	**340**	**320**	**1,040**	**965**

Data Source: WSDOT Project Control and Reporting Office

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Reporting by Program

Advertisement Record: 309 Projects Advertised as of June 30, 2007

Biennium to Date (2005-07)

The 2005-07 Highway Construction Program includes a commitment to advertise 311 Pre-Existing Funds (PEF) projects. There were 311 PEF advertisements planned through the quarter ending June 30, 2007. Three hundrend nine advertisements were achieved in those eight quarters. Of the 311 scheduled, 48 (15.4%) were deferred to future biennia, and six (1.9%) projects were deleted.

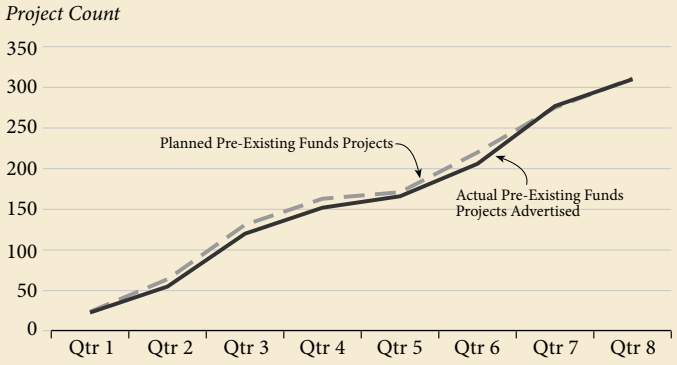
Current Quarter (April 1 - June 30, 2007)

For the quarter there were 36 planned PEF advertisements. Eleven of these projects were advertised as scheduled. Nine of the planned advertisements were delayed to later in this biennium, and one was deleted. There were five advanced, seven emergent, and eight delayed projects advertised.

Highway Construction Program Advertisements

Pre-Existing Funds Projects

Planned vs. Actual Number of Projects Advertised
2005-2007 Biennium, Quarter 8 ending June 30, 2007

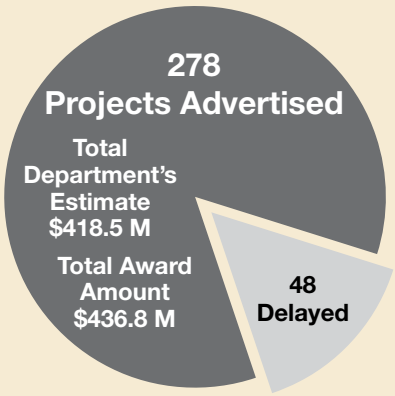


Data Source for all graphs: WSDOT Project Control and Reporting Office.

The table below summarizes the status of PEF projects advertised during the seventh quarter of the 2005-07 Biennium.

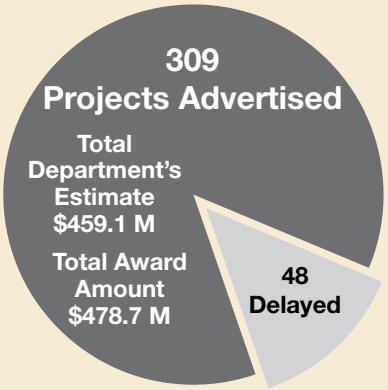
Pre-Existing Funds Projects: A Snapshot of Quarterly Progress and Total Biennial Progress to Date

End of Last Quarter
March 31, 2007



	Projects Through Last Quarter	This Quarter's Progress	Biennium to Date Total
Projects Advertised			
As Scheduled	180	11	191
Project Ads Early	30	5	35
Project Ads Late	34	8	42
Emergent Projects	34	7	41
Total Advertised	**278**	**31**	**309**
Projects Delayed			
Within the biennium (delayed)	9	0	0
Out of the biennium (deferred)	39	9	48
Total Delayed	**48**	**9**	**48**
Projects Deleted			
Projects Deleted	6	0	6
Total Deleted	**6**	**0**	**6**

End of This Quarter
June 30, 2007



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

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Program: Advertisement Record

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

April 1, 2007-June 30, 2007

Project Description	On-Time Advertised	Project Description	On-Time Advertised
NC Region Guardrail Update - Year 2007 (Adams, Chelan, Douglas, Grant, Okanogan)	Late[1]	SR 23/Jct I-90 to Lords Creek Rd - 2007 Chip Seal (Lincoln)	Advanced
Southwest Region Bridge - Seismic Retrofit (Clark, Cowlitz, Lewis)	√	SR 25/Davenport to Fruitland - 2007 Chip Seal (Lincoln, Stevens)	Advanced
US 2/1 Mile W of Leavenworth - Upper Unstable Slopes (Chelan)	Emergent[2]	SR 27/Cannon St to Vicinity Manring St - 2008 Chip Seal (Whitman)	Deferred[12]
US 2/1 Mile W of Leavenworth - Lower Unstable Slopes (Chelan)	Emergent[3]	SR 28/Lamona to Harrington - 2007 Chip Seal (Lincoln)	Advanced
US 2/Creston to Rocklyn Rd - Paving (Lincoln)	Deferred[4]	I-82/Plymouth Port of Entry - Pavement Rehabilitation (Benton)	Emergent[13]
SR 3/Pioneer Way and Big Valley Rd - Signals (Kitsap)	Emergent[5]	I-90/I-5 Interchange - Seismic (King)	√
I-5/Albro Pl to Corson Ave - Seismic (King)	√	I-90/Mercer Island Lid - CCTV Replacement (King)	Late[14]
I-5/Spokane Street Interchange, Seattle - Seismic (King)	√	SR 92/Catherine Creek Vicinity - Fish Barrier (Snohomish)	√
I-5/Martin Way - Bike Lanes (Thurston)	Deferred[6]	US 97/Biggs Rapids Bridge - Deck Replacement (Klickitat)	Early
I-5/Gravelly Lake Dr I/C to Puyallup River Bridge - Ramp Paving (Pierce)	Early	SR 100/SR 100 Including Spur - Chip Seal (Pacific)	Deferred[15]
I-5/Puyallup River Bridge to King County Line - Paving (Pierce)	Deferred[7]	US 101/Peabody St Intersection - Signal (Clallam)	Late[16]
I-5/Woodland Vicinity to Ostrander Creek Vicinity - Rut Repair (Clark, Cowlitz)	Emergent[8]	US 101/NW of Salmon Creek Bridge - Culvert Replacement (Grays Harbor)	Emergent[17]
SR 7/Eatonville Cutoff Rd to SR 507 - Paving (Pierce)	Early	US 101/Lilliwaup Vicinity - Stabilize Slope (Mason)	Late[18]
SR 9/Pilchuck Creek Bridge - Bridge Scour (Snohomish)	Late[9]	US 101/Sandridge Rd - Safety Improvements (Pacific)	Advanced
SR 9/Martin Rd Vicinity to Thunder Creek - Realignment and Widening (Skagit)	Deferred[10]	US 101/SR 6 to Grays Harbor County Line - Paving (Pacific)	Deferred[19]
US 12/Vicinity Joselyn St to I-5 - Paving (Thurston)	Early	US 101/Astoria Bridge to SR 4 - Paving (Pacific)	Advanced
SR 16/Tacoma Narrows Bridge Phase 1 - Electrical (Pierce)	Deferred[11]	US 101/SR 100 Jct - Signal Replacement (Pacific)	Advanced
SR 20/N Campbell Lake Road to SR 20 Spur - Shoulder Widening for Bike (Skagit)	√	SR 103/Ridge Ave to Sandridge Rd - Pedestrian Path (Pacific)	√
SR 21/Vicinity Canniwai Creek to Jct US 2 - 2007 Chip Seal (Lincoln)	Advanced	SR 107/Chehalis River Bridge - Bridge Scour (Grays Harbor)	Late[20]
SR 23/Lincoln Co Line to Jct I-90 - 2007 Chip Seal (Lincoln	Advanced	SR 107/Chehalis River - Bridge Deck Repair (Grays Harbor)	Deferred [21]

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Program: Advertisement Record

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

April 1, 2007-June 30, 2007

Project Description	On-Time Advertised	Project Description	On-Time Advertised
SR 141/BZ Corners Vicinity - Pedestrian Path (Klickitat)	Advanced	SR 508/ 1 Mile West of Onalaska - Roadway Embankment Erosion Protection (Lewis)	√
SR 231/Jct SR 23 To Jct US 2 - 2007 Chip Seal (Lincoln)	Advanced	SR 508/Bear Canyon Vicinity Slope Failure (Lewis)	Emergent[22]
SR 231/Reardan to Fisher Rd - 2007 Chip Seal (Lincoln)	Advanced	SR 513/NE 45th Street to 40th Avenue NE - Paving (King)	Late[23]
US 395/Franklin Co Line to Vic Jantz Rd - Paving Decreasing Lanes (Adams)	√	SR 527/186th Place SE - Signal (Snohomish)	Early
SR 401/US 101 to SR 4 - Paving with Chip Seal (Pacific)	Advanced	SR 548/Terrell Creek - Major Drainage (Whatcom)	Late[24]
I-405/Swamp Creek Vic - Fish Barrier (Snohomish)	√	SR 900/112th Avenue SE - Seismic (King)	√
SR 502/NE 199th St Intersection - Signal (Clark)	Advanced	SR 902/Jct I-90 to Lakeland Village - 2007 Chip Seal (Spokane)	Advanced
SR 503 Spur/Sr 503 To Skamania Co Line - Chip Seal (Cowlitz)	Advanced	SR 904/Tyler to Cheney - 2007 Chip Seal (Spokane)	Advanced

Project Details:

[1]Advertisement date delayed to perform field review of guardrail terminals for research permit required by Colville Confederated Tribe.
[2]Emergent need project was added to address an unstable slope partial failure which damaged the existing wire mesh structure. Project was delivered using non-event emergency contract procedures.
[3]Emergent need project was added to address an unstable slope partial failure which damaged the existing wire mesh structure. Project was delivered using non-event emergency contract procedures.
[4]Advertisement was delayed to preclude late season paving which shortens the pavement life.
[5]Bid from single bidder was unreasonably high and was rejected.
[6]Deferred to help balance the I program.
[7]Project was tied with I-5 HOV widening project; hence this paving project will be completed last.
[8]Emergent need project to address severe rutting that developed on I-5.
[9]Ad Date Delayed due to Shoreline permit from Snohomish County.
[10]Advertisement delayed to balance the financial plan for the propose 2007 budget.
[11]Advertisement date changed to wait to coincide with the old bridge closure, date to be determined.
[12]Advertisement was delayed to align with the normal 6-year BST repalacement cycle.
[13]Emergent need project was added accelerated pavement deterioration and prevent damage to the weigh station sensors.
[14]The work will be performed by State Force and DIS (Department of Information Services). Construction start is delayed four months in order to set up equipment and DIS contract.
[15]Advertisement date delayed two years to offset construction cost escalation and keep budget in balance.
[16]Local Agency lead project; WSDOT will make payment when city work has been completed.
[17]Emergency contract project to fix water flow problem in culvert.
[18]Advertisement date delayed to better fit a construction season and work around the fish window.
[19]Advertisement date delayed two years to offset construction cost escalation and keep budget in balance.
[20]Extent and cost for this scour project allowed work to be assigend to state forces to accomplish.
[21]Project moved out due to change in bridge work priority list.
[22]Emergency project to address catastrophic roadway failure resulting from November 2006 storms.
[23]Advertisement delayed to allow time to review alternative methods for delivering this project within budget.
[24]Delay due to permit approvals requirements and to obtain a CN permit from BNSF.

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds: Individual Reporting

Six Individually Tracked PEF Projects: Results through June 30, 2007

Dollars in Millions

Project Description	First Legislative Budget	Baseline: Current Legislative Approved	Scheduled Date to Begin Preliminary Engineering		Scheduled Date for Advertisement		Schedule Date to be Operationally Complete
			Date	On-Time	Date	On-Time	
US 2/Ebey Is Viaduct and Ebey Sl Bridge (Snohomish)	$32.1 (2002)	$35.5 (2006)	Dec-98	√	Nov-00	√	Dec-03
• US 2/50th Avenue SE Vicinity to SR 204 Vic - Bridge Rehabilitation (Snohomish)			Jul-06		Feb-07		Nov-07
• US 2/43rd Ave SE Vicinity to 50th Ave SE Vic - Bridge Rehabilitation (Snohomish)			Jan-09		Aug-10		Dec-11
SR 202/SR 520 to Sahalee Way - Widening (King)	$36.9 (2001-03)	$82.1 (2006)	May-98	√	Aug-05	Late[1]	Dec-08
SR 539/Horton Road to Tenmile Road - Widen to Five Lanes (Whatcom)	$32.0 (2001-03)	$52.6 (2006)	Oct-90	√	Jan-07	√	Oct-08
SR 28/E End of the George Sellar Bridge - Construct Bypass (Douglas)	$9.4 (2004)	$9.3 (2006)	May-04	√	Oct-09	Late[2]	Sep-11
US 101/Purdy Creek Bridge - Replace Bridge (Mason)	$6.0 (2004)	$11.1 (2006)	Aug-04	√	Jan-08	√	Jan-10
SR 303/Manette Bridge Bremerton Vicinity - Replace Bridge (Kitsap)	$25.5 (2002)	$25.8 (2006)	Sep-96	√	Mar-10	Late[3]	Nov-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 milestone dates are derived from the 2003 Legislative Transportation Budget. Advertisement Date and Operationally Complete milestones are considered on-time if 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.

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.

Project Details:

[1]This project was delayed from the original 2005 Legislative Final advertisement date to address several environmental and permitting issues.
[2]The construction phase has been delayed to balance the financial plan for the 2007-2009 biennium Legislative book.
[3]The construction phase has been delayed to balance the financial plan for the 2007-2009 biennium Legislative book.

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds: Financial Information

Paying for the Projects: Financial Information

WSDOT submitted an expenditure plan to the Legislature for the eighth quarter of the biennium totaling approximately $1,040 million. As of June 30, 2007, actual expenditures totaled $965 million, a variance of approximately $75 million, or 7%, from the biennium plan. The variance as of the end of the sixth quarter for the Highway Construction Program was divided between the Improvement and Preservation programs.

The Preservation Program planned cash flow was $526 million, and actual expenditures were $507 million. This was $19 million under plan, or 4%. The under-spending was primarily due to slower than expected expenditures for several projects, including:

- *US 101/Simpson Ave Bridge* -- Mechanical (The project was delayed due to a shortage of bridge preservation funds in the 2005-07 biennium.)
- *SR 433/Lewis and Clark Bridge* - Painting

The Improvement Program planned cash flow was $514 million, and actual expenditures were $458 million. This was approximately $56 million under plan, or 11%. The under-spending was primarily due to slower than expected expenditures for several projects, including:

- *SR 99/Alaskan Way Viaduct and Seawall* - Replacement Corridor Design

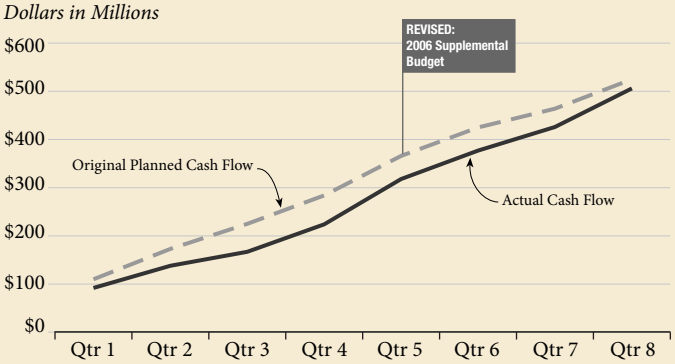
Preservation Program Cash Flow

Pre-Existing Funds

Planned vs. Actual Expenditures

2005-2007 Biennium, Quarter 8 ending June 30, 2007

Dollars in Millions



As of quarter five (July 1 - Sept. 30, 2006), Original Planned Cash Flow values have been updated based on the 2006 Supplemental Budget.

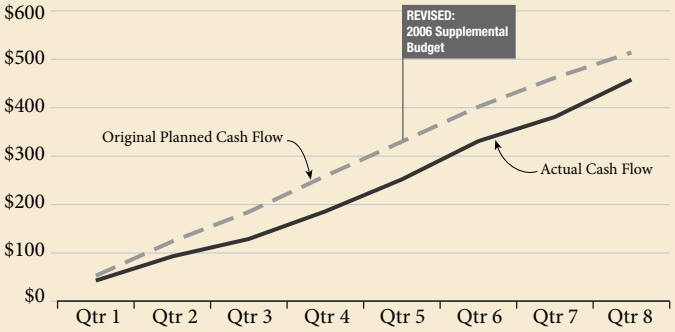
Improvement Program Cash Flow

Pre-Existing Funds

Planned vs. Actual Expenditures

2005-2007 Biennium, Quarter 8 ending June 30, 2007

Dollars in Millions



As of quarter five (July 1 - Sept. 31, 2006), Original Planned Cash Flow values have been updated based on the 2006 Supplemental Budget.

WSDOT's Capital Project Delivery Programs

Special Report: Tacoma Narrows Bridge, Quarterly Update

New Bridge Construction

As of June 30, design-builder Tacoma Narrows Constructors (TNC) has completed 92.8% of construction on the SR 16 Tacoma Narrows Bridge project. In the second quarter, TNC finished wrapping and painting the main and suspension cables. TNC finished removing the gantries, as well as the hand rope. The catwalks underneath the main cables were removed during the month of May. TNC installed the large expansion joints on both ends of the bridge. All 46 deck sections have been bolted and welded together. The waterproofing of the bridge deck was completed and paving began on the main bridge deck during June. The concrete pour for the splay chamber walls, where the suspension cables attach to the anchorage, was also completed during June. The new bridge opened to traffic on July 15; the opening and initial operations will be featured in the next Gray Notebook.

TNC crews removed the two tower cranes with the aide of a larger 400 foot Demag crane. Work currently underway on the new towers includes the installation of various electrical elements and the elevator system within the towers, as well as the cleaning and finishing on the exterior of the towers. Other miscellaneous work that began included installation of the roadway lighting on the new bridge and the installation of the concrete masonry block walls at both the east and west anchorages.

400 foot Demag crane removing the Gig Harbor tower crane as seen from between the two tower legs

Roadway/Existing Bridge Retrofit Construction

During the quarter, TNC completed the installation of guardrail on Stone Drive above the retaining wall. Drainage work was completed on the westbound mainline in Gig Harbor. Paving and guardrail installation for the manual toll lanes was completed during the month of June. Installation of a loop detection system to provide travel information, luminaries, antennas, and cameras was completed on the new 24th Street EB on-ramp.

Tacoma Narrows Bridge Progress

As of June 30, 2007

Design	99.9%
Construction	92.8%
Total[1]	93.3%

Data Source: WSDOT Engineering and Regional Operations Division
[1]Weighted 7% Design progress and 93% Construction progress.

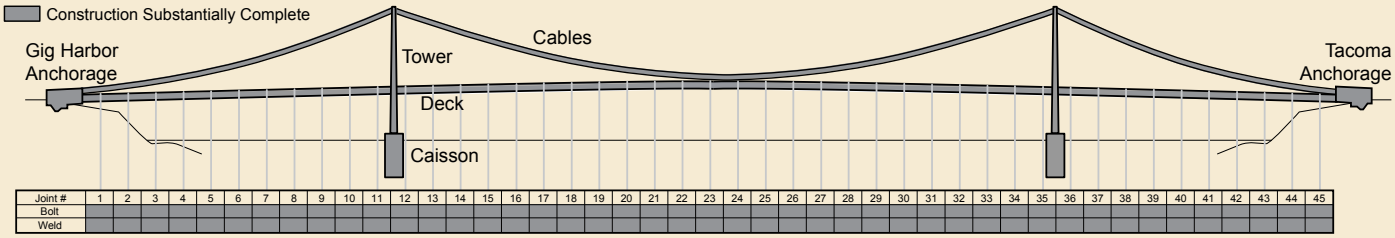
Crews finished embankment and road approach work at the east anchorage, and in May, TNC finished building the sign bridge foundation near the east anchorage. Permanent traffic signs were installed during the month of June. Benches were also installed along the pedestrian path at the eastbound Jackson Avenue exit. TNC continues to grade the access road from the new maintenance facility to the City of Tacoma sewer pump station.

Toll Facility Installation and Operations

WSDOT continues to promote the electronic tolling system, *Good to Go!*. During April, the *Good to Go!* customer service center opened in Gig Harbor, and the website was activated. In June, a temporary customer service center opened in Tacoma. Transponders went on sale in April, and by the end of June, 37,143 accounts had been opened, with 78,577 transponders purchased. At the time of this publication 71,709 accounts have been opened and 167,024 transponders purchased.

The Washington State Transportation Commission discussed toll rates and Washington Administrative Code (WAC) Policy CR-103 for adoption of tolling rules was filed during the month of April. WSDOT also published the Concise Explanatory Statement to Toll Policy WAC's.

Tolling contractor, TransCore, along with WSDOT, held a peer review meeting to determine tolling readiness during the month of June. The Operations Manual was reviewed as well as the Standard Operating Procedures. Testing on 24th Street has also begun. Toll system modifications continue to be made by WSDOT and TransCore in order to improve overall performance.



With the opening of the new bridge in July, all pieces of the bridge are in place and minimal finishing work is needed.

WSDOT's Capital Project Delivery Programs

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

Overall Project Completion Rate 55%

As of June 30, 2007, the SR 104 Hood Canal Bridge Project was 55% complete. WSDOT reached the halfway point towards delivering the project at the end of May. Two important milestones were reached this quarter:

- In May, the first ten new anchors completed in February for the east half of the bridge were set at the bottom of Hood Canal.
- In June, the final cycle of anchors was completed at Todd Shipyards in Seattle.

Anchor Construction and Setting 97% Complete

The setting of the first cycle of anchors spanned the entire month of May. Each anchor was successfully placed in the correct location for position, elevation and bearing. A specially fitted large derrick barge stabilized each anchor as they descended to locations ranging from 80 to 340 feet at the bottom of the Hood Canal. WSDOT's goal was to set two anchors each week.

Water is pumped into one of the first new anchors to be placed at the bridge

The majority of the second cycle of anchors were constructed in this second quarter. Crews began construction on the ten massive, bowl-shaped structures in March by placing forms and rebar to form the anchor walls. Next, crews poured concrete on each anchor in four phases. On June 20, the anchors floated off the dry dock. The ten anchors were then towed the 50 miles to Port Gamble Bay where they will be moored until each anchor is placed at the bottom of Hood Canal at the bridge site.

Pontoon Construction 61% Complete

All major concrete pours for the second of four cycles of pontoon construction were completed in May. These five pontoons, being constructed at the graving dock in Tacoma, are expected to float out a month ahead of schedule at the end of July. Crews continue to post tension the pontoons, complete smaller concrete pours, and prepare for float-out.

Pre-casting operations for the third cycle of pontoon construction began outside of the graving dock in May and the first concrete pour was May 25. By beginning the third cycle in May rather than in August as previously scheduled, WSDOT is using labor resources more effectively. As soon as the second cycle of pontoons is completed and floated out of the graving dock, the third cycle components will be moved into the graving dock by cranes and assembled. Assembly of the draw span pontoons began at Todd Shipyards in Seattle in July.

Retrofitting Pontoons R, S and T 76% Complete

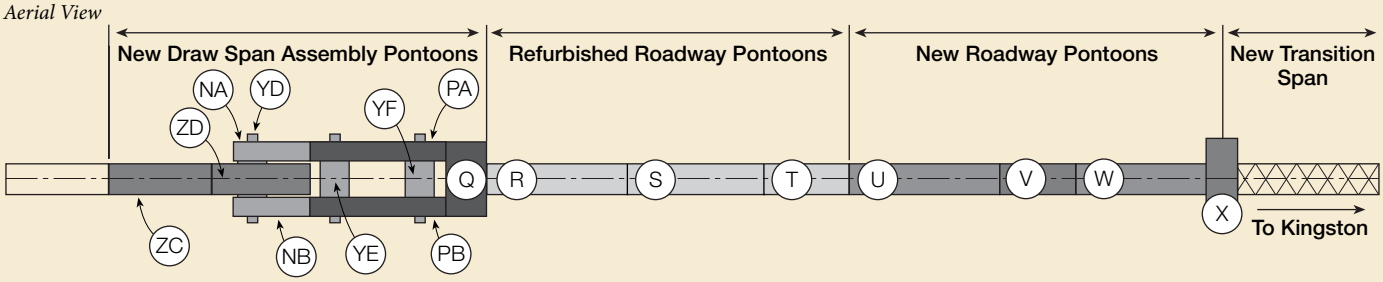
The retrofitting of pontoons R, S and T, originally used in the west-half replacement in the 1980s, is 76% complete. Crews began constructing new columns, girders and crossbeams in March and April. The columns were completed in May, and the road deck began to take shape as pre-cast deck panels were placed. Updating these pontoons, rather than building three new pontoons, saves the project a full year in the construction schedule, as well as money and other resources.

West-Half Leak Detection System 74% Complete

The west-half leak detection system, installed to sense water inside the pontoons, is scheduled to be completed in August. Crews continued to install electrical components in 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



- Built in 1st Cycle (PA, PB, Q). Delivered: December 2006.
- To be Built in 2nd Cycle (NA, NB, YD, YE, YF). Scheduled Delivery Date: August 2007.
- To be Built in 3rd Cycle (ZC, ZD, V, X). Scheduled Delivery Date: April 2008.
- To be Built in 4th Cycle (U, W). Scheduled Delivery Date: September 2008.
- Retrofitting (R, S, T). Scheduled Delivery Date: April 2008.

Source: WSDOT Hood Canal Bridge Project Office

WSDOT's Capital Project Delivery Programs

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

The Tacoma/Pierce County High Occupancy Vehicle (HOV) Program is a series of improvement projects on I-5, SR 16, and SR 167. The projects add 79 HOV lane miles and travel improvements through the I-5, SR 16, and SR 167 corridors, easing congestion and increasing safety. The current available funding for the program is $1.2 billion dollars. Currently, five projects are complete (16 HOV lane miles), three projects are under construction, nine are in design, and five are unfunded.

Highlighted Construction Project

I-5 - 48th Street to Pacific Avenue, Tacoma (approximately 3.0 miles)

The second quarter of 2007 saw the completion of the bridge-demolition phase of the I-5 - 48th Street to Pacific Avenue project through downtown Tacoma. After removing the old Tacoma Avenue, Yakima Avenue and Delin Street overpasses, crews turned their attention to building two new bridges that will meet modern bridge standards. Construction of the abutment walls and center columns for the new Yakima Avenue and Delin Street bridges is near completion. The bridges open early next year.

Workers also made great strides over the past three months completing the retention/noise/artistic wall that runs along the northbound lanes through most of the project. The wall is 85% complete.

Overpasses before construction

Model of overpasses after construction

As of June 30, the I-5 road work is 49% complete; grading and paving is 70% complete; and M Street widening at 35% complete. This project as a whole is 70% complete.

Look Ahead: Summer and Fall Construction

Both Summer and Fall 2007 are expected to be very busy times for the Tacoma Pierce County HOV Program. In July and August, a 300-ton hydraulic crane will set the 24 girders for the two new bridges. Crews will begin paving the bridge decks in October.

The 48th Street to Pacific Avenue project is scheduled for completion in Spring 2008. When completed, the northbound and southbound lanes near the Tacoma Dome will be shifted back to their regular configuration in July.

Design Phase: Tacoma Projects Repackaged for Optimal Corridor-wide Delivery

The HOV Program is moving forward with a new construction delivery plan that consists of ten construction contracts, instead of the original nine. The updated approach creates opportunities to reduce schedule risks, duration of construction, and the level of impact on motorists. The projects are:

Nalley Valley Projects

SR 16 - Westbound Nalley Valley
SR 16 - Eastbound Nalley Valley and Sprague Avenue Interchange
I-5 - SR 16 – I-5 Realignment and HOV Connectors

Tacoma Projects

I-5 – T Street Utility Protection
I-5 – M Street to Portland Avenue – Northbound I-5 Widening and Bridges
I-5 – Northbound Puyallup River Bridge Replacement
I-5 – M Street to Portland Avenue – Southbound I-5 Widening and HOV Lanes
I-5 – Southbound Puyallup River Bridge Replacement

Fife Projects

I-5 – Port of Tacoma Road Interchange to King County Line – HOV Lanes
I-5 – Port of Tacoma Road Interchange

Current Design Activities

Significant design changes have been made to the geometry, traffic operations, and bridge proposals on the Westbound Nalley Valley project. These improvements included the addition of a third general-purpose lane in the eastbound direction and combining two westbound bridges, which will provide greater capacity. The improved designs will lead to a higher level of service for drivers. The design upgrades may potentially delay the scheduled March 2008 Westbound Nalley Valley advertisement date. The Westbound Nalley Valley project is the first of three projects to reconstruct the SR 16/I-5 Nalley Valley interchange.

Upcoming Project Highlights

The HOV Program is finalizing the schedules and budgets for each of its projects now in design. On track for completion this summer, the schedules and budgets will provide the framework for delivering the next series of projects within the HOV Program. For more information about the Tacoma/Pierce County HOV Program, visit the project web site at: http://www.wsdot.wa.gov/projects/piercecountyhov/.

Cross-Cutting Management Issues

Right of Way

Six projects with a right-of-way phase were scheduled to be certified during the period from January 1 through June 30, 2007. All six baseline certification dates were rescheduled due to advertising delays. All project delays for this six month period were unrelated to the management of the right-of-way acquisition process. For the purposes of this article, right-of-way is defined as an easement or strip of land for transportation purposes.

On-Time Certification

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

	Jul-Dec 2006	Jan-Jun 2007
Number of projects with a right of way phase	34	6
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 Office

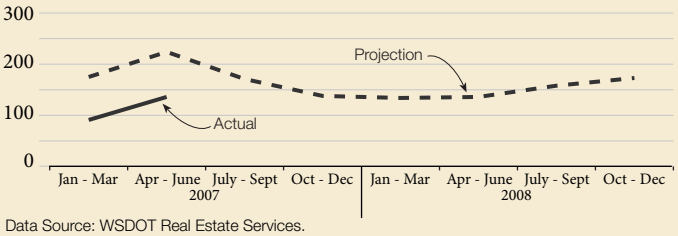
Acquisition Projections

In the December 31, 2006 edition of the *Gray Notebook,* WSDOT projected the average number of parcels acquired per month from January through June 2007 would almost double from approximately 40 per month to approximately 80 per month. The actual acquisitions for the first six months of 2007 were much closer to the previous two biennium's average of approximately 43 parcels per month (227 parcels, or 37 per month).

