Department of Transporta

Measures, Markers and Mileposts

The Gray Notebook for the quarter ending
September 30, 2007

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

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

What Gets Measured, Gets Managed

This periodic report is prepared by WSDOT staff to track a variety of performance and accountability measures for review by the Transportation Commission and others. The content and format of this report is expected to develop over time. Information is reported on a preliminary basis as appropriate and available for internal management use and is subject to correction and clarification. The *Gray Notebook* is published quarterly in February, May, August, and November. For an online version of this or a previous edition of the *Gray Notebook*, visit www.wsdot.wa.gov/accountability.

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Measures, Markers and Mileposts

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27th Edition, Published December 13, 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 Office of Financial Management (OFM) Budget Activities, and the Washington State Transportation Plan's current investment priorities.

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

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

WSDOT actively supports POG goals through the agency's six initiatives (objectives) defined in the agency's strategic plan (2007-11 Business Directions). By tracking the progress of WSDOT's initiatives with key performance measures, the *Gray Notebook* connects WSDOT's initiatives with statewide outcome goals. The table on the next page shows the six WSDOT initiatives and key related performance measures, as well as where and how the results are reported. WSDOT's strategic plan is available at 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).

Statewide Transportation Policy Goals

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

- Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services;
- Safety: To provide for and improve the safety and security of transportation customers and the transportation system
- Mobility: To improve the predictable movement of goods and people throughout Washington state;
- Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment; and
- Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

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. 87-91
	Delay and Congestion	Travel time performance for 35 Puget Sound routes; 95% Reliable Travel Time Duration of congestion	Annual	GNB 27 pp. 57-86
	Amtrak *Cascades*	Percent of trips on-time	Quarterly	pp. 109-110
	Ferries	Percent of trips on-time	Quarterly	pp. 104-108
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	GNB24 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. 104-108
	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	GNB24 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	GNB26 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. 1-16
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. 54-56
	Workforce Safety	Recordable injuries per 100 workers per calendar year	Quarterly	pp. 51-53

Project Reporting on the Capital Project Delivery Program

Introduction

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

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

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

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

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

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

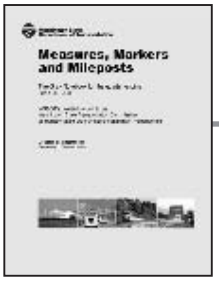
While WSDOT has developed user-friendly reports and front end applications to access project information on-line, it is important to note that the data used to generate these reports comes from antiquated legacy mainframe computer systems. Although the quality of the data is good, the time and effort 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

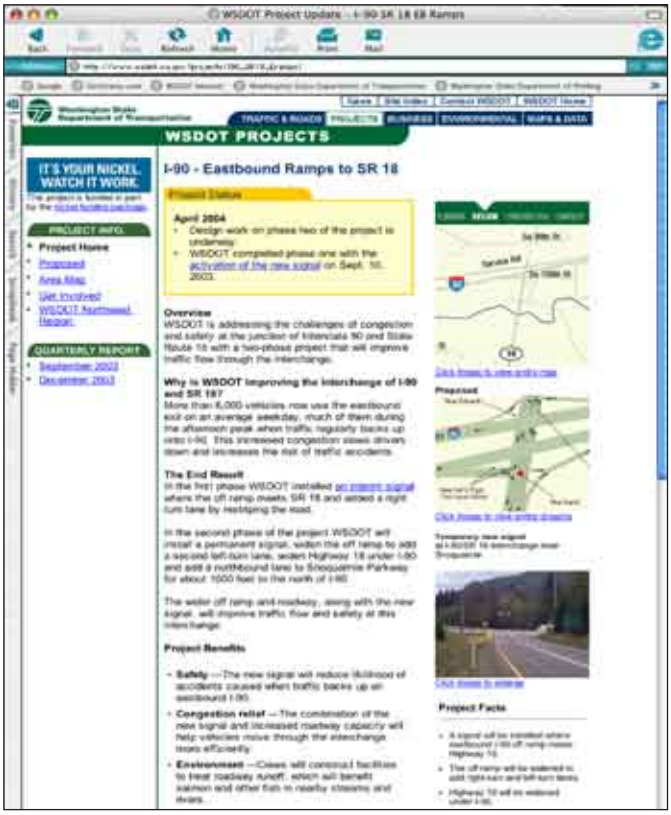
Project Pages

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

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 1251 PEF projects is reported programmatically in six categories of work. By contrast, each of the 154 Nickel and 238 TPA projects funded in the 2007-09 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 2007 Budget.

Performance Information *As of September 30, 2007, Dollars in Thousands*	**Nickel (2003)**	**Transportation Partnership Account (TPA, 2005)**	**Combined Nickel & TPA**	**Pre-Existing Funds**
Total Cumulative Number of Projects[1]	154	238	392	1251
Total Cumulative Program Value[2]	$3,978,015	$6,945,697	$10,923,712	$20,612,376
Schedule, Scope and Budget Summary: Results of Completed Projects				
Cumulative to Date, 2003 – September 30, 2007	See Pages 5-6	See Pages 5-6	See Pages 5-6	N/A
Total Number of Projects Completed	80	30	110	-
% of Projects Completed Early or On-Time	89%	93%	90%	-
% of Projects Completed Within Scope	100%	100%	100%	-
% of Projects Completed Under or On-Budget	89%	70%	84%	-
% of Projects Completed On-Time and On-Budget	80%	63%	75%	-
Current Legislative Expectation (Baseline)	$966,499	$57,235	$1,023,824	-
Current Estimated Cost to Complete (WSDOT)	$965,934	$58,034	$1,023,968	-
% of Total Program On or Under Budget	100.1%	98.8%	100.0%	-
Biennium to Date, 2007-09				
Total Number of Projects Completed	11	7	18	76
% of Projects Completed Early or On-Time	73%	100%	83%	-
% of Projects Completed Within Scope	100%	100%	100%	-
% of Projects Completed Under or On-Budget	91%	71%	83%	-
% of Projects Completed On-Time and On-Budget	73%	71%	72%	-
Current Legislative Expectation (Baseline)	$211,857	$42,406	$254,263	$112,522
Current Estimated Cost to Complete (WSDOT)	$209,742	$42,880	$252,622	$113,341
Advertisement Record: Results of Projects Advertised During 2003-07 and Currently in the Construction Phase				
Cumulative to Date, 2003 - September 30, 2007	See Pages 7-11	See Pages 7-11	See Pages 7-11	See Pages 7-11
Total Number of Projects In Construction Phase	32	26	58	N/A
% of Projects Advertised Early or On-Time	59%	73%	66%	-
Total Award Amounts to Date	$588,831	$555,285	$1,144,116	-
Biennium to Date, 2007-09	See Pages 7-11	See Pages 7-11	See Pages 7-11	See Pages 7-11
Total Number of Projects In Construction Phase	2	3	5	8
% of Projects Advertised Early or On-Time	100%	67%	80%	71%
Total Award Amounts to Date	$75	$3,525	$3,600	N/A
Advertisement Schedule for Projects in the Pipeline Results of Projects Now Being Advertised for Construction or Planned to be Advertised				
October 1, 2007 through March 31, 2008	See Pages 12-14	See Pages 12-14	See Pages 12-14	NA
Total Projects Being Advertised for Construction	6	36	42	107
% On Schedule or Early	100%	94%	95%	-

Data Source: WSDOT Project Control and Reporting
[1]The total number of reportable projects with construction phases.
[2]The total number of dollars in the total expenditure plan for all projects, listed by type of funding. These dollars do not necessarily align with the projects counted in the row above.

WSDOT's Capital Project Delivery Programs

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

A total of five Nickel projects and two Transportation Partnership Account (TPA) rail construction projects have been delivered on-time and on-budget as of September 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 September 30, 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 - Sept 30, 2007	5	2	7
% Completed Early or On-Time	100%	100%	100%
% Completed Within Scope	100%	100%	100%
% Completed Under or On-Budget	100%	100%	100%
% Completed On-Time and On-Budget	100%	100%	100%
Baseline Estimated Cost at completion	$22,450	$7,200	$29,650
Current Estimated Cost at completion	$22,450	$7,200	$29,650
% of Total Program On or Under Budget	100%	100%	100%

Rail Advertisement Record:
Results of Projects Entering into the Construction Phase

	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
As of Sept 30, 2007, Dollars in Thousands: Biennium to Date, 2005-07			
Total Advertised	1	1	2
% Advertised Early or On-Time	100%	100%	100%
Total Award Amounts to Date	$1,854	$1,330	$3,184

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
April 1, 2007 through September 30, 2007			
Total in Pipeline	2	3	5
% On or Better than Schedule	100%	100%	100%

Ferries Advertisement Record:
Results of Projects Entering into the Construction Phase

	Nickel (2003)	Transportation Partnership Account (TPA, 2005)	Combined Nickel & TPA
Cummulative to Date, 2005-2007			
Total Advertised	1	1	2
% Advertised Early or On-Time	100%	100%	100%
Total Award Amounts To Date	$6,435	$46,826	$53,261

Ferries 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
April 1, 2007 through September 30, 2007			
Total In Pipeline	0	0	0
% On or Better Than Schedule	N/A	N/A	N/A

Data Source: WSDOT Project Control and Reporting Office

WSDOT'S Capital Project Delivery Programs

Nickel and TPA Project Delivery Performance Overview

WSDOT Has Successfully Delivered 110 Nickel and TPA Projects within the $1.024 Billion Legislative Budget Expectation

Overall capital project delivery program performance has remained strong. The current cost for the 110 projects completed to date is within 0.01% ($144,000) of the $1.024 billion that the legislature budgeted for these projects. By March 31, 2008, over 50% of the projects funded by the Nickel and TPA programs will be completed, under construction or advertised.

On-Time and On-Budget Performance On Individual Projects Remains Steady

For the 110 capital projects delivered as of September 30, 2007,

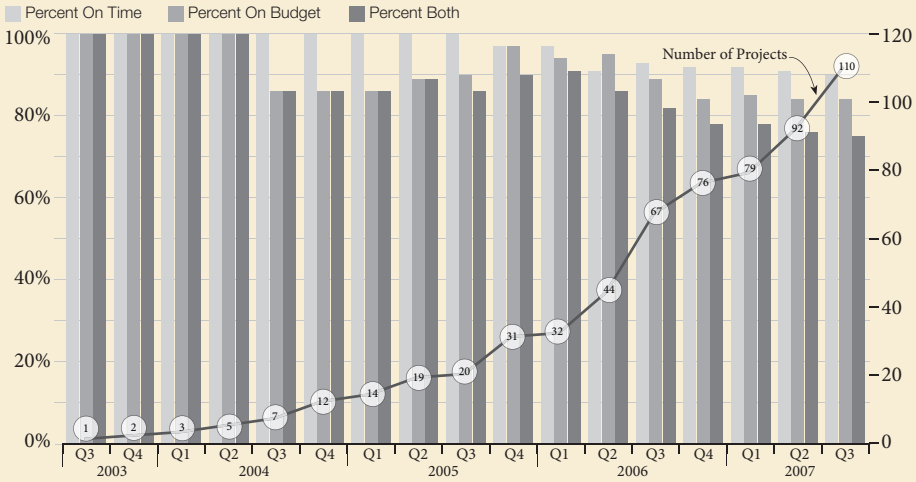
- Cumulative on-time project delivery performance is currently 90%, a 2% decrease from previous quarter.
- Cumulative on-budget project delivery performance is currently unchanged from last quarter at 84%
- Cumulative on-time and on-budget project delivery performance decreased slightly to 75%, a 1% decrease from last quarter.

WSDOT Delivers 18 Nickel and TPA Projects During the 1st Quarter of FY 2007

During the first quarter of the 2007-09 biennium ending September 30, 2007, 18 Nickel and TPA projects were completed. Of the 18 projects, 15 projects were completed on time and 15 projects were completed on or under budget.

The total cost of the 18 projects that were delivered was $253 million. The project delivery highlight for the quarter ending September 30, 2007 include completion of the $139.9 million project to add HOV lanes on I-5 in Pierce County between the county line and Tukwila. While this project was not completed on-time, it was approximately $3 million under budget.

Cumulative Performance of Nickel and TPA Projects



Data Source: WSDOT Project Control and Reporting.

58 Nickel and TPA Projects Are Under Construction

As of September 30, 2007, 58 projects with a cumulative award value of $1.102 billion are under construction. Five projects with a cumulative award value of $3.6 million began construction during the quarter ending September 30, 2007. The largest of these five projects was a project to stabilize the foundation of SR 99 as part of the Alaska Way Viaduct Replacement. Overall, 66% of the 58 projects under construction were advertised early or on-time.

Of the five projects that began construction this quarter, the project on SR 515 to construct a traffic island was the only project that was not advertised on time. The reason that the advertisement of the project was delayed is due to utility relocation issues.

42 Additional Nickel and TPA Projects Set for Advertisement Over the Next Six Months

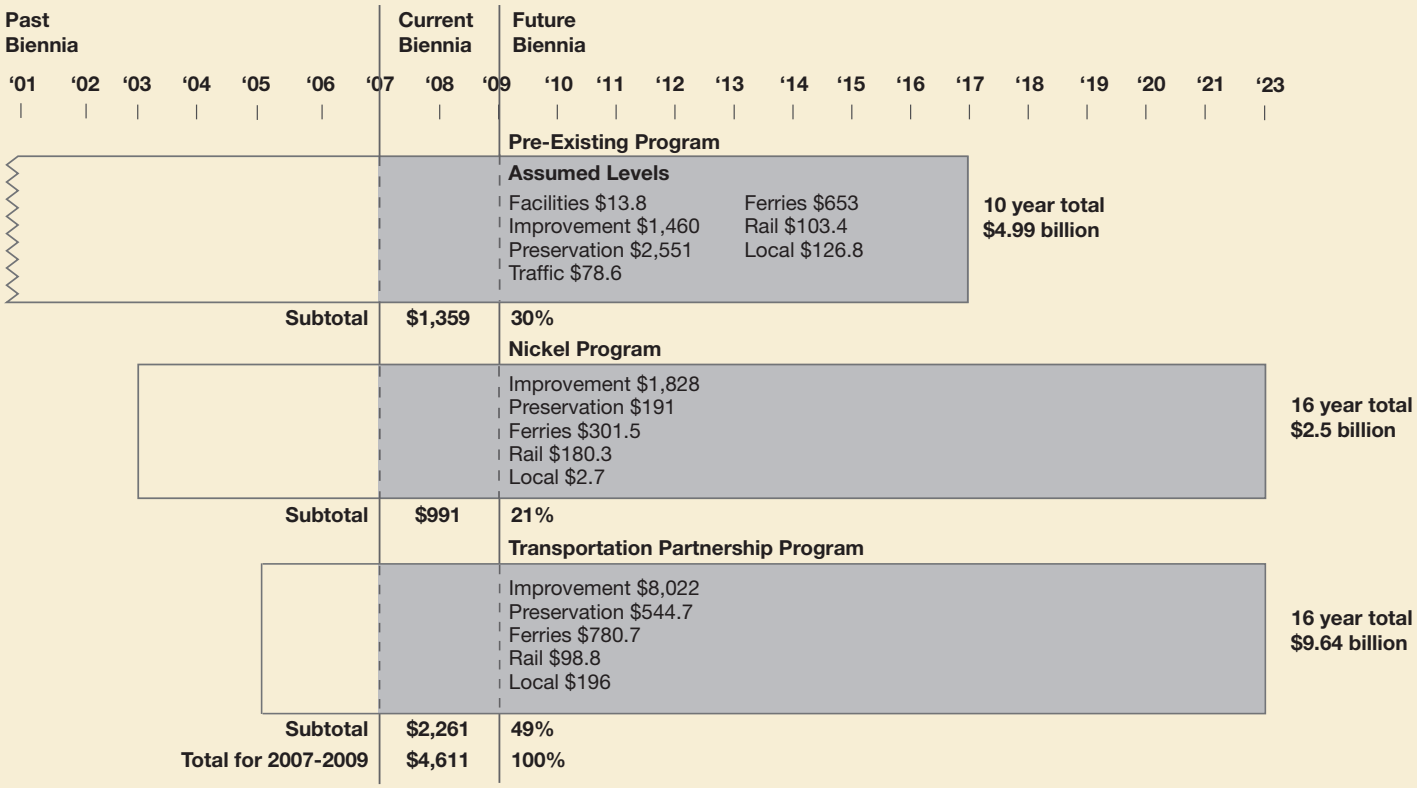
In the next six months, WSDOT intends to advertise 42 additional Nickel and TPA projects with a cumulative estimated cost to complete of $584 million. Major construction projects include adding lanes on I-5 between Grand Mound and Maytown and widening SR 539 from Tenmile Road to SR 546.