Acquisitions for All PEF, TPA and Nickel Projects

January 1, 2007 - December 31, 2008

Actuals and Projections



Data Source: WSDOT Real Estate Services.

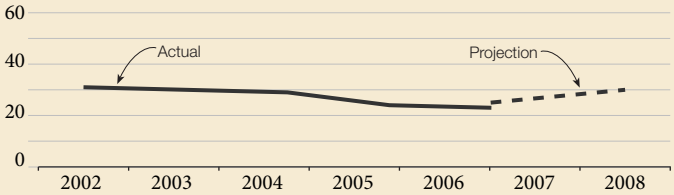
Right of Way Condemnations

Condemnation rates continue to show a steady, slow upward trend as previously forecast. Condemnation involves legal action to aquire property by operation of law. There were 15 Judgment and Decrees in the first half of 2007, and there are currently 35 open cases.

Condemnations for All PEF, TPA and Nickel Projects

2002-2008

Actuals and Projections



Data Source: WSDOT Real Estate Services.

Right of Way Watch List Projects - Cost and Schedule Concerns

There were no projects delayed due to right of way processes for the third and fourth quarters (January 1 through June 30) of fiscal year 2007.

Cross-Cutting Management Issues

Utilities

Utilities Roll-Up

From January 1, 2007 to June 30, 2007 10 Nickel projects and 6 TPA projects were completed. Of these projects, none experienced delays related to utilities work.

For PEF projects, WSDOT is developing a new system for tracking completed PEF projects. See pages 32-37 for this quarter's PEF reporting.

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, effected 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. One Hundred Forty projects were advertised between January and June 2007. Of the these projects none were were assigned the lowest utilities risk, Risk Level 1. The remaining projects include nine assigned Risk Level 2 and eight at Risk Level 3 for utility concerns.

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 requirements for procedures specifically regarding the handling of utilities situations at each given risk level

Risk Level 1

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	
Level	**Description**	**Jul-Dec 2006**	**Jan-Jun 2007**
Level 1	Utilities have been relocated, and/or are clear of construction.	57	0
Level 2	Utility companies are actively pursuing relocation and the department has assurances the utilities will be clear by the date bids are opened.	2	9
Level 3	Utilities have not been relocated, and will not be relocated by the bid opening date 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.	7	8
	Total	**66**	**17**

Data Source: WSDOT Utilities Office

Projects Advertised at Risk Levels 2 and 3 for Utilities Work (January 1 2007 to June 30 2007)

One Hundred Forty projects were advertised between January 1 and June 30, 2007. Of these, nine were classified at Risk Level 2 and eight were classified at Risk Level 3 for utility concerns.

Nickel Funded Projects

I-5, 13th to Rush Road (Risk level 3) ***Lewis Co.***
A utility easement was discovered in County right of way. This issue was resolved with the County prior to the project being awarded.

TPA Funded Projects

SR 3, Imperial Way to Sunnyslope – Safety (Risk level 3) ***Mason Co.***
Qwest has overhead and buried lines in the area and they are proceeding with their own process to get these facilities relocated, with a commitment to have a plan and schedule to WSDOT by March 1, 2008, with relocation complete by April 30, 2008. WSDOT sent a letter to Qwest advising the company of the departments intent to proceed to advertisement with the understanding that Qwest will meet their commitments and be clear of the right of way by April 30. The advertisement date has been delayed to Feb 5, 2008 to provide time to receive Qwest's schedule and written commitment prior to bid opening.

SR 20, Cornet Bay Road to Rosarios Road (Risk level 2) ***Island Co.***
Power lines will be relocated as part of the project schedule.

SR 542, Boulder Creek Bridge (Risk level 2) ***Whatcom Co.***
Power line relocation will need to be coordinated with the contractor's schedule.

PEF Funded Projects

SR 3, Downtown Bremerton Pedestrian BTC Access Improvements (Risk level 3) ***Kitsap Co.***
City utility relocations are by the contractor and there are order of work requirements in the contract. Puget Sound Energy, Qwest, Gas and Comcast must all move during construction and there are Order of Work and Work Window requirements in the contract. The city will be installing underground power vaults and conduits, some before construction begins and some during construction. The city is confident they can complete work within the specified work windows.

US 101, Mt. Walker NB & SB Pass/Truck Lane (Risk level 3) ***Jefferson Co.***
On the southbound passing lane portion of this project, MP 297.61 to MP 298.18, the utility companies requiring relocation of overhead and/or underground lines are Puget Sound Energy and Embarq. On the northbound passing lane portion of this project, MP 301.17 to MP 301.67, the utility companies requiring relocation of overhead lines are Mason County PUD and Embarq. Puget Sound Energy and Mason County PUD have committed to completing relocations by April 27, 2007. Embarq utilizes Puget Sound Energy's and Mason County PUD's utility poles in both portions of this project and have committed to relocating lines once Puget Sound Energy and Mason County PUD has finished.

SR 28 / West of Ephrata – Paving (Risk level 3) ***Grant Co.***
A Utility Service Agreement was not executed, therefore utility relocation was not completed by the date of project advertisement. However this project was not scheduled to start construction until funds were available in July 2007. The Utility Service Agreement did get executed and construction relocation was completed prior to construction beginning.

Cross Cutting Management Issues

Construction Cost Trends

Rising cost trends are affecting the highway construction industry in general and WSDOT in particular. Since 2004, the construction industry has experienced price spikes for materials such as steel, asphalt and concrete. Highway construction is heavily dependent on these materials, and the industry has experienced inflation at levels higher than many other fields of construction. Additionally, fuel prices have increased significantly and highway construction often requires contractors to use large amounts of fuel to transport materials and equipment to the worksite as well as to power construction equipment. Other contributing factors to escalating construction costs include the number of project bidders WSDOT can attract and labor costs. This is particularly true in the Puget Sound region, where large public and private construction programs are competing with WSDOT for contractors.

Calculating the Construction Cost Index

WSDOT prepares construction cost estimates using historical information about market conditions drawn from recent bids. Like other state DOTs, WSDOT must extrapolate for the future based on past records. WSDOT accumulates construction cost information and calculates a Construction Cost Index (CCI). The CCI is then compared to the experiences of other western states. WSDOT's CCI is a composite of unit price information from low bids on seven of the most commonly used construction materials, which include Portland Cement Concrete, Structural Concrete, crushed surfacing material, roadway excavation, Hot Mix Asphalt (HMA), Rebar, and Structural Steel.

These items reflect a composite cost for a completed item of work and include the costs of labor, equipment, and materials. For previous reporting on WSDOT's CCI, please visit the Gray Notebook subject archives at: http://www.wsdot.wa.gov/Accountability/GrayNotebook/SubjectIndex.htm.

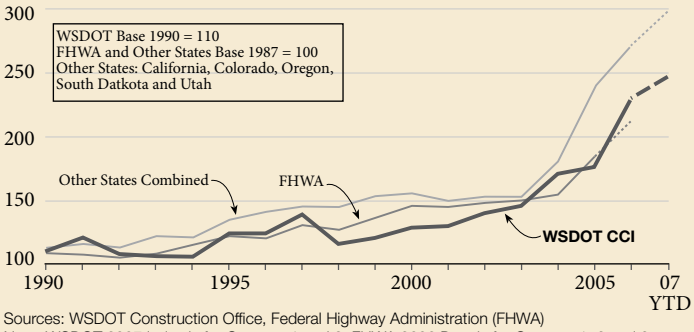
Construction Cost Index Increases by 7% in the First Half of 2007

The graph above to the right illustrates the past 17 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 nearby western states: California, Colorado, Oregon, South Dakota and Utah.

The average annual growth rate of the CCI held steady at about 1.5% per year from 1990 through 2001. Beginning in 2002 and continuing through 2005, the growth rate increased to 8% per year. In 2006, WSDOT's CCI increased 30% over 2005. WSDOT's CCI has increased 7% in the first two quarters of 2007 over the annual average for 2006, from 228 to 245.

Of the seven materials WSDOT tracks in the CCI, Hot Mix Asphalt (HMA) comprises 48.5%, or almost half the weight of the index. HMA prices increased 9% during the first two quarters of 2007.

Construction Cost Indices
Washington State, FHWA, and Other States

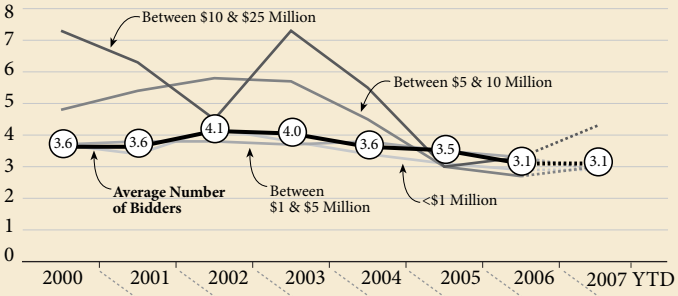


Sources: WSDOT Construction Office, Federal Highway Administration (FHWA)
Note: WSDOT 2007 Index is for Quarters 1 and 2; FHWA 2006 Data is for Quarters 1, 2 and 3; Other States 2007 Data is for the First Quarter.
Note: 2003 and 2004 WSDOT CCI data points adjusted to correct for spiking bid prices on structural steel.

Average Number of Bidders Unchanged from 2006 Levels

WSDOT's goal is to have three or more bidders for each highway construction project. However, large public and private construction programs in Washington State are contributing to a trend of fewer contractors submitting bids for WSDOT projects. This reduction in bidding competition demonstrates that contractors have greater choice in how often they submit

Average Number of Bidders
By Size of Contract



	2000	2001	2002	2003	2004	2005	2006	2007 YTD
1 Bidder	7.7%	12.3%	12.6%	8.5%	13.4%	9.2%	10.3%	9.5%
2 Bidders	26.1%	23.2%	22.2%	17.6%	20.4%	22.0%	37.6%	37.1%
3 Bidders	23.9%	23.2%	15.6%	24.2%	22.5%	33.3%	19.7%	25.7%
More than 3 Bidders	42.3%	41.2%	49.6%	49.7%	43.7%	35.5%	32.5%	27.6%

Data Source: WSDOT Construction Office.

Construction Cost Trends

bids for WSDOT projects, and the types of projects they bid on. Unfortunately, a reduction in bidding competition tends to lead to higher bid prices for WSDOT.

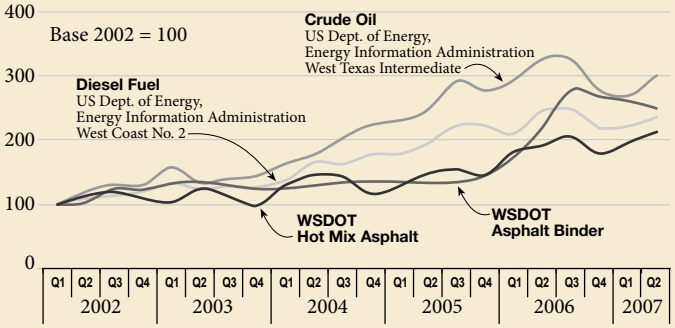
The average number of contractors bidding on each WSDOT project during the first two quarters of 2007 remained unchanged from the 2006 annual average of 3.10. The percentage of WSDOT projects with four or more bidders decreased slightly while the percentage of WSDOT projects with three bidders slightly increased. The percentage of projects with one or two bidders remained relatively flat compared with 2006.

WSDOT closely follows the experiences of other owners in Washington to get a sense of the bidding climate in the state. According to an article featured in the *Puget Sound Business Journal* in April, due to the high volume of work in Washington local contractors are choosing not to bid on work for public agencies, which typically have more regulations than private sector work. In January, a $40 million Western Washington University academic instruction center attracted just one bidder. The bid came in nearly 14% above the engineer's estimate. In March, Sound Transit received just one bid for a light rail station at Seattle-Tacoma International Airport. The bid was approximately 60% above Sound Transit's estimate.

Oil Prices Influence Construction Costs

Crude oil prices and refining trends have a large impact on the cost of WSDOT projects. From the fuel that runs equipment and transports materials to the job site, to the asphalt binder in pavement, the price of crude oil and ultimately the price of these refined products account for a significant portion of WSDOT project costs. The relationship between Hot Mix Asphalt (HMA) and crude oil prices is especially significant as virtually every activity necessary to produce and place a ton of HMA is highly dependant on petroleum products. Mining, crushing, hauling, stockpiling, and drying the aggregates all require fuel. Liquid asphalt used as a binder for HMA is derived from crude oil. Finally, the hauling of the mix to the site and the work to place and compact the asphalt also require petroleum products.

WSDOT Asphalt, Crude Oil and Diesel Fuel Indices

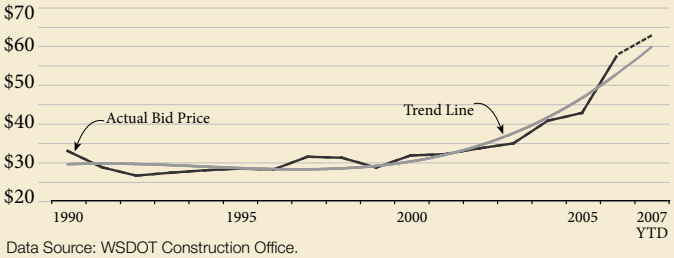


Data Source: Asphalt: WSDOT Construction Office
Diesel Fuel: US Dept. of Energy - Energy Information Administration, West Coast No. 2
Crude Oil: US Dept. of Energy - Energy Information Administration, West Texas Intermediate

Hot Mix Asphalt (HMA) prices typically follow a similar pattern to the price of crude oil and diesel fuel and in the last few years, prices have increased significantly for petroleum based products from gasoline to PVC plastics. During the second quarter of 2007, price increases for refined products like asphalt and gasoline outpaced crude oil price increases. This was due to demand for these distilled products and refinery capacity to produce them. The recent spike in asphalt prices may be due to lowered refinery utilization, as well as refiners processing different types of crude oil that produce less asphalt.

Hot Mix Asphalt Unit Bid Price

Dollar/Ton



Data Source: WSDOT Construction Office.

Construction Labor Costs Rising

Labor costs contribute roughly 40% to contractor costs to the delivery of a typical WSDOT highway construction project. Until recently, labor contract negotiations focused on benefits packages for union members, leaving wages flat. However, 2006 and 2007 negotiations brought significant annual increases to a number of trades commonly employed in the construction of a typical WSDOT project. Increases indicate that Washington State's construction activity is strong and demand for skilled construction labor may outpace supply.

Seattle's labor market made national news during the Summer of 2006 concrete workers' strike that delayed several major projects in the Seattle area including Sound Transit's light rail. In May, Seattle was in the headlines again as the contrac-

Construction Cost Trends

tor's trade association (AGC) negotiated contracts for cement masons, operators, laborers, carpenters and Teamsters working on the west side of the state.

Typically, average annual wage and fringe benefit increases have been around 3.5 % in the Seattle area. This year's negotiations brought annual increases in the range of 5% to 6% for all trades. The *Engineering News Record*, a leading construction industry periodical, reported that the cement masons and laborers settled for five year pacts with increases of 5.5% in the first year, 5 % in the second year and 5 % in the third year with re-openers for wage negotiations in the fourth and fifth years. Carpenters and operating engineers negotiated increases of 6%, 5.5% and 5% the first three years, while Teamsters agreed to increases of 5.5% the first two years and 5% the third year.

In addition to the increased cost of skilled construction labor, the demand for construction labor could outpace supply, leading to further cost increases as some contractors could face a "premium charge" to retain qualified workers. WSDOT expects the higher cost of construction labor to lead to higher overall costs for WSDOT projects as contractors build the cost of labor into their bids.

Background on Refinery Challenges

Unplanned refinery outages earlier this year had a significant effect on all refined products nationwide. Though refineries are now operating at closer to full capacity, demand for fuels continues to rise. At the same time some refineries are scaling back, delaying or cancelling projects planned to increase refinery capacity due to the high cost of construction materials and labor. Cost increases for steel, cement, labor and the higher fuel costs to run construction machinery have forced refiners to cancel expansion projects. Last fall, Tesoro Corp. canceled a 25,000-barrel-per-day expansion project planned for a plant in Anacortes, Washington.

Further, crude oil and gasoline prices have reached new highs that could make it economically feasible for refiners to make huge investments in technologies that would allow them to further break down heavier crude oil distillates into lighter fuels. The technology, known as "cracking" enables refiners to break apart the long petrochemical molecular chains found in asphalt oil into smaller pieces capable of being refined into higher-end products like gasoline. The technology is appealing to refineries because it allows them to add significant capacity for lucrative products without the permitting that would be required to construct a new refinery. No new refineries have been constructed in the United States since 1976, largely due to environmental permitting regulations. WSDOT is unaware of any refineries in Washington that are considering investing in the technology, however it is unknown what affect the increased use of this technology around the United States would have on asphalt prices nationwide or in local areas.

Cross Cutting Management Issues

Construction Cost Trends: Applying New Strategies

WSDOT Utilizes New Strategies to Attract Bidders

When contractors bid on WSDOT projects, they estimate the potential future cost of building materials and build that risk into their bid. This results in higher bids from contractors when the construction materials market is volatile, as it is now. The volatile market for construction materials makes it especially difficult for contractors bidding on large projects that may take years to construct because contractors are at risk to lose money if their bids underestimate the future costs of materials. Even contractors bidding on shorter duration jobs face underestimating costs in today's market of escalating costs for construction materials.

Use of the HMA Escalation Clause

Hot Mix Asphalt (HMA) prices are of particular concern since they have increased 34% in 2006, and 9% during the first two quarters of 2007. This increase in price prompted WSDOT to implement a HMA Escalation Clause in September 2006.

WSDOT, with advice from the Washington Asphalt Paving Association (WAPA), implemented a Hot Mix Asphalt Escalation Clause on multi-year projects statewide. The escalation clause is designed to transfer some of the cost escalation risk from the contractor to the state, therefore reducing the effect of cost uncertainty on contractor's bids. WSDOT's goal is for contracts containing the clause to have low bids submitted by contractors for HMA less than 10% above unit bid price for the side of the state the contract takes place in during the quarter the project was awarded. WSDOT and WAPA anticipate this will result in contractors submitting lower bids, and ultimately lower overall project costs for the state, because contractors would no longer have to inflate their HMA bids out of fear of under-estimating future market prices. The second goal is to make contractors less vulnerable to losses due to sudden increases in market prices of HMA. WSDOT is using a similar escalation clause for fuel prices on select multi-year jobs that have similar risks for fuel price increases and inflated contractor bids due to fuel cost uncertainty.

To date, WSDOT has awarded eight contracts containing the clause. The table below compares the average unit bid price submitted by the contractor to the average unit bid price for the western or eastern side of the state during the quarter the project was awarded. Bid prices on all but one project came within the threshold, while more than half the projects containing the clause came in below the average price. No price adjustments have been made to date on contracts containing the clause.

WSDOT is taking additional steps to make projects more attractive to contractors. WSDOT implemented a similar clause on a few multi-year projects to address concerns about rising fuel costs. Additionally, WSDOT looks for ways to make projects more attractive to contractors by bundling smaller, similar projects into larger contracts, and in some cases breaking up very large projects into smaller contracts. WSDOT is currently using the strategy of breaking up a large project on the I-405 corridor congestion relief project, which is being bid as many smaller contracts.

WSDOT Projects Utilizing the Hot Mix Asphalt Escalation Clause, October 2006 - June 2007

Project Name	Tons Awarded	HMA Price/ton	Quarter Average Price/Ton	% Difference
SR 20, Sidney Rd to Scenic Heights	17,450	$66.45	$67.85	-2%
SR 20, Fredonia to I-5	56,062	$54.02	$64.26	-19%
SR 502, I-5 Interchange	55,671	$57.13	$64.26	-12%
SR 9, Schloman Rd to 256th St	19,290	$59.92	$64.26	-7%
SR 539, Horton Rd to Tenmile Rd	68,990	$76.03	$67.95	12%
US 395, North Spokane Corridor – Freya to Farwell	36,412	$59.55	$57.48	4%
SR 304 Downtown Bremerton Pedestrian Access Improvements	5,960	$71.26	$67.95	5%
I-5 Rush Rd to 13th St – Add Lanes	134,105	$58.50	$67.95	-14%

Source: WSDOT Construction Office

Cross Cutting Management Issues

Environmental Documentation, Review, Permitting, and Compliance

Endangered Species Act 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 formal consultation with the Services: US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration/National Marine Fisheries Service (NOAA Fisheries). Projects that result in negligible affects to species require informal consultation with USFWS and NOAA Fisheries. WSDOT projects with no effect on ESA listed species do not undergo consultation with the Services but are reviewed for ESA compliance by a biologist.

Nickel Projects

The 2007-09 biennium includes 46 Nickel funded projects. Of these, 20 projects have completed ESA Review. Two projects, *I-405/SR 167 to SR 169* and *SR 522/Snohomish River Bridge to U.S. 2*, are currently under formal review at the Services. Twenty-three projects have sufficient information to begin preparing the ESA documentation and review. These projects will be completed within the next year. There is one additional project at this time that does not have sufficient information on project design to begin ESA review.

Transportation Partnership Account (TPA) Projects

Of the 132 TPA funded projects scheduled to go to advertisement in the 2007-09 biennium, 37 have completed ESA review. There are two formal consultations that are underway at this time including the *SR410/Rattlesnake Creek Slope Stabilization* and *US 12/Tieton River Bridge Crossings* projects. Seventy-seven of the remaining projects have sufficient information to complete ESA review. Fourteen projects lack sufficient information on design to identify the type of ESA review that will be required.

Pre-Existing Funds (PEF) Projects

There are 345 PEF funded projects that will undergo or have completed ESA review in the 2007-09 biennium. 109 of these projects have completed ESA review. At this moment, there are two projects undergoing informal consultation, *SR9/Thunder Creek Bridge Replacement* and *SR20/Coal Creek Bridge Scour*, as a result of the recent Puget Sound Steelhead listing. Another two projects, *Clark/Wahkiakum County Seismic Retrofit* and *US12/Tieton River Vicinity Unstable Slope*, are completing formal consultation at the Services. The remaining 2007-09 biennium PEF funded projects include 30 informal consultations, two formal consultations and 89 ESA internal reviews that will be completed in the next 18 months. There are also 111 projects that lack sufficient information at this time to determine the level of ESA Review that will be needed.

Ferry, Rail & Aviation projects

There are seven WSDOT Ferry System and Rail projects anticipated in the 2007-09 biennium. Three ferry projects have undergone consultation with the Services, but will be re-evaluated during the third quarter of 2007 for species listing changes. A fourth Ferries project will undergo formal consultation later this year. The three Rail projects planned for the 2007-09 biennium will complete ESA Review in the next year. There are no known aviation projects at this time.

ESA Compliance and Status for all WSDOT Projects

Number of projects	Nickel Projects	TPA Projects	PEF Projects	Ferry, Rail & Aviation[3]
Projects Under Review At The Services	2	2	4	0
Biological Assessment Underway	23	77	121	7
Projects Which Lack Sufficient Information To Start The Biological Assessment[1]	1	14	111	0
Endangered Species Act Review Complete[2]	20	37	109	0
Total Number Of Projects That Have Not Gone To Advertisement	46	130	345	7

[1]This means that WSDOT does not yet have enough information regarding design to begin ESA review.
[2]Projects that have completed ESA review include those requiring consultation (formal, informal and programmatic) with the Services and those that did not require consultation (no effect reviews).
[3]Ferry, Rail, & Aviation Projects are included in Nickel, Transportation Partnership Account (TPA) and Pre-Existing Funding (PEF) finance programs but are tracked seperately for environmental documentation purposes.

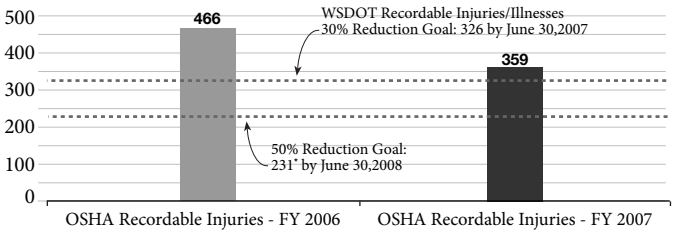
Worker Safety: Quarterly Update

WSDOT Workers: Recordable Injuries and Illnesses

107 Less Workers injured in FY 2007

In 2006, WSDOT held an agency wide 'safety stand down' and rolled out "Safety Is My Job" to all employees. The purpose was to highlight new safety expectations, better safety planning, and heighten safety accountability at WSDOT. The Executive Order established a goal to reduce the number of OSHA-recordable injuries and illnesses by 30%, from 466 to 326 during Fiscal Year 2007. WSDOT did not achieve this goal, but there were 107 fewer workers injured in 2007, and WSDOT reduced the number of recordable injures by 23% to 359 during FY 2007.

Safety Is My Job:
Goal to Reduce All OSHA-Recordable Injuries and Illnesses by 30% by the End of FY 2007



*231 represents half of each region's injury total rounded down and added together.

WSDOT focused its accident data analyses on sprains and strains, as wells as musculoskeletal disorders (MSDs) – illnesses that are commonly associated with ergonomic hazards. This allows WSDOT to design mitigation plans that target specific causes of injuries.

Target Set to 50% Reduction From Baseline

WSDOT reinforced its commitment to employee safety by observing its second Safety Stand Down on July 25, 2007, when WSDOT reviewed its safety performance for FY 2007 and announced its new accident reduction goals for FY 2008. The goal is to reduce the number of OSHA recordable injuries by 50% of the baseline (FY 2006) 231 (This number represents half of each region's injury total rounded down and added together, not half of the agency total).

WSDOT has developed several strategies designed to help achieve its new safety goal. In addition to the focus on sprains and strains, WSDOT has developed mitigation plans targeting hearing loss and other groups of injuries in FY 2008.

OSHA Recordable Injury and Illness Rates: Annualized[1]

Highway, Street, and Bridge Construction Workers

For the fourth quarter of FY 2007, the injury rate for WSDOT highway, street, and bridge construction workers was 5.7 injuries per 100 workers. The rate per 100 workers is 0.5 injuries more than the previous quarter and 2.6 injuries less than the fourth quarter FY 2006.

Annualized Recordable Highway, Street, and Bridge Construction Worker Injuries & Illnesses Rate: Maintenance & Engineer Workers

OSHA-Recordable Injury Rate per 100 Workers[1]

	FY 2006[2]	FY 2007
FY Qtr 1	14.3	4.4
FY Qtr 2	9.7	5.2
FY Qtr 3	8.2	5.2
FY Qtr 4	8.3	5.7

2005 BLS Benchmark 6.3 (calendar year)
Data Source: WSDOT Safety Office

Ferry System Workers

The injury rate for ferry workers during the fourth quarter of FY 2007 was 7.8 injuries per 100 workers. This is an increase of 0.7 injuries per 100 workers from the previous quarter and 2.3 less than the fourth quarter of FY 2006.

The tables below compare the recordable injuries and illnesses for the fourth quarter of FY 2007 to WSDOT's experience in FY 2006.

Annualized Recordable Inland Water Transportation Worker Injuries & Illnesses Rate: Ferry System Workers

OSHA-Recordable Injury Rate per 100 Workers[1]

	FY 2006[2]	FY 2007
FY Qtr 1	9.0	5.7
FY Qtr 2	9.3	7.0
FY Qtr 3	9.7	7.1
FY Qtr 4	10.1	7.8

2005 BLS Benchmark 3.9 (calendar year)
Data Source: WSDOT Ferry System

[1]OSHA 'Recordable Injuries and Illnesses" is a standard measure that includes all related deaths and work-related illnesses and injuries which result in death, loss of consciousness, days away from work, days of restricted work, or medical treatment beyond first aid. The U.S. Bureau of Labor Statistics provides the selected 2005 national average benchmark. One worker equals 2,000 hours per year.
[2]WSDOT implemented its new data collection process in January 2006. It is likely that this enhanced focus and process will lead to OSHA-Recordable injury rates which are slightly higher than the 2005 recaptured data. However, WSDOT maintains its goal that all injuries can be prevented (for more information, see the March 31, 2006 *Gray Notebook*, p. 40).

Worker Safety: Quarterly Update

Number of OSHA-Recordable Injuries by WSDOT Worker Type

Highway Maintenance Workers

For the fourth quarter of FY 2007, highway maintenance workers reported 51 OSHA recordable injuries, which account for 44% of all injuries. This was an increase of 19 compared to the preceding quarter and 3 more than the same period in FY 2006. These 51 injuries resulted in 656 lost work days. The most frequently injured part of the body was the back with 12 injuries.

Highway Engineering Workers

For the fourth quarter of FY 2007, highway engineering workers reported 19 OSHA recordable injuries, which account for 16% of all injuries this quarter. This was an increase of one over the previous quarter and 10 less than the same period in FY 2006. These 19 injuries resulted in 36 lost work days. The most frequently injured part of the body was the ear with nine OSHA-recordable Standard Threshold Shifts (see graph to the right).

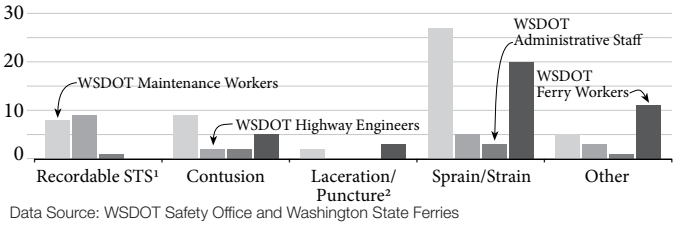
Ferry System Workers

For the fourth quarter of FY 2007, ferry workers reported 39 OSHA recordable injuries, 34% of all WSDOT injuries for the fourth quarter. This was 12 more than the previous quarter and five less than the same period in FY 2006. These 39 injuries resulted in 272 lost work days. The most frequently injured part of the body was the back with 7 injuries.