All but one of these capital projects are still on their original schedule. The advdertisement date for a roadside safety project on SR 241 in the vicinity of Rattlesnake Hills is delayed due to environmental permitting issues. The advertisement date to build an interchange on SR 522 near the University of Washington at Bothell is also delayed due to environmental permitting issues.

WSDOT's Capital Project Delivery Programs

Overview of WSDOT's Three Capital Project Delivery Mandates

WSDOT'S Capital Program: Current and Future Biennium Outlook
2007-09 Budget
Dollars in Millions



2007-09 Capital Delivery Program

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

In the 2007-09 biennium, capital funds total approximately $4.6 billion. Approximately $991 million will be spent on projects associated with the 2003 Funding Package (Nickel), $2.261 billion will be invested in projects from the 2005 Funding Package (Transportation Partnership Account - TPA), and $1.359 billion will be invested from pre-existing funding sources. For the 2007-09 capital program budget the legislature increased overall bond authorization levels and reaged project delivery in order to fund higher estimated project delivery costs. These changes expanded the Nickel and TPA programs for a longer period of time than was previously assumed.

WSDOT's Capital Project Delivery Programs

Schedule, Scope, and Budget Summary

One-Hundred Ten Highway Projects Completed as of September 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								
2003-05 Biennium Summary See the *Gray Notebook* for quarter ending September 30, 2006, for project listing.	19 Nickel	4 early 15 on-time	6 early 13 on-time	19	118,575	118,450	9 under 8 on-budget 2 over	17 on-time and on-budget
2005-07 Biennium Summary See the *Gray Notebook* for quarter ending June 30, 2007, for project listing.	50 Nickel 23 TPA	20 early 48 on-time 5 late	49 early 16 on-time 8 late	73	650,986	652,896	27 under 33 on-budget 13 over	53 on-time and on-budget
Current Quarter (Ending September 30, 2007)								
Pierce and Thurston Co - Roadside Safety Improvements (Pierce, Thurston)* *Project was part of the Statewide Roadside Safety Improvements Program	TPA	√	Early	√	1,000	1,000	√	√
US 2/Pickle Farm Road and Gunn Road - Add Turn Lanes (Snohomish) *Advertisement was delayed to address design deviations and late addition of consultant staff to ensure timely delivery of the project.	Nickel	Late*	√	√	1,322	1,306	√	√
US 2/Dryden - Install Signal (Chelan)	Nickel	√	√	√	498	498	√	√
SR 3/Imperial Way to Sunnyslope - Add Lanes (Kitsap) *Delay was due to unresolved utility issues.	TPA	Late*	Early	√	2,911	1,609	Under	√
I-5/Pierce Co Line to Tukwila Interchange - Add HOV Lanes (King) *The project was recently transferred from Northwest Region to the Urban Corridors Office. The baseline Operationally Complete date is currently under review to ensure accuracy.	Nickel	Early	Late*	√	142,593	139,891	√	
I-5/S Seattle NB Viaduct - Bridge Paving (King) *Project was over budget due to increased quantities for polyester concrete, project security, and additional contractor incentive payment.	TPA	√	Early	√	14,360	16,072	Over*	
I-5/SB Viaduct, S Seattle Vicinity - Bridge Repair (King) *Project was over budget due to increased traffic control and additional contractor incentive payment.	TPA	√	Early	√	1,108	1,266	Over*	
I-5/Lexington Vicinity - Construct New Bridge (Cowlitz)	Nickel	√	√	√	5,000	5,000	√	√
SR 7/SR 507 to SR 512 - Safety Improvements (Pierce)	Nickel	√	Late	√	20,268	20,676	√	
SR 9/108th Street NE (Lauck Road) - Add Turn Lanes (Snohomish)	Nickel	√	√	√	1,846	1,822	√	√
US 12/Attalia Vicinity - Add Lanes (Walla Walla)	Nickel	√	Early	√	16,201	15,889	√	√
SR 17/Pioneer Way to Stratford Rd - Widen to Four Lanes (Grant)	TPA	√	Early	√	20,989	20,985	√	√

WSDOT's Capital Project Delivery Programs

Schedule, Scope, and Budget Summary

One-Hundred Ten Highway Projects Completed as of September 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
I-90/EB Ramps to SR 18 - Add Signal and Turn Lanes (King)	Nickel	√	Early	√	5,012	5,012	√	√
I-90/EB Ramps to SR 202 - Construct Roundabout (King)	Nickel	√	√	√	1,832	1,843	√	√
I-90/Harvard Rd Pedestrian Bridge - Construct Bridge (Spokane)	TPA	√	√	√	1,333	1,336	√	√
SR 99/S 284th to S 272nd St - Add HOV Lanes (King)	Nickel	√	√	√	15,404	15,404	√	√
SR 516/208th and 209th Ave SE - Add Turn Lanes (King)	Nickel	Late	Late	√	1,881	2,401	Over *	
*Project was over budget due to right-of-way and environmental permitting issues.								
SR 531/Lakewood Schools - Construct Sidewalks (Snohomish)	TPA	Early	√	√	705	612	Under	√

	% 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 (September 30, 2007)	83%	83%	100%	$254,263	$252, 622	83%	72%
11 Nickel Projects	82%	73%	100%	$211,857	$209,742	91%	73%
7 TPA Projects	86%	100%	100%	$42,406	$42,880	71%	71%
Totals Cumulative to Date	**93%**	**90%**	**100%**	**$1,023,824**	**$1,023,968**	**84%**	**75%**
80 Nickel Projects	94%	89%	100%	$966,499	$965,934	89%	80%
30 TPA Projects	90%	93%	100%	$57,325	$58,034	70%	63%

Definitions

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

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

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

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

WSDOT's Capital Project Delivery Programs

Advertisement Record

Fifty-Eight Projects in Construction Phase as of September 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 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	Jun-08	184,993
I-5/41st St Interchange - Widening and Rebuild Ramps (Snohomish)	TPA	Early	combined	For construction efficiencies, this project was combined with the one above.		
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 Street to Farwell Road - Portland Cement Concrete Paving (Spokane)	Nickel		Feb-07	Acme Concrete	Mar-09	19,490
• US 395/NSC - Burlington Northern Sante Fe Rail Road Tunnel (Spokane)	Nickel		Sep-07	(Award Pending)	Mar-09	(Award Pending)
SR 104/Hood Canal Bridge - Replace East Half (Jefferson, Kitsap)	TPA	√	Feb-03	Kiewit-General,	Jun-09	204,000
2005-07 Biennium						
SR 3/SR 303 Interchange (Waaga Way) - Construct Ramp (Kitsap)	Nickel	√	Aug-05	Scarsella Bros.	Oct-07	16,744
US 101/Mt. Walker - Add Passing Lane (Jefferson)	TPA	Late[2]	Apr-07	Lakeside Industies	Oct-07	1,496
SR 169/SE 291st Street Vicinity (Formerly SE 288th Street) - Add Turn Lanes (King)	TPA	√	Nov-06	Tri-State Construction	Oct-07	1,195
SR 270/Pullman to Idaho State Line - Add Lanes (Whitman)	Nickel	Late[3]	Mar-06	North Central Construction	Oct-07	18,090
SR 522/I-5 to I-405 - Multimodal Improvements (King)	TPA	Early	Jun-06		Oct-07	
• SR 522 Corridor Improvement, 153RD Signal & Roadway Widening (King)	TPA		Jun-06	Tri-State Construction	Oct-07	4,038

WSDOT's Capital Project Delivery Programs

Advertisement Record

Fifty-Eight Projects in Construction Phase as of September 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
Adams and Franklin Counties - Roadside Safety Improvements (Adams, Franklin)# #Project is part of the Statewide Roadside Safety Improvements Program.	TPA	Late[4]	Jun-07	Frank Gurney	Nov-07	2,039
Whitman and Spokane Counties - Roadside Safety Improvements (Spokane, Whitman)# #Project is part of the Statewide Roadside Safety Improvements Program.	TPA	Late[5]	combined	For construction efficiencies, this project was combined with the one above.		
SR 260, 263, and 278 - Upgrade Guardrail (Franklin, Spokane, Whitman)# #Project is part of the Guardrail Retrofit Program.	Nickel	Late[6]	combined	For construction efficiencies, this project was combined with the one above.		
SR 542/Boulder Creek Bridge - Replace Bridge (Whatcom)	TPA	Late[7]	Apr-07	Pacific Road & Bridge	Nov-07	3,749
SR 202/Junction of SR 203 - Construct Roundabout (King)	Nickel	√	Dec-06	Tri-State Construction	Nov-07	1,391
SR 25/Spokane River Bridge - Upgrade Bridge Rail (Stevens, Lincoln)# #Project is part of the Bridge Rail Retrofit Program.	Nickel	√	May-07	Frank Gurney	Dec-07	502
SR 25/Columbia River Bridge - Upgrade Bridge Rail (Stevens)# #Project is part of the Bridge Rail Retrofit Program.	Nickel	√	combined	For construction efficiencies, this project was combined with the one above.		
SR 116/SR 19 to Indian Island - Upgrade Bridge Rail (Jefferson)# #Project is part of the Bridge Rail Retrofit Program.	Nickel	Late[8]	May-07	Petersen Brothers	Dec-07	368
SR 167/15th St SW to 15th Street NW - Add HOV Lanes (King)	Nickel	√	Dec-05	Icon Materials	Dec-07	27,849
I-405/SR 520 to SR 522 - Widening (King)	Nickel	√	Jul-05	Kiewit Construction	Dec-07	47,500
US 12/Wynoochee River Bridge - Upgrade Bridge Rail (Grays Harbor)# #Project is part of the Bridge Rail Retrofit Program.	Nickel	Late[9]	Jun-07	Petersen Brothers	Mar-08	564
US 101/Quinault River Bridge - Upgrade Bridge Rail (Grays Harbor)# #Project is part of the Bridge Rail Retrofit Program.	Nickel	Late[10]	combined	For construction efficiencies, this project was combined with the one above.		
SR 105/Johns River Bridge - Upgrade Bridge Rail (Grays Harbor)# #Project is part of the Bridge Rail Retrofit Program.	Nickel	Late[11]	combined	For construction efficiencies, this project was combined with the one above.		
SR 20/Thompson Road - Add Signal (Skagit)	TPA	Early	Oct-06	Rinker Materials West,	Apr-08	1,437
SR 543/I-5 to Canadian Border - Add Lanes (Whatcom)	Nickel	Late[12]	Nov-05	IMCO General Construction.	May-08	28,315
SR 20/Ducken Road to Rosario Road - Add Turn Lanes (Skagit, Island)	Nickel	Late[13]	Jan-07	Strider Construction	May-08	4,544

WSDOT's Capital Project Delivery Programs

Advertisement Record

Fifty-Eight Projects in Construction Phase as of September 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-90/Latah Creek and Lindeke Street Bridges - Upgrade Bridge Rail (Spokane)# #Project is part of the Bridge Rail Retrofit Program	Nickel	√	Jun-07	Frank Gurney	Jul-08	529
SR 167 High Occupancy Tolling Lanes Pilot Project - Managed Lanes (King)	TPA	Early	Mar-07	Signal Electric	Jul-08	7,087
SR 401/US 101 to E of Megler Rest Area Vicinity - Upgrade Guardrail (Pacific)# Project is part of the Guardrail Retrofit Program	Nickel	Early	Mar-07	Lakeside Industries	Nov-08	97
SR 9/Schloman Rd to 256th Street NE - New Alignment (Snohomish)	Nickel	Late[14]	Jan-07	Scarsella Brothers	Nov-08	10,748
SR 9/252nd Street NE Vicinity - Add Turn Lane (Snohomish)	Nickel	Late[15]	combined	For construction efficiencies, this project was combined with the one above.		
SR 9/268th Street Intersection - Add Turn Lane (Snohomish)	Nickel	Late[16]	combined	For construction efficiencies, this project was combined with the one above.		
SR 112/Hoko and Pysht Rivers - Erosion Control (Clallam)	TPA	Early	Aug-06	State Forces	Nov-08	200
US 2/Fern Bluff to Sultan Startup - Stormwater Drainage Improvements (Snohomish)	TPA	√	Jun-07	Pacific Road & Bridge	Dec-08	391
US 2/10th Street Intersection Vicinity - Stormwater Drainage Improvements (Snohomish)	TPA	√	combined	For construction efficiencies, this project was combined with the one above.		
SR 509/SR 518 Interchange - Signalization and Channelization (King)	TPA	Early	Apr-07	Tri-State Construction	Jun-09	26,631
SR 518/SeaTac Airport to I-5 - Eastbound Widening (King)	TPA	√	combined	For construction efficiencies, this project was combined with the one above.		
SR 509/I-5 to Sea-Tac Freight & Congestion Relief (King)	TPA	Late[17]	Jun-06	Tri-State Construction	Jun-09	344
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 - Stage 1 (King)	TPA	Late[18]	Oct-06	Max. J. Kuney	Aug-09	28,532
SR 20/Fredonia to I-5 - Add Lanes (Skagit)**	Nickel	√	Nov-06	Scarsella Brothers	Oct-09	15,139
SR 20/Quiet Cove Road Vicinity to SR 20 Spur - Widening (Skagit)	Nickel	√	May-07	Marshbank Construction	Oct-09	6,129
I-5/Rush Road to 13th St - Add Lanes (Lewis)	Nickel	√	Mar-07	Scarsella Brothers.	Dec-09	33,750
I-405/112th Avenue 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	combined	For construction efficiencies, this project was combined with the one above.		

WSDOT's Capital Project Delivery Programs

Advertisement Record

Fifty-Eight Projects in Construction Phase as of September 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-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	41,582
• I-405/NE 10th St Bridge Crossing Stage 2 (King)	TPA		Sep-07	(Award Pending)	Dec-09	(Award Pending)
US 101/Lynch Road - Safety Improvements (Mason)**	TPA	√	Dec-05	Mason County	Mar-10	1,000
SR 167/S 180th St to I-405 - SB Widening (King)	TPA	Early	Feb-07	Bilfinger/ Tri-State	Jun-10	91,500
I-405/I-5 to SR 181 - Widening (King)	TPA	Early	combined	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/I-5 to SR 169 Stage 1 - Widening (King)	TPA			(Award Pending)		(Award Pending)
• I-405/Springbrook Creek - Wetland and Habitat (King)	TPA		Aug-06	Scarsella Brothers	May-09	12,539
SR 520/W Lake Sammamish Parkway to SR 202, Stage 3 - Widening (King)	Nickel	Late[19]	Jan-07	Tri-State Construction	Dec-11	9,988
Quarter Ending September 30, 2007						
US 2 and SR 92 - Roadside Safety Improvements (Snohomish)* *Project is part of the Statewide Roadside Safety Improvements Program	TPA	√	Aug-07	Petersen Brothers	Feb-08	502
US 2/US 97 Peshastin E - New Interchange (Chelan)	Nickel	√	Sep-07	(Award Pending)	Oct-09	(Award Pending)
SR 4/Svensen's Curve (Wahkiakum)	Nickel	√	Sep-07	(State Forces)	Dec-07	75
SR 99/Alaskan Way Viaduct Yesler Way Vicinity - Stabilize Foundation (King)# #Project is part of the SR 99/Alaskan Way Viaduct Replacement	TPA	√	Aug-07	C. A. Carey Corp.	Apr-08	3,023
SR 515/SE 182nd Street to SE 176th Street Vicinity - Construct Traffic Island (King)	TPA	Late[20]	Sep-07	(Award Pending)	Jul-08	(Award Pending)

	On-Time Advertised	Award Amount
Totals Current Quarter (September 30, 2007)	**80%**	**3,600**
2 Nickel Project	100%	75
3 TPA Projects	67%	3,525
Totals 2007-09 Biennium	**61%**	**$3,600**
2 Nickel Project	100%	75
3 TPA Projects	67%	3,525
Totals Cumulative to Date (Projects Underway)	**66%**	**1,144,116**
32 Nickel Projects	59%	588,831
26 TPA Projects	73%	555,285

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

Fifty-Eight Projects in Construction Phase as of September 30, 2007

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

Project Details

[1]Right-of-Way acquisition delay.
[2]Advertisement was delayed for possible redesign of structural elements. Redesign was deemed unnecessary and the project was advertised in Apr 07.
[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]Advertisement date delay due to the delay in completing Cultural Resource survey and environmental permits.
[5]Advertisment date delay due to the delay in completing Cultural Resource survey and environmental permits.
[6]Advertisment date delay due to the delay in completing Cultural Resource survey and environmental permits.
[7]Advertisment date delay due to time required to analyze alternative bridge footings, which delayed environmental review and permitting process.
[8]Advertisment delay due to DAHP (Historic Preservation) review required for this project.
[9]Delay is to tie with another project for efficiency.
[10]Advertisement date changed to balance with Nickel Bridge Rail retrofit allocation.
[11]Advertisement date changed to balance with Nickel Bridge Rail retrofit allocation.
[12]Advertisement date delay due to Right of way acquisition delay.
[13]Advertisment date was delayed due to environmental permitting issues.
[14]Advertisment date was delayed due to environmental permitting issues.
[15]Advertisment date was delayed due to environmental permitting issues.
[16]Advertisment date was delayed due to environmental permitting issues.
[17]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.
[18]Agreement of Access with Mercer Island delayed the advertisement to 16 Oct 06.
[19]The advertisement for the Flyover ramp portion of this project has been delayed to January, 2007 due to stormwater and wetland design changes. The widening portion of the project will be advertised at a later date.
[20] Advertisement date delay due to utility relocation issues

WSDOT's Capital Project Delivery Program

Projects To Be Advertised

Forty-Two Projects in the Delivery Pipeline for October 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-405/Bridges - Seismic (King)# #Project is part of the Seismic Bridges Program - High and Med. Risk	TPA	Feb-08	Feb-08	√	1,265	1,572
SR 11, SR 525, and SR 900 - Roadside Safety Improvements (King, Snohomish, Skagit)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	800	800
SR 410 and SR 164 - Roadside Safety Improvements (King)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Oct-07	Oct-07	√	1,200	1,200
SR 542 and SR 547 - Roadside Safety Improvements (Whatcom)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Mar-08	Feb-08	√	1,284	1,284
SR 9, SR 11, and SR 20 - Roadside Safety Improvements (Skagit)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	1,400	1,400
E Olympic Peninsula - Roadway Safety Improvements (Clallam, Jefferson, Kitsap, Mason)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	2,900	2,928
W Olympic Peninsula - Roadway Safety Improvements (Clallam, Grays Harbor, Jefferson)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	2,000	2,000
US 2/Roadside Safety Improvements - Safety (Chelan)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	800	800
I-5/5th Ave NE to NE 92nd St - Noise Wall (King)	TPA	Jan-08	Jan-08	√	14,144	14,677
I-5/Grand Mound to Maytown Stage One - Add Lanes (Thurston)	Nickel	Oct-07	Dec-07	√	87,985	94,871
I-5/Boston St to E Shelby St - SB I-5, Westside - Noise Wall (King)	TPA	Mar-08	Mar-08	√	19,418	19,946
SR 7/Lewis Co - Roadside Safety Improvements (Lewis)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	1,700	1,700
SR 9/176th St SE Vicinity to SR 96 - Add Signal and Turn Lanes (Snohomish)**	Nickel	Jan-08	Dec-07	Advanced	6,198	6,256
SR 9/Marsh Rd Intersection - Safety Improvements (Snohomish)**	TPA	Jan-08	Dec-07	Advanced	4,764	9,495
SR 9/SR 96 to Marsh Rd - Add Lanes and Improve Intersections (Snohomish)**	TPA	Jan-08	Dec-07	Advanced	40,833	37,845
US 12/Clemons Rd Vicinity - Intersection Improvements (Grays Harbor)	TPA	Nov-07	Nov-07	√	3,315	3,542
US 12/Frenchtown Vicinity to Walla Walla - Add Lanes (Walla Walla)**	TPA	Oct-07	Dec-07	√	66,382	66,582
US 12/Waitsburg to SR 127 - Roadside Safety Improvements (Garfield, Columbia, Walla Walla)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	266	266

WSDOT's Capital Project Delivery Program

Projects To Be Advertised

Forty-Two Projects in the Delivery Pipeline for October 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
US 12/SR 127 to Clarkston - Roadside Safety Improvements (Garfield, Columbia)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	307	307
US 12/Naches River N of Yakima - Stabilize Slopes (Yakima)**	TPA	Oct-07	Oct-07	√	2,960	2,956
SR 14/Benton Co - Roadside Safety Improvements (Benton)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Mar-08	Mar-08	√	1,691	1,691
SR 16/Burley-Olalla Interchange - Build Interchange (Kitsap)**	Nickel	Mar-08	Mar-08	√	25,143	25,257
SR 24/SR 241 to Cold Creek Rd - Add Passing Lanes (Benton, Yakima)	TPA	Oct-07	Dec-07	√	5,145	5,145
SR 99/N of Lincoln Way - Construct Sidewalks (Snohomish)	TPA	Oct-07	Oct-07	√	1,438	1,506
US 101/SR 3 On Ramp to US 101 NB - Add New Ramp (Mason)**	TPA	Oct-08	Feb-08	Advanced	3,886	4,040
US 101/W Fork Hoquiam River Bridge - Replace Bridge (Grays Harbor)	TPA	Jan-08	Jan-08	√	3,165	3,165
US 101/W Fork Hoquiam River Bridge - Replace Bridge (Grays Harbor)	TPA	Jan-08	Jan-08	√	2,151	2,151
SR104/Port Angeles Graving Dock Settlement and Remediation (Jefferson)	TPA	Feb-08	Feb-08	√	6,840	6,840
SR 112/Neah Bay to Seiku - Roadside Safety Improvements (Clallam)	TPA	Feb-08	Feb-08	√	10,373	10,502
SR 112/Seiku Vicinity to US 101 - Install Guardrail (Clallam)# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Feb-08	Feb-08	√	1,800	1,815
SR 161/SR 167 EB Ramp- Realign Ramps (Pierce)	Nickel	Mar-08	Mar-08	√	2,967	3,066
SR 241/Rattlesnake Hills Vicinity - Roadside Safety (Yakima, Benton)**# #Project is part of the Statewide Roadside Safety Improvements Program	TPA	Jun-07	Oct-07	Delayed[1]	2,174	2,170
SR 410/Rattlesnake Creek - Stabilize Slopes (Yakima)	TPA	Nov-07	Nov-07	√	331	332
SR 502/10th Ave to 72nd Ave - Safety Improvements (Clark)	TPA	Apr-09	Nov-07	Advanced	1,786	736
SR 503/Gabriel Rd Intersection (Clark)	TPA	Oct-07	Oct-07	√	432	501
SR 522/University of Washington Bothell - Build Interchange (King)	TPA	Jan-07	Oct-07	Delayed[2]	31,367	40,492
SR 539/Tenmile Road to SR 546 - Widening (Whatcom)**	Nickel	Oct-07	Nov-07	√	101,635	101,635
SR 542/Nooksack River - Redirect River and Realign Roadway (Whatcom)**	TPA	Jan-10	Mar-08	Advanced	16,196	16,574

WSDOT's Capital Project Delivery Program

Projects To Be Advertised

Forty-Two Projects in the Delivery Pipeline for October 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

SR 704/Cross Base Highway - New Alignment (Pierce)	TPA	Jun-08	Jan-08	Advanced	42,954	42,938
SR 823/Goodlander to Harrison Rd - Build Sidewalk (Yakima)	TPA	Oct-07	Oct-07	√	1,092	989
SR 900/SE 78th St Vic to I-90 Vic - Widening and HOV (King)**	Nickel	Nov-07	Nov-07	√	40,846	41,704
SR 902/Medical Lake Interchange - Intersection Improvements (Spokane)	TPA	Oct-07	Oct-07	√	726	743

	On Schedule	Baseline Estimated Cost at Completion	Current Estimated Cost at Completion
Total (October 1, 2007, through December 31, 2007)	**93%**	**$564,061**	**$584,421**
6 Nickel Projects	100%	$264,774	$272,790
36 TPA Projects	92%	$299,287	$311,631

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 Partnershi√Account funds.
** Indicates project is on the Watch List.

Project Details

[1]Advertisement date delayed due to environmental permitting issues.
[2]Advertisement was delayed due to environmental permitting issues. The project was originally advertised in January, 2007 and then pulled from ad due to budge constrains. The project will be re-advertised in October, 2007.

WSDOT'S Capital Project Delivery Programs

Construction Highlights

SR 9/108th Street NE/Lauck Road – Add Turn Lanes (Snohomish)
This completed project improves the existing intersection by adding left-turn lanes on SR 9, widening the intersection, installing lighting and constructing a southbound right-turn lane onto SR 9 from Lauck Road. The project was completed on-time and within budget. These improvements will reduce rear-end collisions by reducing backups at the intersection, where nearly 16,000 vehicles travel the road daily.

The intersection was opened to traffic on August 14, 2007.

US 2/Pickle Farm Road/Gunn Road – Add Turn Lanes (Snohomish)
This project improves safety and traffic flow at the intersection by adding left-turn lanes, reconstructing the existing right-turn lane, installing new signs, and improving visibility.

The project was on-time and within budget. The intersection was opened to traffic on September 19, 2007.

I-5/South Seattle Northbound Viaduct – Bridge Paving (King)
I-5/Southbound Viaduct, South Seattle Vicinity – Bridge Repair (King)
This project replaced expansion joints on the northbound bridge, repaired expansion joints on the southbound bridge, and repaved the northbound I-5 lanes from Spokane Street to the I-90 interchange. These improvements restore the safety condition of the elevated, forty-year-old bridge and should extend the life of this section of pavement by thirty years.

This project was completed early and opened to traffic on August 25, 2007, one year earlier than planned, resulting in fewer delays to travelers. The project will be $1.9 million over budget due to higher-than-expected material quantity, traffic control costs, and an incentive to the contractor to reduce I-5 closures.

SR 99/South 284th to South 272nd Street – Add HOV Lanes (King)
This completed project adds a High Occupancy Vehicle (HOV) lane in each direction on State Route 99 between South 284th Street and South 272nd Street, north of Federal Way. The lanes will alleviate traffic congestion, while encouraging a reduction in single occupancy vehicular traffic.

The project was completed on-time and within budget. The HOV lanes were opened to traffic on September 7, 2007. Minor road work and median planting remains to be completed, and may result in temporary lane closures.

I-90/Eastbound Ramp to SR 202 – Construct Roundabout (King)
This project installed a roundabout at the intersection of the I-90 eastbound off-ramp at SR 202 to improve traffic flow, in addition to reducing the risk of intersection accidents.

The project was completed on-time and within budget. The intersection was opened to traffic on September 26, 2007.

SR 531/Lakewood Schools – Construct Sidewalks (Snohomish)
This project completes a section of sidewalk on SR 531 that provides safe access for school children attending four different schools and for the general public walking in the Lakewood business district. It also connects the sidewalk to the Community Transit stop. The project was completed on August 9, 2007 on time and $93,000 (13%) under budget.

SR 116/SR 19 to Indian Island - Upgrade Bridge Rail (Jefferson County) (formerly known as SR 116 - Portage Canal Bridge Rail)
This project will upgrade the existing bridge rail to meet current safety standards and enhance motorist safety. Because of both the age and design, this bridge is eligible for the National Historic Register. The project uses a special bridge rail that maintains the cultural significance of the bridge, and meets safety requirements while honoring scenic qualites for motorists traveling to Indian Island.

The project was awarded on June 2, 2007 within 6% of the WSDOT estimate. It is progressing toward construction with procurement of materials. The project is expected to be on budget and completed on-time by December 2007.

SR 17/Pioneer Way to Stratford Road - Mobility Project (Grant)
This project reduces shipping time for freight and improves highway safety by widening a three-mile corridor segment of SR 17 through the City of Moses Lake. A lane added in each direction provides a continuous four-lane highway that connects I-90 to the Grant County International Airport. Improved signals were installed and, to prevent crossover accidents, a median barrier was placed down the center of the highway. This project was completed September 14, 2007, on budget and two months ahead of schedule. Minor finishing work remains.

Pierce and Thurston Co – Roadside Safety Improvements (Pierce, Thurston)
This project was designed to reduce fatal and disabling injury accidents at thirty-two locations on SR 7, SR 165, SR 507 and SR 510. The project was completed on July 18, 2007 on-time and on-budget.

WSDOT'S Capital Project Delivery Programs

Construction Highlights

US 12/Attalia Vicinity – Add Lanes (Walla Walla)
This project improved a two-mile section of US 12 by adding two lanes and constructing a new bridge over Burlington Northern Santa Fe and Union Pacific Railroad lines. This project is the third of a six phase construction project that will reconstruct US 12 as a four-lane divided highway between SR 124 and Walla Walla. The final two phases are not currently funded for construction.

The new lanes were open to traffic on September 10, 2007, three months ahead of schedule. WSDOT expects this project to be completed under budget, when all aspects of the work are finished. A ribbon-cutting ceremony is scheduled for October 18, 2007

I-90/Harvard Road Pedestrian Bridge – Construct Bridge (Spokane)
This project constructed a pedestrian bridge across the Westbound I-90 on-ramp at Harvard Road to improve safety and enhance bicycle and pedestrian access between the City of Liberty Lake and the Centennial Trail. The project was completed on August 22, 2007, on-time and on-budget.

Special Informational Update

The following projects on this list may have a limited funding contribution from WSDOT. The scope, schedule, and budget responsibilities for these projects rests with the local governments.

US 101 – Lynch Road – Safety Improvements (Mason)
The purpose of this project is to reduce accidents associated with the intersection of US 101 and Lynch Road by constructing a new frontage road.

This project was budgeted in the 2005 Transportation Budget (TPA package) for $1 million based on a 2001 study estimate. In reviewing the project and the study, WSDOT determined the project budget of $1 million was only enough to complete design and possibly purchase some right-of-way due to inflation and material cost escalation since 2001. The final road to be constructed was a county road, and Mason County accepted the lead on the project. Mason County's current cost estimate for the project is over $6 million.

The County determined the original design concept was unsatisfactory and is considering revised designs. The new design alternatives are estimated at $8 to $10 million and therefore will require additional funding.

WSDOT is working with Mason County to determine the final design alternative, the final estimate, and the final decision on lead agency, depending on which alternative is selected.

SR 162/Orting Area - Construct Pedestrian Tunnel (Pierce)
This County-led project will construct a dedicated pedestrian evacuation route from Orting school campuses to a safe location on the Orting Plateau in the event of a volcanic hazard from an eruption of Mount Rainier.

The Orting Bridge for Kid's project began in November 2001, at a PTA meeting. A group of concerned parents established Bridge for Kids, a coalition of parents, school employees, and citizens who developed a feasible evacuation plan for the Orting School District. In 2005, the Legislature earmarked $1.7 million for the project, including $850 thousand in TPA funds.

Efforts by the Bridge for Kids group led to legislative action directing the Washington State Military Department to conduct an evacuation study. The study recommended a tunnel crossing of SR162 at the location of the Ptarmigan Middle School, using the existing Rocky Road corridor as the evacuation route, and the treatment plant site for the crossing of the Carbon River.