Administrative Staff

WSDOT administrative staff accounted for the remaining 7 injuries sustained in the fourth quarter of FY 2007, 6% of all WSDOT injuries sustained in the fourth quarter of FY 2007. These 7 injuries resulted in 183 lost work days. The most frequently injured part of the body was the shoulder with 2 injuries.

Number of Work Injuries by Type
April Through June 2007 (4th Quarter FY 2007)



Data Source: WSDOT Safety Office and Washington State Ferries

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

[2]Category title changed to better define incidents.

During FY 2007, a total of 359 OSHA-recordable injuries were observed. Sprains and strains continue to be WSDOT's largest injury category; 47% of all OSHA-recordable injuries this quarter and 53% of the OSHA-recordable injuries for the year.

The table below shows the total number of injuries, by quarter, for FY 2007. It provides a regional breakdown of injuries for each quarter, and is separated into three internal management reporting categories: Maintenance, Engineering, and Administrative.

Number of OSHA Recordable Injuries and Illnesses by Quarter: WSDOT Regions and Ferry System[1]

FY 2007 (July 2006 - June 2007) Target Goal: 30% Reduction in OSHA-Recordable Injuries

	Maintenance				Engineering				Administrative				FY	30%	FY 07 YTD
Regions	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	06	Reduction Goal	Total
Northwest	10	9	15	20	4[2]	3	3	8	1	0	0	4	81	57	77
North Central	2	6	3	6	0	0	0	2	0	1	0	0	33	23	20
Olympic	3	14	3	16	2	4	3	0	1[3]	0	0	(1)[3]	54	38	45
Southwest	1	3	3	2	1[2]	3	1	3	0	0	0	0	30	21	17
South Central	9	2	4	2	4	2	5	0	0	0	0	1	33	23	29
Eastern	3	6	3	5	0	1	3	1	1	0	0	0	56	39	23
Headquarters	2	1	1	0	1	3	3	5	2	3	4	3	23	16	28
Subtotal	30	41	32	51	12	16	18	19	5	4	4	7	310	217	239
Ferry System	22	32	27	39	0	0	0	0	0	0	0	0	156	109	120
WSDOT Total	**52**	**73**	**59**	**90**	**12**	**16**	**18**	**19**	**5**	**4**	**4**	**7**	**466**	**326**	**359**

Data Source: WSDOT Safety Office & Ferry System
[1]This table should be not be used to compare region to region due to a different number of employees in each region.
[2]One engineering incident was erroneously attributed to the Southwest Region. It has now been correctly placed in the Northwest Region.
[3]Injury determined to be non-work related. Correction made in the 4th quarter.

Worker Safety: Quarterly Update

Quarterly OSHA-Recordable Injury and Illness Rates

The tables on the right show quarterly rates per 100 workers (see the gray box below "How WSDOT Calculates Quarterly Injury Rates" for the calculation used to develop these rates). This is not an annualized rate and is used to compare quarter to quarter results.

Highway, Street, and Bridge Construction Workers

In the fourth quarter of FY 2007, the quarterly injury rate for highway, street, and bridge construction workers was 1.8 injuries and illnesses per 100 workers, which is an increase of 0.5 from the previous quarter rate of 1.3.

Ferry System Workers

In the fourth quarter of FY 2007, the quarterly injury rate for ferry workers was 2.5 per 100 workers. This number is a 0.7 increase from the previous quarter rate of 1.8

How WSDOT Calculates Quarterly Injury Rates

WSDOT reports quarterly data for injuries and illnesses by totaling all OSHA -Recordable injuries and illnesses reported in a quarter and multiplying by 50,000 (the normal hours worked in a quarter per 100 workers). This number is then divided by all of the man-hours worked. The resulting number represents the quarterly number of injuries and illnesses per 100 workers (see equation below).

Equation:

$$\frac{(\text{\# of injuries}) \times 50{,}000}{(\text{\# of man-hours worked})} = \text{Quarter Rate per 100 Workers}$$

Note: In the September 30, 2006 edition of the *Gray Notebook* the above calculation method was introduced, therefore quarterly rates presented are not comparable to *Gray Notebook* editions published before September 30, 2006.

OSHA Recordable Highway, Street, and Bridge Construction Worker Injuries & Illnesses Rate: Maintenance & Engineer Workers

Quarterly OSHA-Recordable Injury Rate per 100 Workers[1] (Not Annualized)

	FY 2006	FY 2007
FY Qtr 1	3.6	1.1
FY Qtr 2	1.2	1.5
FY Qtr 3	1.3	1.3
FY Qtr 4	2.1	1.8

Data Source: WSDOT Safety Office

[1]OSHA Recordable Injuries and Illnesses is a standard measure that includes all related deaths and work related illnesses and injuries which result in death, loss of consciousness, days away from work, days of restricted work, or medical treatment beyond first aid. The U.S. Bureau of Labor Statistics provides the selected 2004 national average benchmark. One worker equals 2,000 hours per year.

Recordable Inland Water Transportation Worker Injuries & Illnesses Rate: Ferry System Workers

Quarterly OSHA-Recordable Injury Rate per 100 Workers[1] (Not Annualized)

	FY 2006	FY 2007
FY Qtr 1	2.2	1.4
FY Qtr 2	2.4	2.1
FY Qtr 3	2.6	1.8
FY Qtr 4	2.8	2.5

Data Source: WSDOT Safety Office

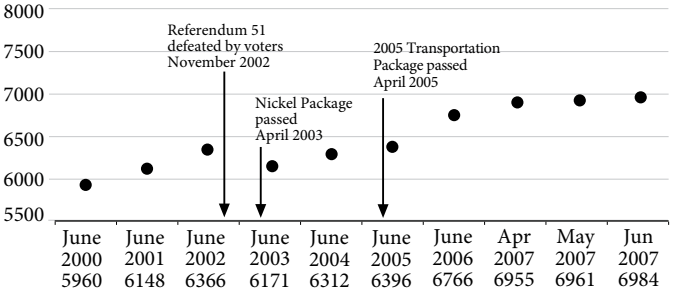
[1]OSHA Recordable Injuries and Illnesses is a standard measure that includes all related deaths and work related illnesses and injuries which result in death, loss of consciousness, days away from work, days of restricted work, or medical treatment beyond first aid. The U.S. Bureau of Labor Statistics provides the selected 2005 national average benchmark. One worker equals 2,000 hours per year.

Workforce Level and Training: Quarterly Update

Number of Permanent Full-Time Employees at WSDOT

This quarter, WSDOT employed 6,984 permanent full-time employees, an increase of 16 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.

Number of Permanent Full-Time Employees at WSDOT



Data Source: Dept. of Personnel Data Warehouse, HRMS, WSDOT and the Ferry System Payroll.

Increased Workforce Impacts Mandatory Diversity Training Compliance

This quarter a total of 1,585 workers attended diversity training offered by WSDOT; an increase of 173 workers compared to last quarter (this number includes all individuals who attended one or more training modules this quarter). WSDOT increased compliance for the mandatory training Diversity Modules Disability Awareness (up 5%) and Valuing Diversity (up 2%), but saw a 1% decrease in compliance for the Sexual Harassment/Discrimination module despite training more workers for this module than last quarter. One hundred ninety new employees required basic training in all the Diversity Modules, which hampered progress in increasing compliance for the three Diversity Modules.

Number of "No Shows" Increases

The mandatory Diversity Module training saw 188 (11%) "No Shows" out of 1,773 registered students for 96 classes this quarter. This is a 1.5% increase from the 159 (9.5%) of 1,571 "No Shows" from 93 classes the preceding quarter. The total number of "No Shows" by region, UCO, WSF, and Headquarters are reported to the Senior Management Team monthly with the status report on the Diversity Training Program.

Diversity Modules CD and Booklet Completed

The development of the alternative training modes in CD and booklet form for the three mandatory diversity modules make it possible to provide training to a portion of WSDOT employees in workforce segments that are seasonal, non-permanent, and on-call. The Office of Equal Opportunity is identifying employees in these service areas that are eligible to take the basic mandatory diversity training in CD and booklet format to increase compliance statewide. This project was completed on budget and within one week of the June 30, 2007 completion target date. The development of a Computer Based Training (CBT) for a Diversity Training Refresher Course is still in progress. This course will combine the three mandatory diversity classes into a single comprehensive diversity module.

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 Compliance	% in Compliance	% Change From Previous Quarter
Disability Awareness	8,008	5,505	2,503	65	676	5,440	68%	5%
Ethical Standards	8,008	7,624	384	1216	401	6,408	80%	-3%
Security Awareness	8,008	6,292	1,716	N/A	127	6,292	79%	-1%
Sexual Harassment/ Discrimination	8,008	5,883	2,125	206	451	5,667	71%	-1%
Valuing Diversity	8,008	5,170	2,838	65	458	5,105	64%	2%
Violence that Affects the Workplace	8,008	6,364	1,644	N/A	213	6,364	79%	-1%

Data Source: WSDOT Office of Human Resources, Staff Development
As of June 30, 2007 OEO training was revised into three courses (Disability Awareness, Sexual Harassment/Discrimination, Valuing Diversity) in June 2002, and only these revised courses are currently reported. Refresher interval for the revised OEO training is five years.

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 different 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.

Required Maintenance Training by Course

Training Program	Total Training Requirements	Total in Compliance	Percent in Compliance	Change from Last Quarter (%)	2005-07 Biennium Average
Blood Bourne Pathogens[1]	553	385	70%	2%	56%
Confined Space Entry	526	440	84%	1%	79%
Electrical Safety Awareness	279	171	61%	-1%	57%
Fire Extinguisher[1]	1,370	1,040	76%	9%	57%
First Aid[2]	1,452	1,185	82%	-1%	83%
Hearing Conservation[1]	1,330	1,032	78%	18%	76%
Lead Exposure Control[1]	81	49	60%	-6%	35%
Lockout/Tag out	575	448	78%	1%	72%
Personal Protective Equipment	1,382	1,177	85%	3%	83%
Fall Protection	733	608	83%	-1%	84%
Flagging & Traffic Control[2]	1,100	1,033	94%	3%	92%
Respirator Protection[1]	207	63	30%	9%	17%
Supervisor Return to Work	204	154	75%	-4%	73%
Hazard Communications	1,325	1,140	86%	2%	84%
Proper Lifting	1,431	1,064	74%	2%	71%
Railway Work Certification[1]	29	23	79%	-2%	69%
Drug & Alcohol Certification	1,179	1,082	92%	2%	90%
Drug Free Workplace	347	293	84%	-4%	87%
Forklift	1,106	975	88%	1%	89%
Hazardous Materials Awareness[1]	822	613	75%	-2%	73%
Aerial Lift	188	174	93%	8%	87%
Bucket Truck	385	319	83%	-1%	82%
Excavation, Trenching & Shoring	402	348	87%	2%	81%
Emissions Certification[3]	71	46	65%	32%	57%
Total	**17,077**	**13,862**	**81%**	**3%**	**78%**

Data Source: WSDOT Office of Human Resources, Staff Development
1. Refresher Training Required Annually
2. Refresher Training Required Every Three Years
3. Refresher Training Required Every Five Years

Required Maintenance Training by Region

WSDOT tracks compliance for statutorily required training programs for its maintenance workers by individual region 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. For the second quarter of 2007, all regions increased their compliance from 1% to 6%.

Required Maintenance Training by Region

Region	Percent in Compliance	Change from Last Quarter (%)	2005-07 Biennium Average
Northwest	74%	5%	70%
North Central	86%	4%	79%
Olympic	76%	3%	71%
Southwest	94%	6%	91%
South Central	84%	2%	79%
Eastern	96%	1%	91%
Headquarters - Olympia	81%	1%	53%

Data Source: WSDOT Office of Human Resources, Staff Development

Workforce Level and Training: Quarterly Update

Required Driver Safety Training

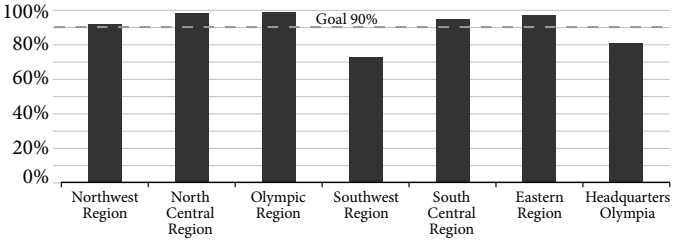
Prior to 2004, WSDOT implemented a voluntary driver enhancement class to provide driver safety training to employees. This class was replaced when the Office of Financial Management (OFM) mandated that a formal program be instituted and agency compliance be reported to OFM.

The OFM publication, Agency Motor Vehicle Management, Chapter 12.20.20, *Driving Safety Program Requirements for Specified Drivers*, directs mandatory driver safety training for state employees that drive a high number of miles while operating state-owned vehicles, and employees that have frequent accidents while operating state-owned vehicles. To meet this requirement WSDOT has implemented the *Eversafe* program. It is the responsibility of WSDOT managers/supervisors to identify drivers meeting the criteria requiring participation in the *Eversafe* program, and ensure they are trained.

WSDOT's goal is to reach 90% compliance with required driver safety training. As of the second quarter of 2007 WSDOT identified 1,151 employees that require *Eversafe* training, of those 1,050 (91%) had completed the training.

Past editions of the *Gray Notebook* reported driver safety training compliance for state maintenance workers as part of the statutorily required training listed on the previous page. As the program is no longer confined to maintenance workers, it is now being reported separately for greater clarity.

Driver's Training *Eversafe* Compliance by Region



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

Required Driver Safety Training by Region

Region	Employees Requiring Training	Training Completed to Date	Percent in Compliance
Northwest	344	317	92%
North Central	131	128	98%
Olympic	164	163	99%
Southwest	205	149	73%
South Central	111	105	95%
Eastern	180	175	97%
Headquarters - Olympia	16	13	81%
Total	**1151**	**1050**	**91%**

Data Source: WSDOT Office of Human Resources, Staff Development

Construction Contracts: Annual Update

Contract Award Amount to Engineer's Estimate

WSDOT engineers prepare cost estimates for construction projects that the agency plans to advertise for competitive bidding. After bids are received, WSDOT then reviews each bid. WSDOT's goal is to have the lowest bid received on each project be no greater than the (original) engineer's estimate. WSDOT tracks project information and compares the engineer's estimate to the award amount as an indicator of the agency's estimating accuracy. When projects are completed, WSDOT compares the final cost of the project to the awarded amount and the engineer's estimate.

138 Construction Contracts Awarded in FY 2007

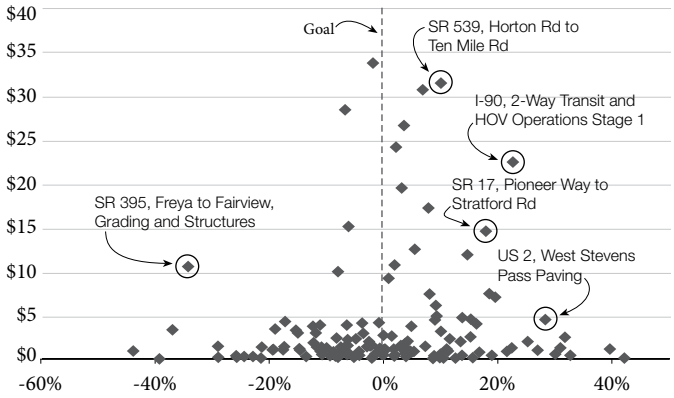
WSDOT awarded 138 highway construction contracts between July 1, 2006 and June 30, 2007 (FY 2007). The 138 highway construction contracts awarded in FY 2007 represents a 16.9% increase from the number of contracts awarded (118 total) between July 1, 2005 and June 30, 2006 (FY 2006).

For every contract awarded, WSDOT tracks the difference between the contract award amounts and the engineer's (original) estimate. The total award amount of all contracts for FY 2007 totaled $531,708,985, which was 1.2% above the total engineer's estimate of $525,491,874. The awarded total represents a 47.1% increase from FY 2006 (total value: $361, 514,031) in the value of contract awards.

The scatter graph on the above right shows the award value for each contract and the total percent above or below the engineer's estimate. Sixty seven contracts (48.6%) were awarded below the engineer's estimate. The additional 71 construction contracts (51.4%) were awarded above the engineer's estimate. This is a slight improvement from FY 2006, when 45.8% of contracts (54 projects) were awarded below the engineer's estimate and the remaining 54.2% (64 contracts) were awarded above the engineer's estimate.

Individual Contracts: Award Amount to Engineer's Estimate

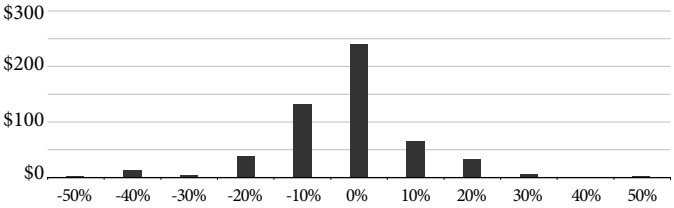
Percent Award Amount Above or Below Engineer's Estimate, Dollars in Millions



Data Source: WSDOT Construction Office

Distribution of Contract Value Over/Under Award Amount to Engineer's Estimate

Percent Award Amount Above or Below Engineer's Estimate, Dollars in Millions



Data Source: WSDOT Construction Office

Highway Construction Contracts Awarded: Year-to Year Comparison[1]

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Number of contracts awarded	176	129	141	118	138
Total award amount for these contracts	$314,534,831	$389,592,349	$500,099,488	$361,514,031	$531,708,985
Total engineer's estimate for these contracts	$355,420,644	$398,923,582	$511,364,300	$345,802,088	$525,491,874
Average % total awards were above/below the total estimate value	-6.5%	-1.4%	1.3%	1.9%	0.4%
% Total award is above/below the engineer's estimate	-11.5%	-2.3%	-2.2%	4.5%	1.2%
Combined contract value awarded below the estimate	84.0%	53.3%	74.4%	30.5%	35.5%
Number of contracts awarded below the estimate	123	85	77	54	67
% of contracts awarded below the estimate	69.9%	65.9%	54.6%	45.8%	48.6%

Data Source: WSDOT Construction Office

[1]Does not include the Tacoma Narrows Bridge, the Hood Canal Bridge, Design Build Contracts, or emergency contracts.

Construction Contracts: Annual Update

Contract Final Costs to Award Amount

Selected contracts circled in the scatter graph on the previous page had a significantly higher cost over-run. These include:

I-90, Two Way Transit and HOV Operations, Stage 1 (King County)
The contract award totaled $22.5 million, 23% above the engineer's estimate as a result of significantly higher costs for night-time work that was not taken into consideration when compiling the estimate. Five bids were received.

SR 17, Pioneer Way to Stratford Road (Grant County)
The contract totaled $14.6 million, 18% above the engineer's estimate. The increase was due to higher than expected material cost escalation and shortages for some materials. Four bids were received.

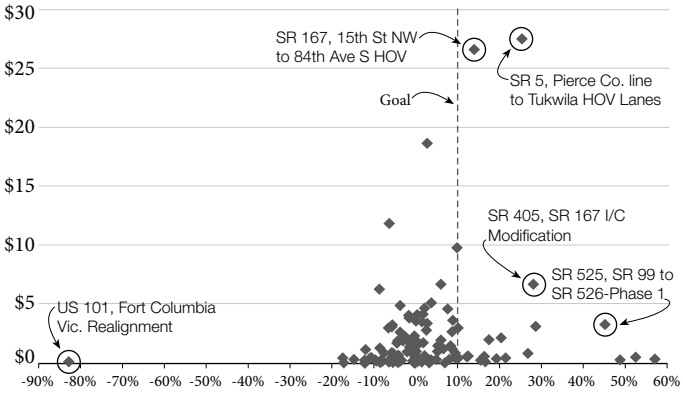
U.S. 2, West Stevens Pass Paving (King County)
The contract totaled $4.5 million, 28% above the engineer's estimate. The overage was due to asphalt price escalation as well as the remote location of the project.

WSDOT Estimates Revised to Reflect Current Costs

WSDOT monitors the current costs of construction materials for use in developing and updating project estimates. At the beginning of FY 2007, WSDOT updated engineer's estimates for all projects with estimates developed prior to January 2006. The estimates were updated using a new software application (*Bid Tabs Pro*) that allowed engineers access to more recent bid histories. Current costs for all projects were calculated and new inflation rates were applied. As a result, contracts awarded in FY 2007 were awarded at 1.2% above the engineer's estimate. By comparison, contract awards in FY 2006 were 4.5% above the engineer's estimates.

Individual Contracts: Final Costs to Award Amount

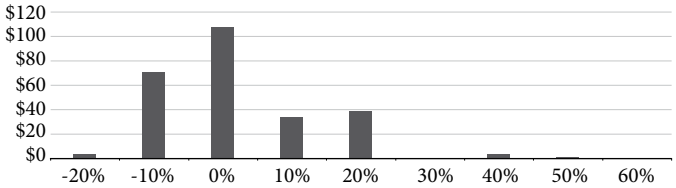
Percent Final Cost Above or Below Award Amount, Dollars in Millions



Data Source: WSDOT Construction Office

Distribution of Contract Value Over/Under Final Cost to Award Amount

Percent Final Cost Above or Below Award Amount, Dollars in Millions



Data Source: WSDOT Construction Office

119 Construction Contracts Completed

WSDOT completed 119 highway construction contracts in FY 2007, representing an 4.4% percent increase from the number of contracts completed in FY 2006 (114 contracts). For every completed contract, WSDOT tracks final construction costs compared to the original engineer's estimate and the award amount. WSDOT's goal is for the final construction costs to be less than 10% above the award amount.

Completed Contract: Final Costs to Award Amount[1]

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Number of highway contracts completed	175	147	155	114	119
Total final cost for highway contracts[2]	$375,244,919	$294,482,387	$294,988,223	$225,445,739	$259,853,522
Total award amount for highway contracts	$351,525,709	$274,495,656	$280,396,785	$201,782,248	$246,665,685
Average % final costs exceeded award	3.8%	2.9%	3.9%	3.4%	2.2%
% final cost exceeded award amount	6.7%	7.3%	5.2%	11.7%	5.4%
% of contract values less than 10% above award	65.3%	45.1%	76.3%	55.1%	68.7%
Number of contracts less than 10% above award	137	115	121	92	98
% of contracts less than 10% above the award	78.3%	78.2%	78.1%	80.7%	82.4%

Data Source: WSDOT Construction Office
[1]Does not include the Tacoma Narrows Bridge, the Hood Canal Bridge, Design Build Contracts, or emergency contracts.
[2] Without Sales Tax

Construction Contracts: Annual Update

Contract Final Costs to Engineers Estimate

Selected Contract circled in the scatter graph on the previous page exceeded the 10% threshold and include:

SR 5, Pierce County Line to Tukwila HOV Lanes, Stage 3 (Pierce County)
$5.5 million (25%) cost over-run occurred due to multiple delays caused by survey and plan errors.

SR 525, SR 99 to SR 526 – Phase 1 (Snohomish County)
$1 million (43%) cost over-run occurred due to adding drainage to this project to coordinate work with a another phase of this project under construction nearby.

Final Costs to Award Amount Improve From FY 2006

The total final cost of contracts completed in FY 2007 was $259,853,522. This exceeds the total award amount of $246,665,685 by 5.4%. By comparison, contract final costs exceeded the awarded amount by 11.7% in FY 2006 (Final costs were $225,455,739, total awards were $201,782,248).

The scatter graph on the previous page shows the final cost of each contract and the percent above or below the award amount. The final cost for 98 contracts (82.4%) was less than 10% above the award. Twenty One completed contracts (17.6%) were 10% above the award amount. On average, the final contract costs were 2.2% above the original award amount.

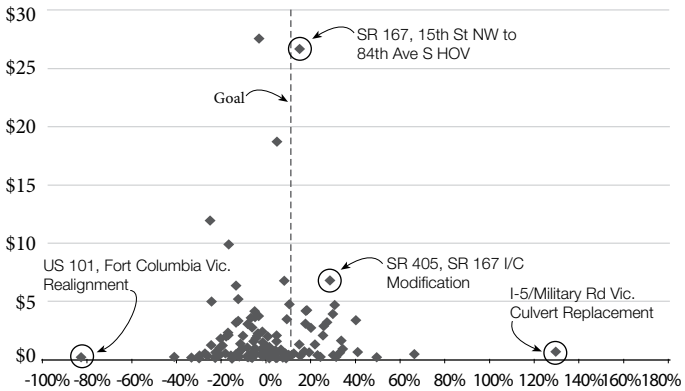
Final Costs for FY 2007 are Below Engineer's Estimate

The final contract costs in FY 2007 totaled $259,853,522. This was below the total engineer's estimate of $261,545,513 by 0.6%. By comparison, in FY 2006, contract final costs exceeded the engineer's estimate by 0.8% ($225,445,739 final, $223,751,551 estimate).

The scatter graph on the above right shows the final cost of each contract and the percent it was above or below the engineer's estimate.

Individual Contracts: Final Costs to Engineer's Estimate

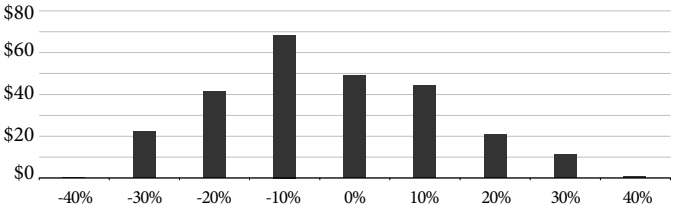
Percent Final Cost Above or Below Engineer's Estimate, Dollars in Millions



Data Source: WSDOT Construction Office

Distribution of Contract Value Over/Under Final Costs to Engineer's Estimate

Percent Final Cost Above or Below Engineer's Estimate, Dollars in Millions



Data Source: WSDOT Construction Office

Selected contracts circled in the scatter graph above had a significantly higher cost over-run. These include:

I-405, SR 167 Interchange Modification (King County)
The contract final cost of $6.8 million was 29% above the engineer's estimate and over-ran the awarded amount by 28% due to an unexpected problem encountered while drilling shafts.

I-5, Military Road Vicinity Culvert Replacement (King County)
The contract final cost of $660 thousand was 130% above the engineer's estimate and over-ran the awarded amount by 12% due to unexpected material encountered during excavation.

Completed Contracts: Final Cost to Engineer's Estimate[1]

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Total number of completed construction contracts	175	147	155	114	119
Total of construction contract estimates completed	$393,078,777	$277,017,902	$294,440,780	$223,751,551	$261,545,513
Total final cost for construction contracts[2]	$375,244,919	$294,482,387	$294,988,223	$225,445,739	$259,853,522
% total contract values cost above/below estimate	-5.6%	-2.6%	0.7%	0.8%	-0.6%
% of contract value less than 10% above award	87.1%	42.8%	74.2%	64.9%	67.8%
Number of contracts less than 10% above estimate	151	111	118	86	87
% of contracts less than 10% above the estimate	86.3%	75.5%	76.1%	75.4%	73.1%

Data Source: WSDOT's Construction Office
[1] Does not include the Tacoma Narrows Bridge, the Hood Canal Bridge, Design Build Contracts, or emergency contracts.
[2] Without Sales Tax

Asset Management: Bridge Assessment Annual Update

Annual Bridge Condition Update

WSDOT reports on the condition of its bridges to the Office of Financial Management (OFM) in accordance with reporting standards set by the Governmental Accounting Standards Board (GASB). The rating system for bridges follows criteria set for the country as a whole by the Federal Highway Administration (FHWA). The Governor's Cabinet Strategic Action Plan goal is to maintain 97% of all bridges statewide at a condition rating of good or satisfactory (fair). This measure is consistent with data provided in the Comprehensive Annual Financial Report (CAFR), which groups together the number of bridges, ferry terminal structures, and culverts. Less than three percent of bridge structures (2.6%) had a condition rating of "poor". No bridge that is currently rated as "poor" is unsafe for public travel.

New to this edition of the *Gray Notebook*, an analysis of bridge structural condition by deck area indicates that 94% (41,616,238 sq. ft.) of WSDOT's total bridge deck area (44,225,455 sq. ft.) is accounted for by bridges in good or fair condition. Bridge structures in poor condition represent approximately 6% (2,609,217 sq. ft.) of WSDOT's total bridge deck area. Nearly 48% of the

Inventory of WSDOT Bridge Structures

As of June 30, 2007

	No. of Bridges	Square Feet
Vehicular Bridges greater than 20 feet in length[1]	2,990	43,984,312
Structures Less than 20 Feet in Length	325	n/a
Border Bridges (maintained by Border State)	6	n/a
Culverts greater than 20 feet in length	89	n/a
Pedestrian Structures	59	295,690
Tunnels and Lids	39	n/a
Ferry Terminal Structures[2]	45	248,443
Buildings (I-5 Convention Center)	1	n/a
Railroad Bridges	5	n/a
Total of all Structures	3,559	44,528,445

Source: WSDOT Bridge Office
[1]The Comprehensive Annual Financial Report (CAFR) reports 3,110 which includes culverts and passenger ferry terminals
[2]CAFR reports only the number of Ferry Terminal Structures that carry vehicular traffic only

Bridge Condition Ratings and Safety

The Federal Highway Administration (FHWA) requires each state to provide assessments on each bridge to determine structural and functional adequacy. Inspectors look at the deck (i.e., the road), the superstructure (the support beams that hold up the deck), and the substructure (the piers and columns that make up the foundation). Structural assessments of these elements are the basis for condition ratings to determine whether a bridge should be classified as structurally deficient (SD). A functional obsolete (FO) rating is assessed by comparing a bridge's as-built configuration to current standards and demands. Teams evaluate the load-carrying capacity strength, height clearance, waterway adequacy, and roadway alignment leading to and from the bridge.

There are 7,548 state and local bridges in Washington, of which 1,634 (26.7%) were rated as SD/FO. Of those, 381 bridges statewide were rated structurally deficient. As of December 2006, of 3,083 total WSDOT owned bridges, 107 (3.4%) were rated as structurally deficient by FHWA. For more information about SD/FO Bridges, see page 73.