WSDOT's Capital Project Delivery Programs

"Watch List" - Cost and Schedule Concerns

Watch List Summary

New to the Watch List	Project Type	Watch List Issue
SR 169/SE 416th - Interchange Improvements	Highway	Design, Local Concerns
SR 20 Fredonia to I-5 - Add Lanes	Highway	Cost Increase, Scheduling
SR 542/Nooksack River - Redirect River and Realign Roadway	Highway	Right-of-Way Acquisitions
SR 532/270th Street NW to 72nd Ave NW - Improve Safety	Highway	Scheduling Delays
SR 529 Ebey Slough Bridge - Replace Bridge	Highway	Geological, Design Issues
SR 99/Aurora Avenue - George Washington Memorial Bridge - Seismic	Highway	Geological, Design Issues
SR 9 Marsh Road Intersection & 176th Street SE Vicinity to SR 96	Highway	Design Issues
SR 112/Makah Reservation to US 101 - Safety	Highway	Permitting Delay
SR 16/Burley-Olalla Interchange - Build Interchange	Highway	Wetlands & Groundwater Mitigation,
SR 142 Roadside Safety - Roadside Improvement	Highway	Right-of-Way Acquisitions
I-5/Chehalis River Flood Control - Construct Levies	Highway	Re-evaluating Long Term Planning
US 12/Frenchtown Vicinity to Walla Walla - Add Lanes	Highway	Right-of-Way Acquisitions
US 12/Naches River North of Yakima - Stabalize Slopes	Highway	Wetlands Mitigation, Permitting Delay
SR 22/I-82 to Toppenish - Safety Improvements	Highway	Project Realignment
I-405 Totem Lake/NE 128th Street HOV Direct Access - Freeway Station	Highway	Design, Budget Realignment
Geiger Spur/Airway Heights - New Rail Connection	Rail	Right-of-Way Acquisitions
Tacoma Bypass of Point Defiance	Rail	Right of Way Certification
Updated Since June 30, 2007	**Project Type**	**Watch List Issue**
SR 9/Lake Stevens Road to 20th Street SE - Improve Intersection	Highway	Budget Shortfall
SR 520/West Lake Sammamish Parkway to SR 202, Stage 3 - Widening	Highway	Budget Shortfall
I-5 Grand Mound to Maytown	Highway	Budget Shortfall, Environmental
SR 109/Moclips River Bridge - Replace Bridge	Highway	Schedule; Redesign Increased Cost
US 101/ Purdy Creek-Bridge Replacement	Highway	Budget Shortfall
SR 539/Tenmile Road to SR 546 - Widening	Highway	Land Acquisition
I-5/SR 11 Interchange - Josh Wilson Road - Rebuild Interchange	Highway	Wetlands Mitigation
SR 9/SR 522 to 228th Street SE, Stages 1A and 1B - Add Lanes SR 9/228th Street SE to 212th Street SE (SR 524) Stage 2 - Add Lanes	Highway	Design, Environmental
SR 900/SE 78th Street Vicinity to I-90 Vicinity - Widening and HOV	Highway	Geological, Design Issues, Cost Increase
SR 241 Rattlesnake Hills Vicinity - Roadside Safety	Highway	Property Acquisition
SR 285 George Sellar Bridge - Additional Eastbound Lane	Highway	Unanticipated Construction Costs
SR 28 East End of the George Sellar Bridge - Construct Bypass	Highway	Design Cost Increase
SR 500 Saint John's Boulevard - Build Interchange	Highway	Environmental, Budget Shortfall, Fish Passage Barrier Issue
US 12/SR 124 Intersection - Build Interchange	Highway	Property Acquisition
SR 167/8th Street East Vicinity to South 27th Street Vicinity	Highway	Fish Passage Barrier Issue
Eagle Harbor Maintenance Facility	Ferries	Pending Litigation
Mukilteo Multimodal Ferry Terminal	Ferries	Geological, Budget Realignment
New 144 Auto Ferry Project	Ferries	Pending Legal Settlement
Mount Vernon - Siding Improvements	Rail	Budget Realignment, Local Concern

WSDOT's Capital Project Delivery Programs

"Watch List" - Cost and Schedule Concerns

Stanwood - New Station, Stanwood - Siding Upgrades	Rail	Design, Budget Realignment, Federal Approval
Vancouver - Rail Bypass and West 39th Street Bridge	Rail	Right of Way Acquisitions, increased Contingencies
White Swan - Toppenish - Yakama Sawmill Traffic Upgrades	Rail	Scope Agreement
Bellingham - Waterfront Restoration, Bellingham - Georgia Pacific Area Upgrades	Rail	Relocate Rail Tracks, Budget Realignment
Tacoma Rail & Puget Sound and Pacific RR - Reconfigure Rail Phase 1A	Rail	Design Realignment, Third Party Agreement
Tacoma Rail & Puget Sound and Pacific RR - Reconfigure Rail Phase 1B	Rail	Right of Way Acquisition, Budget Realignment

Removed from Watch List	**Project Type**	**Watch List Issue**
SR 522, I-5 to I-405 Multimodal Project	Highway	Utility Concerns: Cost and schedule risks resolved, project in on-budget
US 395 North Spokane Corridor Francis Avenue to Farwell Road - New Alignment	Highway	Design Standards: New tunnel design agreed upon by BNSF
SR 516/208th and 209th Avenue SE -Add Turn Lanes	Highway	Cost Increases: Settlement reached with contractor
SR 515/SE 182nd Street to SE 176th Street - Construct Traffic Island	Highway	Utility Relocation: Project redesign avoids having utilities relocated
Blaine - Customs Facility Siding	Rail	Scope Agreement: BNSF has agreed to a scope to keep project within funding

New to Watch List

SR 169/SE 416th – Interchange Improvements (King)
This project will construct intersection improvements to reduce the risk of collisions occurring at this intersection. The project's advertisement date for October 2009 may be delayed because the project is currently on hold as a result of concerns from the local community with the proposed design. WSDOT is currently evaluating other design options to improve intersection safety. An update will be provided next quarter.

SR 20, Fredonia to I-5 – Add Lanes (Skagit)
Two new lanes are being added to the existing eastbound lanes. The two westbound lanes are being widened and resurfaced. Four new overpasses will be constructed on SR 20 and one new overpass on SR 536. The bridge over Higgens Slough will also be widened.

This project will be in three stages and will help relieve traffic congestion and improve safety. The overall project budget has increased by $5.7 million due to new construction cost inflation factors. This increase and the schedule will be addressed by the 2008 Legislature.

SR 542/Nooksack River – Redirect River and Realign Roadway (Whatcom)
This project considers two alternatives that will reduce seasonal flooding damage and road closures by either realigning SR 542 further away from the Nooksack River or by diverting the Nooksack River further away from SR 542.

The project schedule is at risk of being delayed due to right-of-way acquisitions. Right-of-way plans and real estate negotiations were delayed by six months due to prolonged research to authenticate some of the properties' ownership. Right-of-way purchases need to be finalized by February 2008 if the project is to remain on schedule for the March 2008 advertisement date.

WSDOT has also identified a $400,000 project cost increase to address poor soil infiltration conditions at the project site. This increase will be addressed by the 2008 Legislature. Additional water quality procedures and erosion control measures will be needed.

SR 532/270th Street NW to 72nd Avenue NW – Improve Safety (Island)
This project will increase traffic flow and enhance motorist safety traveling the SR 532 corridor from Camano Island to I-5 through improving several intersection choke points and consolidating private driveway access.

"Watch List" - Cost and Schedule Concerns

WSDOT is considering combining this project under one contract with three other safety improvement projects on the SR 532 corridor for delivery efficiency, and to potentially advance completion of the project through the corridor by nine months. This action would result in a five month advertisement delay for this project which is currently scheduled to be advertised in May 2008.

In August, the cost risk for combining the projects was reviewed. Preliminary results indicate the cost of the combined SR 532 corridor project will range between $86 to $96 million. Currently, the combined 2007 legislative appropriation for the SR 532 safety improvement projects is $80.8 million. An update on the consolidation of the project will be provided in the next *Gray Notebook*.

SR 529/Ebey Slough Bridge – Replace Bridge (Snohomish)
This project will replace the existing Ebey Slough Bridge with a new fixed span structure designed to current standards.

This bridge site is in a known, high risk area for soil instability in the event of an earthquake. Seismic design codes for bridges in such conditions have recently changed. The project advertisement date has been delayed to January 2010 from February 2009 in order to redesign the bridge foundation to meet the new codes and obtain the necessary environmental approvals. Based on the initial geotechnical evaluation of the soil risk, the bridge construction cost may be $10 million higher than the currently approved budget. An update will be provided in the next *Gray Notebook*.

SR 99/Aurora Avenue-George Washington Memorial Bridge – Seismic (King)
This project completes the remaining seismic retrofit work on the SR 99 Aurora Avenue-George Washington Memorial Bridge to reduce the probability of catastrophic damage from an earthquake.

The advertisement date for this project is being delayed to October 2009 from April 2008. Due to recent seismic design code changes for bridges, additional time and design funds are needed to conduct geotechnical investigations and more sophisticated structural design analysis. Upon completion of the investigation and analysis, the seismic retrofit needs for the bridge foundations can be defined. The current design estimate is $1 million higher than the approved design budget. The cost impact to the construction budget will be determined once the geotechnical and structural analyses are completed next year.

SR 9/Marsh Road Intersection – Safety Improvements (Snohomish)

SR 9/SR 96 to Marsh Road – Add Lanes and Improve Intersections (Snohomish)

SR 9/176th Street SE Vicinity to SR 96 – Add Signal and Turn Lanes (Snohomish)
These three projects have been combined into one contract and are scheduled to be advertised in January 2008. Together these projects will widen SR 9 to two lanes in each direction between SR 96 and Marsh Road, and improve four intersections along SR 9. The improvements will increase traffic flow and enhance motorist safety along the SR 9 corridor between the towns of Clearview and Arlington.

WSDOT re-evaluated the design and has determined the intersection of Marsh Road with Springhetti Road and Airport Way need to be relocated further east from the intersection of SR 9 and Marsh Road in order to meet intersection design standards and to improve traffic flow. A major realignment of Springhetti Road and Airport Way is also required to tie into the relocated intersection. Although these changes increase the construction cost by $4.5 million, the WSDOT has identified $4.5 million in cost savings on the 'SR 9/SR 96 to Marsh Road' project which could be transferred to offset the cost increase. However, due to new construction cost inflation factors, the total project's budget is over by $1.7 million, and this increase will be addressed by the 2008 Legislature. The construction contract is scheduled to be advertised in January 2008.

SR 112/Makah Reservation to US 101 – Safety (Clallam)

This project combines the work from three separate projects on SR 112 in Clallam County. It will install a sidewalk on the south side of SR 112 in Clallam Bay to increase pedestrian access to a school. It will also install guardrails and remove fixed objects for the entire 61 miles of SR 112, to decrease the high number of run-off-the-road collisions. The three combined projects are:

- ***SR 112/Murphy Road to Charley Creek – Weel Road – Pedestrian Safety***;
- ***SR 112/Sekiu Vicinity to US 101 – Install Guardrail*** and
- ***SR 112/Neah Bay to Sekiu – Roadside Safety Improvements***.

To maximize efficiency, this project will be done in two contracts. The first contract will address off-road accident locations that can be fixed with little or no impact to environmental resources. In addition, right-of-way work will be done that will allow construction in 2008.

The second contract will address accident locations that require lengthy processes, right-of-way purchases, and environmental mitigation. Accident locations covered in the second contract

"Watch List" - Cost and Schedule Concerns

will be constructed in 2009 to allow for the necessary permitting processes. Repackaging the construction work will extend the SR112/Neah Bay to Sekiu – Roadside Safety Improvements project that aligns with the consolidated project limits, and delays completion by one year to October 30, 2008. The total cost of the two new contracts will be delivered within the total budgets of the three original projects.

SR 16/Burley-Olalla Interchange – Build Interchange (Kitsap)
This project, currently in the design stage, constructs a new interchange on SR 16 to improve safety at this high accident location. Results of recent field investigations and direction by the Washington State Department of Fish and Wildlife (WDFW) has determined a second barrier to fish migration requires removal and mitigation. The cost impact to this project is an increase of approximately $500,000.

Both schedule and budget may be impacted by environmental conditions on the project. It may be necessary to increase the wetland mitigation ratio, therefore additional purchases of mitigation property will be required. Artesian ground water located within the area of the stormwater treatment pond may require mitigation. WSDOT is evaluating the impacts and strategies to stay on schedule and within budget.

SR 142 Roadside Safety – Roadside Improvements (Klickitat)
This project will make safety improvements to SR 142 from Lyle to Goldendale. Right-of-way acquisition is necessary to install guardrail and remove hazards from the roadside, but was not initially anticipated. Adding a right-of-way phase will delay the project advertisement date to January 2010 from April 2008.

I-5/Chehalis River Flood Control – Construct Levies (Lewis)
This project will provide flood-proof access to the local hospital and better roadway network connectivity. At the request of Lewis County, the 2006 Legislature put $2.5 million (Chehalis River Flood Control funds) in the 2007-09 biennium as the State's contribution to this local agency project to protect I-5 and the greater community from floods. Recently, the County and Cities have decided to re-consider the comprehensive flood control plan. They are working cooperatively with WSDOT and the US Army Corps of Engineers to develop a long term flood control plan that is suitable to all parties.

The scope of this flood control project in the Chehalis Basin is on hold until the agencies agree on a long term flood control plan. Therefore, this project will not be constructed in the 2007-09 biennium. It is likely the county and cities will ask WSDOT to shift funding from the construction phase to the preliminary engineering phase to continue cooperative dialog and planning.

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

This project is the fourth of six construction phases to widen US 12 between SR 125 and the City of Walla Walla. It will construct a new four-lane divided highway to add traffic capacity and improve safety along this 7.5-mile section of US 12, west of Walla Walla. Work includes re-aligning county roads, constructing four non-signalized intersections, and building an interchange with three roundabouts.

Right-of-way negotiations for one of the land acquisition parcels have broken down and may require acquisition through condemnation. If control of this property is not voluntarily granted to WSDOT, the October 2007 advertisement date may be delayed to later in the quarter to allow time for the condemnation process.

WSDOT recognizes the project would require two full construction seasons to complete and will change the completion date from June 2009 to October 2009. The proposed changes will be addressed by the 2008 Legislature.

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

The October 2007 advertisement date may be delayed to the end of the year due to the need for a different type of environmental permit than WSDOT originally prepared for. Although the advertisement date may be delayed a few months, WSDOT anticipates the construction will be completed in December 2008, as originally planned.

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

The original project description also included replacing the Yakima River Bridge on SR 22. WSDOT has determined a more cost-effective solution for corridor safety would be achieved by continuing the safety improvements south towards Toppenish, instead of replacing the bridge. This additional safety work would include intersection improvements, and new sidewalks to connect sections of existing sidewalk. The proposed changes will be addressed by the 2008 Legislature.

"Watch List" - Cost and Schedule Concerns

I-405 Totem Lake/NE 128th Street HOV Direct Access/Freeway Station (King)
This project will build a new direct access ramp for transit and HOV at the Kingsgate Park & Ride lot. During construction in December 2006, cracks were detected in the new 300-foot long cantilevered ramp structure over the I-405 northbound HOV lane. It was determined that the cantilevered sections required re-design, removal and re-construction. The design for the cantilevered sections was completed by WSDOT.

The $6 million additional project cost for the removal and reconstruction work will be addressed by the 2008 Legislature. This project is primarily funded by Sound Transit.

Rail

Geiger Spur/Airway Heights - New Rail Connection (Spokane)
The 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 in the June 30, 2007 *Gray Notebook*, an additional $2 million is needed to construct the project. Funding was provided in the 2007-09 Transportation Budget. WSDOT and Spokane County signed a contract in August 2007 which will allow the project to move forward.

The project is currently being delayed by an unwilling seller of needed right-of-way. Spokane County has recently decided to move forward with condemnation proceedings.

Tacoma – Bypass of Point Defiance (Pierce)
This project constructs a 20-mile bypass route through Lakewood, in coordination with Sound Transit. This will result in a six-minute reduction in the Amtrak Cascades schedule between Seattle and Portland.

The process to purchase four pieces of property began late. WSDOT's and Sound Transit's previously anticipated advertisement date of February 2008 may be delayed due to right of way certification. WSDOT's has estimated that the earliest date for ROW certification will be July 2008. WSDOT should have a better estimate for the right of way certification date by January 2008.

The vast majority of the work for the project can be finished prior to purchasing the four properties. Therefore, WSDOT and Sound Transit are considering moving ahead with either a slightly reduced scope or specifications limiting how the contractor proceeds within the needed right-of-way.

Updated Since June 30, 2007

SR 9/Lake Stevens Road to 20th Street SE – Improve Intersection (Snohomish)
This project adds new lanes and upgrades existing infrastructure at the intersection. The potential $700,000 construction budget shortfall reported in the June 30, 2007 *Gray Notebook* has been resolved. In July, a joint cost risk assessment and engineering workshop held with Snohomish County identified cost saving recommendations that the County will be incorporating.

However, due to new construction cost inflation factors, the total project's budget is over by $365,000. This increase will need to be addressed in the 2008 Supplemental Budget request. The project remains on schedule to be advertised in April 2008.

SR 520/West Lake Sammamish Parkway to SR 202, Stage 3 – Widening (King)
This project increases roadway capacity, improves traffic operations and safety. The potential $5.8 million budget shortfall reported in the June 30,2007 *Gray Notebook* has been resolved. A joint workshop with the City of Redmond and the environmental permitting agencies in July resulted in the elimination of a proposed stormwater detention vault requirement, saving $3.8 million. Design changes for the West Lake Sammamish Parkway interchange bridge and the retaining wall saved an additional $2 million. An independent cost review in August validated the latest construction estimate after these changes were incorporated.