The WSDOT bridge condition ratings reported in the *Gray Notebook* focus on the superstructure and substructure when evaluating the number of bridges in "Good", "Fair", or "Poor" condition. Using this standard, 2.6% of WSDOT bridges are currently in poor condition. This differs from FHWA, which includes deck condition, in addition to superstructure and substructure conditions, in determining SD/FO ratings. Condition ratings for the superstructure, substructure, and deck range from 0 (failed condition) to 9 (excellent condition). Condition ratings of 4 and below indicate poor or worse conditions and result in structural deficiencies. No WSDOT bridge has a condition rating of less than 3 (serious condition). A bridge with a condition rating of 3 is defined as one where loss of section, deterioration, spalling or scour have seriously affected primary structural components. If any bridge has a condition rating of 2 or less, it is closed to traffic.

Bridge Structural Condition Ratings

Condition Ratings by Fiscal Year (Based on the Number of Bridges)

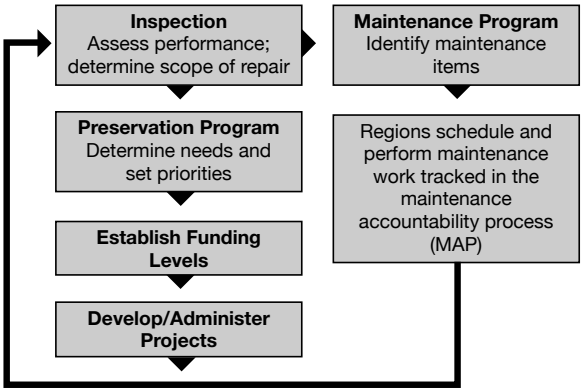
Category	Description	2001	2002	2003	2004	2005	2006	2007
Good	A range from no problems to some minor deterioration of structural elements.	85%	87%	86%	87%	89%	88%	88%
Fair	All primary structural elements are sound but may have deficiencies such as minor section loss, deterioration, cracking, spalling, or scour.	11%	10%	11%	10%	9%	9%	9%
Poor	Advanced deficiencies such as section loss, deterioration, cracking, spalling, scour, or seriously affected primary structural components. Bridges rated in poor condition may have posted truck weight restrictions.	4%	3%	3%	3%	2%	3%	3%

Source: WSDOT Bridge Office. Data as of June 30 of each calendar year

Asset Management: Bridge Assessment Annual Update

WSDOT Preservation Program Overview

Bridge repair needs are identified through the inspection program. Engineers review repair options and determine if the repair can be achieved within the scope of maintenance activities as part of the Management Accountability Process. If the repairs are of a more complex nature and cannot be addressed through maintenance activities, the issue is addressed through the bridge preservation program. The bridge preservation program determines the scope of the project needed to address the issue, the funding level required to complete the project, and prioritizes projects for completion.

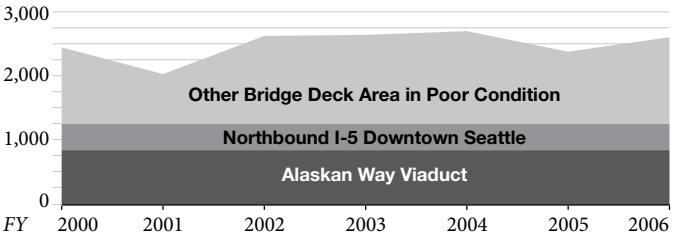


bridge deck area for all bridges in poor structural condition is accounted for by two bridge structures—the Alaskan Way Viaduct (849,960 sq. ft.) and Northbound I-5 (407,750 sq. ft.), both in downtown Seattle. However, the Spokane Street Bridge Repair Project in August 2007 will result in a condition upgrade for the Northbound I-5 Viaduct from poor to fair or good.

As a bridge's condition deteriorates it may be necessary to limit the weight of trucks that can pass over the structure. A weight restriction is determined based on the type of bridge and an evaluation of the extent of deterioration.

Bridges in Poor Condition by Deck Area

Square Footage of All Bridges in Poor Condition in Thousands by Fiscal Year



Source: WSDOT Bridge Office

Bridge Inventory: Changes from 2006 to 2007

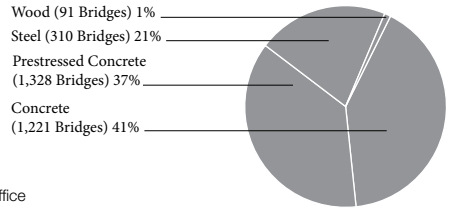
Since June 2006, the number of vehicular bridges has increased from 2,978 to 2,990. This increase is due to new bridges being built and older bridges being replaced within the highway system. WSDOT has constructed 99 vehicular bridges in excess of 20 feet in length from 2002 to 2006. This is an average of nearly 20 bridges per year. In addition, the number of bridge structures less than 20 feet long has increased from 263 to 325 since June 2006 primarily due to the inclusion of more of these structures in the inventory.

Over the past ten years, seven out of ten bridges built have been prestressed or post-tensioned concrete structures. Concrete structures represent approximately 78% of all WSDOT bridges, as compared to steel (21%) and wood (1%). The average age of all WSDOT bridges is roughly 40 years.

Type of Bridge Structure By Deck Area

Percentage of Bridge Deck Area

100% = 43,984,312 square feet of deck area for the 2,990 vehicular bridges greater than 20 feet in length.



Data Source: WSDOT Bridge Office

Bridge Preservation Program Elements

WSDOT's Bridge Preservation Program consists of the following four main program elements:

- **Inspection** – Inspect one-half of all bridges every year.
- **Replacements and Rehabilitations** – Repair bridges with deteriorated bridge elements such as concrete columns or floating bridge anchor cables. Rehabilitate mechanical and electrical operating systems on moveable bridges. Replace bridges as needed.
- **Preservation** – Extend bridge service life by repainting steel structures; also repair and overlay of concrete bridge decks.
- **Risk reduction** – Seismic retrofit of bridges and scour repair of bridge piers in rivers. This work provides a proactive approach to minimizing damage to bridges due to earthquake and higher water events.

Asset Management: Bridge Assessment Annual Update

Bridge Inspection

WSDOT inspects nearly one-half of all traffic bridges every year and the complete inventory every two years. Bridge engineers also inspect floating bridge cables, tunnels, ferry terminal structures, and sign bridges. In addition, they provide immediate bridge inspection responses if any bridge has been damaged by a vehicle or vessel.

I-90 Mercer Slough Interchange (near Bellevue, King Co.)

In some cases, monitoring of bridges between regular inspections may be necessary to determine if continuing movement requires mitigation. One example of this is at the Mercer Slough Interchange which is located on I-90 near Bellevue just east of I-405. There are several bridges at this location. The mainline structures that carry eastbound and westbound traffic are over one-half mile in length. These structures were built over Mercer Slough, a broad, flat, peat-filled wetland.

Over the past four decades, ongoing lateral movement of the 60-foot-thick peat deposit has resulted in damaging deflections to the pile supported structures and a major waterline that runs parallel to I-90. On several occasions, emergency repairs were conducted to maintain structural integrity.

In June 2007, an automated data collection monitoring system was installed at 20 different locations along the bridges. This monitoring program provides automated data collection of the superstructure deflections, including real-time remote monitoring and automated alarms when superstructure movement exceeds pre-determined thresholds.

Automated data recorders on I-90 Mercer Slough near Bellevue

WSDOT's Sign Bridge Inspection Program

Sign bridges are structures used to support signs. They can span over a highway and have two supports or they can be a cantilever structure with one support. Over the past 12 months, WSDOT's sign bridge inspection program has become very visible throughout the state. Apart from performing in-service safety inspections of sign bridges, the program has helped traffic and construction offices across the state with pre-contract assessments of sign bridges and has also responded to vehicular collisions involving sign bridges. Structures inspected include luminaires, signal poles, strain poles, as well as cantilever, full, and bridge mounted sign bridges. In the past year, vehicular impacts have damaged 14 sign bridge structures. Inspectors determined that two were deemed acceptable to remain in service, three were repaired and kept in service, five were removed from service, and four were temporarily repaired and scheduled for replacement.

Bridge Replacements and Rehabilitations

The bridge preservation program includes funding for the replacement and rehabilitation of selected bridges. The funding to build new bridges or replace existing bridges can come from a variety of sources including the Bridge Preservation Program or the Roadway Mobility/Capacity Improvement Program. Bridge replacement projects are funded using existing Preservation funds or funds from the 2005 Transportation Partnership Account. The Bridge Replacement budget for the June 2007 - 2009 biennium includes 31 projects valued at $260.5 million with the SR 104 Hood Canal having the largest single project budget of $156 million.

Bridge Replacement Projects:

- U.S. 97 Columbia River Biggs Rapids Bridge (near Goldendale, Klickitat Co.) Project details: http://www.wsdot.wa.gov/projects/us97/biggsbridge
- U.S. 2 Ebey Island Viaduct (near Everett, Snohomish Co.) Project details: http://www.wsdot.wa.gov/Projects/US2/EbeyIslandBridgeRepair/
- SR 542 Boulder Creek Bridge (near Glacier, Whatcom, Co.) Project details: http://www.wsdot.wa.gov/Projects/SR542/BoulderCreekBridgeReplacement/
- U.S. 101 Walker Creek Bridge (near Brinnon, Jefferson Co.)
- U.S. 101 West Fork Hoquiam River Bridge at milepost 98.13 (near Humptulips, Grays Harbor Co.)

U.S. 97 Biggs Rapids Bridge near Goldendale

SR 542 Boulder Creek Bridge near Glacier

- U.S. 101 West Fork Hoquiam River Bridge at milepost 99.49 (near Humptulips, Grays Harbor Co.)
- U.S. 101 Purdy Creek Bridge (near Shelton, Mason Co.) Project details: http://www.wsdot.wa.gov/Projects/US101/PurdyCreekBridge/
- SR 6 South Fork Chehalis River Bridge (near Adna, Lewis Co.) Project details: http://www.wsdot.wa.gov/Projects/SR6/ChehalisRiverBridge/
- SR 107 Slough Bridges (near Montesano, Grays Harbor, Co.)
- U.S. 12 Tieton River West Crossing (near Naches, Yakima Co.) Project details: http://www.wsdot.wa.gov/Projects/US12/TietonRiverBridge/default.htm
- U.S. 97 Satus Creek Bridge (near Toppenish, Yakima Co.) Project details: http://www.wsdot.wa.gov/Projects/US97/SatusCreekBridge/

Major Bridge Repairs

The major repair portion of the bridge preservation program includes corrective work that cannot be accomplished within typical maintenance programs. This work addresses a specific bridge element in need of repair and is not intended to upgrade all deficiencies to current standards. A prioritized list of major repair needs for bridges is developed each biennium. An unexpected problem may develop on a bridge that needs to be repaired as soon as possible. In this case an emergency contract would be used. Major bridge repair projects include the following:

- SR 109 Grass Creek Bridge (near Hoquiam, Grays Harbor Co.)
- I-5 Southbound Viaduct – Expansion Joints (in Seattle, King Co.) Project details: http://www.wsdot.wa.gov/Projects/I5/SpokaneStreetBridgeRepair/
- U.S. 101 Mud Bay bridges - Column Repair(near Olympia, Thurston Co.)
- SR 105 Johns River Bridge – Concrete Pier Repair (near Westport, Grays Harbor Co.)
- I-182 Columbia River Bridges – Expansion Joints (near Richland, Benton Co.)
- SR 153 Methow River Bridges - Rail Replacement (near Methow, Okanogan Co.) Project details: http://www.wsdot.wa.gov/Regions/NorthCentral/projects/SR153MethowRiverBridge/
- I-5 McAllister Creek Bridge - Column Repair (near Lacey, Thurston Co.)
- I-90 Homer M. Hadley Floating Bridge – Expansion Joints (near Mercer Island, King Co.)
- U.S. 12 Touchet River Bridge (near Touchet, Walla Walla Co.)

U.S. 101 Mudd Bay Bridges, Eld Inlet: Deteriorated concrete columns to be fitted with fiberglass jackets

Movable Bridge Repair

There are 17 movable bridges on state highways owned and operated by WSDOT. The Department also shares funding responsibility for the maintenance and operations of three additional movable span bridges with Oregon and Idaho. Twelve of these bridges are over 50 years old, and only two are under 40 years of age. A program to update the antiquated mechanical, electrical, and control operating systems of the WSDOT's movable span bridges was approved by the legislature in 1993.

Movable bridge repairs include corrective work on electrical and mechanical systems that cannot be accomplished within the typical maintenance program. A prioritized list of movable bridge repair needs is developed each biennium. There is currently one project under contract that is scheduled for construction in 2007.

U.S. 101 Simpson Avenue Hoquiam River Bridge (near Hoquiam, Grays Harbor Co.)

The planned project will rehabilitate the movable Simpson Avenue Bridge, which was built in 1928. The bridge has deteriorated mechanical and electrical systems along with cracking in the steel stringers. This project includes structural, mechanical, and electrical work.

Asset Management: Bridge Assessment Annual Update

U.S. 101 Simpson Avenue Hoquiam River Bridge

Preservation

Preservation is a statewide goal to keep transportation facilities in sound operational condition. The objective is to achieve the best longterm financial investment for a transportation facility and prevent failure of the existing system. In keeping with this, WSDOT's bridge preservation program aims to extend bridge service life through strategies including the repainting of steel structures and the repair and overlay of bridge decks.

Steel Bridge Painting

WSDOT owns 275 existing painted steel bridges that require routine painting. There are also eight steel painted bridges that cross a river into a border state for which WSDOT shares the cost of repainting with the border state.

Protective coatings painted on steel bridge elements are essential to prevent corrosion and loss of capacity to support traffic. Steel bridges typically need to be repainted every 15 to 20 years. WSDOT schedules a bridge to be over coated with new paint when two to five percent of the existing paint has failed. Bridge painting can become a major project because of the size of the steel structures and the complexity of safety, environmental and containment system requirements. There is currently one bridge under contract, SR 433 Columbia River Lewis and Clark Bridge. Other bridge painting projects include the following:

- U.S. 101 Columbia River Astoria Bridge (near Astoria, Oregon)
- SR 433 Columbia River Lewis & Clark Bridge (near Longview, Cowlitz, Co.) Project details: http://www.wsdot.wa.gov/Projects/SR433/LewisClarkBridgePainter/
- SR 105 Johns River Bridge (near Westport, Grays Harbor Co.)
- SR 542 North Fork Nooksack River (near Glacier, Whatcom Co.)

Bridge Deck Protection

Nationally, concrete bridge deck deterioration (from corrosion of the reinforcing steel) has been the largest bridge preservation issue for years. WSDOT has been working since the early 1980's on a systematic program to prevent concrete deck deterioration by using corrosion resistant epoxy-coated rebar in new bridges and by the repair of deterioration and traffic-related wear in existing bridges with new durable protective overlays.

WSDOT inspects and performs concrete deck testing to determine which bridges require repair and overlay through a construction contract. A threshhold criteria of 2.5% deterioration has been established to determine when a bridge without an existing overlay should be programmed for a future contract. If a bridge has an existing concrete overlay then the depth of rutting is also a factor.

Statewide there are 30 bridges that have been identified for future repair and overlay. Currently, there are nine bridges under construction, and there are three bridges scheduled to begin construction in 2008. For the 2007-2009 biennium, WSDOT will spend $27.8 million to repair and overlay 12 bridges with $13.2 million coming from the 2005 Transportation Partnership Account. Bridge deck protection projects include the following:

- I-90 Spokane Viaduct (Spokane Co.) Project details: http://www.wsdot.wa.gov/projects/i90/spokaneviaductbridgedeck or http://www.downtownfreewayfix.net/
- SR 231 Spokane River (near Reardan, Lincoln Co.) Project details: http://www.wsdot.wa.gov/Projects/SR231/SpokaneRiverBridgeDeck/
- I-5 Northbound Viaduct (in Seattle, King Co.) Project details: http://www.wsdot.wa.gov/Projects/I5/SpokaneStreetBridgeRepair/
- SR 153 Methow River Bridges Deck Repair (near Methow, Okanogan Co.) Project details: http://www.wsdot.wa.gov/Regions/NorthCentral/projects/SR153MethowRiverBridge/
- I-90 Yakima River Bridge (near Cle Elum, Kittitas Co.)
- I-82 Military Road OC at milepost 11.62 (near Ellensburg, Kittitas Co.)
- U.S. 97 South of Tonasket - Bridge Deck Repair (Okanogan Co.)

Workers on the I-90 Viaduct in Spokane replace the existing latex modified concrete overlay with a fly-ash modified concrete overlay

Asset Management: Bridge Assessment Annual Update

Risk Reduction

Earthquakes and high-water events pose substantial risks to transportation infrastructure in Washington State. As part of its bridge preservation program, WSDOT uses seismic retrofit of bridges and scour repair to mitigate the potential risks associated with these events.

Seismic Retrofit

The purpose of the Seismic Retrofit program is to minimize and avoid catastrophic bridge failures by retrofitting bridges and structures to resist future earthquakes. The 2005 Transportation Partnership Account (TPA) provides $87 million to complete projects for 172 "High" and "Moderate" risk bridges in the Puget Sound area. This work is scheduled to begin July 1, 2007 and will be completed in 8 years. The planned 2007-09 biennium budget allocates $39.2 million for the seismic retrofit of bridges. This includes $27.2 million using TPA funds and nearly $12 million using existing Preservation funding.

Number of Bridges in the Seismic Retrofit Program

Completely Retrofitted	210
Partially Retrofitted	150
No work done to date	527
Under Contract	26
Analysis Determined Retrofit not required	8
Total	921

Data Source: WSDOT Bridge Office

The first step in seismic retofit is to perform an engineering analysis to determine if an existing bridge can resist a design level earthquake. Computer models are used to apply a force to each bridge pier, which is also referred to as a "Push-Over" analysis. The capacity of the bridge pier is then compared to the demand of the design level earthquake forces. Bridge elements with a capacity to demand ratio of less than 1.0 are reviewed and evaluated to determine the most effective method to retrofit.

Select Seismic Bridge Retrofit Projects Under Contract:

- I-5 South Seattle Vicinity Seismic Retrofits (near Seattle, King Co.)
- Southwest Region Bridge Seismic I-5 / I-205 / U.S. 12 (Lewis Co., Cowlitz Co., Clark Co.)

Seismic Bridge Projects Funded by the Transportation Partnership Account:

- I-90 Eastside Bridges mileposts 9.88 to 26.87, 19 bridges (King Co.)
- I-405 Bridges, Renton vicinity, 4 bridges (King Co.)
- I-90 and I-5 to 12th Avenue South, 3 bridges (King Co.)
- I-5 Central King to South Snohomish Bridges, 26 bridges (King Co. and Snohomish Co.)
- SR 99 Aurora Avenue George Washington Memorial Bridge (Seattle, King Co.)
- I-5 236th Street SW and 228th Street SW, 2 Bridges (King Co.)

Scour Mitigation

More bridges have collapsed from the scour of bridge foundations than from any other cause. "Scour" is defined as the eroding away of the stream bed material from under bridge foundations. Scour generally happens when a river is experiencing high water flows.

Each biennium a list of bridges requiring scour mitigation is developed. WSDOT determines the type of scour repair needed for each bridge. WSDOT coordinates with the Washington State Department of Fish and Wildlife and Department of Ecology to obtain permits to perform any in-water-work. Most repairs consist of adding rock "rip-rap" around bridge pier foundations to replace streambed material that has been removed over time.

Storms this past Winter brought significant flooding to rivers throughout western Washington. In a number of instances, the floods resulted in the need for immediate scour mitigation. The Cowlitz River flooded and washed away some of the river bank near the U.S. 12 bridge at milepost 122.76 requiring immediate scour repair. Rock rip rap was placed around bridges on SR 410 after heavy river flows washed away some of the river bank material. Scour repair efforts prior to the storms were effective in protecting bridge structures. Rip rap placed around piers on the U.S. 101 Humptulips bridge north of Aberdeen did very well resisting the flooded Humptulips River this past Winter.

Current scour mitigation projects include the following:

- U.S. 101 Humptulips River (near Humptulips, Grays Harbor Co.)
- SR 9 Pilchuck River (near Arlington, Snohomish Co.)
- SR 20 Coal Creek (near Sedro-Woolley, Skagit Co.)
- SR 9 Thunder Creek (near Sedro-Woolley, Skagit Co.)

Rip rap placed around piers on the U.S. 101 Humptulips River Bridge

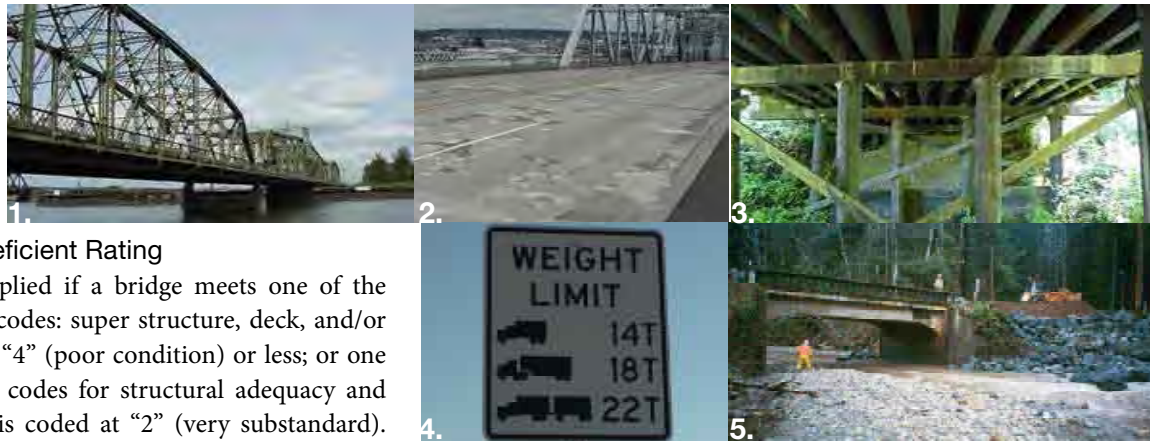
Asset Management: Bridge Assessment Annual Update

Federal Highway Administration Bridge Rating Categories

FHWA Bridge Ratings: Structurally Deficient and Functionally Obsolete

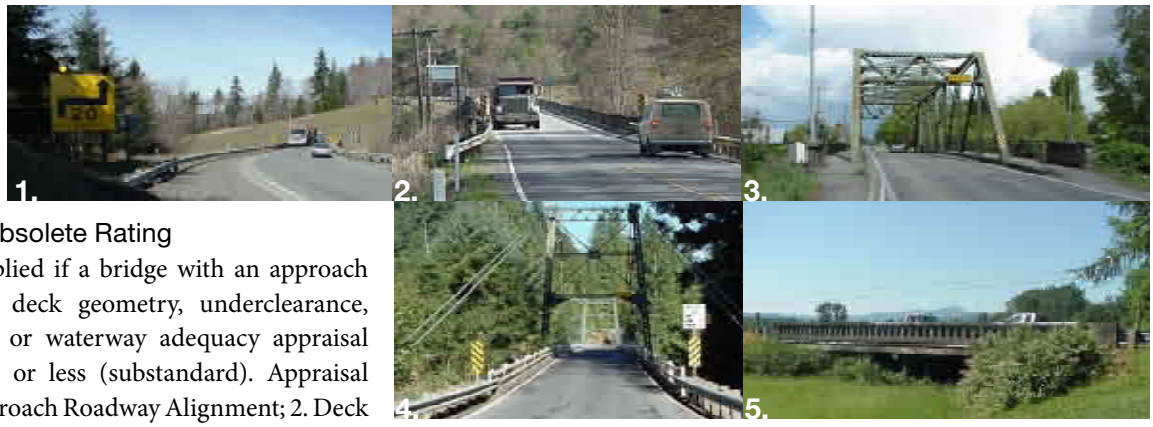
USDOT's Federal Highway Administration (FHWA) requires all state transportation agencies to report state, city, and county Structurally Deficient (SD) and Functionally Obsolete (FO) bridge ratings each year. SD and FO ratings are used to help determine federal bridge replacement and rehabilitation funding levels to the states. As of December 2006, approximately 29.5% of WSDOT bridges were classified as Structurally Deficient (SD) or Functionally Obsolete (FO) according to FHWA. This is based on a total inventory of 3,083 structures. However, only 107 (3.4%) of WSDOT bridges were classified by FHWA as SD, while 805 (26.1%) of WSDOT bridges were classified as FO.

The SD rating refers to bridge superstructure, deck, substructure, structural adequacy, and waterway adequacy. The FO rating refers to approach roadway alignment, deck geometry, under-clearances, structural adequacy, and waterway adequacy. The WSDOT Bridge Program prioritizes SD bridges with public safety concerns before addressing FO bridges that require solutions such as wider lane widths or higher vertical clearances. Aside from tracking SD and FO, WSDOT's Bridge Program emphasizes the importance of cost effective preservation programs, such as bridge replacement and rehabilitation, seismic retrofit, bridge painting, bridge deck rehabilitation, and bridge foundation scour mitigation.



The Structurally Deficient Rating

The SD rating is applied if a bridge meets one of the following condition codes: super structure, deck, and/or substructure rates at "4" (poor condition) or less; or one of the two appraisal codes for structural adequacy and waterway adequacy is coded at "2" (very substandard). Condition categories are: 1. Superstructure; 2. Deck; 3. Substructure; 4. Structural Adequacy (appraisal category); and 5. Waterway Adequacy (appraisal category).



The Functionally Obsolete Rating

The FO rating is applied if a bridge with an approach roadway alignment, deck geometry, underclearance, structural adequacy, or waterway adequacy appraisal code is rated at "3" or less (substandard). Appraisal Categories are: 1. Approach Roadway Alignment; 2. Deck Geometry; 3. Underclearances; 4. Structural Adequacy; and 5. Waterway Adequacy.

Asset Management: Capital Facilities Annual Update

Program Overview

WSDOT owns more than 1,116 buildings totalling 2,718,691 million square feet in area on 397 sites statewide, with a replacement value of approximately one-half billion dollars. Statewide, WSDOT also leases 181 buildings totaling 628,873 million square feet. WSDOT occupies a total of 3,347,564 million square feet including owned and leased property.

These buildings house staff and equipment, as well as provide materials storage for all regions. In addition to the administrative and engineering functions housed in these facilities, there are over 130 maintenance facilities and 40 mountain-top communication sites across the state.

For the 2005-07 biennium, WSDOT's capital budget for new building design, construction and property acquisition totalled $2.3 million.

The budget for operating and maintaining buildings for the 2005-07 biennium was $33.6 million. The operating program provides funding for basic building operations, regularly scheduled maintenance, and repairs to keep buildings and sites in operational condition. The program also addresses minor environmental issues, ADA compliance, and Computer Aided Facilities Management System support. Additionally, the operating program undertakes major and minor renovation and replacement projects, and it funds statewide project and program staff.

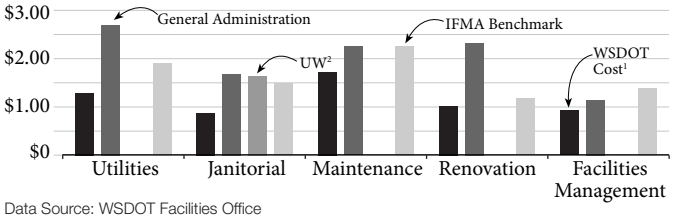
Benchmarking Shows That Conservation Pays Off

Comparing WSDOT's costs to operate and maintain facilities to similar organizations helps the agency gauge how efficiently WSDOT is operating its facilities. WSDOT compares itself to the International Facilities Management Association's (IFMA) benchmark average, General Administration (GA) spending and the University of Washington (UW) spending as a basis for benchmarking facility operating and maintenance costs.

As shown in the graph to the above right, WSDOT spends less per square foot than the IFMA's benchmark average, GA, and UW. Regarding janitorial, maintenance, and renovations expenses, funding constraints in these areas are causing increases in the WSDOT's facilities deferred maintenance backlog. Some data was not available from the UW for the 2005-07 benchmark.

2005-2007 Biennium Benchmarks

Annual Cost per Square Foot



Data Source: WSDOT Facilities Office

[1]This data does not include WSDOT's Safety Rest Areas. For more information on Safety Rest Areas, see the March 31, 2007 *Gray Notebook*.

[2]Data from the University of Washington (UW) was unavailable for all catagories except Janitorial.

Sustainability

All new WSDOT facilities with buildings that have more than 5,000 square feet in area are required by law to meet Leadership in Energy and Environmental Design (LEED) Silver Certification standards. LEED Certification Criteria is a product of the U.S. Green Building Council (USGBC). USBGC projects must be registered with the Council; after construction, the building is certified if LEED accredited professionals determine that the resulting product has met the required USBGC criteria.

WSDOT is a member of the U.S. Green Building Council, and a number of WSDOT staff have become LEED accredited professionals. This allows WSDOT to remain informed on LEED design opportunities to better meet the Governor's sustainability requirements. The first projects to benefit from the experience of LEED certified staff will be the new Olympic Region complex and the replacement Northwest Region Maintenance Facility.

Facility Conditions

WSDOT's buildings and facility structures are grouped into 236 complexes. The condition of these complexes is assessed once every two years.

The results of these assessments are used to summarize and report the condition of WSDOT's owned facilities to the Office of Financial Management as mandated by RCW 43.82.150. WSDOT identifies deficiencies in the building and site systems (such as roofs, air handling equipment, pavement, and plumbing), and estimates the cost to correct those deficiencies to identify a backlog of deferred maintenance items.

To address the backlog, deficiencies are reviewed and packaged into projects. The most critical projects are prioritized within the available funding for delivery.

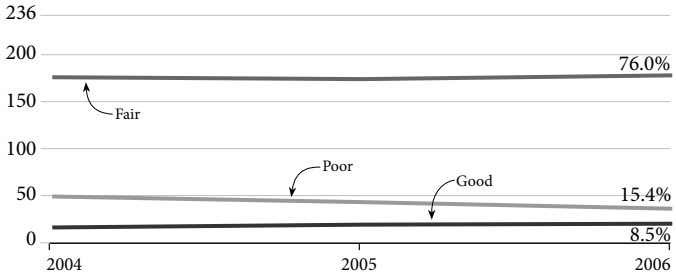
Asset Management:
Capital Facilities Annual Update

- 2002 backlog was valued at $101.1 million
- 2004 backlog was valued at $134.3 million
- 2006 backlog was valued at $135.8 million.

This backlog is expected to grow as site and building systems continue to age. Approximately 17% of all WSDOT- owned buildings are major facilities greater than 50 years old. The next facilities assessment will take place in 2008, and will be reported in the June 30, 2008 issue of the *Gray Notebook*.

WSDOT Facility Condition Trends

Number of Facilities Complexes, 2004-2006



Data Source: WSDOT Facilities Office
Data note: This data does not include WSDOT's Safety Rest Areas. Data regarding the condition of the Safety Rest Areas can be found in the March 31, 2006 *Gray Notebook* on p. 50.

73% of Preventive Maintenance Activities Completed as Scheduled in 2006

Preventive maintenance is the schedule of planned maintenance actions aimed at the prevention of breakdowns and system failures. The primary goal of preventive maintenance is to prevent the failure of equipment before it occurs. System failures can be very costly and can be an unexpected strain on funding. Such failures also result in lost production because of system downtime.

The implementation of the facilities preventive maintenance program in the 2003-05 biennium allowed WSDOT to identify critical equipment and define the required maintenance schedules for that equipment. Every maintenance discrepancy is scheduled for repair, and then prioritized on a scale ranging from 10 (Life Safety) to 2 (WSDOT Image). Limited resources prevent accomplishing all scheduled maintenance tasks, but the priority system ensures critical maintenance is completed by mandating that priorities rated 10 to 6 receive the most attention.

- In 2005, WSDOT scheduled 4,405 preventive maintenance activities, of which 3,832 (86%) have been completed.
- In 2006, 7,077 preventive maintenance tasks were scheduled, and 5,212 (73%) have been completed.
- In 2007, WSDOT has planned 9,212 preventive maintenance tasks. Of these, 1,247 (13.5%) have been completed to date, and 3,141 (47%) are currently in progress.

Capital Facilities Construction Projects 2005-07

Thurston County Light Industrial

The new Olympic Region Complex will consolidate region resources and work groups in a single location. Along with staff assigned to the current Olympic Region Headquarters site in Tumwater, six satellite offices in Thurston County will be incorporated into the new region complex. By combining and sharing resources, the new office complex will improve communication, maximize the use of shared meeting rooms, vehicles, and common areas, as well as relieve the burdensome and costly building maintenance work needed to sustain operations at the existing Tumwater complex built in the 1930's. This will be a design-build delivered project. A predesign study is currently being developed and will be submitted to the Legislature on September 1, 2007.

Spokane Street Section Maintenance Facility

A new facility will be constructed in Seattle adjacent to WSDOT's existing Corson Avenue site. The new facility will accommodate urban Seattle maintenance equipment and crews that maintain SR 509, SR 599 and parts of I-5, I-90, SR 99 and SR 520. Currently, crews are housed in outdated facilities at Spokane Street that were built in the 1930's. The current facilities are also located on land contaminated with gasoline and diesel fuel, which will be cleaned up by WSDOT to meet current environmental standards. The old site will continue to be used for a base of operations for materials testing staff, and for staging materials and equipment. Predesign studies will be developed for this project in the 2007-09 biennium.

Ephrata Area Maintenance Facility

A rebuild of the old 1950's Ephrata facility on its existing site will improve the work space for the maintenance crew and equipment mechanics. The Ephrata facility supports maintenance of parts of I-90 and several state routes in the Moses Lake, George and Othello vicinities. Predesign studies will be developed for this project in the 2007-09 biennium.

Asset Management:
Capital Facilities Annual Update

Wenatchee Administrative Building Equivalent Value Exchange
As the final phase of a staged relocation of the North Central Region Complex, WSDOT proposes to exchange the North Wenatchee Avenue property and two other Wenatchee vicinity properties for construction of a new administrative building and improvements at the WSDOT owned Euclid Avenue Facility. Administrative and project engineering functions will occupy the new facilities. Space needs programming is planned to begin in August 2007.

Capital Facilities Construction Projects 2007-09

Vancouver Light Industrial
As the final phase of a staged relocation of the 1930's built Vancouver Regional Office Complex, this project will move the remaining functions from the Main Street facility to a location that is central to the WSDOT's operations area and zoned for light industrial activities. Buildings will be constructed to house regional and local maintenance crews and their equipment. The region-wide functions consist of striping, signals, bridge, large signs, and facilities maintenance. The local maintenance crews are responsible for highway maintenance activities on sections of I-5, I-205, SR 14 and SR 500 through SR 503. Funding was approved in the 2007 Legislature to acquire property.

Tri Cities Area Maintenance Facility
A new facility will be constructed at a location that is central to the area of operations and zoned for light industrial functions. This facility will replace the existing antiquated and undersized Pasco Area Maintenance Facility that supports the highway maintenance activities on sections of I-82, I-182, U.S. 395, U.S. 12, SR 124, SR 240, and SR 397. Funding was approved in the 2007 Legislature to acquire property.

New Prioritization Process for Major Renovation Projects

Major renovation projects typically include roof, paving, HVAC, cranes, elevators, hoist, and ADA renovations. The projects are prioritized each biennium based on needs identified through condition assessment reviews.

In May 2007 a new prioritization process was used to better address critical needs with limited funding. Listed below are the priority categories:

- Safety/Code Compliance – Hazardous site or building conditions that jeopardize the health and safety of the users, or are necessary to address conditions that do not comply with local, state or federal regulations.
- Environmental – Site or building conditions not in compliance with local, state or federal environmental regulations.
- Building preservation – Prevention or correction of failed building systems to prevent further facility deterioration.
- Utilities – Site or building water, sewer and electrical service deficiencies.
- Mechanical Systems and Energy Conservation – Failing or inefficient HVAC, electrical and plumbing systems.
- Function – Shortage and inefficient space that impact mission critical operations
- Security – Site or building security deficiencies.
- Site – Site conditions requiring paving or drainage corrections or additions.

WSDOT utilizes a variety of contractors as well as state forces for renovation projects. The table below reflects the total cost from all sources for selected projects from the 2005-07 biennium.

Renovation Project Cost and Operationally Complete Date

2005-2007 Biennium

	Project Cost	Operationally Complete
HQ - Transportation Bldg Data Center HVAC Replacement (ESCO)	$1,040,000	Mar 2007
NWR - Kent Hoist Replacement	$136,609	Feb 2006
NWR - Mt. Vernon Hoist Replacement	$76,092	Feb 2006
NCR - Goat Mt. Radio Tower Installation	$132,632	Dec 2006
NCR - Euclid Ave. Landscaping	$73,506	May 2006
SWR - Morton & Toledo Site Improvements	$407,949	Jan 2006
SWR - SWR HQ Replace HVAC System Controls (ESCO)	$1,088,770	Aug 2005
ER - Ione SMF Site Drainage and Paving Renovations	$157,797	Mar 2006
NWR - Corson Ave. Paving - Phase II	$132,343	May 2007
SCR - Union Gap Freight Elevator	$84,619	Apr 2007
HQ - TDO Storage Shed	$48,201	Oct 2005
Dayton Ave. Interior ADA Improvements	$76,018	Oct 2006
Tumwater Mats Lab Perimeter Landscape Replacement	$38,804	Jun 2006

Data Source: WSDOT Facilities Office

Highway Safety: Annual Update

Keeping citizens safe on Washington's highways is a top priority for WSDOT and the state. 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 demonstrate the effectiveness of these strategies to improve highway safety, WSDOT collects and analyzes highway traffic incident data. This report will feature an annual update on:

Topic	Page
2006 Traffic Fatality Data	68-69
Before and After Safety Study	70-71
Seat Belt Usage	72
Centerline Rumble Strips	73

3% Decrease in Traffic Fatalities Since 2005

Over the past decade, there has been a downward trend in traffic fatalities on Washington State's highways, city streets, county roads, and other public roadways. Washington experienced a decrease in fatalities in 2003 and 2004, recording 600 and 567 deaths, respectively. In 2005, fatalities spiked to 654, the highest number since 2001. However in 2006, total fatalities on Washington's public roads decreased 3%, from 654 in 2005 to 632.

Washington State Traffic Fatalities, 2001-2006

2001	2002	2003	2004	2005	2006
649	659	600	567	654	632

Data Source: Fatal Accident Reports System

Comparing Fatal and Disabling Injury Collisions and Vehicle Miles Traveled

Traffic fatality rates are commonly expressed as deaths per 100 million vehicle miles traveled (VMT). The rate in fatal crashes decreased by 4%, from 1.17 per 100 million VMT in 2005, to 1.12 per 100 million VMT in 2006.

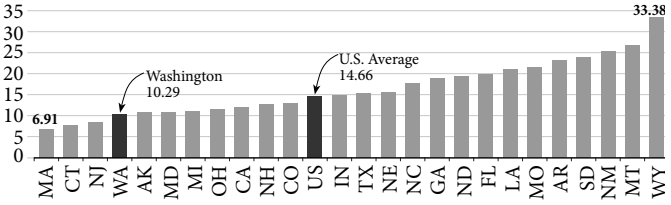
Over the past 16 years, the fatality rate on Washington's public roads has decreased 39%, from 1.85 in 1990, to 1.12 in 2006. During this time, fatal and disabling injury collisions on Washington's highways have declined 53%, from 2,491 collisions in 1990, to 1,166 in 2006; while, the VMT has increased by 34%.

In 2005, the national fatality rate was 1.45 per 100 million VMT, compared to Washington's rate of 1.17 per 100 million VMT. The national fatality rate for 2006 is unavailable at this time.

Fatality Rates per Capita

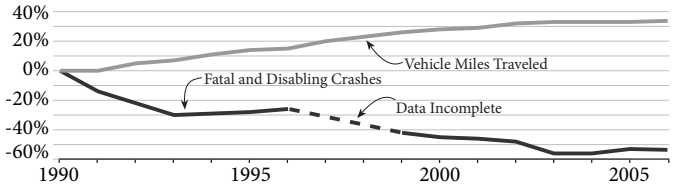
Washington's average fatality rate per capita is about 10 traffic fatalities for every 100,000 people, which is below the national rate of approximately 15 fatalities per 100,000 people. In 2005, as in 2004, Washington ranked seventh in the nation for fewest traffic fatalities in relation to population.

Rate of Fatalities Per Capita in the U.S.
Sampling of States
(Public Roads: Highways, City and County Roads)
Traffic Death per 100,000 Population in 2005



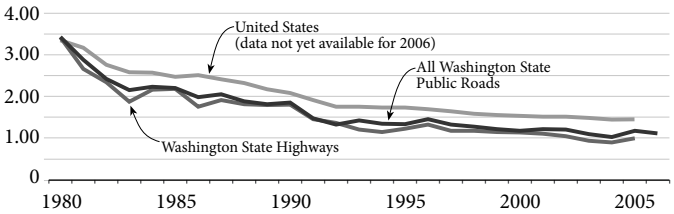
Provided by: WSDOT-Traffic Data Office
Data Source: National Highway Traffic Safety Administration (*Traffic Safety Facts 2005 Book*)

Fatal and Disabling Crashes and Vehicle Miles Traveled (VMT)
Washington State Highways (State Routes and Interstates)
Percent Change Since Year 1990



Data Source: WSDOT Traffic Data Office

Traffic Fatality Rates in Washington Compared to the National Average
Fatalities per 100 Million VMT: 1980-2006



Provided by: WSDOT Transportation Data Office
Data Sources: U.S. Fatalities/VMT from NHTSA Traffic Safety Facts; WA Fatalities from FARS; State Highway Fatalities from WSDOT Transportation Data Office; WA VMT from WSDOT Transportation Data Office.

Highway Safety: Annual Update

Fatal and Disabling Accident Rates by County

Safety is a major issue for highway system users in both urban and rural areas. In reviewing the fatal and disabling data by county, rates for several counties decreased while others increased (see the map below). Analysis of the data at the county level can provide helpful insights into accident trends and types; safety analysts and engineers use this to determine where to recommend strategic safety improvements. Currently, 50% of highway safety improvement funds goes to rural counties and 50% goes to urban counties.

Net Change in Number of Fatal/Disabling Accidents Between 2003-2005 and 2004-2006 Data Sets

County	(#) Net Change	County	(#) Net Change
Adams	-7	Klickitat	-8
Asotin	-1	Lewis	9
Benton	-3	Lincon	2
Chelan	-9	Mason	8
Clallam	-4	Okanogan	-3
Clark	8	Pacific	-3
Columbia	-1	Pend Oreille	-1
Cowlitz	15	Pierce	1
Douglas	-1	Skagit	-5
Ferry	-3	Skamania	-3
Franklin	-2	Snohomish	5
Garfield	-4	Spokane	6
Grant	6	Stevens	7
Grays Harbor	-3	Thurston	-3
Island	-4	Wahkiakum	4
Jefferson	-7	Walla Walla	13
King	38	Whatcom	5
Kitsap	-19	Whitman	2
Kittitas	-1	Yakima	11

Source: WSDOT Traffic Data Office

Current Combined Fatal and Disabling Accident Rate on State Highways by County*

Average Annual Fatality Rate per 100 Million VMT Traveled on Non-Interstate Routes, 2004-2006

Fatal/Disabling Accident Rate

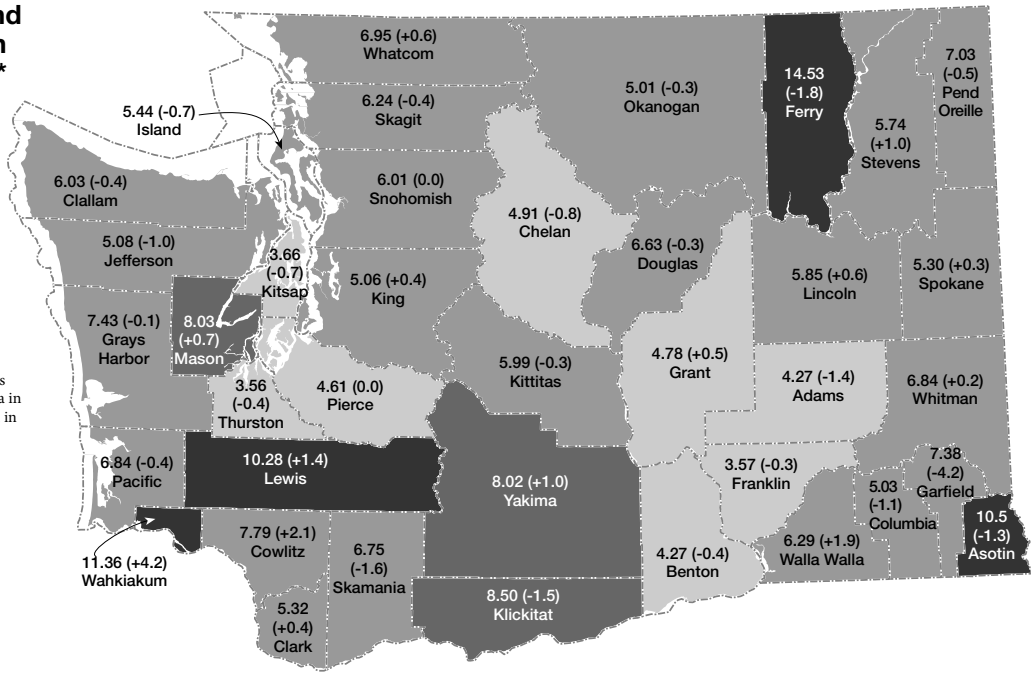
< 5 | 5 - 8 | 8 - 10 | > 10

4.78 (+0.5) Grant — Fatal & Disabling Injury Rate; Change from last reporting period; County Name

* Note: Combined, Rural, and Urban Rates do not include Interstate.

Federal Law Title 23 U.S. Code Section 409 prohibits the discovery or admission into evidence of this data in Federal or State Court proceedings or consideration in any action for damages.

Data Source: WSDOT Transportation Data Office
Provided by: WSDOT Systems Analysis and Program Development.



Highway Safety: Annual Update

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 (see page 73 for more on centerline rumble strips). As part of a continuing effort to determine the effect of these projects on reducing the number and severity of traffic collisions, WSDOT has conducted its fourth annual Before and After Safety Study.

Forty-Seven Before and After Projects Result in Collision Reductions

Forty-seven (47) projects resulted in a 12% reduction (105 collisions) for all types of collisions (789 compared to 894), and a 27% reduction (103 collisions) in all injury/fatal collisions (283 compared to 386) in this Before and After study. The number of property damage only collisions remained steady. New to this report are the results on collisions with disabling 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 which was developed to identify Washington State's traffic safety needs and to guide investment decisions in order to achieve significant reductions in traffic fatalities and disabling injuries. Analysis shows that implementing these 47 projects have reduced fatal and disabling injury collisions by 37% (11.2 collisions), which is 19.3 collisions in the after period versus 30.5 in the before period. Although the reduction figures for "All Types" and "Property Damage Only" categories are low, the reduction in injury and fatal collisions, and more specifically the disabling and fatal collisions, remain significant.

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 accidents. As such, these types of projects typically do not show a significant decrease in collision results in Before and After studies. Collision reduction projects focus on high accident locations and corridors and tend to show a reduction in accident numbers within the first 36 months of the completion of projects. As WSDOT implements more risk prevention type of projects, Before and After collision reduction numbers may level off. WSDOT is exploring performance measurement methods for better assessing the impacts of risk prevention type of projects.

The date range for all completed projects used within the study is April 1, 2003 through March 31, 2005. At the time of this study, the most current available collision data within the state repository was through March 31, 2007. Therefore, the date range for the completed projects within this study allows the possibility of incorporating projects with the minimum 24 month interval for the "after" period (April 1, 2005 through March 31, 2007). With the threshold changes (see paragraph below), coupled with an additional two or more years of available data since the last Before and After Study in the December 31, 2005 *Gray Notebook* p. 45. (all cited projects within that study used data through December 2004), this current study yields 47 new projects that have not been previously report.

For a list of all 47 projects, go to projects in the Before and After Study see http://www.wsdot.wa.gov/Accountability/Publications/PerformanceDocuments.htm#graynotebook.

Data Collection Threshold Changes

In the first *Gray Notebook* report 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 increased months for both time periods. This study includes the most comprehensive amount of data to date. Either 24 or 36 months for the Before period, and 24 or 36 months for the After period was used. Reporting the number of months in this manner is a departure from past editions. In past reporting the number of months could have been, for example, 28 months for the Before period and 30 months for the After period. This allowed the data to be influenced by seasonal factors. In this report the new data collection process negates this possible influence by strictly using 24 or 36 month intervals. Another

Before and After Results for 47 Safety Projects

Average Number of Collisions per Year

	Before Period	After Period	% Reduction	Last Report %Reduction
All Types	19.0	16.8	12	35
Property Damage Only	10.8	10.8	0.4	30
All Injuries/ Fatalities	8.2	6.0	27	43
Disabling Injuries and Fatalities	0.6	0.4	37	N/A[1]

Data Source: WSDOT Transportation Data Office
[1]Data was not evaluated.

change from past Before and After studies is that 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.

In previous editions, the Before and After period data was reported on an "average per project per year" basis. This edition reports "all projects combined per year", however the percentages of reduction are unaffected by this change.

Three Highlighted Projects from the Before and After Study

SR 500 Eastbound Off Ramp to Andresen Road

This project involved delineation adjustments applied to the end of the SR 500 eastbound off ramp at milepost 0.47, which is stop controlled and only permits right turns. This ramp has been designated as a High Accident Location (HAL) since the 2003-05 biennium listing. The traffic island on the left side of the road was altered and widened, hatched pavement markings were installed on the right straightening the approach to the intersection. The crosswalk was moved slightly and additional signage was added. This enhancement results in motorists coming to a complete stop perpendicular to Andresen Road before making the right-turn and also more effectively alerts trailing motorists of the upcoming stop condition. The improvement in safety has been very apparent. For the period of April 01, 2001 through March 31, 2004, there were an average of 10 collisions per year, all of which were rear-end collisions. In the two year period following the improvements, there has been an average of 3.5 collisions per year, still predominately rear-end collisions. The number of injury accidents has dropped from 6.7 to 1 per year. The improvements have resulted in a 65% reduction in total accidents and an 85% reduction in injury accidents.

SR 500 Eastbound Off Ramp to Andresen Road

SR 516/30th Avenue South Vicinity

This small project, which restricts left turns to and from SR 516 at 30th Avenue South as of the Fall of 2004, resulted in significant safety benefits. Left turning vehicles accounted for nearly 85% of the accidents in the three years prior to the project, including all three of the accidents with evident injuries. By placing C-curb and signage to eliminate the left turns, the average number of accidents a year dropped by 14, a reduction of 83%. No accidents with evident injuries and only one accident with possible injuries have occurred on this section of roadway in the two years following the project. This is a dramatic improvement when compared to the average of six possible or evident injury accidents occurring each year preceding the work.

I-5 Bridgeport Way On-ramps

For this project, both the I-5 northbound and southbound on-ramps' curves were realigned, roadway side-slopes were flattened, and additional guardrails were installed.

SR 516/30th Avenue South Vicinity

For the northbound on-ramp, the Before period had 28 single vehicle run-off-the-road collisions resulting in 23 injuries. The After period resulted in five similar collisions resulting in two injuries, a 91% reduction in injuries.

For the south-bound ramp, the Before period had 14 single vehicle collisions resulting in 10 injuries. The After period resulted in one similar collision resulting in zero injuries, and a 100% reduction in injuries.

Bridgeport Way On-Ramp

Highway Safety: Annual Update

Seat Belt Use

Washington State has Highest Seat Belt Use in the County

In 2006, Washington State was ranked first in the national ranking for seat belt usage with a 96.3% usage rate, which is a 1% increase since last year. This is the highest seat belt rate ever reported by a state. Washington's seat belt usage rate has shown a steady improvement of about 1% per year since 2004, and has been above 90% since 2002.

Along with speeding and impairment from drugs or alcohol, not wearing a seat belt is one of the three major behavioral risks associated with motor vehicle accident deaths in Washington State. An analysis of traffic deaths from 2001 to 2005 showed that 47% of all motor vehicle occupants killed in collisions were unbelted. *Target Zero,* the state's strategic highway safety plan, identifies increasing seat belt usage among the remaining 4% of motorists as a primary strategy for improving safety on Washington's roads. Stricter seat belt enforcement and the "Click it or Ticket" campaign have helped improve seat belt usage to date.

For more information on *Target Zero,* please visit the Washington Traffic Safety Commission website: www.wtsc.wa.gov/

Seat Belt Usage Patterns

The Washington Traffic Safety Commission conducts an annual survey to gather detailed information about seat belt usage. For vehicle classes, passenger cars (96.9%) and SUVs (97.0%) had the highest usage rates. Interstates, with higher speeds, show a higher seat belt use rate (97.65%) than city streets (91.2%). For more information on Washington state seat belt usage, please visit: http://www.wa.gov/wtsc/research/default.htm.

Percent of Seat Belt Usage Nationally: Top Six States

Top Six Ranking States and Territories for 2006, 2005, and 2004

Rank	State	2006	2005[1]	2004[1]
1	Washington	96.3%	95.2%	94.2%
2	Michigan	94.3%	92.9%	90.5%
3	Oregon	94.1%	93.3%	92.6%
4	California	93.4%	92.5%	90.4%
5	Puerto Rico	92.7%	92.5%	90.1%
6	Hawaii	92.5%	95.3%	95.1%

Data Source: Traffic Safety Facts: Research Note DOT HS 810 690 (US DOT NHTSA)
[1]Not in ranking order, provided for comparison purposes only.

Washington Seat Belt Use Rate by Type of Road

By Type of Road, 2006 and 2005

Rank	Type of Road	2006	2005[1]
1	Interstate Highways	97.6%	96.9%
2	State Routes	95.8%	93.0%
3	US Routes	95.3%	93.9%
4	County Roads	93.1%	91.0%
5	City Streets	91.2%	92.5%

Data Source: Washington Traffic Safety Commission
[1]Not in ranking order, provided for comparison purposes only.

Centerline Rumble Strips

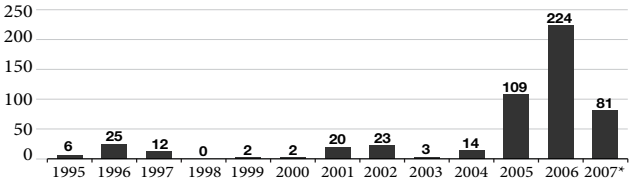
The early success of centerline rumble strips to reduce crossover collisions on two lane highways has led to further investments in this safety strategy. Evaluation of the earliest installations on SR 522 and US 12 (1995-1997) indicated a very positive trend in reducing crossover collisions. This evaluation led to additional installations, primarily in Corridor Safety Project locations, during 2001-2003. The subsequent evaluation of these locations lead WSDOT to invest further.

Since 2005, more than 400 additional miles of centerline rumble strips have been installed in Washington State, with many more locations being added throughout the next year. A total of 521 miles have been installed as of May 2007. However widening work on SR 522 and US 12 have reduce this amount to 508 miles of centerline rumble strips.

Centerline rumble strips continue to show their effectiveness

More than 107 miles of centerline rumble strips have at least two years of collision data available since their installation. An evaluation of those areas shows that rumble strips are reducing crossover collisions by 37%. Even more significant, fatal and disabling injury crossover collisions have been reduced by 55%.

Number of Miles of Centerline Rumble Strips Installed
1995 - 2007



Data Source: WSDOT Highways and Local Programs
* Through May 2007.
Note: Total Miles Installed = 520.51 miles. Current Total = 508 miles. (Less than total due to widening of SR 522, 508 miles vs. 521 miles.

Incident Response: Quarterly Update

WSDOT's Incident Response Program consists of several components and services designed to safely and quickly clear traffic incidents and reduce congestion. Incident Response service patrols handle a variety of activities ranging from minor incidents such as changing a flat tire to major incident responses for serious collisions and natural disasters. Following major incidents, WSDOT Incident Response team members work closely with other state and local agencies to provide services including traffic control and clean-up efforts. The Incident Response Program works in partnership with the Washington State Patrol (WSP), other public agencies, and third party incident responders.

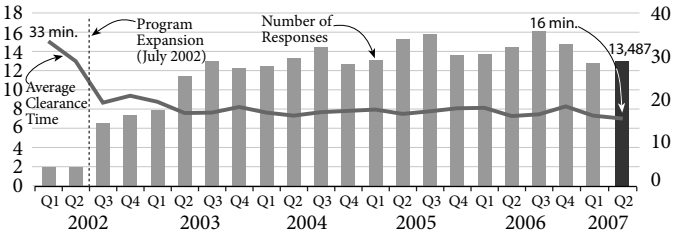
Average Clearance Time Remains Steady

In the second quarter of 2007, the WSDOT Incident Response Program responded to 13,487 traffic incidents. This is an increase of 0.4% from last quarter, and a decrease of 7% from the same quarter last year. The average clearance time was 16.0 minutes this quarter, as compared to 16.3 minute last quarter and 16.0 minutes from the same quarter last year, representing a decrease of 0.5%.

For the quarter, 8,262 (61.3%) of the 13,487 responses were resolved in under 15 minutes, 4,235 (31.4%) took 15 to 90 minutes to resolve, and 187 (1.4%) took 90 minutes or longer to clear. The remaining 803 (5.9%) were IR truck dispatches that were unable to locate the incident.

Number of Responses and Overall Average Clearance Time for All Incidents

January 2002 - June 2007, Number in Thousands



Data Source: WSDOT Incident Response Tracking System.

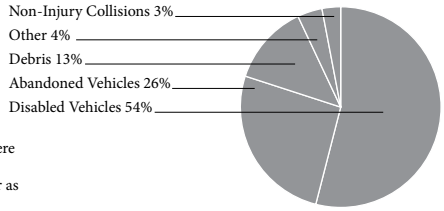
Note: Program-wide data is available since January 2002. Prior to Q3 of 2003, number of responses by IRT are shown. From Q3-2003, responses by Registered Tow Truck Operators and WSP Cadets have been reported in the total. Average Clearance Time does not include "Unable-to-Locate" responses into calculation.

Number of Response to Fatality Incidents Up 26% from Previous Quarter

In the second quarter of 2007, WSDOT responded to 38 fatality collisions statewide. WSDOT assisted the Washington State Patrol with clearing those incidents in an average time of 245 minutes. This is a 26% increase in the number of fatality collisions and a 12% increase in clearance time compared to last quarter which had 30 fatality incidents and an average clearance time of 220 minutes. Compared to one year ago, the second quarter of 2006, fatality collisions are up 41% from 27, however the average clearance time for fatality collisions is nearly the same, down one minute from that quarter's average clearance time of 246 minutes.

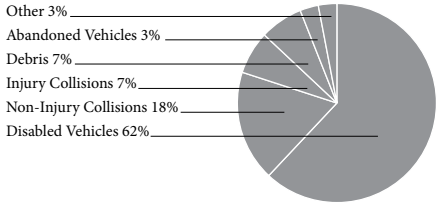
Incidents Lasting Less Than 15 Minutes (8,262) 61.2%

Fatality, and Injury Collisions were less than 1% (not shown). There were 7 Fires and 1 Hazardous Materials involved incidents in addition to or as a result of above incidents.

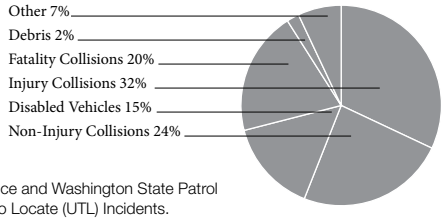


Incidents Lasting 15 to 90 Minutes, (4,235) 31.4%

There were 6 Hazardous Materials and 32 Fire involved incidents in addition to or as a result of above incidents.



Incidents Lasting 90 Minutes and Longer (187) 1.4%



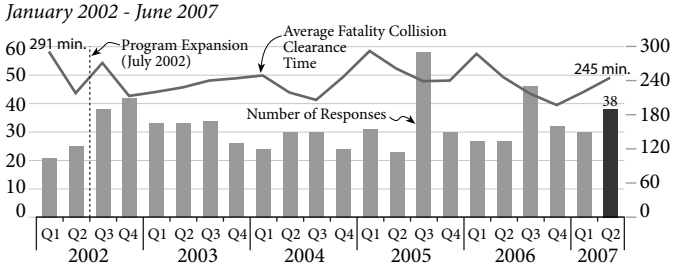
Data Source: WSDOT Traffic Office and Washington State Patrol
Note: Does not include Unable to Locate (UTL) Incidents.