However, due to new construction cost inflation factors, the project's total budget is over by $2.7 million, and this increase will need to be addressed by the 2008 Legislature.

The project is currently on schedule for advertisement in October 2008.

I-5/Grand Mound to Maytown (Thurston)
This project constructs one additional northbound lane and southbound lane from south of the interchange with US 12 at Grand Mound Interchange to the interchange at Maytown. Work will include replacing several bridges, improving a rest area, and extending both on- and off-ramps for improved safety.

The advertisement date was delayed to December 3, 2007 from October 1, 2007 to mitigate schedule risks in environmental permitting, right-of-way acquisition and utility relocation. The project estimate has also increased by approximately $3.8 million. The approved budget for this project is currently $88 million. Causes include increased girder costs for the new bridges, design requirements for bridge pier shafts due to the

"Watch List" - Cost and Schedule Concerns

geotechnical recommendations and new earthquake design standards for bridges, and the addition of high performance median barriers for safety.

SR 109/Moclips River Bridge – Replace Bridge (Grays Harbor)
The estimate and schedule for this project is being revised. This project will replace the existing bridge, reducing the need for continual maintenance and the associated environmental impacts. Over time, the Moclips river has changed directions. The river slows under the existing structure, where gravel is deposited and woody debris is caught in the existing timber piles on a regular basis. The originally proposed solution did not meet required structural standards for water clearance during flooding. It also did not accommodate a right-of-way phase to establish a detour needed during construction.

A new preliminary bridge design has been developed that addresses river flow analysis results, along with several temporary detour options. The revised structure and added detour to accommodate traffic during construction has increased the project estimate by approximately $3.46 million. The preliminary schedule has been delayed 17 months to December 2009, with an estimated Operationally Complete date in December 2010.

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

As anticipated and reported in the June 30, 2007 *Gray Notebook*, the preliminary engineering cost has increased approximately $880,000 due to unanticipated analysis and review required for completion of the biological assessments and environmental documentation. The new design will eliminate impacts that would require reconstruction of the Washington State Department of Fish and Wildlife (WSDFW) fish hatchery pond and relocation of a major Qwest connection facility. The construction estimate has also increased approximately $400,000 due to higher-than-expected costs, and soil improvements required after geotechnical investigations gathered new information.

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 the town of Lynden to reduce congestion and improve safety. The project includes a study to determine the best of two alternatives to improve traffic flow.

The schedule risk for the acquisition of the open water mitigation site reported in the June 30, 2007 *Gray Notebook* has been resolved, with negotiations expected to conclude in time to finalize the contract documents for the November 2007 advertisement date. Difficulties in acquiring possession and use of two parcels of land that are needed for utility relocations and drainage improvements may impact the construction schedule. WSDOT will provide an update next quarter.

SR 11/I-5 Interchange – Josh Wilson Rd – Rebuild Interchange (Skagit)
This project reduces congestion and accidents within the interchange and connecting streets. This project is coordinated with the 'SR 11/Chuckanut Park and Ride' project and the City of Burlington's 'Burlington Boulevard Widening' project.

As reported in the June 30, 2007 *Gray Notebook*, the project is currently over budget because additional property has to be acquired and developed to mitigate the larger wetland impact. The current cost increase estimate is $1 million, but the full cost impact will only be known after the mitigation site is actually acquired.

SR 9/SR 522 to 228th Street SE, Stages 1A and 1B – Add Lanes (Snohomish)
SR 9/228th Street SE to 212th Street SE (SR 524), Stage 2 – Add Lanes (Snohomish)
These projects widen and enhance safety on 1.8 miles of congested highway by adding lanes, and installing new guardrails and median barriers.

As reported in the June 30, 2007 *Gray Notebook*, WSDOT and the contractor have been exploring alternatives over the summer to reduce costs, reduce construction time, and reduce the impact of water runoff in to adjacent streams and wetlands. Because the contractor worked six days a week, WSDOT is now planning to open all lanes of SR 9 to traffic in November 2007. The widening work on SR 9 to the westbound SR 522 ramp is scheduled to be finished in December 2007.

WSDOT continues to negotiate with the contractor to keep the costs within the current $29.8 million construction budget.

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. Construction will also add turn lanes to improve intersection traffic flow, and remove fish barrier culverts. This project will improve traffic flow and safety in this area.

The requirement to upgrade the project's stormwater treatment, reported in the June 30, 2007 *Gray Notebook*, has been resolved through a design change that can be incorporated without the

"Watch List" - Cost and Schedule Concerns

need to purchase additional right-of-way. However, the previously reported schedule and cost risks still exist. The risks are due to potential instability of the hillside adjacent to the project site. WSDOT is conducting further geotechnical subsurface investigations to assess the hillside's stability, with the results expected in late October, 2007. If the analysis reveals an unstable hillside situation, then alternative design solutions will have to be investigated and may mean significant schedule and cost impacts. Remaining right-of-way acquisition is on hold until the hillside stability issue is resolved.

Currently the project is $350 thousand over budget due to the stormwater design modifications and the additional geotechnical investigations of the hillside.

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

WSDOT delayed the advertisement for this project by several months, to October 15, 2007. The Bureau of Land Management (BLM) must complete an environmental assessment prior to selling their property to WSDOT. Allowing BLM additional time to complete the assessment may delay the advertisement date a few weeks longer. This delay should not affect the scheduled completion date of August 1, 2008.

SR 285, George Sellar Bridge-Additional Eastbound Lane (Douglas)
This project will provide an additional eastbound lane to ease heavy congestion and traffic delays coming from both ends of the George Sellar Bridge.

WSDOT's current estimate to construct the project has increased an additional $1 million (to $12 million) due to extensive construction costs that were not originally included. This increase will be addressed by the 2008 Legislature.

SR 28, East End of the George Sellar Bridge-Construct Bypass (Douglas)
This project will ease heavy congestion and traffic delays on the bridge by construction of a by-pass to allow improved traffic flow.

WSDOT has refined the design, performed a Cost Risk Analysis, and added necessary elements not included in the original estimate. The current construction estimate has increased $3.3 million (to $13.3 million), and will be addressed by the 2008 Legislature.

SR 500, Saint John's Boulevard – Build Interchange
This project will replace the current signalized intersection at SR 500 and Saint John's Boulevard in Vancouver with a freeway-style interchange as a safety improvement. The project is currently in the design phase, working through a number of complex construction elements. Construction will include a new culvert to replace an existing fish barrier. This project also faces potential cost increases in right-of-way purchases, and in material costs.

Additional design and construction costs in the amount of $4 million will be required to replace a culvert that is a fish passage barrier located underneath Saint John's Boulevard. WSDOT has worked with other agencies to find additional funding sources to contribute to this environmental improvement, but the effort has been unsuccessful. Without funding to replace the culvert, the Advertisement date may be delayed. Significant redesign to avoid impacting the culvert could also delay project delivery up to one year.

US 12/SR 124 Intersection - Build Interchange (Walla Walla)
The project will construct a new interchange and bridge to replace two existing intersections. Potential risks for this project were first reported in the June 30, 2007 *Gray Notebook*.

WSDOT continues to work on two options to acquire land from the McNary Wildlife Refuge. The options are to purchase the land directly (which requires Congressional approval), or to purchase other property that is suitable for a land exchange. Any delays in the acquisition process may impact the project advertisement and operationally complete dates.

Fifteen local property owners have expressed interest in selling their property for the possible land exchange. WSDOT has begun negotiations with four of the owners after reviewing location, economic value, and biology of the properties with USFWS.

WSDOT estimates the current cost to complete the project to be approximately $25.9 million, which is included in the approved 2007-2009 Transportation Budget. Although WSDOT is within the current budget, a cost risk has been identified that has the potential to increase the project cost by $10 to $12 million. These risks include possible modifications to the design and environmental documentation to accommodate local community concerns over highway access, and increased construction costs due to potential delays in the project schedule.

"Watch List" - Cost and Schedule Concerns

SR 167/8th Street East Vicinity to South 277th Street Vicinity (King)
This project was last updated in the June 30, 2007 *Gray Notebook*. In order to remain compatible with the *SR 167 High Occupancy Toll (HOT) Lane Project* and to operate the lanes safely and efficiently, the new lane will be constructed as a HOT lane. The current cost estimate is $97.4 million, with a $17.4 million budget shortfall projected. Unanticipated items contributing to the cost increase include:

- bridge seismic mitigation measures (liquefaction and column retrofit),
- poor market competitiveness,
- increased right-of-way costs,
- increased stormwater costs due to changes to the state's stormwater policies,
- Intelligent Transportation Systems (ITS) necessary to operate the HOT lane,
- modifications to two fish passage culverts,
- and widening for two on-ramps to allow two metered lanes each during peak traffic hours.

In addition to the two culverts that will be modified as part of the project, there are several culverts within the limits of this project currently under review for fish passage acceptability by the Muckleshoot Tribe. At this time no culverts have been identified for total replacement, minimizing a previously identified risk to the project budget.

The $17.4 million budget increase and the scope clarification (the managed lane will be a HOT lane) will be addressed by the 2008 Legislature.

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 oral arguments were to be heard before Superior Court on October 2, 2007, but the schedule was delayed by the court. The new date is October 23. The advertisement date is postponed approximately two years while the case is being resolved.

As reported in the June 30, 2007 *Gray Notebook*, the project is currently estimated to need an additional $3 million due to materials escalation, project delays, and other costs related to the litigation. However, the complete cost impact cannot be determined until the litigation is settled. WSDOT is examining various options 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. 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 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. Due to the substantial size of the cost increase, additional alternatives such as modifying the existing terminal have been included in the available options.

This project is subject to the new Legislative requirements and mandates. 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 see the description on new Legislative requirements in the March 31, 2007 *Gray Notebook* page 18.

New 144-Auto Ferry Project
This project builds four new 144-Auto Ferries using the modified Design/Build RFP process required by RCW 47.60.810 – 822. Major machinery items, such as engines and diesel generators, are being purchased under separate contracts, to be provided to the shipyards as owner-furnished equipment.

A joint single proposal submitted by Todd Pacific Shipyards, Nichols Brothers Boat Builders, Inc., and J.M. Martinac Shipbuilding Corporation for the Design/Build contract, as permissible under SHB 2378, was accepted by the State in July, 2007. Terms and conditions were agreed upon in principle in September 2007. Following contract negotiations and approval of their future technical proposal, a sole source contract is anticipated to be awarded in June 2008.

The current budget does not account for recent project delays or expectations that the shipyards will add contingencies to cover their perception of risk in the joint, single proposal. The project budget will be updated based on the final contract price and addressed by the 2008 Legislature.

WSDOT's Capital Project Delivery Programs

"Watch List" - Cost and Schedule Concerns

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 arise from the Burlington Northern Sante Fe Railroad Company (BNSF) proposed closure of Hickox Road. As previously reported, unknown costs for mitigating the Hickox Road closure, wetland mitigation, and rail control signals had put the project budget of $3.8 million at risk. However, BNSF has determined they will fund any costs above the $3.8 million budget.

As reported in the June 30, 2007 *Gray Notebook*, the proposed closure of the Hickox Road crossing has met with resistance from residents and officials from the City of Mount Vernon and Skagit County. BNSF railway petitioned the Washington Utilities Transportation Commission (WUTC) to close the crossing in April 2007. The anticipated WUTC hearing date has now been delayed to January 2008. If the WUTC allows the closure, construction is expected to begin in April 2008, Considering this timeline, a re-appropriation of $1.8 million to the 2007-09 budget from the 2005-07 budget is required.

Stanwood – New Station, Stanwood – Siding Upgrades (Snohomish)
Increases in scope and costs have delayed this project intended to design and construct a new passenger platform and other facilities at Stanwood to be served by Amtrak Cascades trains. WSDOT and a private party reached agreement on the price for right-of-way needed for the station in late June. Ninety percent of the design was completed in June, but the design cannot be finalized until the Federal Rail Administration finishes their rule-making process to set the height of new platforms. The rulemaking, scheduled to be completed in June 2007, has been delayed.

As previously reported in the June 30, 2007 *Gray Notebook*, BNSF Railway has notified WSDOT that an extension to the siding at Stanwood will be required before Amtrak Cascades trains can serve the station facility. These improvements to the siding are beyond the scope of a separate project, 'Stanwood – Siding Upgrades,' currently in design. The preliminary cost estimate for the siding extension is $16 million beyond the funded siding upgrades. Further analysis on several factors, including substantial wetland impacts and mitigation, will be needed to confirm the cost estimate. The additional funding for the extension was not provided in the 2007-09 Transportation Budget. WSDOT intends to move forward with upgrading the existing siding.

Vancouver - Rail Bypass and West 39th Street Bridge (Clark)
As reported in the June 30, 2007 *Gray Notebook*, the rail design is now 30% complete. The latest cost estimate is $11.8 million higher than currently funded. This is due to increases in the amount of right-of-way required, inflation not accounted for in the previous estimate, and increasing the contingency amount for the project from 25%to 30%. Due to the contingency already included in the cost estimate, it is not known, at this time, whether additional funds will be required. BNSF has begun property purchases for the rail improvements and anticipates beginning construction on the first phase in October 2007.
The design of the West 39th Street Bridge is over 60% complete, and the schedule and cost estimate remain unchanged from last quarter.

White Swan/Toppenish - Yakama Sawmill Traffic Upgrades (Yakima)
As previously reported in the June 30, 2007 *Gray Notebook*, on-going negotiations between the Columbia Basin Railroad and Yakima County have delayed the project's completion date beyond June 30, 2007.

WSDOT, Yakima County and the rail operator met in August 2007. It was agreed that the County and rail operator would meet and prepare a jointly agreed upon scope by October 15th. The new proposal will, once again, look at the possibility of the rail operator making a financial contribution to the project by way of a benefit-in-kind.

Bellingham – Waterfront Restoration (Whatcom), Bellingham – Georgia Pacific Area Upgrades (Whatcom)
This project will relocate the BNSF mainline near Bellingham's central waterfront to allow redevelopment of the former Georgia Pacific site for commercial and residential uses. The City of Bellingham and the Port of Bellingham have developed a master plan that also includes two new roadway bridges over the relocated mainline track. The City of Bellingham has procured some federal funds for the roadway improvements which are separate from the rail relocation project.

The current estimated cost for the track relocation is approximately $11 million, which is more than double the available funds. Additionally, potential evidence of ancient fishing activities has been discovered by the City of Bellingham. The archeological issue and the lack of funds to complete both the rail project and roadway project put this project at risk. Without additional funds, it is likely no construction will occur in 2007-09.

WSDOT's Capital Project Delivery Programs

"Watch List" - Cost and Schedule Concerns

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 RR at Blakeslee Junction. In addition, the project refurbishes the Skookumchuck Bridge; reconfigures the Centralia yard to create a passing track and improve speed to 20 miles per hour at the Y intersection; installs a centralized traffic control from BNSF to Blakeslee Junction; and reconfigures BNSF signal spacing on Napavine Hill (south of Chehalis).

BNSF recently indicated they were not prepared to accept the original engineering for this project. BNSF indicated that, in their view, the curve, though designed to meet the requirements for 20 mph, would not receive their permission to move faster than the existing 10 mph limit. BNSF has asked for time to review this part of the project and come back with a new proposal.

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. The Legislature provided $5.4 million. WSDOT is working with Legislative staff and stakeholders to review the scope of the project in an attempt to move the project forward with the available funds, while seeking the additional funds needed to complete the project.

Removed from Watch List

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. Cost risk and schedule concerns due to utility relocation delays reported in the June 30, 2007 *Gray Notebook* have been resolved. The project is scheduled to be completed early, pending suitable weather for pavement striping, and within budget.

US 395/North Spokane Corridor – Francis Avenue to Farwell Road – New Alignment (Spokane)
As reported in the June 30, 2007 *Gray Notebook*, the risk to the schedule, including finalizing the agreement with BNSF, has been resolved in time to advertise the sixth contract in September. The Bid opening for the contract is scheduled for October 25, 2007 and the project is scheduled for completion in March 2009.

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. As reported in the June 30, 2007 *Gray Notebook*, construction costs increased as a result of the delay. WSDOT reached a final cost settlement with the contractor for impacts caused by the delay. The work on this contract was completed July 6, 2007.