WSDOT Incident Response Team

Incident Response Team (IRT) personnel are on-call to respond to major incidents 24-hours a day, seven days a week to provide traffic control, traffic re-routing, mobile communications, and assistance in incident clearance. Expansion of the IRT program in 2002, mobilized several IRT units to a peak traffic period "roving" mode; it also doubled WSDOT's IRT fleet to 38 vehicles. As of April 2007, WSDOT's IRT program includes 55 vehicles and 53 designated roving routes statewide, 48 of which are currently filled (more information on the IR program can be found at www.wsdot.wa.gov/Operations/IncidentResponse/).

WSDOT Responses to Fatality Collisions Statewide

January 2002 - June 2007



Data Source: WSDOT Incident Response Tracking System (WITS).

Incident Response: Quarterly Update

Incidents Lasting 90 Minutes or Longer

Governor's Cabinet Strategic Plan Goal: Reducing Average Duration of Incidents Lasting 90 Minutes or Longer

The Incident Response Program places a special emphasis on reducing the number of incidents that take more than 90 minutes to clear. Through the Cabinet Strategic Action Plan, Governor Gregoire has set a target to reduce the total average duration of over-90-minute incidents by 5% for nine key highway segments (see the September 30, 2006 *Gray Notebook* for more information).

The data used to calculate these performance measures is jointly provided by WSDOT and Washington State Patrol (WSP). The baseline was calculated using incidents lasting 90 minutes or longer from July 1, 2005 to June 30, 2006. The average duration of incidents lasting over 90 minutes during that period of time was 174 minutes, and the Cabinet Strategic Action Plan goal is to reduce the average duration to 165 minutes for each incident. The data includes all over-90-minute incidents on the nine key segments, regardless of whether an incident resulted from a collision or not, and includes highway ramps and interchanges. Due to data limitations, this particular measure tracks the duration of clearance time between detection of the incident and all lanes clear for traffic.

The "all lanes reopened" criteria differs from the WSDOT measurement standard in which incidents are considered completely cleared when "all response vehicles (e.g., patrol cars, incident response trucks) have left the scene" of the incident. This occurs after all lanes have been cleared.

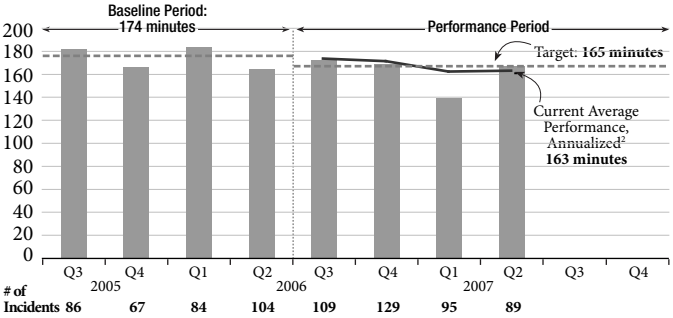
Progress In Meeting the Governor's Goal: Average Duration Increases But Remains Below Target

During the second quarter of 2007, WSDOT and WSP responded to 89 over-90-minute incidents on nine highway segments. The average duration of these incidents was 165 minutes, an increase of 19% over the previous quarter and a decrease of 5% from the same quarter of 2006. There were three extraordinary incidents during the second quarter of 2007. Extraordinary incidents are those lasting six or more hours. The annualized average duration of incidents for the measurement period is 163 minutes, which is 2% below the target goal of 165 minutes.

There was an increase in three-to-six-hour incidents, from a low of 16% in the first quarter of 2007 to 30% this quarter. This is attributable to the sharp increase in responses to fatalities on state and interstate routes this quarter, from six (7%) out of 91 events in the first quarter, to 14 (16%) out of 89 in the second quarter. This quarter had one of the highest proportions of fatality events since WSDOT began tracking this measure for the nine key corridors. Typically, fatality events last considerably longer than all other types of incidents. During the second quarter of 2007, fatalities increased on the nine corridors: in April there were two fatality incidents, and May and June each had six.

Cabinet Strategic Plan Goal: Reducing the Average Time for Incidents Lasting 90 Minutes or Longer on Nine Key Highway Segments[1]

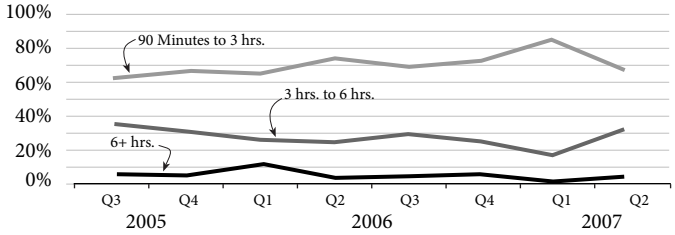
In Minutes



Source: Washington Department of Transportation Traffic Office and Washington State Patrol
Baseline Data Source: 2005--WSDOT Incident Response Tracking System; 2006--WSP-Computer Aided Dispatch System.
[1]*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.
[2]Current Average Performance, annualized is the average duration of incidents lasting over 90 minutes for the performance tracking period for this measure.

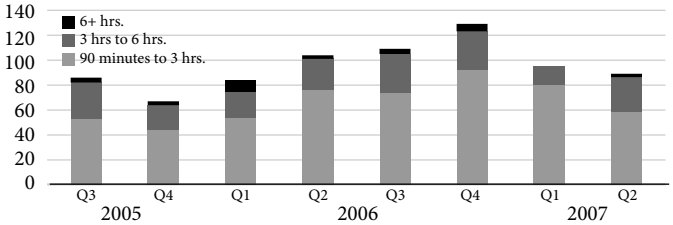
Percentage of Over-90-Minute Incidents by Quarter

Quarter 3, 2005 - Quarter 2, 2007



Data Source: WSDOT Traffic Office and Washington State Patrol.

Number of Incidents Over 90 Minutes by Quarter[1]



Data Source: WSDOT Traffic Office and Washington State Patrol
[1] 2005 data represents only WSDOT data. This is a smaller subset of the over-90-minute incidents and is not representative of the complete program, which would include incidents that WSP responded to but not WSDOT. WSP data is not available for 2005 because of a changeover to a new database system.

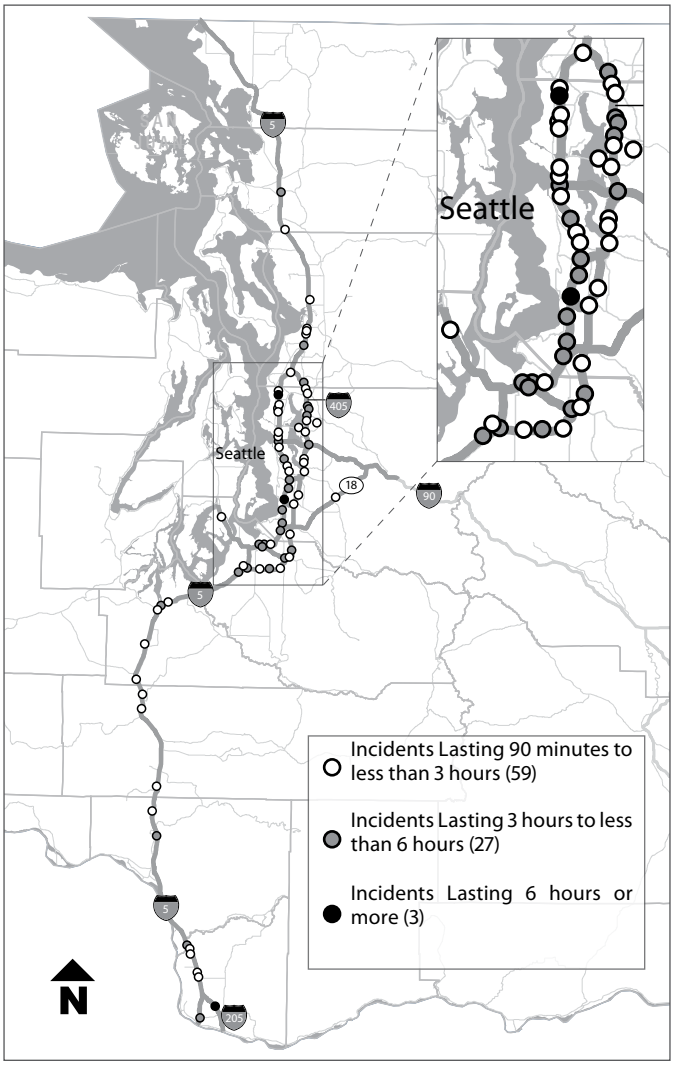
Incident Response: Quarterly Update

Incidents Lasting 90 Minutes or Longer

Corridor Specific Analysis: Average Duration of Over-90-Minute Incidents Down on Six of Nine Routes

The average duration of over-90-minute incidents has dropped on six of the nine key routes from 3% (SR 512) to 59% (SR 16). On SR 520, the duration of over-90-minute incidents has remained steady, at 137 minutes. On two routes, the average duration of over-90-minute incidents has increased: I-90 and I-205. There was only one incident on I-205 in 2007, and it was an extraordinary incident (6+ hours). Interstate 90 has experienced six over-90-minute incidents in 2007 to date, four in the first quarter (average duration 155 minutes) and two in the second quarter (average duration 302 minutes). The increase in the average duration on I-90 resulted primarily from two long over-90-minute incidents in the second quarter of 2007 - one 293 minutes and the other 310 minutes.

Location of Incidents Over 90 Minutes in Length On the Nine Key Congested Corridors
Quarter 2, 2007

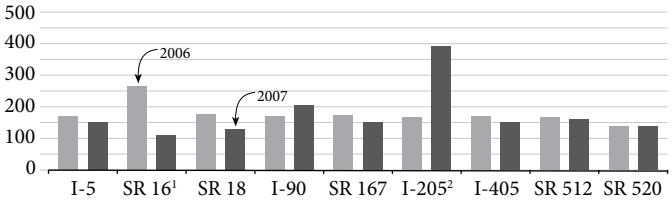


Average Duration of Incidents Lasting 90 Minutes or Longer: 2006 versus 2007 Year to Date
In Minutes

Route	Average Duration 2006[1]	Average Duration 2007 YTD[2]	% Difference in Average Duration
I-205	166	391	135.5%
I-90	170	204	20.0%
SR 512	166	161	-3.0%
I-5	170	152	-10.6%
SR 167	174	151	-13.2%
I-405	169	150	-11.2%
SR 520	137	137	0.0%
SR 18	176	128	-27.3%
SR 16	266	109	-59.0%

Data Source: WSDOT Traffic Office and Washington State Patrol
1. 2006 Includes Quarters 1, 2, 3, & 4
2. 2007 Includes Quarters 1 & 2

Average Duration of Over 90-Minute Incidents by Route
2006 vs. 2007 Year to Date, In Minutes



Data Source: WSDOT Traffic Office and Washington State Patrol.

1. In 2006, SR 16 saw two extraordinary incidents out of 11 total. One totaled 13 hours and two minutes, and the other 11 hours and 44 minutes. These two incidents have skewed the average duration on this route considerably. With the incidents removed, the average duration would be 160 - in line with the 2006 average durations on the other routes.

2. I-205 has experienced only one incident in 2007 so far, and it was an extraordinary (6+ hour) incident.

Incident Response: Quarterly Update

Incidents Lasting 90 Minutes or Longer

Number and Duration of Fatality and Non-Fatality Incidents for Over-90-Minute Incidents on 9 Key Corridors

In Minutes

	2005		2006				2007	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Average Duration for Fatality Collisions	262.8	227.7	273.4	224.0	240.7	254.5	193.1	242.1
Average Duration for Non-Fatality Collisions/Events	164.7	156.3	174.6	158.3	159.1	162.7	135.2	150.6
Percent Longer Duration for Fatality Collisions Compared to All Other Collisions/Events Combined	60%	46%	57%	42%	51%	56%	43%	61%
Number of Fatality Collisions	15	9	8	10	18	8	6	14
Number of Non-Fatality Collisions/Events	71	58	81	94	91	121	85	75
Percentage of Total that were Fatality Collisions	17.4%	13.4%	9.0%	9.6%	16.5%	6.2%	6.6%	15.7%
Total (All Collisions/Events)	86	67	89	104	109	129	91	89

Data Source: WSDOT Traffic Office and Washington State Patrol

Fatality Collisions Take Up to 60% Longer to Clear

A review of over-90-minute incidents shows that, compared with all other incidents combined, fatality collision events last 42% to 60% longer (for more information on fatalities see pg. 77). To help reduce clearance times for fatality collisions, WSDOT, WSP, and 14 county coroners have agreed to guidelines for the off-site extrication of deceased persons at collisions.

Since the third quarter of 2005, the average duration of fatality incidents has been 193 minutes to 273 minutes per quarter, while all other non-fatality events have averaged 135 minutes to 174 minutes (see the table above). Generally, fatality collisions comprise between 6% to 17% of all over-90-minute events.

Fatality collisions often involve one or more of three key elements: substance abuse or drinking (48% of highway fatalities), not wearing seatbelts (48%), and higher speeds (43%) (for more information on these key elements in highway collisions, see *Target Zero: A Strategic Plan for Highway Safety* at www.wsdot.wa.gov/biz/trafficoperations/pdf/targetzero.pdf). These factors complicate fatality collision investigations. Conducting investigations lengthens the time of clearance for a fatality incident.

Three Extraordinary Incidents in Quarter 2 of 2007

All three of the extraordinary incidents (6+ hours) that WSP and WSDOT responded to on the nine key corridors were fatality events. The first event, on I-205 in Clark County in April, was a collision in which a disabled semi truck being fixed on the side of the road was hit by another truck, killing the serviceman repairing the disabled truck. The combination of a fatality along with two disabled commercial motor vehicles resulted in a clearance time of 391 minutes. In the second extraordinary incident, on I-5 in King County in May, a pickup truck struck a sign bridge, resulting in the driver's death. In order to investigate, clear the accident, and repair the sign bridge, WSDOT and WSP closed a ramp from 3:12 a.m. to 11:20 a.m. (487 minutes). The third event, also on I-5 in King County in May, involved a motorcycle fatality and three other vehicles. It occurred around 10:20 p.m. and was cleared by 4 a.m. the next morning (360 minutes).

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.

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. A 2005 survey measured caller satisfaction, and found 79% of participants were satisfied by the types of information on 5-1-1, and 68% of respondants were "satisfied" or "very satisfied" with the system overall.

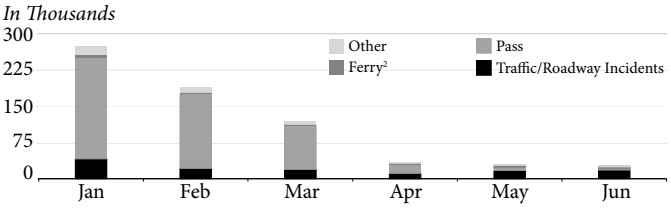
Between January 1, 2007 and June 30, 2007, there were 744,188 calls made to WSDOT's 5-1-1 Travel Information System. Of those calls, 628,631 (84%) were made in the beginning of the year, by March 31, due to adverse weather conditions in the mountain passes. Many motorists and ferry passengers used the 5-1-1 system to get real-time travel information to make better decisions on how to get to their destinations.

In January 2007, WSDOT added a new computer server in order to handle large call volumes during severe weather conditions. The 5-1-1 system can now handle 192 simultaneous calls, up 37% from the system's previous capacity of 140 simultaneous calls.

Most call 5-1-1 for Mountain Pass Information

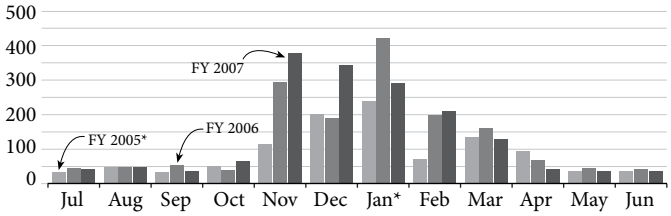
During the first quarter of 2007, 72.2% of 5-1-1 calls requested information on mountain pass conditions. In the second quarter of the year, traffic and roadway incident calls were the largest proportion, comprising 39.6% of all calls.

Types of Information Requested to 5-1-1 Travel Information[1]
January - June 2007
In Thousands



Data Source: 5-1-1 iNi (Interactive Northwest Inc.) Activity Summary-Combined Report, Avaya BCMS combined report of PBX and VDN Daily historical numbers, WSDOT Traffic Operations 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 a caller may hang up without selecting a category. This system records only the number of calls that are completed.
[2]Ferry call data estimated for June 1-6, 2007. Data missing.

Total Calls to Travel Information[1]
(5-1-1, 1-800-695-ROAD, 206-DOT-HWY)
3-Year Trend: FY 2005-FY2007
Number in Thousands



Data Source: BCMS, Traffic Office.
[1]Starting January 2005, 1-800-ROAD and 206-DOT-HWY numbers connect directly to 5-1-1, and the call counts are reported in 5-1-1 call total.

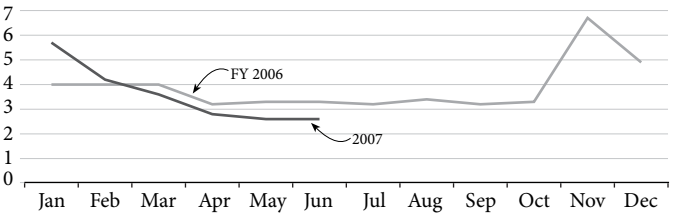
WSDOT Provides Traffic Data to Mobile Devices

A traffic site for mobile devices was created for the Puget Sound area to allow users to use a mobile device to obtain the latest flow map, view WSDOT cameras, and read travel times. The site is located at www.wsdot.wa.gov/traffic/seattle/small/, and continues to gain popularity as cell phones become more sophisticated and more models have Internet access. The site had 41,211 page views when launched in October of 2006, which grew to 381,174 page views in June of 2007.

New Methods to Track Web Traffic

The online industry has begun to move away from counting page views as a measurement tool for website usage. Websites can now present variable content without logging multiple page views as visitors explore. Accordingly, one of the leading Internet stats services, Nielsen/NetRatings, has completely replaced page view rankings in favor of the duration of site visits. WSDOT continues to research web usage measurements to determine the best way to track site usage.

Travel and Traffic Website Usage
Average Daily Page Views to WSDOT Cameras, Flow Maps and Travel Time Sites
January 2006 to June 2007
In Millions



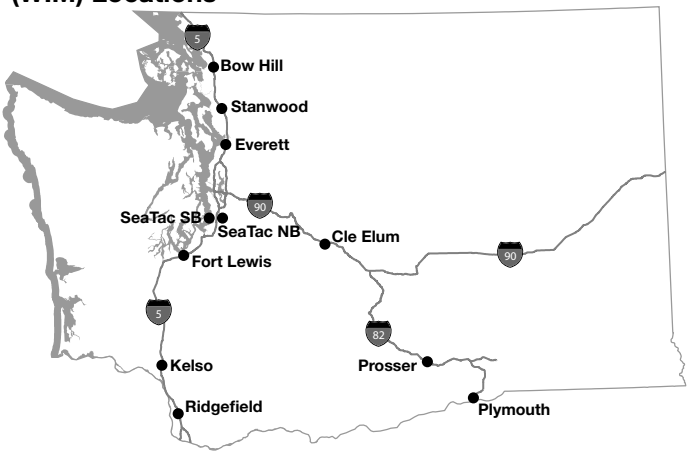
Data Source: WSDOT Communication Office.
Note: A page view is counted each time a visitor views a webpage on WSDOT's website. Each time a page is refreshed in a user's browser, a page view is recorded. Pages are comprised of numerous files. Every image in a page is a separate file. When visitors look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

Commercial Vehicle Information Systems and Networks (CVISN) Update

The Commercial Vehicle Information Systems and Networks (CVISN) program has helped improve the efficiency and safety of truck freight movement throughout Washington (CVISN was last reported in the September 30, 2004 *Gray Notebook*). CVISN uses weigh-in-motion scales to electronically screen trucks as they approach a weigh station. The scales, embedded in the roadway, weigh the truck while the transponder reader sends a signal to a computer inside the weigh station. The transponder-equipped truck's weight, size, registration and safety record are verified, and within milliseconds a signal is sent to the transponder mounted on the inside windshield of the vehicle. If the checks are satisfactory, a green light is displayed on the transponder and the driver is cleared to bypass the weigh station. If a truck needs to be inspected, a red light is displayed on the transponder and the driver must pull into the weigh station for closer scrutiny by the Washington State Patrol.

WSDOT develops, installs and maintains CVISN equipment and infrastructure. The Washington State Patrol enforces laws associated with the regulation and safety of commercial trucks.

2007 WSDOT Commercial Vehicle Information Systems and Networks (CVISN) Weigh-in-Motion (WIM) Locations



CVISN Transponder Usage Increases to 20%

As of 2006, 20% of all trucks moving through the state had CVISN transponders. This is a voluntary program requiring a one-time fee of $30 for a transponder that can be used to bypass weigh stations in Washington and other states. Any motor carrier is eligible to use a transponder, as long as the carrier has a USDOT number and valid credentials. A motor carrier is defined as any entity engaged in interstate, intrastate hazardous material, or intrastate non-hazardous material transport activities. Transponder equipped trucks are allowed to bypass weigh stations if they are:

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

By allowing those trucks with known good safety records, valid credentials, and appropriate weight and size to automatically bypass the weigh station, WSP and WSDOT are able to focus their attention on the remaining commercial vehicles not equipped with CVISN transponders. However, a small percentage of transponder-equipped trucks meeting these criteria are pulled over at random to ensure compliance.

Percent of Trucks With Transponders and Percent of Transponder-Equipped Trucks Bypassing Weigh Stations, 2004-2006

	Total Number of Trucks with Transponders	Percent With Transponders	Percent Bypassed
2004	915,486	13.33%	85.96%
2005	1,058,843	18.72%	81.83%
2006	1,155,255	20.24%	82.12%

Data Source: WSDOT CVISN Office

Transponder-Equipped Trucks Save Time and Money for the Trucking Industry

Trucks equipped with CVISN transponders were pre-cleared and received over 948,000 green lights to bypass Washington weigh stations in 2006. This is an increase of 11.5% over 2005. WSDOT estimates that an average stop at a weigh station is five minutes. It is further estimated that the operating cost of a commercial vehicle is $1.25 per minute. In 2006, the savings to the trucking industry were approximately 79,000 hours of travel time, and just under $6 million. This is up from 70,000 hours saved and slightly more than $5 million saved in 2005.

Money and Hours Saved by the Trucking Industry by Using CVISN Transponders

2005-2006	2005	2006
Number of green lights (bypass)*	850,000	948,000
Hours of travel timed saved*	70,000	79,000
Amount of money saved (approx.)**	$5,000,000	$6,000,000

Source: WSDOT CVISN Office and Washington Trucking Associations
* Bypass and travel time saved estimate provided by the WSDOT CVISN Office
** Estimate is $1.25 per minute. Estimate provided by the WSDOT CVISN Office and confirmed by an unscientific survey of several carriers by Washington Trucking Associations

Environmental Programs: Annual Update

Programmatic Permits

WSDOT's programmatic permits are agreements with state agencies, such as the Washington Department of Fish and Wildlife (WDFW) and the Department of Ecology (DOE) that cover routine environmental activities in the construction and maintenance of state transportation facilities. WSDOT continuously develops programmatic permits with water resource agencies to help simplify and expedite regulatory processes.

These permits, which cover routine environmental activities, improve efficiency by reducing the number of staff hours otherwise spent processing individual permits and by providing a standard expectation by which to design project to. The following tables display the types of programmatic permits that have been issued for WSDOT activities by WDFW and DOE. There are no new permits for 2006, but new guidance for one existing permit is under development, a sediment test boring general hydrological project approval (HPA) from WDFW.

For updates and additional information about WSDOT's Programmatic Permits, visit http://www.wsdot.wa.gov/Environment/Programmatics/default.htm.

Environmental Programmatic Permits Issued by Washington Department of Fish and Wildlife, 2005-2006[1]

Activity Covered	Description and Guidance	Effective Date	Expiration Date	2005 Activities Using Permit	2006 Activities Using Permit
Overwater Structure Maintenance and Repair[2]	Covers bridge and ferry terminal maintenance and repair	8/26/03	7/15/08	972	1449 for all overwater bridge
Beaver Dam Removal	Allows the removal of beaver dams within WSDOT right of way statewide	7/06/04	8/25/08	282	126
Freshwater Sediment Test Boring	Covers freshwater sediment test boring activities statewide	7/16/03	7/15/08	3	5
Marine Water Sediment Test Boring	Allows test boring and sediment sampling for WSDOT projects in all state marine water	3/10/04	2/15/09	8	2
Channelized Stream Maintenance	Allows 50 cubic yards of sediment removal per project per year	6/28/04	6/01/09	23	51
Maintenance of Fishway Facilities	Allows 50 cubic yards of sediment removal per project per year	6/28/04	6/01/09	0	5
Culvert Maintenance	Allows structural repair and allows 50 cubic yards of sediment removal per project per year	6/10/04	6/01/09	10[3]	60
Culvert Replacement in Non-Fish Bearing Waters	Allows replacement of culvert in same location	6/10/04	6/01/09	0	8
Large Woody Debris & Material Removal and Relocation--Bridge	Allows the removal and relocation of non-embedded large woody debris and material (including associated bedload) from WSDOT bridges.	6/29/04	6/01/09	36	68
Forty Marine Pile Removal and Replacement	Allows the replacement and removal of up to forty piles per project in Marine Waters	3/7/05	3/5/2010	5	2

Data Source: WSDOT Environmental Services
[1] Permits expire five years after they are issued, and annual reporting of permits begins in December of each year.
[2] New guidence for sediment test boring permit is under development
[3] Culvert maintenance activities dropped because work was approved under individual Hydraulic project approvals, or because culverts did not need cleaning due to site specific reasons (low rainfall and sediment deposition)

Environmental Programs: Annual Update

Programmatic Permits

Environmental Programmatic Permits Issued by Department of Ecology, 2005-2006[1]

Activity Covered	Description and Guidance	Effective Date	Expiration Date	2005 Activities Using Permit	2006 Activities Using Permit
Washing and Painting Bridges and Ferry Terminals	Covers the following washing and painting activities: • Bridge Washing • Ferry Terminal Washing • Bridge Painting • Ferry Terminal Painting	4/3/04	4/3/09	37	31
Aquatic Plant and Algae Management General Permit	Allows the application of herbicide to control non-noxious invasive plant species within WSDOT right of way	4/28/06	4/1/2011	0	7
Noxious Aquatic Plant Control	Allows the application of herbicides to control noxious invasive plant species within WSDOT right of way	5/11/06	6/14/07	0	7
Aquatic Mosquito Control	Allows the application of pesticide to control mosquito species within WSDOT right of way	5/10/02	5/10/07	86	62

Data Source: WSDOT Environmental Services
[1]Permits expire five years after they are issued, and annual reporting of permits begins in December of each year.

The WSDOT Ferry Vessel *M/V Puyallup* is being washed in dry dock. The process is arranged with a Department of Ecology (DOE) programmatic permit.

Environmental Programs: Annual Update

Fish Passage Barriers

WSDOT recognizes that many existing highway culverts are barriers to fish passage that were installed years before the needs of fish were understood. Removing these barriers increases access to critical fish spawning and rearing habitat. WSDOT and the Washington State Department of Fish and Wildlife (WDFW) have worked cooperatively since 1991 on a program to systematically inventory, prioritize and correct fish passage barrier culverts on streams that flow under state highways.

How Culverts Act as Barriers to Fish Passage

A culvert is a rigid structure set into a dynamic stream environment. As the natural stream channel changes over time, a culvert may not be able to accommodate that change. There are four common problems associated with fish barrier culverts:

- Excess drop at the culvert outlet that exceeds the jumping or leaping capabilities of fish;
- High water velocity within the culvert that exceeds the swimming capabilities of fish;
- Shallow water depth inside the culvert that will not allow fish to pass; and
- Debris accumulation that can cause blockage or create turbulence that exceeds the swimming capabilities of fish.

BEFORE: SR 142 near Goldendale and Bowman Creek. A 9 foot box culvert was a velocity barrier during high flows and prevented fish passage

AFTER: A new 60 foot bridge restored fish passage for coho salmon, steelhead, bull and resident cutthroat trout

Inventory of Barriers

To date, WDFW has completed and expanded the WSDOT inventory for fish bearing culverts for 87% of the state or 6,300 miles out of the total of 7,045 miles of the highway system. WDFW has inspected 2,516 miles of highway since last year. WSDOT anticipates that the physical inventory of culverts will be completed by WDFW by the end of 2007. A total of 6,200 crossings have been examined and 1,266 WSDOT-owned fish passage barriers in need of modification or replacement were identified for significant habitat gain. To date, WSDOT has removed 205 of these barriers, improving access to approximately 480 miles of habitat.

2006 Fish Passage Construction

Since the last report in the June 30, 2006 *Gray Notebook*, 20 fish passage projects were completed by WSDOT during the summer and fall of 2006. The following seven projects were stand-alone projects that were high priority:

Completed Stand Alone Fish Passage Barrier Removal Projects 2006

All of these projects were financed under the Pre-Existing Funds (PEF) finance program

Project Location	Project Actions to Improve Fish Passage
U.S. 2 near Stevens Pass	Replaced an existing eleven foot metal culvert at Mill Creek with a 38 foot, bottomless plate arch culvert
SR 20 at Methow Valley near Twisp	Replaced two four-foot round pipes and a six-foot box culvert with a new 26 foot box culvert at Beaver Creek
SR 20 at Methow Valley near Twisp	Replaced two three-foot culverts at Frazer Creek with a 15 foot, three-sided structure
SR 112 at Bear Creek near Joyce	Replaced a six-foot-wide box culvert with an 18 foot wide, three-sided concrete structure
SR 112 near Clallam Bay	Replaced two (2) three foot round culverts on a Physt River tributary with a fourteen foot wide concrete box culvert
SR 142 at Snyder Canyon Creek	Removed the existing concrete apron on the box culvert, and replaced with a well-graded stream channel to simulate natural stream conditions
SR 142 at Bowman Creek	Removed a twelve foot box culvert and replaced with a 60 foot bridge

Source: WSDOT Environmental Services Office

Environmental Programs: Annual Update

Fish Passage Barriers

For more information about these projects, see the May 2007 WSDOT Fish Passage Inventory -Progress Performance Report at www.wsdot.wa.gov/Environment/Biology/FP/fishpassage.htm and click on the 2007 report.

Fish Passage Construction for 2006 as Part of Larger Safety and Mobility Projects

Project Location	Project Funding	Project Actions to Improve Fish Passage
SR 9 north of Woodinville	Nickel	Replaced a round two-foot concrete culvert with a fifteen-foot steel culvert at Ashley Creek (Cutthroat)
SR 9 south of Sumas	Nickel	Replaced a round two-and-a-half-foot steel culvert with a fifteen-foot concrete box culvert at Easterbrook Creek
SR 9 south of Sumas	Nickel	Two round four-foot culverts were replaced at Bone Creek with a fifteen-foot concrete box culvert
SR 305 near Poulsbo	PEF[1]	A single round two-foot concrete culvert was replaced with a twelve-foot concrete box culvert and (3) three-foot round concrete culverts were replaced with nine-foot steel culverts on the South Fork of Dogfish Creek
SR 31 near Metaline	Nickel	Replaced a one-and-a-half-foot round concrete culvert with an eight foot steel culvert at Three Mile Creek
SR 18 near 244th Ave SE	PEF	Replaced a five-foot box culvert with two bridges at Downs Creek
SR 20 near Keystone	PEF	A two-and-a-half-foot steel culvert was replaced with a four foot culvert on an unnamed tributary to Crockett Lake
I-405 near Juanita	Nickel	Replaced a three-and-a-half-foot culvert with a no slope, five-and-a-half-foot culvert and downstream channel controls at Forbes Creek
SR 9 north of Woodinville	PEF & Nickel	A two-and-a-half-foot culvert was removed at an unnamed tributary to Little Bear Creek and the stream diverted to another culvert that is not a barrier
SR 522 north of Woodinville	PEF	Replaced a small round culvert with a larger twelve-foot steel arch at an unnamed tributary to Evans Creek

Data Source: WSDOT Environmental Services
[1] Includes other WSDOT Funding from the City of Poulsbo (additional matching funding from this source), Olhava Associates L.P., Transportation Improvement Board - TIB, and Sprint.

Fish Passage Projects Going to Construction in 2007

Project Location	Project Funding	Description
SR 305 Dogfish Creek	PEF[1]	Replacing four barrier culverts with larger structures
SR 524 Whistle Creek	Nickel	Replacing a eighteen-inch culvert with an eight-foot by six-foot culvert
SR 548 Terrell Creek	PEF	Replace a failing twelve-foot metal culvert with an eighteen-foot by ten-foot culvert
SR 509 Des Moines Creek	PEF, Nickel[1]	Abandonment of culvert and installation of a new stream channel
I-5 Swamp Creek	PEF	Retrofit of culvert
I-405 Swamp Creek	PEF	Retrofit of culvert
SR 92 Catherine Creek	PEF	Retrofit of culvert

Data Source: WSDOT Environmental Services
[1] Includes additional funding sources outside of PEF, Nickel, and TPA.

Environmental Programs: Annual Update

Noise Quality

Noise from roadway traffic is unavoidable as long as engines whine, people modify exhaust pipes on hot rods, tires touch the road, compression brakes don't have mufflers, and heavy trucks move against the wind at high speed.

Federal Noise Obligations

Since 1977 federal noise rules require that states evaluate noise when they expand or change the roadway in a way that will affect the noise environment and when an expansion or realignment project is already located in a high noise area. WSDOT follows a three-step question-and-answer process to develop a noise study that complies with federal regulations.

- Does noise approach or exceed the federal impact criteria? For Washington the level for sensitive locations like homes and parks is 66 or more decibels (A-weighted for human hearing or "dBA") This is the equivalent of a loud, outside conversation between two individuals.
- The 'Feasibility' qualification: If traffic noise occurs at 66 dBA and above, is noise protection physically possible to build that will effectively reduce noise?
- The 'Reasonableness' qualification: If noise protection is effective, do the mitigating effects meet federally required cost/benefit criteria?

Expanding WSDOT's Noise Reduction Options

Sometimes traditional noise protection methods like earth berms or walls will not work or are extremely expensive in select locations. These methods may be ineffective because of steep hills, unstable slopes, lack of space, bridges over water, and more. WSDOT is actively working to find alternatives that may reduce noise more effectively and at lower cost by:

- Exploring the effectiveness of alternative paving materials and practices like air pockets in more flexible asphalt, methods of grinding existing concrete, and special texturing of new concrete;
- Looking for locations to build noise berms, which are high mounds of soil that block or reduce freeway noise to help shield neighborhoods when installation costs are reasonable and where land is available;
- Searching for lower cost, visually pleasing, and lighter weight noise barriers that will hold up to graffiti and graffiti removal, vehicle crashes, fire, and other roadway hazards for 50 or more years and will work on bridges without overloading them.

The Number of Noise Barriers is Growing With the Roadway System

WSDOT built approximately six new miles of noise barrier between 2005 and 2006 for a total of 79.3 miles of barriers since 1963. These two maps that show the historical locations in addition to the more recently added noise barriers.

A portion of the new barrier construction includes locations where WSDOT retrofitted noise barrier along I-5 in Bellingham, and plans to do the same also in the Greenlake, Licton Springs, Eastlake, and Portage Bay neighborhoods of Seattle. These I-5 adjacent neighborhoods are targeted as part of WSDOT's program to improve the noise levels near highways in an organized and equitable way, since traffic noise was not studied when I-5 and other roadways were first built in the 1950s and 1960s.

Additional retrofits are also planned along I-5 for Westview School in Burlington and two barriers in Lacey from 2009 to 2011. These retrofits are made possible through targeted funding from the state legislature and qualify as top priority retrofits due to community age, density, and the high level of noise that they experience. There remain about 60 other prioritized, but unfunded locations statewide at this time.

For more information about traffic noise visit WSDOT's Acoustics website at: http://www.wsdot.wa.gov/Environment/Air/default.htm.

The new noise and retaining walls featured along the I-5 corridor in Tacoma from South 48th St. to Pacific Ave.

A closer view of the noise wall's detail. Although artistic in design, it meets up-to-date federal noise wall standards

Quieter Pavements

Quieter Pavement Testing and Research

Since over 70% of roadway noise comes from tires on pavement when vehicles travel at high speeds, WSDOT is measuring tire/pavement noise on various pavement types to see what noise levels they produce. Overall there are thirteen tire-pavement noise measurement locations throughout the state. Of the thirteen locations, only three are specifically designed as quieter pavement test sections (I-5 Lynnwood in 2006, SR 520 Medina in 2007, and I-450 Bellevue coming in 2009).

The ten other locations represent a variety of pavement types, traffic volumes, studded tire percentages, and rainfall/snow patterns that are of interest to WSDOT for their potential noise and pavement wear characteristics. These ten locations were not designed specifically to reduce noise.

Case Study Initial Findings: Lynnwood Open Graded Asphalt on Southbound I-5

Since its installation in August and September 2006, WSDOT has observed varying noise results based on different rates of wear on the four travel lanes for the three different quiet pavement types. Outside lanes have heavier truck volumes and more vehicles with studded tires than the HOV lane and may account for some of the differences in the noise levels. The table below show highest and lowest recorded noise levels for different lanes and pavement types to date.

All of the tire/pavement noise levels through Lynnwood are slowly increasing compared with the period when the test pavement was new in August and September 2006. This is not a surprise since all pavements tend to get louder as the initial smoother surface wears away. At this point, the noise levels from the three pavements under evaluation are indistinguishable by the human ear in terms of overall noise level, though the frequency distribution or "quality" of sound still differ a bit between the pavements. An interesting change has been the switch between the test polymer and test rubberized sections, with test polymer replacing test rubber as the quietest of the three test sections. Also, in some of the measurements for the heavily traveled outside lanes, the conventional HMA has lower overall noise levels than the test rubber. And finally, with the warming temperatures of summer, the tire pavement noise levels have gone down a bit, though not to the levels that WSDOT measured when the pavement was new. WSDOT will continue to evaluate these pavement sections throughout the life of the pavement, likely for the next eight to ten or more years.

For more information about WSDOT's quieter pavement test program and month-by-month tracking of the results, visit the quieter pavement website at: http://www.wsdot.wa.gov/Projects/QuieterPavement/

Sound Intensity Levels Directly From Tires on Lynnwood Quieter Pavement Test Section, 2006-2007
In decibels A-weighted to human hearing (dB(A))

	Quietest Sound Level to Date	Recorded On	Loudest Sound Level to Date	Recorded On
Outside General Purpose Lane				
Conventional HMA[1]	97.7	9/28/2006	102.5	5/29/2007
Test Rubber[2]	94.3	9/7/2006	103.3	3/21/2007
Test Polymer[3]	96.3	9/28/2006	102.0	3/21/2007
Middle General Purpose Lane				
Conventional HMA[1]	99.1	9/28/2006	102.9	3/21/2007
Test Rubber[2]	95.0	8/23/2006	103.4	3/21/2007
Test Polymer[3]	95.8	9/7/2006	101.7	3/21/2007
Inside General Purpose Lane				
Conventional HMA[1]	99.0	8/23/2007	102.4	3/21/2007
Test Rubber[2]	94.6	9/7/2006	100.9	3/21/2007
Test Polymer[3]	96.1	9/7/2006	99.5	3/21/2007
Inside HOV Lane				
Conventional HMA[1]	98.8	9/7/2006	101.8	3/21/2007
Test Rubber[2]	95.2	12/4/2006	99.0	3/21/2007
Test Polymer[3]	95.7	9/7/2006	98.9	3/21/2007

Data Source: WSDOT Environmental Services
[1] HMA is Hot Mix Asphalt, the standard paving material for most highways.
[2] Rubber is short for "open graded friction course asphalt rubber", which can also be understood as asphalt pavement with additional air pockets and recycled tire rubber added to the liquid asphalt.
[3] Polymer is short for "open graded friction course Styrene Butadiene Styrene", which can also be understood as asphalt pavement with additional air pockets and synthetic rubber and fibers added to the liquid asphalt.

Environmental Programs: Annual Update

Air Quality

WSDOT's efforts to improve transportation related air quality is changing as scientists and health experts throughout the country look more deeply at the effects of toxic air pollutants, fine particulates, ground level smog, and greenhouse gas emissions. Recently, the U.S. Environmental Protection Agency (EPA) has proposed tightening its 8-hour ozone standard for air quality, which targets emissions from vehicles, machinery, and industries alike. Because parts of Washington State may fall under "non-attainment status" with these new standards, WSDOT will need to continue to address air quality through a variety of programs and operations to remain in compliance.

Preventing Pollution During Construction

Reducing or preventing air pollution while building, repairing, and maintaining the transportation system is critical. WSDOT complies with existing air quality regulations through the active monitoring of fugitive dust at its construction sites. Fugitive dust is an air quality concern because of the health problems it poses to sensitive populations like the young, elderly, and those that suffer from respiratory problems like asthma. To control fugitive dust, WSDOT incorporates tasks such as spraying water over unpaved roads, reducing vehicle speeds, creating rock aprons at unpaved intersections, and reducing the amount of open earth, covering, and rock piles at active construction sites.

Reducing Air Pollution by Reducing Congestion

Reducing congestion has the added benefit of reducing the overall levels of emissions by improving highway efficiencies and reducing stop and go commute patterns. WSDOT is in the early stages of analyzing many of its congestion mitigation measures for their reductions in emission levels and effects on air quality. Existing WSDOT programs such as the Incident Response (IR) program help to expedite the return of normal traffic flow following non-recurrent incidents. This helps in reducing fuel consumption by eliminating the stop and go effect caused by drivers "rubber necking". Other measures under consideration for emissions mitigation include High Occupancy Tolling (HOT lanes), improved traveler information systems, and intelligent transportation systems such as ramp meters.

Reducing Emissions at WSDOT Ferry System

WSDOT Ferry System is actively working to improve the air quality of the Puget Sound region by improving the efficiency and emissions of its fleet of ferry vessels. WSDOT actively works to meet existing federal and international maritime air quality standards, and is evaluating additional measures to meet future, tighter air quality standards.

Alternative Fuels

WSDOT Ferry System began evaluating alternative fuels in 2003 and through testing, adopted a system-wide conversion to low-sulfur diesel in 2004. Low sulfur fuels, though more expensive, emit fewer diesel particles into the atmosphere when burned. In one year, WSDOT reduced it's contribution of these particles by 75 tons (a 30% reduction compared with 'regular' marine diesel fuel). Additional reductions in particular matter have been reached by using ultra low sulfur diesel, which provides an additional 10% reduction in emission levels. Finally, WSDOT has begun its second study of bio-diesel fuels on select vessels to evaluate their effectiveness in maritime environments. New state requirements state that Bio fuels will be required for use in 20% of state vehicles by 2009. WSDOT is hopeful that use of bio diesel on the ferries will help the state meet these new standards.

WSDOT Ferry System Fuel Conservation Initiative

In addition to evaluating the use of cleaning burning fuels, WSDOT Ferry System is looking for ways to reduce fuel consumption overall. This initiative has set a goal to reduce fuel consumption levels by 8% over two years, measured from April 2007. WSDOT began by evaluating how and when its vessels consume fuel during operations in order to develop baseline vessel and route profiles for evaluating reduction strategies. Some of the measures that will contribute to the 8% reductions including reconfiguring propulsion systems to run on fewer engines, carrying less fuel aboard vessels to reduce weight, reusing waste heat generated by engines to heat passenger cabins instead of steam boilers, and reducing the need to use propulsion engines for holding the ferries at dock during loading and unloading

WSDOT Ferry System's use of cleaner-burning fuels can contribute to improving air quality in the Puget Sound maritime environment

Washington State Ferries: Quarterly Report

WSDOT's Ferry System is the largest ferry system in the United States, and the third largest in the world. The ferry system is also the second largest transit system in the state, carrying over eleven million vehicles and twenty-four million passengers annually. It makes 20 different ports of call in Washington State and in Sydney, British Columbia. WSDOT Ferry System routes act as a marine highway for commercial users, tourists, and daily commuters across Puget Sound. The system, which includes eleven classes of vessels, is one of the safest and most reliable ferry systems in the world.

Farebox Revenue Improves but Slightly Below Expectations

Farebox revenue for the quarter totaled $39,730,161, which is less then 1% below expected revenues for the quarter ($39,810,559). Quarterly performance is representative of the fiscal year as a whole, where farebox revenue is roughly 1% below planned fare recovery at the end of the 2007 fiscal year. From July 1, 2006 to June 30, 2007 farebox revenue totaled $146,802,864 (expected revenue was estimated to be $148,394,066 for the fiscal year).

Over the last quarter two fare rate changes took effect; a 2.5% increase on all routes and the seasonal surcharge to accommodate higher demand during the spring and summer months. WSDOT schedules hearings in communities affected by increases in order to gather input and make informed decisions when considering any fare increases. These increases were approved by the Washington State Transportation Commission before they took effect.

Farebox Revenue by Month

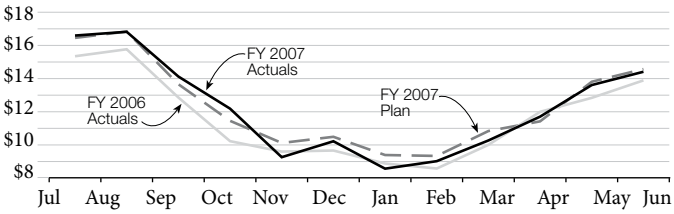
Planned vs. Actual, Fiscal Year 2007

Month	Planned	Actual
July	$16,453,788	$16,594,370
August	$16,836,219	$16,821,106
September	$13,660,426	$14,124,755
October	$11,454,348	$12,188,396
November	$10,119,707	$9,261,724
December	$10,490,691	$10,221,524
January	$9,392,027	$8,569,079
February	$9,336,900	$9,021,790
March	$10,839,398	$10,269,959
April	$11,423,397	$11,706,320
May	$13,812,170	$13,611,868
June	$14,574,992	$14,411,973
Total	**$148,394,066**	**$146,802,864**

Data Source: WSDOT Ferry System

Farebox Revenues by Month

Dollars in Millions



Data Source: WSDOT Ferry System
Note: Actual farebox revenues for December 2006 are revised from the December 31, 2006 *Gray Notebook* to $10,221,524 from $10,073,348.

Ridership Data

In the last edition of the *Gray Notebook* there was a brief mention of technical problems about ridership data in relation to the new electronic fare system (EFS) called *Wave2Go.* While the WSDOT Ferry System has made progress on correcting these issues, the technical solution to the problem is not fully implemented. As a result, WSDOT will report ridership statistics in the next edition of the *Gray Notebook*. In addition, future editions will cover ridership for the quarters WSDOT was not able to report on.

Complaints Decrease but Remain Above Historical Averages

WSDOT monitors customer complaints, comments and compliments. In the second quarter of 2007, WSDOT received 511 customer complaints, for an average complaint rate of 8.5 complaints per 100,000 customers. WSDOT uses a transportation industry standard 100,000 person sample size in order to make accurate performance comparisons to other transportation providers, both public and private.

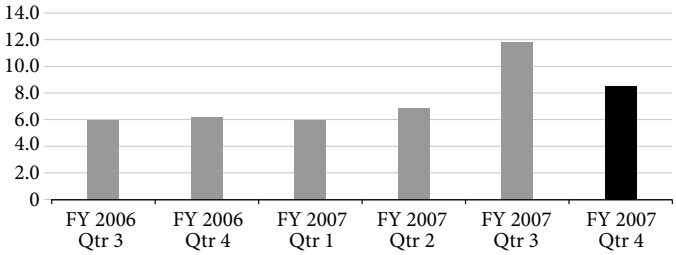
Compared to the previous quarter, customer complaints decreased by 28% in the second quarter. The overall decrease in complaints mirrors the overall decrease in complaints about ticketing (down 23% from the previous quarter). Ticketing complaints resulted from two factors: a policy decision to eliminate coupon payment books and a business decision to increase revenue control by requiring customers to receive a receipt for each toll-booth transaction.

The *M/V Hiyu*, the smallest ferry in the fleet, was put back into service this spring to serve the San Juan Islands and Point Defiance - Tahlequah routes.

Washington State Ferries: Quarterly Report

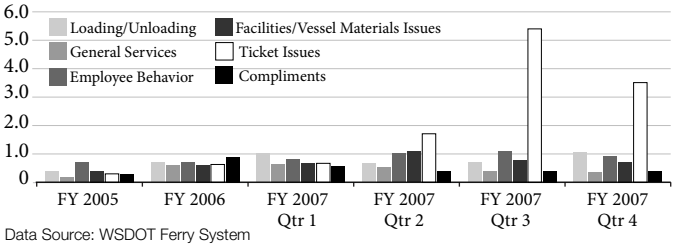
WSDOT monitors 26 different categories to capture riders' concerns, suggestions, and compliments. During the second quarter, complaints included Loading/Unloading (65 complaints, up from 34 complaints in the previous quarter), Employee Behavior (55 complaints, up two from the previous quarter) and Facility/Vessel Maintenance (43 complaints, one more than the previous quarter). WSDOT takes customer feedback seriously: each complaint about employee behavior results in a meeting between the employee and his or her supervisor to determine if corrective actions are needed.

Average Number of Complaints per 100,000 Customers



Data Source: WSDOT Ferry System

Common Complaints Per 100,000 Customers



Data Source: WSDOT Ferry System

WSDOT Ferry System Completes *Wave2Go* System-Wide Implementation

WSDOT's EFS, "*Wave2Go,*" provides a new level of service to ferry customers in addition to improving operational and performance efficiencies throughout the ferry system. For ferry system riders, *Wave2Go* provides:

- New self-serve ticketing kiosks and online based ticket purchasing;
- Automatic purchasing of new tickets for multiple use passes that have expired or have run out of purchased rides;
- Intelligent ticketing operations that integrates system-wide activities, so if a route experiences a service disruption, riders who opt to use another route, or drive around will have their tickets honored at an alternate site.

Wave2Go operations began in 2006 on the Pt. Townsend – Keystone and San Juan (domestic) routes, and the program was expanded to include the Mukilteo – Clinton, Edmonds – Kingston, Seattle – Bainbridge Island, Seattle- Bremerton and Seattle – Vashon Island (Passenger Only) routes in the first quarter of 2007. In the second quarter of 2007, the remaining two routes, Fauntleroy – Vashon – Southworth and Point Defiance – Tahlequah have implemented *Wave2Go*.

Wave2Go presents new ticketing options for customers in addition to existing tollbooths at ferry terminals. Ferry system riders can now print single use or multi-use tickets from online accounts (discounted fares for multi-use passes are available online, through kiosks and tollbooth point-of-sale locations). Users with multi-use passes are eligible for the *Wave2Go* 'Re-Value' program, which reloads purchased fares when they expire or if a user has run out of rides. For more information, go to the *Wave2Go* web site at http://www.wsdot.wa.gov/ferries/wave2go/

91% Average On-Time Departure Rate

WSDOT uses an automated tracking system to record vessel departures from terminals to determine if a trip is on-time, which is defined as any trip leaving within ten minutes of the scheduled departure time. In the second quarter, the automated tracking system counted 35,732 out of 39,467 recorded trips as departing on-time for an on-time rating of approximately 91%. As compared to the previous quarter the percentage of on-time departures declined 4.54% in the second quarter, and the average delay time increased by 1.2 minutes to 4.1 minutes during the second quarter which is up from the previous quarter (2.9 minutes delay).

WSDOT's on-time performance measure for the ferry system does not include all of the actual trips completed for the reporting quarter. The equipment used is susceptible to marine and other atmospheric conditions which disrupts the accuracy of radio wave transmissions, as these transmissions are used to detect when a ferry leaves a terminal. Therefore, while it is a reliable means of measuring relative performance of the ferry system, it automated system does not represent an absolute measure of all completed sailings.

Washington State Ferries: Quarterly Report

Annual On Time Performance Comparison

	Second Quarter, 2006			Second Quarter, 2007		
Route	**Number of Actual Trips[1]**	**Percentage of Trips 'On-Time'**	**Average Delay from Scheduled Sailing Time**	**Number of Actual Trips[1]**	**Percentage of Trips 'On-Time'**	**Average Delay from Scheduled Sailing Time**
San Juan Domestic	5,943	89%	2.8 minutes	5,509	84%	5.3
International Route	14	100%	0.7	115	62%	10.0
Edmonds-Kingston	4,500	96%	3.0	3,929	87%	4.8
Seattle-Vashon (Passenger Only)	369	99%	2.1	175	98%	2.9
Fauntleroy-Vashon-Southworth	9,560	93%	3.4	8,975	90%	4.3
Keystone-Pt.Townsend	1,717	88%	4.5	1,713	80%	7.1
Mukilteo-Clinton	6,421	99%	2.0	6,305	97%	3.0
Pt. Defiance-Tahlequah	2,952	98%	2.6	2,622	95%	3.6
Seattle-Bainbridge Island	3,976	95%	3.5	3,931	96%	2.1
Seattle-Bremerton	2,498	98%	2.6	2,458	98%	2.8
TOTAL	**37,950**	**95%**	**2.9 Minutes**	**35,732**	**91%**	**4.1 Minutes**

Data Source: WSDOT Ferry System

[1] Number of Actual Trips represents trips detected by the Automated Tracking System. It does not count all completed trips during the quarter, and not all trips counted are 'On-Time'.

Trip Reliability Decreases as Cancellations Increase

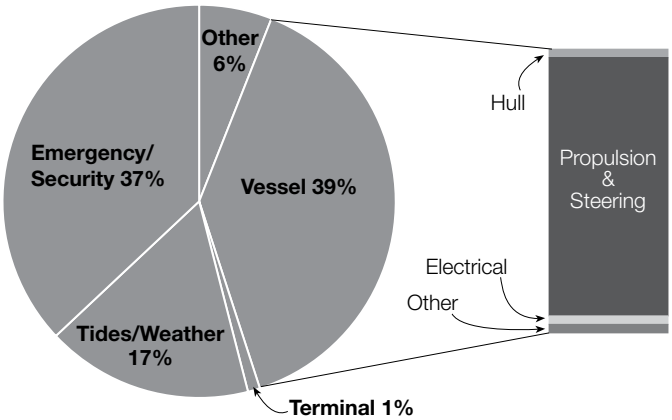
In the second quarter of the year, there were 41,467 scheduled trips. Of these trips, 380 were cancelled and 112 were made-up, resulting in a total of 41,199 completed trips (41,467 scheduled trips – 380 cancelled trips + 112 replacment trips = 41,199 net trips). WSDOT's reliability index measures system-wide trip reliability averages, and is based on a standard transportation industry calculation. Using this index, the ferry system had a cancellation average of 2.6 trips for a year of travel, assuming 400 trips per year per commuter.

As compared to the previous quarter, average trip reliability decreased by 33% in the second quarter. On the positive side, the ferry system was able to replace or "make up" cancelled trips at a rate twice that of replaced trips during the previous quarter (29% of cancellations replaced in the second quarter versus 13% of cancellations replaced in the first quarter).

Vehicles leaving the Orcas Island terminal on the San Juan Islands ferry route.

Reasons for Trip Cancellations

Fourth Quarter, Fiscal Year 2007



Data Source: WSDOT Ferry System

Trip Reliability Index

Calculated Average of Missed Trips

Fiscal Year	Reliability Rating
Fiscal Year 2005	1.5
Fiscal Year 2006	1.2
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 2007 Annual Average	**1.9**

Data Source: WSDOT Ferry System

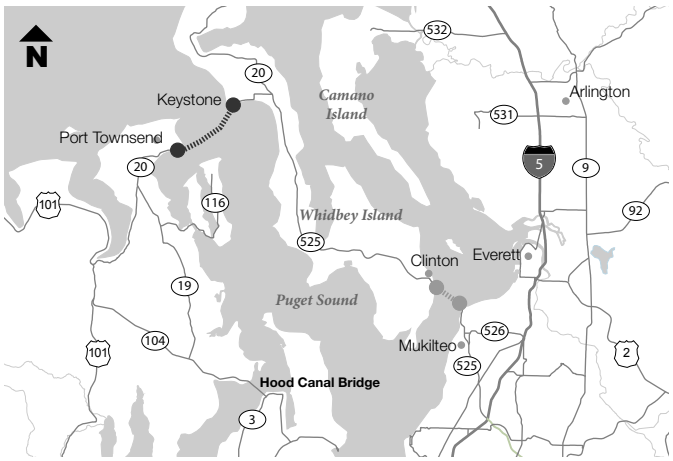
Washington State Ferries: Quarterly Report

Performance Continues to Lag on the Port Townsend to Keystone Route

Of the 380 canceled trips mentioned previously, 40% (153 total) were on the Port Townsend – Keystone route. This route had more cancellations during the second quarter as compared to the second quarter one year ago (81 cancellations in second quarter of 2006).

Admiralty Inlet, the passage between the Olympic Peninsula (Port Townsend) and Whidbey Island (Keystone), constantly presents challenging sailing conditions for ferries on this route. Reduced visibility due to heavy fog occurs year-round, and tidal conditions are especially strong; the narrow inlet with large volumes of seawater flowing in and out of Puget Sound creates stronger than normal tidal/current conditions as compared with the rest of Puget Sound. During the second quarter 63 of the 153 cancellations were attributable to tidal and weather conditions.

Port Townsend - Keystone Ferry



The other 90 cancellations on the Port Townsend - Keystone Route resulted primarily from a rearranging of ferries after the June 1st *M/V Cathlamet* allision on the Mukilteo - Clinton route. Other cancellations on this route were due to problems with the drive motor on the *M/V Nisqually*, which is one of the older Steel Electric class of vessels that services this route. WSDOT is continuing to investigate new means of improving performance on this particular route including new vessels and revised terminal designs.

WSDOT Ferry System Still Compares Favorably

Without the Port Townsend – Keystone route, 227 trips were cancelled for the rest of the WSDOT Ferry System out of 38,737 scheduled trips for an average trip reliability rating of 1.4. Even factoring in the Port Townsend – Keystone cancellations and on-time performance rates, the ferry system remains a reliable service provider and is comparable to other transit systems in western Washington. For comparison info see the March 31, 2007 *Gray Notebook* Washington State Ferries Quarterly Report.

Mukilteo Dock and *M/V Cathlamet* Investigation Report Completed

WSF recently completed an investigation of a June 1st incident at the Mukilteo terminal involving the Washington State Ferry M/V Cathlamet. Early in the morning of June 1st, the *M/V Cathlamet* sailing to Clinton on Whidbey Island hit the north wingwall at the Clinton terminal, causing significant damage to both the ferry and to the terminal.

After an extensive investigation-- including a review of GPS tracking of that sailing and interviews with witnesses as well as crew members-- it was determined that the incident was a direct result of actions by the captain aboard the vessel.

It was found that the Captain did not follow proper safety procedures before and after the allision (an allision is defined as the striking of a moving vessel against a stationary vessel or fixed object such as a pier). These policies and procedures are part of the WSDOT Ferry System's Safety Management System (SMS), which puts the safety of passengers and crews as the number one priority. The captain was terminated as a result of the investigation.

The *M/V Cathlamet* running between Clinton and Mukilteo.

Washington State Ferries: Quarterly Report

Capital Expenditure Performance

WSDOT makes capital investments in the ferry system through the Washington State Ferry Construction Program. This program preserves existing terminals and builds new vessels and terminals. The resulting infrastructure gives the Ferry System the capacity to deliver responsible and reliable marine transportation services to riders.