SR 515/SE 182nd Street to SE 176th Street Vicinity - Construct Traffic Island (King)
This project replaces a two-way left-turn lane with a traffic island and U-turn pockets, and will reduce collisions and improve safety. As reported in the June 30, 2007 *Gray Notebook*, utility easement conflicts delayed the advertisement date to Summer 2007. A project redesign has successfully resolved the cost issues. Construction is on schedule to be completed by July 30, 2008.

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.

As previously reported in the June 30, 2007 *Gray Notebook*, delays due to scoping issues have delayed construction. This requires a re-appropriation of $1.3 million of federal funds to the 2007-09 biennium from 2005-07.

WSDOT and BNSF have agreed upon a scope to keep the project cost within available funding. Final design began in September 2007 with construction scheduled for July 2008. The project is expected to be completed by June 2009.

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*	Milestones Achieved Early
Project Definition Complete					
Biennium to Date (2007-09)	1	1	0	100%	0
Cumulative to Date	145	144	1	99%	3
Begin Preliminary Engineering					
Biennium to Date (2007-09)	4	3	1	75%	1
Cumulative to Date	148	147	1	99%	1
Environmental Documentation Complete					
Biennium to Date (2007-09)	3	1	2	33%	1
Cumulative to Date	116	111	5	96%	5
Right of Way Certification					
Biennium to Date (2007-09)	4	3	1	75%	0
Cumulative to Date	64	62	2	97%	2
Advertisement Date					
Biennium to Date (2007-09)	3	3	0	100%	0
Cumulative to Date	111	111	0	100%	1
Operationally Complete					
Biennium to Date (2007-09)	9	9	0	100%	2
Cumulative to Date	70	70	0	100%	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.
*Achievement rate may be higher than 100% where the actual number of milestones achieved exceed the number of scheduled milestones. This results when milestones are achieved ahead of their scheduled dates.

Milestone Definitions:

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

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

Environmental Documentation Complete
The National Environmental 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*	Milestones Achieved Early
Project Definition Complete					
Biennium to Date (2007-09)	22	21	1	95%	2
Cumulative to Date	198	191	7	96%	7
Begin Preliminary Engineering					
Biennium to Date (2007-09)	30	25	5	83%	2
Cumulative to Date	208	202	6	97%	5
Environmental Documentation Complete					
Biennium to Date (2007-09)	16	12	4	75%	8
Cumulative to Date	86	78	8	91%	11
Right of Way Certification					
Biennium to Date (2007-09)	10	10	0	100%	0
Cumulative to Date	39	37	2	95%	5
Advertisement Date					
Biennium to Date (2007-09)	3	3	0	100%	0
Cumulative to Date	57	54	3	95%	1
Operationally Complete					
Biennium to Date (2007-09)	2	2	0	100%	5
Cumulative to Date	16	16	0	100%	14

Data Source: WSDOT Project Control and Reporting Office
Baseline Data: Baseline milestone dates are derived from the original Legislative expectation (2005-2007 budget). Advertise Project and Operationally Complete Milestones are considered on-time if completed within the scheduled baseline calendar quarter. All other milestones are reported as on-time if they are completed within +/- 6 weeks of baseline date.
*Achievement rate may be higher than 100% where the actual number of milestones achieved exceed the number of scheduled milestones. This results when milestones are achieved ahead of their scheduled dates.

Milestone Definitions:

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

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

Environmental Documentation Complete
The National Environmental 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

Revenue Forecast Update

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

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

The September 2007 forecast for gas tax receipts and licenses, permits, and fees for the Transportation 2003 (Nickel) Account is lower than the baseline forecast for the ten-year outlook by 5.5%. This reduction is due to projected higher gasoline prices that result in lower gasoline consumption. Because Washington State's gas tax is based on gallonage rather than price, reduced consumption results in reduced revenues.

2003 Transportation Funding Package Highlights

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

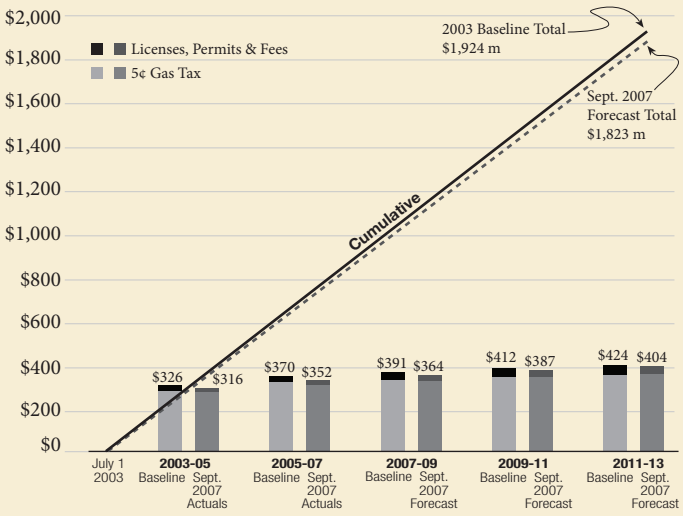
- 5¢ increase to the gas tax
- 15% increase in the gross weight fees on trucks

Deposited into the Multimodal Account (established in 2000)

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

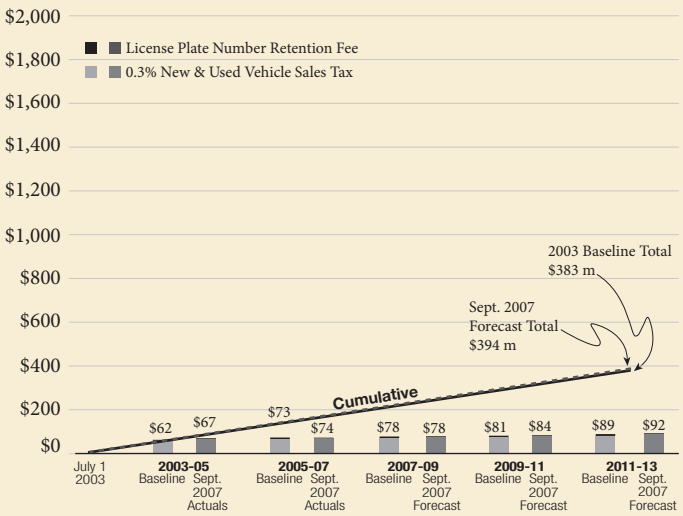
Multimodal Account projections for the vehicle sales tax is slightly higher than the baseline forecast resulting in a slight increase of 2.8% in the ten-year outlook.

Transportation 2003 (Nickel) Account Revenue Forecast
March 2003 Legislative Baseline Compared to the September 2007 Transportation Revenue Forecast Council
Dollars in Millions



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

Multimodal Account (2003 Package) Revenue Forecast
March 2003 Legislative Baseline Compared to the September 2007 Transportation Revenue Forecast Council
Dollars in Millions



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

WSDOT's Capital Project Delivery Programs

Paying for the Projects: Financial Information

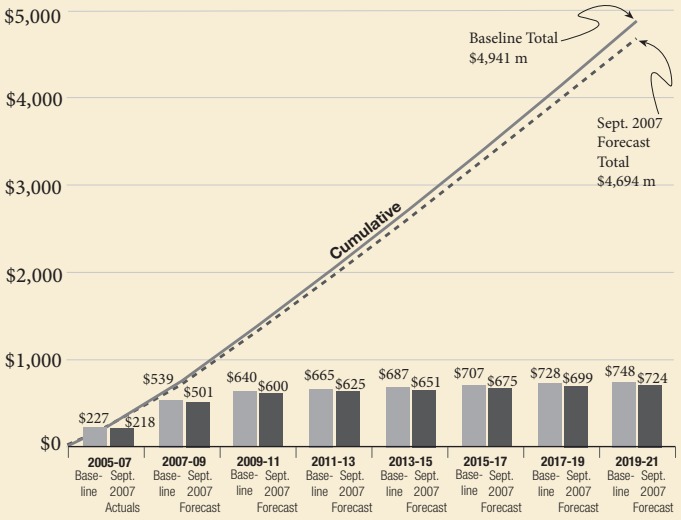
Transportation Partnership Program

Revenue Forecast Update

The accompanying chart compares the current September 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 September 2007 forecast for gas tax receipts over the 16 year period decreased by 5.3%. This reduction is due to projected higher gasoline prices that result in lower gasoline consumption. Because Washington State's gas tax is based on gallonage rather than price, reduced consumption results in reduced revenues.

Transportation Partnership Account
Gas Tax Revenue Forecast
March 2005 Legislative Baseline Compared to the September 2007 Transportation Revenue Forecast Council
Dollars in Millions



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

2005 Transportation Package Revenue Sources

9.5¢ increase to the gas tax phased in over four years

- 3.0¢ in July 2005
- 3.0¢ in July 2006
- 2.0¢ in July 2007
- 1.5¢ in July 2008

New vehicle weight fees on passenger cars

- $10 for cars under 4,000 pounds
- $20 for cars between 4,000 and 6,000
- $30 for cars between 6,000 and 8,000

Increased combined license fees for light trucks

- $10 for trucks under 4,000 pounds
- $20 for trucks between 4,000 and 6,000 pounds
- $30 for trucks between 6,000 and 8,000 pound

Farm vehicles are exempt from the increase

A $75 fee for all motor homes

Fee increases to various driver's license services

- Original and Renewal License Application increased to $20 (previously $10)
- Identicards, Driver Permits and Agricultural Permits increased to $20 (previously $15)
- Commercial Driver License and Renewal increased to $30 (previously $20)
- License Reinstatement Fee Increased to $75 (previously $20)
- DUI Hearing increased to $200 (previously $100)

Fee increases to various license plate charges

- Reflectorized Plate Fee increased to $2 per plate (previously 50¢)
- Replacement Plates increased to $10 (previously $3)

WSDOT's Capital Project Delivery Programs

Bond Sale Plans Authorized in the 2003 and 2005 Funding Packages

The 2003 and the 2005 Transportation Funding Packages are dependent on bond financing. Ultimately the gas tax component for both funding packages will be completely leveraged to pay debt service.

The 2007 Legislature increased the bond authorizations for both funding packages. The 2003 project bond authorization was increased by $600 million for a total authorization of $3.2 billion and the 2005 project bond authorization was increased by $200 million for a total of $5.3 billion. The proceeds from these gas tax bonds will be used to fund specific highway projects. The State General Obligation (GO) Bond is authorized at $349.5 million over a 10-year period. The proceeds from the state GO bonds will be used to fund rail, ferry terminal, and local road projects. The table to the right displays the bond sales plan for the 2007-2009 biennium.

The current 2007-2009 biennial bond appropriation for the Transportation 2003 (Nickel) Account is $874.6 million and $137.6 million in State General Obligations for the Multimodal Account.

The current 2007-2009 biennial bond appropriation for the Transportation Partnership Account is $900.0 million. The table below shows the Legislative 16-year bond sale plan.

2007-2009 Bond Sales

2003 Transportation Funding Package
Transportation 2003 (Nickel) Account Bonds
Total Authorization for 2007-09 $874,610,000
RCW 47.10.861

Date of Sale	Assumed Interest Rate	2007-09 Bond Sale Plan	Amount Sold	Actual Interest Cost
July 2007	5.00%	$180,000,000	$180,000,000	4.43%
Jan 2008 (planned)	5.00%	165,000,000		
July 2008 (planned)	5.00%	205,000,000		
January 2009 (planned)	5.00%	320,000,000		
Total Bond Sale Plan		**$870,000,000**	**$180,000,00**	

2003 Transportation Funding Package
Multimodal Transportation Account Bonds (GO Bonds)
Total Authorization for 2007-09 $137,620,000
RCW 47.10.867

Date of Sale	Assumed Interest Rate	2007-09 Bond Sale Plan	Amount Sold	Actual Interest Cost
July 2007	5.00%	$0	$0	N/A
Jan 2008 (planned)	5.00%	$0		
July 2008 (planned)	5.00%	$50,000,000		
January 2009 (planned)	5.00%	$60,000,000		
Total Bond Sale Plan		**$110,000,000**	**$0**	

2005 Transportation Funding Package
Transportation Partnership Account Bonds
Total Authorization for 2007-09 $900,000,000
RCW 47.10.873

Date of Sale	Assumed Interest Rate	2007-09 Bond Sale Plan	Amount Sold	Actual Interest Cost
July 2007	5.00%	$160,000,000	$160,000,000	4.43%
Jan 2008 (planned)	5.00%	$300,000,000		
July 2008 (planned)	5.00%	$250,000,000		
Jan 2009 (planned)	5.00%	$190,000,000		
Total Bond Sale Plan		**$900,000,000**	**$160,000,000**	

Data Source: WSDOT Financial Services

2007 Legislative 16-Year Bond Sale Plan
Motor Vehicle Fuel Tax and Other Transportation General Obligation Bonds

16-Year Bond Sale Proposal *millions of dollars*	2007-09	2009-11	2011-13	2013-15	2015-17	2017-19	2019-21	2021-23
Transportation 2003 (Nickel) Account RCW 47.10.861 Highway Improvements (I)	$870.2	$615.0	$323.0	$45.0	$45.0	$0.0	$0.0	$0.0
Multimodal Bonds (GO Bonds) RCW 47.10.867 Multimodal Transportation Projects	137.6	122.4	32.6	0.0	0.0	0.0	0.0	0.0
Transportation Partnership Account RCW 47.10.873 Highway Improvements (I)	900.0	2,010.0	1,323.0	600.0	301.0	0.0	0.0	0.0
Total Bond Sales Required to Support the 2007-09 Budget, and 16-Year Plan	$1,907.8	$2,747.4	$1,678.6	$645.0	$346.0	$0.0	$0.0	$0.0

Data Source: WSDOT Financial Services

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 35).

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

Unlike Nickel and Transportation Partnership Account (TPA) projects, which are fixed lists of projects set by the Legislature and funded with a line item budget for each individual project, the Pre-Existing Funds (PEF) projects are funded at the program level. Funding is aligned to commitments to address set priorities such as number of miles paved per biennium. Each biennium, new PEF projects are programmed based on prioritized needs and available funds so the list of PEF projects changes each biennium.

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

Milestone Tracking for Pre-Existing Funds

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

	Begin Engineering		Advertised for Bids		Operationally Complete		Expenditures	
Programmatic Categories	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**	**Planned**	**Actual**
Pavement Preservation	27	32	0	2	26	44	75	67
Bridges (Preservation/Replacement)	16	8	3	2	6	5	31	18
Slope Stabilization	8	8	1	2	0	3	3	4
Safety (roadside, rumble strips, median cross-over, etc.)	21	22	1	0	8	15	46	11
Environmental Retrofit (fish passage improvement, stormwater runoff)	7	7	0	1	1	0	5	1
Other facilities (rest area, weigh stations, etc.)	4	5	1	1	4	9	76	39
Totals	**83**	**82**	**6**	**8**	**45**	**76**	**235**	**139**

Data Source: WSDOT Project Control and Reporting Office
* While elements of one or more categories may be included in some of the projects (such as a bridge preservation project that improves safety), every project has been assigned to one primary category for reporting purposes.

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Reporting by Program

Advertisement Record: Eight Advertised as of September 30, 2007

Biennium to Date (2007-09)

The 2007-09 Highway Construction Program includes a commitment to advertise 273 Pre-Existing Funds (PEF) projects. There were seven PEF advertisements planned through the quarter ending September 30, 2007. Eight advertisements were achieved in the first quarter. Of the seven scheduled, three were delayed to future quarters of this biennium, none were deferred to future biennia, and no projects were deleted.

Current Quarter (July 1 - September 30, 2007)

For the quarter there were seven planned PEF advertisements. Three of these projects were advertised as scheduled. Three of the planned advertisements were delayed to later in this biennium, zero have been deferred to a future biennium, and zero were deleted. There were two advanced, one emergent, and two delayed projects advertised.

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

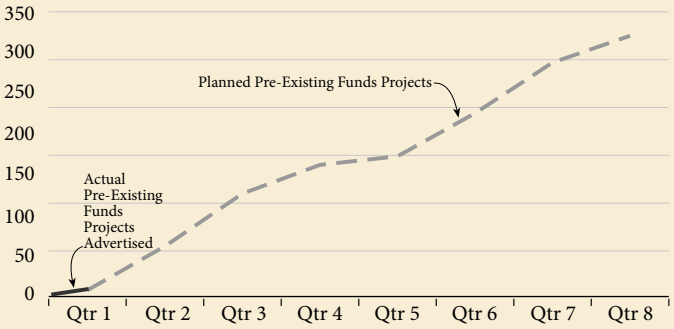
Highway Construction Program Advertisements

Pre-Existing Funds Projects

Planned vs. Actual Number of Projects Advertised

2007-2009 Biennium, Quarter 1 ending September 30, 2007

Project Count

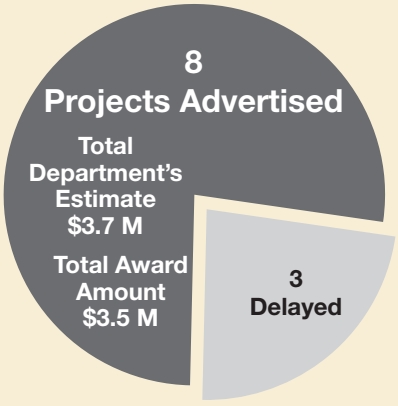


Data Source for all graphs: WSDOT Project Control and Reporting Office.

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

Projects Advertised	Projects Through Last Quarter	This Quarter's Progress	Biennium to Date Total
As Scheduled	0	3	3
Project Ads Early	0	2	2
Project Ads Late	0	2	2
Emergent Projects	0	1	1
Total Advertised	**0**	**8**	**8**
Projects Delayed			
Within the biennium (delayed)	0	3	3
Out of the biennium (deferred)	0	0	0
Total Delayed	**0**	**3**	**3**
Projects Deleted			
Projects Deleted	0	0	0
Total Deleted	**0**	**0**	**0**

End of This Quarter
September 30, 2007



WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Advertisement Record

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

July 1, 2007- September 30, 2007

Project Description	On-Time Advertised	Project Description	On-Time Advertised
I-5/Toutle River Safety Rest Area - Water System Rehab	Delayed[1]	SR 105/Johns River Bridge - Pier Repair	√
I-90/Indian John Hill EB/WB Safety Rest Area - Water System Rehab	Late[3]	I-182/Columbia River Bridges - Joint Repair	√
I-90/Mt Baker Tunnel & Mercer Island Lid - PLC Replacement	Delayed[4]	SR 500/NE 162nd Ave Noise Wall - Noise Wall	Early
I-90/W of George - Paving	Early	SR 515/SE 192nd St to Benson Rd - Paving	Late[6]
US 101/US 101 Vicinity Sunnyside Road - Unstable Slope	√	SR 530/Sauk River Bank Protection	Emergent[7]
SR 104/5th Ave NE to 15th Ave NE - Sidewalk	Delayed[5]		

Data Source: WSDOT Project Control and Reporting Office

Project Details

[1]Changes in project management and a scope revision resulted in the advertisement date being delayed.
[2]Changes in project management resulted in the advertisement date being delayed.
[3]The I-90/Mt. Baker Tunnel & Mercer Island Lid - Programmable Logic Controller Replacement project's advertisement date was delayed to wait for resolution of technical issues on the I-90/ Seattle to Mercer Island-Traffic Monitoring project.
[4]Ad date delay is due to time required to redesign the stormwater system. The relocation and the modification of existing electrical and utility facilities also contributed to the delay.
[5]Ad Date delayed due to Utility issues.
[6]The confluence of the Sauk and Suiattle rivers is eroding the riverbank along State Route 530 north of Darrington in Skagit County at a rate that will cause failure this fall. In order to ensure traveler safety and mobility, this project will install bank protection in order to prevent the roadway from eroding into the Sauk River.

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Reporting by Program

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

Dollars in Millions

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

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 first quarter of the biennium totaling approximately $235 million. As of September 30, 2007, actual expenditures totaled $139 million, a variance of approximately $96 million, or 41%, from the biennium plan. The variance as of the end of the first quarter for the Highway Construction Program was divided between the Improvement and Preservation programs.

The Preservation Program planned cash flow was $124 million, and actual expenditures were $92 million. This was $32 million under plan, or 26%.

The Improvement Program planned cash flow was $111 million, and actual expenditures were $47 million. This was approximately $64 million under plan, or 58%.

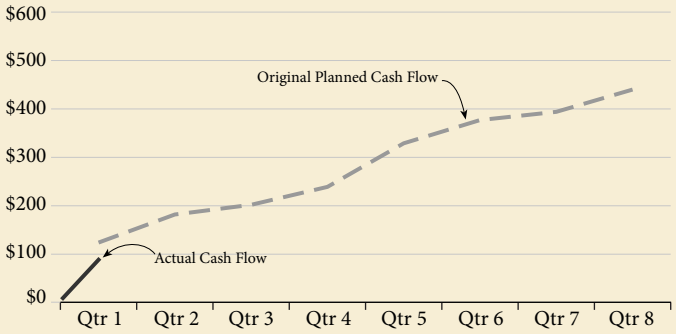
Preservation Program Cash Flow

Pre-Existing Funds

Planned vs. Actual Expenditures

2007-2009 Biennium, Quarter 1 ending September 30, 2007

Dollars in Millions



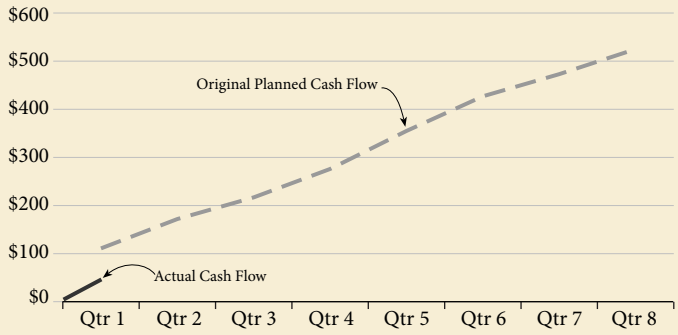
Improvement Program Cash Flow

Pre-Existing Funds

Planned vs. Actual Expenditures

2007-2009 Biennium, Quarter 1 ending September 30, 2007

Dollars in Millions



Special Report: Tacoma Narrows Bridge, Quarterly Update

New Bridge Construction 96.6% Complete

As of September 30, design-builder Tacoma Narrows Constructors (TNC) completed 96.4% of construction on the SR 16 Tacoma Narrows Bridge project. In the last quarter, TNC completed construction of the new bridge. Opening day celebrations on July 15 started with a 5K MultiCare fun-run with over 10,000 participants. During the fun-run, the commemorative first toll ceremony was held with State Treasurer Mike Murphy and House Speaker Frank Chopp in the first car. Following these events, approximately 60,000 people took their chance to walk the bridge. Throughout the day, volunteers helped participants stamp their bridge "passports" at various locations across the deck. Towards the end of the day the official ribbon cutting ceremony was held with Governor Gregoire and selected construction workers.

During the remainder of the quarter, workers continued cleaning and finishing the inside and outside of both tower 11 and 12 of the new bridge, installed electrical lighting in the anchorages and splay chambers, continued working on access to the splay saddles at the anchorages, painted the joints under the roadway deck, installed pedestrian railing, finished the exterior of the anchorage; and tested the upper and lower traveler.

Roadway/Existing Bridge Retrofit Construction

During the past quarter, contractors completed embankment construction and drainage installation for widening the right side of westbound SR 16 for the add/drop lane across the existing bridge on the Gig Harbor side. Sign installation issues were addressed and clearing and grubbing operations began on the Tacoma side for the fourth lane across the 1950's bridge. Workers completed installation of the slotted drain on the Tacoma WB mainline. TNC also completed existing bridge and approach paving, and also continued permanent striping on both Gig Harbor and Tacoma mainline. Workers completed raising drainage and electrical structures on the Gig Harbor side in the eastbound direction. Installation also began for communication cable on the Tacoma side and the camera on the Gig Harbor side. Work continues on grading the access road from the new maintenance facility to the City of Tacoma sewer pump station. Workers completed removal of the rub rail on the south side of the existing bridge and began to install the guardrail posts. Landscaping and erosion control measures were maintained throughout the project limits.

Tacoma Narrows Bridge Progress

As of September 30, 2007

Design	99.9%
Construction	96.4%
Total[1]	96.6%

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

Final Completion Scheduled for March 2008

With the opening of the new bridge in July and retrofit construction on the 1950 bridge well under way, the Tacoma Narrows Bridge project is nearly complete. To reach 100% completion by the forecasted date of March 18, 2008, there are a number of tasks to be accomplished. Work to be done on the new bridge includes cleaning and finishing the inside and outside of both tower 11 and 12, completely painting the cable system and deck joints, completing the pedestrian rail, and finalizing all the electrical systems and utilities.

On the roadway side of the project, grading and drainage work needs to be completed. Fencing and landscaping still require minor work. All traffic service and safety items such as permanent impact attenuators, pavement markings, signs, and illumination require some items to be fully completed. Along with completing the deck modification and seismic upgrades on the bridge, completing these final details on the new span will bring the project to completion by the planned March 2008 date.

First Electronic Tolling Operations on a Washington Bridge Begin

With the opening of the Tacoma Narrows Bridge on July 16, 2007, WSDOT began tolling operations on a bridge for the first time in nearly two decades. While this is the 15th bridge in Washington

Congressman Norm Dicks, Linea Laird, Mrs. Oke, and Doug MacDonald cut the ribbon

60,000 people took part in the bridge opening

Governor Gregoire and Bridge Construction workers

WSDOT's Capital Project Delivery Programs

State to be paid with by tolls, it is the first time that an electronic tolling operations program (*Good to Go!)* has been introduced in the state. The contracted toll system operator, TransCore, employs close to 90 individuals in its toll collection program, customer service centers, and violation processing system. Approximately 60% of each three dollar toll collected is used to pay the debt service on the bridge. By 2014 approximately 75% of each toll collected will be used to pay the debt service on the bridge. It is estimated that the bridge debt service will be paid off in calendar year 2030.

Number of New *Good to Go!* Accounts Exceeds WSDOT Expectations by over 100%

WSDOT's initial goal was to have 25,000 accounts established prior to the bridge opening. When the bridge opened on July 16, 2007, over 60,000 *Good To Go!* accounts had been established. By the end of September, there were over 85,000 *Good To Go!* accounts, with more than 204,000 transponders distributed. This is more than triple the number of accounts projected. A little more than 6,000 of the accounts are commercial customers, who often have multiple vehicles on a single account. An estimated 96% of all households in Gig Harbor have *Good To Go!* accounts.

Only 5.18% of 3.2 Million Vehicles Fail to Pay

According to preliminary data, 3,225,318 vehicles have crossed the Tacoma Narrows Bridge in the eastbound direction between July 16 and September 30, 2007, with more than 60% of the vehicles using *Good to Go!* transponders. Only 5.18% of drivers were identified as potential violators – far below the double-digit violation rates experienced in tolling facilities across the nation. Once those drivers who actually had *Good To Go!* accounts were removed from the violations list, less than 3% of all vehicles crossing the bridge failed to pay a toll. Nearly 30,000 citations have been issued to date, with thousands more making their way through the review process. More than 90% of the violations occurred in the un-staffed electronic toll lanes.

Tolling Operations on the Tacoma Narrows Bridge

3,225,318 vehicles have crossed the Tacoma Narrows bridge between July 16, 2007 and September 30, 2007.

204,000 *Good to Go!* transponders have been issued for electronic tolling, including 96% of Gig Harbor Households.

$6,843,377 in toll fees have been collected between July 16, 2007 and September 30, 2007.

Gantries automatically scan transponders as cars enter the bridge

204,000 Good to Go! transponders were distributed by September 30, 2007

Tacoma Narrows Bridge Toll Payment Sources and Revenue

		Electronic		Manual		Potential Violations[2]		Revenue[3]
	Total Eastbound Traffic	# of Vehicles	% of Total	# of Vehicles	% of Total	# of Vehicles	% of Total	
July[1]	670,198	381,827	63.10%	246,783	30.5%	40,240	6.2%	$1,462,472
August	1,332,868	822,227	61.69%	442,972	33.23%	65,418	4.91%	$2,868,014
September	1,222,252	742,079	60.71%	370,138	30.28%	61,367	5.02%	$2,512,891
Total	**3,225,318**	**1.946,133**	**60.34%**	**1,059,893**	**32.86%**	**167,025**	**5.18%**	**$6,843,377**

[1]July totals only include July 16-30, 2007.
[2]Potential violations include a number of vehicles which upon review may be identified as *Good To Go!* customers. Their toll charges will be applied to their accounts and they will no longer be viewed as violators.
[3]Revenue has not been audited
Data Source: WSDOT Tolling Operations

WSDOT Makes Improvements to Address Initial Issues with Tolling Operations

Following the initial success of opening day, WSDOT began evaluating all aspects of toll operations for improvements. For example, WSDOT has ordered additional signs to address the needs of drivers who are not familiar with new lanes and are bypassing the manual toll booths and staying in the electronic toll lanes. Additionally, more signs will direct drivers to exit at the toll plaza and alert those using the HOV lanes that they must move to the right if they are cash customers.

WSDOT has realized that some of its contingency plans that were created prior to opening the bridge are not needed. For example, the agency contracted with local tow companies to have two tow trucks stationed in the corridor during high-traffic periods. The added capacity of additional lanes has resulted in the smooth flow of traffic, and the tow trucks were idle the majority of the time. Two months after the opening of the bridge, the tow program was significantly curtailed and eliminated by early October.

WSDOT also had to address public relations issues related to toll violations. Just a few months prior to the commencement of tolling, the State Legislature passed a new law that refined the statutes regarding toll evasion and photo enforcement of the *Good To Go!* program. The Legislature simplified photo enforcement; set a fine of $40 plus three times the manual toll (currently $9); classified the violation as a parking or civil infraction; and ensured that a portion of the fine went to cover administrative costs and paying off the bridge. However, the legislation did not contain an emergency clause that would have allowed it to become effective immediately. As a result, the new law did not go into effect until one week after tolling commenced.

WSDOT Will Track Performance Measures for Tolling Operations

WSDOT is holding the contractor, TransCore, accountable for a high level of accuracy in tolling operations. Within the first six months of tolling operations, TransCore is required to successfully pass Performance Guarantee Acceptance tests. These tests specify a high level of accuracy in electronic toll collection, vehicle classification, violation imagery, lane availability, and customer service center computer system availability. The contracts call for an accuracy within the overall tolling system that is no less than 99.5%. The tests are scheduled to begin in November 2007 and will be conducted over a 60 day period under normal tolling and live operating conditions. After initial testing, a minimum of one test a year will be required. However, TransCore is allowed to perform more at their discretion. Both the toll collection and accounting system and toll systems operating agreements include accuracy and availability performance guarantees that are required to be performed on an annual basis.

There are a total of 30 targets that WSDOT will track, some of which will include:

- Handling 80% of inbound phones calls to the service center in 30 seconds;
- Keep the number of calls abandoned at 3% or less;
- Fulfill requests for new or replacement transponders within three days;
- Deposit and record all cash and check payments within one business day
- Process 98% of license plate data from the video-toll system and send to the Department of Licensing within 2 business days;
- Correctly enter 99.9% of all license plate data on the first review;

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

WSDOT Will Track 30 Targets, Including:

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

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

Overall Project 57% Complete

As of September 30, 2007, the SR 104 Hood Canal Bridge Project was 57% complete. WSDOT is past the halfway point towards delivering a new east-half bridge during the May-June 2009 bridge closure. Important milestones reached this quarter are:

- July: completed setting all 20 new bridge anchors on the Hood Canal floor.
- July: completed construction on the second of four cycles of bridge pontoons.
- September: completed refurbishing pontoons R, S, and T.

Anchor Construction and Setting 100% Complete

In late July, crews finished placing the 20 newly-constructed bridge anchors on the Hood Canal floor. These anchors will permanently be connected to the bridge with long, steel cables during the May-June 2009 bridge closure and replacement.

Pontoon Construction 66% Complete

During this quarter, crews completed construction on the second cycle of pontoons. On July 16, the five newly-constructed pontoons were towed out of the Tacoma Concrete Technology graving dock to the Port of Seattle. Once in Seattle, crews began assembling them with previously completed pontoons to form a "U" shape around the location where the draw span retractable assembly units pull back.

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

Retrofitting Pontoons R, S and T 100% Complete

In September, crews completed retrofitting pontoons R, S and T, originally used in the west-half replacement in the 1980s. On September 30, these pontoons were towed from Seattle's Pier 91 to Port Gamble Bay. Updating pontoons R, S, and T rather than constructing new pontoons, keeps the project on schedule toward the six week May-June 2009 bridge closure and east-half replacement.