Biennium-to-Date Vessel Construction Activities are Under Planned Spending by $21.4 Million

Variances from the plan per vessel in excess of $750,000 include the following: New Auto Ferry Construction ($12.8 million under plan), *M/V Kittitas* ($2.2 million under plan), *M/V Issaquah* ($1.9 million under plan), *M/V Rhododendron* ($1.6 million under plan), *M/V Kitsap* ($1.6 million under plan), *M/V Hyak* ($1.4 million over plan), *M/V Kaleetan* ($1.4 million under plan), *M/V Tillikum* ($1 million under plan), *M/V Elwha* ($0.9 million over plan), *M/V Chelan* ($0.9 million under plan), *M/V Walla Walla* ($0.8 million over plan)

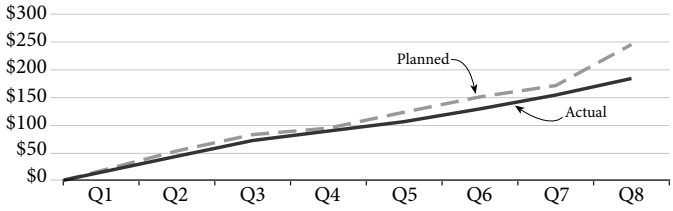
Biennium-to-Date Terminal Construction Activities are Under Planned Spending by $40.8 Million.

Variances from the plan per terminal in excess of $750,000 include: Anacortes ($16.9 million under plan),Bainbridge ($5.9 million under plan), Seattle ($3.9 million under plan),Eagle Harbor ($3.7 million under plan), Mukilteo ($3.1 million under plan), Southworth ($2.5 million under plan), Edmonds ($0.9 million under plan)

Emergency Repairs Biennium-To-Date

Emergency repair activities are over spending the biennium-to-date plan by $1.3 million. Repairs related to the *M/V Cathlamet* allision and the Steel Electric Class vessels that serve the Port Townsend-Keystone run contributed to cost over-runs this quarter.

Construction Program Expenditures
Washington State Ferry System
Through Eighth Quarter, 2005-2007 Biennium
Cumulative Dollars in Millions
Authorized vs. Actual



Data Source: WSDOT Ferry System

Explanation of Key Terms

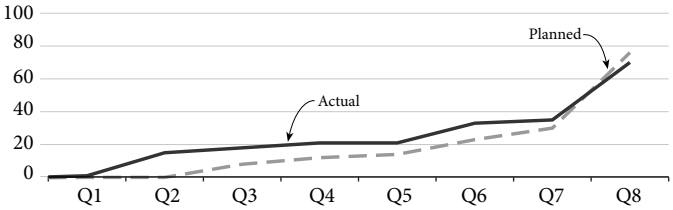
Life Cycle Rating - A life cycle rating is a percentage calculated by dividing the number of system structures weighted by their costs that are within their life cycle by the total inventory of systems weighted by costs. This measure focuses on program performance. It reflects the favorable impact of the organization's work achieved, offset by the unfavorable impacts of deferred preservation backlogs and on-going deterioration of the infrastructure.

In January 2001, the Legislature's Joint Task Force on Ferries recommended that WSDOT work toward the objective of achieving a life cycle rating for Category One systems between 90% and 100%, and for Category Two systems between 60% and 80%. The Task Force set FY 2011 as the target year for achieving this objective.

Category One systems are those designated by regulatory agencies as "vital" to the protection of people, the environment, and infrastructure. Included are those vessel and terminal systems necessary to start, keep in motion, stop, land, and unload a vessel.

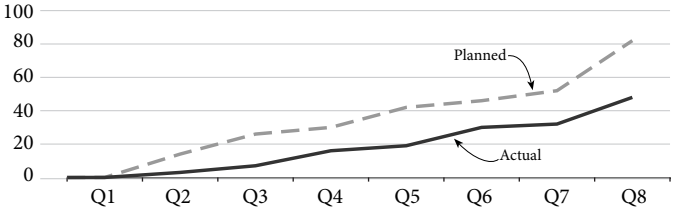
Category Two systems are all other terminal and vessel systems.

Category One Terminal and Vessel Preservation Performance
Cumulative Planned Projects vs. Actual Systems/Structures Preserved
Change in Life Cycle Cost Rating
Eighth Quarter, 2005-2007 Biennium



Data Source: WSDOT Ferry System

Category Two Terminal and Vessel Preservation Performance
Cumulative Planned Projects vs. Actual Systems/Structures Preserved
Change in Life Cycle Cost Rating
Eighth Quarter, 2005-2007 Biennium



Data Source: WSDOT Ferry System

Rail: Quarterly Update

State-Supported Amtrak *Cascades*

Washington 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, British Columbia. 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 Gains Continue in the Second Quarter of 2007

Ridership on state-supported Amtrak *Cascades* trains was 125,051 in the second quarter of 2007. This represents a 17.6% increase over the same period in 2006. The key factor that drove this ridership increase was more daily departures and more convenient connections since the launch of the fourth round trip train between Seattle and Portland in July 2006.

Before the launch of the new service in July 2006, WSDOT and Amtrak anticipated that total Amtrak *Cascades* ridership would grow by approximately 9.6%, or 60,000 riders, in the first service year. One year after the launch, total ridership on Amtrak *Cascades* grew by 6.3%, or 39,400. Due to weather-related events and other factors, total Amtrak *Cascades* ridership declined 1.9% between July and December, 2006 when compared to the preceding year, but rebounded significantly during the first six months of 2007, with a 16.1% increase.

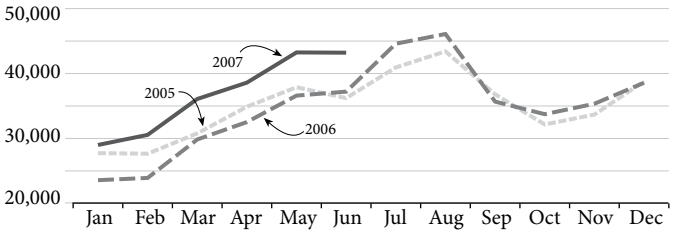
On-Time Performance Remains Below Expectations

On-time performance for state-supported Amtrak *Cascades* trains averaged 62% in the second quarter of 2007. This compares with 49% on-time over the same period in 2006.

In April, 71.6% of the trains operated on-time. While this is below WSDOT and Amtrak's goal of 80% on-time or better, it marked the best monthly performance for state-supported Amtrak *Cascades* trains in over two years. On-time performance slipped in May and June, primarily due to slower train speeds in areas where track maintenance and repairs were taking place.

State Supported Amtrak *Cascades* Monthly Ridership

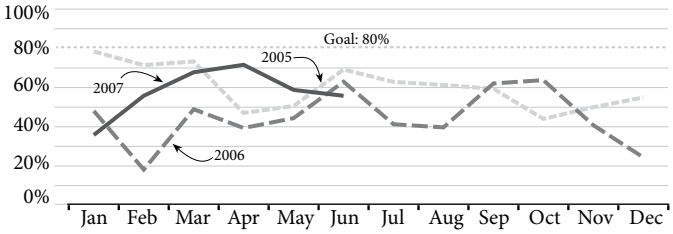
Number of Passengers



Data Source: Amtrak and WSDOT Rail Office.

State Supported Amtrak *Cascades* On-Time Performance

Percent on Time



Data Source: Amtrak and WSDOT Rail Office.

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

Amtrak *Cascades* Ridership by Funding Entity

Every day, there are 11 Amtrak *Cascades* trains connecting the major cities along the I-5 corridor. Washington, Oregon, and Amtrak jointly fund the operation of these trains. The table below shows how many people rode the trains funded by each partner in the first six months of 2007 and 2006.

State Supported Amtrak *Cascades* Ridership by Funding Entity

Funding Partner	2006	2007[1]
State of Washington	183,668	220,497
State of Oregon	48,227	55,184
Amtrak	51,766	53,654
Total Ridership	**283,661**	**329,335**

Data Source: Amtrak and WSDOT Rail Office

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

Note: Washington-funded trains: Amtrak *Cascades* 501, 506, 507 between Seattle and Portland, 508, 510, 513, 516, and 517.

Oregon-funded trains: Amtrak *Cascades* 500, 504, 507, and 509 between Portland and Eugene.

Amtrak-funded trains: Amtrak *Cascades* 500 and 509 between Seattle and Portland.

Amtrak *Cascades* Monthly Revenue

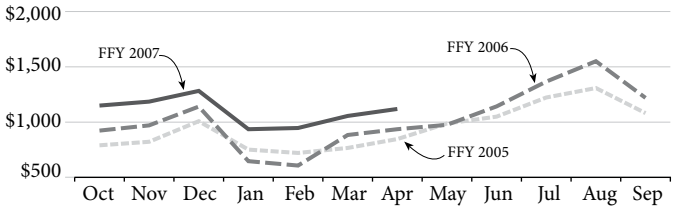
Revenue per month includes ticket receipts, income from food and beverage sales, and proceeds from mail and express shipments on state-supported Amtrak *Cascades* trains.

The timeframe used in this measurement is the federal fiscal year (FFY), which starts in October and ends in September. This timeframe is used so that it coincides with the same 12-month timeframe used in the WSDOT/Amtrak annual operating contract.

WSDOT typically receives Amtrak *Cascades* revenue data 60 days after a given month has passed. This delay is the result of slower processing times for food, beverage, and mail receipts, which typically account for 11% of total revenues.

So far in FFY 2007, total revenues are up 25.6% when compared to the same period in FFY 2006. This significant revenue increase is primarily due to more ticket income generated by the new Seattle-Portland roundtrip that began operating in July, 2006.

State Supported Amtrak *Cascades* Revenue per Month
2005-2007
Dollars in Thousands



Data Source: Amtrak and WSDOT Rail Office.
Note: Figures do not include the Coast Starlight.
Note: The Federal Fiscal Year (FFY) runs October through September.

The Union Pacific's *Puget Sound Steam Special* and an Amtrak *Cascades* train share the tracks near Steilacoom in May. Photo courtesy Chris Fussell

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.

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 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.

Today, the Washington State Grain Train has over 2500 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.

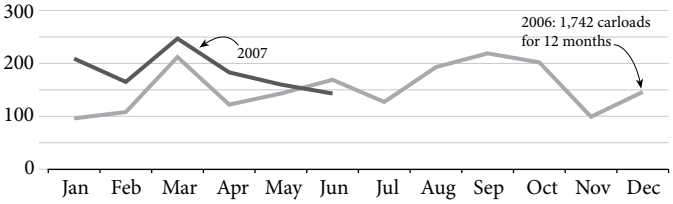
Grain Train Demand Increased by 12% This Quarter

WSDOT and the Port of Walla Walla own 89 grain cars that help Washington farmers move grain to market. Twenty-nine cars are positioned on the Columbia Basin Railroad that extends from Moses Lake to Connell. The remaining cars continue to be used in the shuttle service between grain elevators on the PV Hooper line and the Blue Mountain line to a barge facility on the Snake River. Barges then transport the grain to ports in Vancouver, Kalama, and Portland.

Use of the grain cars remains strong. Despite a slight reduction in June, total carloads for the second quarter of 2007 increased 12 percent over the second quarter of 2006. There were 486 carloads shipped in the second quarter of 2007 compared with 434 in the second quarter of 2006. WSDOT continues to monitor the use of cars and move cars if needed to reflect usage.

Washington Grain Train Carloads

Carloads per month 2007 vs. 2006



Data Source: WSDOT Rail Office.

Note: 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.

Special Report: Legislative Changes to Statewide Transportation Policy Goals

New Biennial Report on the Attainment of Transportation Policy Goals

In the 2007 session, the Washington State Legislature replaced the requirement to report annually on the Blue Ribbon Panel Benchmarks that were adopted in 2003 with a biennial report on Washington State's attainment of five overarching policy goals. This legislative change was in response to a study conducted by the Washington State Transportation Audit Board (TPAB), which reviewed the benchmarks requirement as a part of its "Study of Transportation Goals, Benchmarks, and Ten-Year Investment Criteria and Process," (http://www.wstc.wa.gov/TPAB/Benchmark_FINAL_Report.pdf) that intended to simplify reporting requirements. The study determined that there was a disconnect between what the benchmarks were measuring and what state transportation agencies were working towards accomplishing through the Governor's Priorities of Government, the Washington Transportation Plan (WTP), and the 2003-2007 Business Directions (WSDOT's Strategic Plan). In an effort to align performance reporting with statewide transportation goals, TPAB recommended that the Legislature follow national best practices and replace the benchmarks with overarching goals for the transportation system that are used to frame investment planning, operating budget priorities, external reporting, and performance measurement.

The 2007 Legislature implemented the study's recommendations, repealing the existing nine transportation benchmarks and establishing five policy goals that did not codify specific benchmarks and/or performance measures. Washington State's policy goals for the planning, operation, performance of, and investment in, the state's transportation system are as follows:

- **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 continually improve the quality, effectiveness, and efficiency of the transportation system.

The objectives and performance measures used as benchmarks since 2003 were very specific and were codified in RCW 47.01.012. For example, the statute contained specific targets and measures as "Per capita vehicle miles traveled shall be maintained at 2000 levels". This level of specificity was later determined to not provide the flexibility to adjust measures and targets to adapt to changing transportation system realities, such as changes in fiscal and infrastructural conditions. With the 2007 legislation, the Governor's Office of Financial Management (OFM) has greater flexibility to establish objectives and performance measurement requirements for state transportation agencies for these policy goals. OFM is responsible for submitting an attainment report to the Legislature and the Governor. The initial set of objectives and measures for these five policy goals will be reported on as part of the first baseline report, and are due in December 2007. Beginning in October 2008, the report is to be submitted on a biennial basis, and must describe the degree to which state transportation projects and programs attained the five policy goals.

Performance Information Related to the Transportation Benchmarks

While the policy goals that were adopted in 2007 by the Legislature will replace the Transportation Benchmarks requirement, much of the performance information on the Transportation Benchmarks can be found in the *Gray Notebook:*

- Safety, p. 69-74
- Pavement, see the December 31, 2006 edition of the *Gray Notebook*.
- Bridges, p. 59-65
- Congestion and Vehicle Miles Traveled, see the Annual Congestion Update in the September 30, 2006 edition of the *Gray Notebook*
- Commuter Options, see the Commute Options Annual Update in the September 30, 2006 edition of the *Gray Notebook*

Highlights of Program Activities

Project Starts, Updates or Completions

Project Starts

US 2 Snohomish

Crews began work May 14 on a $10.8 million project to repair the underside of the Ebey Island Viaduct and Ebey Slough Bridge on westbound U.S. 2. On May 15, crews closed the off-ramp from westbound U.S. 2 to 20th Street SE to set up equipment and prepare for work. The ramp will remain closed through October so crews can access the work zone. This summer, workers will repair 136 40 foot-long girders between SR 204 and 50th Avenue NE. Crews will chip away cracked concrete and remove corrosion from the steel frame. They will then re-seal the bridge against the elements by pouring new concrete and applying a carbon fiber mesh over the exposed steel.

SR 3 & SR 106/Belfair

Work began April 16 on the South Belfair Signal project, which installs a traffic signal at the intersection of SR 3 and SR 106. The signal is a low-cost safety enhancement that provides drivers with a safer intersection and will improve traffic flow for vehicles merging from SR 106 onto SR 3. This project also provided a left-turn lane and right-turn pockets on both SR 3 and SR 106. Work was completed this spring.

SR 3 Bremerton

On May 21, crews began a paving project on SR 3 at the SR 304 interchange and on the portion of SR 310 (Kitsap Way) from the vicinity of Weslon Place to Callow Avenue in Bremerton. This $1.5 million project will also upgrade guardrail and pedestrian access at intersections along SR 310. Paving operations on SR 310 are expected to begin in early June and will take place at night in order to minimize business impacts.

SR 4 Longview

In early June, crews began a project to pave and improve a stretch of SR 4, between Coal Creek and I-5 in Cowlitz County. Work began with the removal and replacement of old sidewalks and median curbs. As a result of this project, more than seven miles of SR 4 will be paved. This section of highway includes several intersections that have severe rutting from heavy traffic and numerous spots of deteriorating pavement. While some stretches of SR 4 were last paved in 1990, other areas have not been repaved since 1979. Other work will improve safety by bringing the highway up to current standards by adding sidewalk ramps, replacing guardrail, upgrading median barrier curb, restoring pavement markings and replacing signs. Construction is expected to last through Fall 2007.

Work to pave SR 4 in Cowlitz County began with removing and replacing median curb.

SR 9 Arlington

Crews broke ground on SR 9 between Arlington and Bryant on June 4. This $20-million project will improve safety in the area by straightening the curve at Schloman Road and adding turn lanes at the busiest intersections.

SR 20 Anacortes

On May 21, crews began installing a new traffic signal and turn lanes at the SR 20 Thompson Road intersection to help improve safety for drivers turning on and off the highway. Workers will also repave sections of highway between SR 20 Spur and SR 536 to smooth the road surface and extend the life of the highway. The work is expected to take a little more than two months to complete and cost $2.2 million. Provided the weather cooperates, crews hope to finish the project by the end of July.

SR 20 Burlington

Citizens, business leaders, local officials and legislators met for an official groundbreaking on WSDOT's $110 million widening project on SR 20 west of Burlington. Long awaited improvements on the five-mile stretch between Fredonia and I-5 began in May. The project adds a new lane in each direction, divides the highway with a median and cable barrier, and dramatically improves the interchange at I-5. The new lanes will double capacity on a stretch of highway that has been known for collisions and congestion. The completed project is expected to accommodate growth for the next 20 years.

SR 20 Sherman Pass

Contractor crews began work on May 21 on a 14-mile section of SR 20, Sherman Pass, in Ferry County. This resurfacing project will grind out about two inches of the existing driving lane surface and replace it with a new asphalt layer. The project should be fully completed by late August.

Highlights of Program Activities

SR 28 Quincy
Crews began work May 14 on a project to pave nine miles of SR 28 from Crescent Bar to Quincy. Project work includes replacing signs, adding rumble strips, and new guardrail. During construction, traffic will be restricted to a single lane, and motorists can expect delays. The Quincy Safety Rest Area was briefly closed in May while crews repaired pavement damage in the parking areas.

U.S. 97 Oroville
Crews began work May 29 on a project that paves 11 miles of U.S. 97 from Oroville to the Canadian border. The project also updates some of the sidewalk ramps in the City of Oroville and paves two of the city's streets. Work should be completed by the end of September.

SR 99 Everett
Crews began work on May 7 to resurface 2.3 miles of SR 99 from 112th Street SW to I-5 in Everett. The project includes improving guardrail and sidewalks, as well as adding wheelchair ramps. The new pavement will result in a safer, smoother ride for motorists and will extend the life of the pavement. Pedestrians will also benefit from improved ramps and guardrails.

SR 165 Carbonado
This project upgrades guardrails and barriers on and near the SR 165 Carbon River Bridge (mileposts 11.02 – 13.06), south of Carbonado. Work includes replacing several outdated guardrails and cable guardrails with new beam guardrail, concrete barrier and crash-worthy terminals. Also, the standard difficient wood bridge-rails will be upgraded to meet existing standards.

U.S. 395/North of Spokane
Crews started work April 9 on a project that will add left-turn lanes to the intersection of U.S. 395 and Wildrose Road, located between Spokane and Deer Park. The intersection is the site of a number of severe collisions.

Week-long daytime closures of US 2 near Leavenworth ended in April with repair of 100 feet of washed out river bank.

I-405 Bellevue
Governor Gregoire and WSDOT broke ground May 16 on one of the largest WSDOT construction contracts in 2007. The work will widen I-405 in South Bellevue from 112th Street SE to SE 8th Street. Crews will get to work adding improvements to the ramps at NE 112th Ave SE and Coal Creek Parkway and will begin building the new northbound lane from 112th Ave SE to I-90. Drivers will be able to use the new northbound lane on I-405 between 112th and I-90 as soon as Summer 2008.

SR 502/Battle Ground
April 12 was a day of celebration for WSDOT and the community as ground was broken on the new I-5, SR 502 Interchange. The new interchange will improve travel times and increase safety in the area. Mobility will increase as motorists have a direct connection from I-5 to SR 502 and Battle Ground. Safety on I-5 will be improved as the number of vehicles backing up on the current northbound I-5 off-ramp at the NE 179th Street exit will be reduced. Construction is expected to last through 2009.

SR 508/Cinebar
Emergency repairs to stabilize SR 508 near Bear Canyon began April 23. The highway was closed just east of Cinebar, near Bear Canyon, after November's heavy rains caused severe roadway damage. Crews will rebuild and stabilize the slope by excavating loose materials until stable bedrock is located under the unstable debris. Workers will then rebuild the embankment with a "soldier pile wall" that is more than 450 feet long to stabilize the slope and tie into an existing wall. After the roadway embankment is reconstructed, the highway will be resurfaced and re-striped. Construction is expected to last up to three months.

Project Updates

U.S. 2/Leavenworth
Crews started work on April 16 to repair erosion of the Wenatchee River bank along U.S. 2 in Tumwater Canyon. Two larger washouts were repaired in December, but another area near Leavenworth did not appear until a few weeks later. During a week-long emergency repair project, contractor crews restored the estimated 800 cubic yards of washed out riverbank. Slope saturation also damaged the rock slope and the wire mesh above the highway about 200 feet west of the embankment damage. This was fixed at the same time. Work was completed April 20.

Highlights of Program Activities

I-82 Yakima
On April 23, crews began constructing the foundations of crash cushions for the SR 24 overcrossing bridge columns along I-82. The crash cushions will soften the blow if a vehicle leaves the roadway and strikes the barrier that protects the bridge columns. Work is part of a project that will widen SR 24 to a four-lane highway from I-82 to Riverside Road. The project reconstructs the I-82 and SR 24 interchange and builds wider bridges over I-82 and the Yakima River.

I-90 Spokane
Major construction on I-90 in downtown Spokane resumed on May 13. Contractor crews are resurfacing the rutted pavement and will install new bridge expansion joints on the westbound I-90 lanes during the summer construction season. Similar work was done last summer on the eastbound lanes. The project will eliminate pavement ruts that are up to two inches deep, improving the safety and ride for the nearly 100,000 motorists that travel the highway daily. In addition, crews will replace expansion joints between each freeway section that have been damaged as a result tires traveling in the ruts and colliding with the steel plates. Work is scheduled to be finished in mid-September.

SR 202 / SR 520 Sammamish
On May 3, WSDOT officials and engineers joined local leaders and Microsoft representatives to kick off what is shaping up to be the most dramatic decrease in congestion in the SR 202 / SR 520 commute corridor. This second phase of a three phase project will construct a new westbound 202 to westbound 520 flyover ramp that will open next spring.

SR 240 Tri-Cities
On May 23, WSDOT and its contractor opened the westbound lanes on SR 240, completing the (additional lanes) portion of this important project. Tri-Cities drivers now have six lanes to travel between Richland and Kennewick plus an additional auxiliary lane between George Washington Way and the Richland Wye to relieve congestion on this busy commuter route. The SR 240 - Tri-Cities Additional Lanes project improves three miles of SR 240 by adding new lanes, a new bridge across the Yakima River and the first two-lane roundabout east of the Cascades. This highway improvement was largely funded through the 2003 Transportation "Nickel" Package and is expected to be completed this summer.

SR 524/Maltby
On April 2, crews wrapped up a weekend-long closure of SR 524 two hours ahead of schedule. Crews closed SR 524 at Whistle Creek to install a 64-foot-long culvert more than nine feet under the highway. This work is part of a larger project to widen SR 9 from SR 522 just north of Woodinville to 212th Street north of Maltby Road.

Project Completions

U.S. 12 Yakima
Just two months after breaking ground for the U.S. 12 – 40th Avenue Interchange Improvements project, the community celebrated the project's completion on May 30. The project added a second lane on the U.S. 12 eastbound on-ramp, a second through lane from North 40th Avenue, and better traffic flow due to a more efficient traffic signal. A new left-turn lane for the westbound off-ramp will allow traffic to proceed more quickly through the intersection. The project also re-connects the Yakima Greenway to local bike and pedestrian pathways.

SR 31 Metaline Falls
Crews began work in May on a project to repair and resurface the bridge deck and upgrade the rail on the Pend Oreille River and the Sullivan Creek bridges. During construction, the SR 31 Pend Oreille River Bridge was reduced to one lane, and a temporary signal directed alternating one-way traffic across the bridge 24 hours a day, seven days a week. Work on SR 31 wrapped up in mid June.

I-405 Bothell
On May 29, WSDOT joined Sound Transit and other agencies to dedicate the new I-405 Canyon Park Freeway Station at the SR 527 interchange near Bothell. The project opened to bus service in June, on time and on budget. The new bus stop on the ramp from northbound SR 527 to southbound I-405 improves access and minimizes delays for transit. Southbound buses will no longer have to pass through four traffic signals and weave among cars, freeway overpasses and side streets to

New westbound lanes on SR 240 were opened to traffic in May. The project won an environmental excellence award for its Amon Creek Mitigation site.

serve the Canyon Park Park-and-Ride. Riders will save up to ten minutes on their commutes. A new pedestrian bridge over I-405 connects the park-and-ride to the new bus stop.

SR 532 Stanwood

WSDOT crews recently completed work to improve the signal timing between six traffic signals from Sunrise Boulevard on Camano Island to 72nd Avenue NW in Stanwood, a stretch of about six miles. The signals are now connected to and synchronized via a central computer system allowing them to stay coordinated. This allows WSDOT traffic engineers to monitor traffic flow through cameras and make changes remotely and quickly. Synchronizing the signals through Stanwood is one of eight projects completed or underway on the SR 532.

Motorist/Project Information

New Traffic Cameras added to WSDOT's Web

WSDOT engineers have added 16 new cameras to the popular traffic maps at www.wsdot.wa.gov/traffic/seattle. Drivers will find the new cameras at the following locations:

- SR 18: Tiger Mountain, Auburn Way, and C Street
- SR 202: West Lake Sammamish Parkway
- SR 522: Fales/Echo Lake (2)
- I-5 at SR 531
- U.S. 2: SR 522, Kelsey Street, Main Street and Lewis Street/ SR 203
- SR 532: four new cameras between I-5 and Camano Island

The cameras will provide a clearer picture of the Central Puget Sound traffic for all drivers. The advance information helps drivers make choices before they hit the road. To accommodate the new traffic cameras, the WSDOT Web team redesigned the page.

Rail

WSDOT Selects Operators for Eastern Washington Railroad

WSDOT selected U.S. Rail Partners Ltd. and Washington and Idaho Railway Inc. as the operators of two branches of the Palouse River Coulee City (PCC) railroad. WSDOT began operations oversight of the PCC freight railroad on June 1. The PCC is a 300-mile freight rail system, the second largest system in the state, providing local service to over 70 rail-dependent companies and serving hundreds of eastern Washington farmers. The three branches of the railroad are the PV Hooper line from Hooper to Thornton and Pullman, the CW line from Coulee City to Cheney and Spokane, and the P&L line from Marshall to Pullman.

In addition, WSDOT executed a purchase and sale agreement between the state of Washington and Watco Companies, Inc. (Watco). The purchase of the CW Branch of the Palouse River and Coulee City Railroad (PCC) is part of a nearly six-year effort to preserve the PCC, which is important to Eastern Washington's agricultural industry. The state will pay $9.0 million for all track and right of way on the CW Branch, which runs from Coulee City to Cheney and Spokane, and certain property on the PV Hooper and P & L Branch not previously purchased. The state will also receive the operating rights on all three branches. Transfer of the property took place on June 1. Watco will continue to operate the PV Hooper Branch after May 31 under the terms of its existing lease with the state.

Aviation

WSDOT Calls for Local Airport Aid Grant Applications

WSDOT Aviation sent out a request for project applications for the next round of Local Airport Aid grants. The deadline was June 15 for the first round of grants that WSDOT Aviation is offering during the 2007-09 biennium. WSDOT Aviation first solicited applications for this round in March 2007. WSDOT also reminded airport sponsors with existing open grants that the close-out deadline is June 29, 2007.

Announcements, Awards, and Events

North Cascades Highway Opened Early

The North Cascades Highway opened at 2 p.m. on Thursday, April 26, several weeks ahead of schedule and just in time for spring fishing season. Despite the greater-than-normal snow depths across the pass, cooperative weather helped stabilized snow conditions and allowed clearing work to proceed much faster than expected. Two crews started plowing and blowing snow off the highway from opposite ends of the pass on March 26. Five weeks later, crews met near Rainy Pass on April 23. During the snow removal effort, crews had to contend with 50-plus-feet deep snow under several avalanche chutes.

Public Transportation

WSDOT Awards $1.5 Million for Commute Trip Reduction

WSDOT selected 22 projects for the 2007-09 Trip Reduction Performance Program (TRPP). WSDOT will pay contractors up to $1.5 million as part of the TRPP to reduce the number of drive-alone commute trips. Together, these projects propose

to remove 4,271 daily commute vehicle trips from our state highway system. Contractors will provide services and incentives that help get people out of their cars and onto buses, trains, vanpools, and other commute alternatives. A 12-member review and selection committee recommended to WSDOT which projects should be funded. The committee reviewed and scored 47 project proposals. Projects will begin on or after July 1, 2007 and continue through June 30, 2009.

Public Transportation Division Wins National Award

The Community Transportation Association of America at their May conference presented WSDOT's Public Transportation Division with the State Leadership Award. The state leadership award recognizes an entire state organization for providing creative, effective and continuing training and technical assistance programs, using new concepts, strategies, procedures and policies to provide support to local public transportation systems. Don Chartock, Project Development Coordinator, accepted the award on behalf of WSDOT. He credited the partnerships that the division has created with riders, advocates and providers across the state. In the past several years, WSDOT has worked with partners to create new and better use of existing resources. Notably, the division has supported using school buses to deliver transit services, using the existing Medicaid Transportation Brokers to deliver transportation to homeless students and creating the largest statewide vanpool usage in the country.

Scott Pierson Trail Celebrated

Scott Pierson envisioned and fought for a trail system that would allow people to walk or ride their bikes throughout Tacoma. WSDOT honored Pierson's unwavering dedication to the promotion of non-motorized transportation improvements by naming a new five-mile bicycle and pedestrian trail the Scott Pierson Trail. A ribbon-cutting event was held to celebrate the Trail at Cheney Stadium on May 12 in Tacoma. Pierson (1943-2001) was an urban planner for the City of Tacoma for 23 years. He also was a dedicated advocate for the construction of this trail and the principle designer of the trail's final alignment. The Scott Pierson Trail extends along the State Route 16 corridor and was built as part of WSDOT's SR 16 widening project that adds HOV lanes (See page 40 for more information on the Tacoma/Pierce County HOV lane project).

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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
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0401-0004