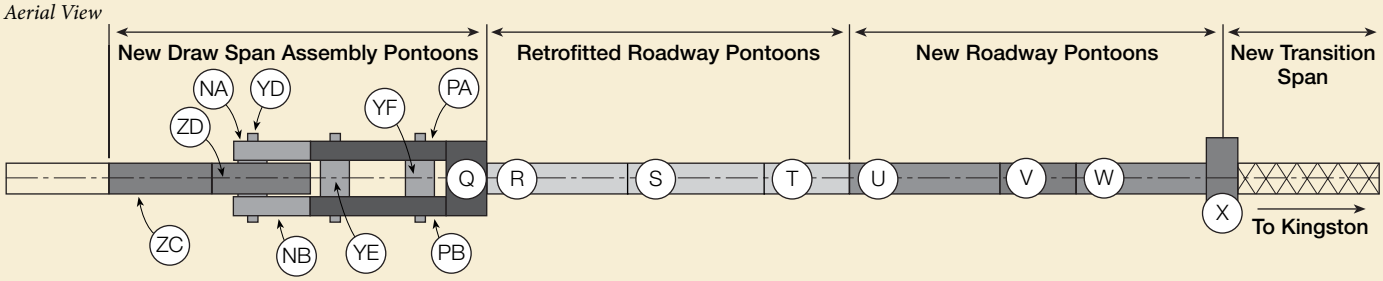
New roadway and columns completed for pontoons R, S and T

West-Half Leak Detection System 90% Complete

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

Schedule Diagram of Hood Canal Bridge Pontoon Construction Cycles

Aerial View



First Cycle (PA, PB, Q). Completed: December 2006.
Second Cycle (NA, NB, YD, YE, YF). Completed: July 2007.
Third Cycle (ZC, ZD, V, X). Scheduled Completion: April 2008.
Fourth Cycle (U, W). Scheduled Completion: September 2008.
Retrofitting (R, S, T). Completed: September 2007.

Source: WSDOT Hood Canal Bridge Project Office

WSDOT's Capital Project Delivery Programs

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

The Tacoma/Pierce County HOV Program is a series of projects on I-5, SR 16 and SR 167 that will add 79 lane miles of HOV lanes and other improvements that ease congestion and increase safety. Current available funding for this program is nearly $1.2 billion. Five projects are complete, three are under construction, ten are in design, and five are unfunded. The first project became operational in 2001. When the program is completed, drivers will be able to travel from Gig Harbor to Everett in an HOV lane.

Projects Under Construction

I-5/S 48th Street to Pacific Avenue

The *I-5/S 48th Street to Pacific Avenue* project is 79% complete. This project consists of two smaller projects. A significant amount of work was completed during the third quarter of 2007 as this project moves into the home stretch. On August 29th, northbound I-5 traffic was shifted to new permanent lanes; traffic had been shifted since January to make room for construction and bridge demolition work. Crews are continuing to build the new 38th Street on-ramp to northbound I-5 and the northbound collector-distributor lanes that will reduce weaving traffic on I-5 through downtown Tacoma.

Also this quarter, crews set steel-tub girders for the new Yakima Avenue and Delin Street bridges over I-5 near the Tacoma Dome. As September was winding down, the bridge work focused on placing the deck forms for the new bridges; the deck forms are used to mold the concrete bridge deck. Temporary lane closures in were needed in September and October to accommodate this work.

Paving continued on the new northbound collector-distributor lanes, and paving on the project is more than 80% complete. Additionally, the old pedestrian bridge at 38th Street was demolished in late September. The project is scheduled for an on-time completion in Spring 2008.

SR 16/I-5 to Tacoma Narrows Bridge

This quarter, the Tacoma Narrows bridge became operationally complete. For more information on the Tacoma Narrows Bridge project see pg. 37.

Projects In Design

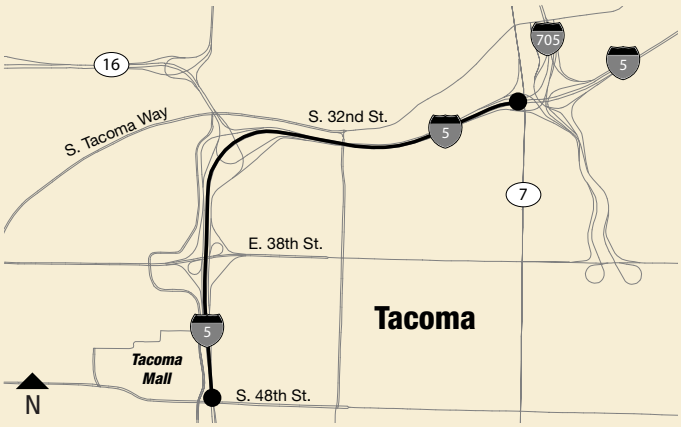
There are ten projects currently in the design phase. This quarter, schedules were completed for all in-design projects. Additional work completed on in-design projects this quarter:

- The Tacoma Nature Center was selected as the site to meet the wetland mitigation requirement for the SR 16 Westbound Nalley Valley project.

HOV Program Status

79 Projected Lane Miles at Program Completion

16 Total HOV Lane Miles Completed To Date



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

Cranes lift a girder into place for the new Delin Street overpass.

- The advertisement date for the Westbound Nalley Valley project was established as July 2008; program and region staff continue to explore ways to advertise even earlier.
- WSDOT continues to meet with the Puyallup Tribe of Indians and the City of Tacoma on a variety of issues vital to the program's schedule.

For more information

For more information about the Tacoma/Pierce County HOV Program and its individual projects, visit www.wsdot.wa.gov/projects/piercecountyhov/.

Cross Cutting Management Issues

Project Management Information Systems

New Project Management and Reporting System is Under Development

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

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

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

New Deployment Process Expedites Component Familiarity

WSDOT has recently changed its deployment strategy for PMRS. Rather then completing the development and procurement of all of the necessary components before deploying the system, it will begin utilizing individual components as soon as they become available. The original PMRS plan called for deployment to almost all of the projects to begin in August 2009. With the new plan, users will begin using the tools as much as 17 months sooner, beginning in January 2008. The additional time will allow users to begin using the components earlier one at a time, becoming accustomed to the individual processes and intricacies of the new tools.

Activities Scheduled for Completion

March 2008

As of September 30, 2007, the following PMRS activities have been scheduled for completion within the next six months:

- Enterprise Content Management Pre-Integration Pilot for Alaska Way Viaduct
- Integration Plan and Implementation Schedule Completed

After March 2008

The following deliverables are scheduled to be ready for users after March 2008:

- Begin agency-wide commercial off-the shelf software (scheduled) deployment from January 2008 - November 2008
- Detailed integration design completed per Integration Plan and implementation schedule
- System Integrated Pilot and Web Portal Schedule for completion by November 2008
- PMRS full deployment to all WSDOT regions by Januray 2010

Project Management information System Continues to Deploy New Systems

Project Management & Reporting System (PMRS) will help WSDOT deliver future projects on-time and on-budget.

Using a new deployment process, WSDOT will begin to use completed components sooner then originally planned.

Since March 31, 2007, four PMRS components have been delivered, and an two are scheduled for completion in six months.

Project Management and Reporting System Performance Milestones

Since March 31, 2007 (last PMIS report):

- Software contracts have been negotiated.
- Initial software has been purchased and installed.
- Hardware Acquisition Plan has been completed.
- Initial hardware has been purchased and installed.

For additional information on the Project Managent Information Systems, visit the Statewide Program Management Group website at: http://www.wsdot.wa.gov/Projects/delivery/spmg/default.htm.

Use of Consultants

WSDOT uses consultants to complete tasks and projects that the department does not have the resources or the expertise to perform internally. WSDOT uses two different types of consultant agreements: On-Call Task Orders and Project-Specific Agreements.

On-Call Task Agreements comprise the majority of the funds spent on consultant contracts. Bi-annually, WSDOT assesses the types of work services that it consistently uses. Examples of services in which WSDOT uses consultants include preliminary engineering, traffic engineering, real estate appraisal and negotiation, land surveying, and transportation studies. Based on the biennial estimated needs, the agency advertises for predetermined categories of work and initiates multiple On-Call Task Order agreements for each category (mentioned above). Next, WSDOT regions will determine if work can be completed using one of these On-Call Task Order Agreements.

The Project Specific Agreements, which are individually advertised by project, are typically used for work that cannot be performed using one of the On-Call Agreements described above. For example, WSDOT might use a project specific agreement to design a ferry terminal or to develop layout plans for an airport.

From April 1, 2007 to September 30, 2007, the net totals of new consultant expenditures were $79,218,766 for On-Call Task Order Agreement projects and $24,262,336 for Project Specific Agreement Projects. During this six month period, a wide array of projects received funds. However, following the pattern of previously reviewed periods, the bulk of new expenditures were directed towards a few specific projects.

On-Call Task Order Consultant Agreements

Fifty-seven Nickel projects had expenditures from On-Call Task Order Agreements during the period of April 1, 2007 to September 30, 2007. The total expenditures for services rendered were $5,242,193 for 89 prime consultant firms. Forty-one Transportation Partnership Account (TPA) projects had expenditures from On-Call Task Order Agreements during this period. Expenditure totals were $15,468,769 for 52 prime consultant firms. The overall statewide On-Call consultant expenditures (excluding Nickel, TPA, and General Engineering Consultants) for the same period were $58,507,804.

General Engineering Consultant Agreements

As discussed in the March 31, 2007 *Gray Notebook* (p. 40), eight high-profile General Engineering Consultant (GEC) projects were to receive consultant authorizations from On-Call Task Order Agreements during the period of April 1, 2007 to September 30, 2007. GEC expenditure totals were $29,255,014, that were provided to eight prime consultant firms. The expenditure total consisted of Nickel $-1,405,295, TPA $16,996,591 and Pre-Existing Funds (PEF) $13,515,929.

Project Specific Agreements and Supplements

From January 1, to June 30, 2007 new expenditures for project specific Nickel agreements and/or supplements totaled $5,889,827. Forty-seven different prime consultants received expenditures from project specific Nickel agreements. New expenditures for project specific TPA agreements and/or supplements were $11,326,279. Twenty-four different prime consultants received expenditures from project specific TPA agreements. All non-Nickel/TPA project specific consultant authorizations totaled $7,046,230.

Consultant Utilization Definitions & Examples

Authorization Type	Description	Project Examples	Service Performed by Consultant
On-Call Task Order Agreements	Consultant performs regularly occurring work in one of multiple categories including preliminary engineering, traffic engineering, real estate appraisal and negotiation, land surveying, and transportation studies work.	US 12 - Wallula to Walla Walla Corridor Study	David Evans and Associates conducted a preliminary environmental investigation on preferred corridor alignments for US 12 from the Wallula junction to the city of Walla Walla.
General Engineering Agreements	Consultant supervises the planning, design, and program management responsibilities for very large scale "mega" projects, or clusters of related projects.	SR 167 Valley Freeway Corridor	Perteet is organizing the corridor project's partnership groups, handling the public involvement process, and evaluating environmental documentation
Project Specific Agreements	Consultant performs services for a specific project when an on-call consultant is unavailable to perform such work	SR 520 West Lake Sammamish Boulevard to SR 202 (Nickel)	CH2M Hill was selected as the prime design consultant for stages 3A and 3B of a flyover ramp that will comply with the City of Redmond's stormwater design codes.

Data Source: WSDOT Consultant Program Division

Cross Cutting Management Issues

Use of Consultants

Consultant Expenditures

For April 1, 2007 - September 30, 2007
Dollars in Millions

Consultant Agreement	Nickel	TPA	PEF	Total
On-Call Task Order Consultant Agreements (including General Engineering Consultant agreements)	$5.2	$15.5	$58.5	$79.2
Project Specific Agreements/ Supplements	$5.9	$11.3	$7.0	$24.2
Totals	$11.1	$26.8	$65.5	$103.4

Data Source: WSDOT Consultant Program Division

Significant Expenditures for On-Call Consultants

April 1, 2007 – September 30, 2007
Dollars in Millions

Project	Consultant	Total Expenditures
Columbia River Crossing Project (TPA)	PB Americas, Inc.	$7.8
On-Call Rail Engineering & Operations (Nickel)	HDR Engineering, Inc.	$3.4
On-Call Public Involvement Services (Nickel)	EnviroIssues	$2.2
Alaska Way Viaduct and Seawall Environmental Impact Statement (Nickel)	PB Americas, Inc.	$20.4

Data Source: WSDOT Consultant Program Division

Expenditures for General Engineering Consultants [1]

April 1, 2007 – September 30, 2007:
Dollars in Millions

Project	Consultant	Expended this period
GEC Alaskan Way Viaduct & Seawall Replacement Project	Hatch Mott MacDonald	$1.7
GEC I-90 Snoqualmie Pass East – Hyak to Keechelus Dam	URS Corporation	$1.1
GEC Northwest Region Mt. Baker Area	H.W. Lochner, Inc.	$2.4
GEC Northwest Region Snohomish & King Counties Area Projects	DMJM Harris, Inc	$1.2
GEC SR 167 Extension	Carter & Burgess, Inc.	$6.5
GEC SR 167 Valley Freeway Corridor	Perteet, Inc.	$2.7
GEC SR 520 Bridge Replacement and HOV Project	HDR Engineering, Inc.	$2.9
GEC Tacoma/Pierce County HOV Program	CH2M Hill, Inc.	$10.6

Data Source: WSDOT Consultant Program Division
[1] All General Engineering Consultant Agreements are funded through the 2005 Transportation Partnership Account

Significant Authorizations for Project Specific Consultants

April 1, 2007 – September 30, 2007
Dollars in Millions

Project	Consultant	Expended Total
I-405 General Engineering Consultant (Nickel)	HNTB Corporation	$2.6
SR 520, West Lake Sammamish Boulevard to SR 202 (Nickel)	CH2M Hill, Inc.	$1.0

Data Source: WSDOT Consultant Program Division

Hot Mix Asphalt

WSDOT tracks both the projected and awarded amounts of Hot Mix Asphalt (HMA) for two reasons. First, the agency projects HMA amounts so that asphalt-producing vendors can better anticipate future HMA volumes. This helps these private vendors manage their production better and reduce their costs to produce and place the HMA, and ultimately results in more contractors bidding on projects and more favorable prices. Secondly, WSDOT measures actual tons awarded as an indicator of the agency's estimating accuracy.

Actual Hot Mix Asphalt Tons Awarded in 2007 Under Projection by 6% Due to Project Delays

In October 2006, WSDOT forecasted that 1,297,601 tons of Hot Mix Asphalt (HMA) would be awarded in contracts throughout the state by September 2007. The final amount was 1,214,544 tons awarded, 93% of the original forecast. This represents a difference of 83,057 tons. The actual HMA awarded was under the projection by 6%; in 2006, the amount awarded was 7% below the forecast.

The under-projection was due to three delayed projects accounting for 103,725 tons, which is slightly larger than the gap between the tons forecast and the tons awarded (20,668 tons). These three projects were delayed due to funding and environmental issues. WSDOT plans to advertise all three of the projects during the remainder of 2007, and they will be included in the 2008 HMA forecast.

Major Hot Mix Asphalt Projects Delayed

2007

Project Location	Contract Tons	Reason for Delay
US 101, Dosewallips River Bridge to Jorsted River Bridge	39,000	Environmental issues. Contract will be advertised in November 2007.
SR 522 University of Washington Bothell - Cascadia College Campus Access	31,725	Funding issues. Contract was advertised for bids October 15, 2007
SR 2 Creston to Rocklyn Road	33,000	Escalating asphalt prices. Contract will be advertised in Fall 2007
Total	**103,725**	

Data Source: WSDOT Construction Office

Hot Mix Asphalt Pavement Awarded - Projected vs. Actual

2002-2007 In Tons, October through September of each year[1]

Year	Projected	Actual	% Difference
2002	1,373,465[2]	1,364,021	-1%
2003	1,417,126	1,825,442	+29%[3]
2004	1,324,218	1,299,377	-2%
2005	1,779,826	1,685,394	-5%
2006	1,213,985	1,126,701	-7%
2007	1,297,601	1,214,544	-6%

Source: WSDOT Construction Office

[1]Awarded tons are tracked from October through September of each year, providing a better measurement of the work schedule and better planning for the paving industry than the calendar year. Construction projects awarded in the fall typically do not begin work until the next year due to inclement weather conditions.

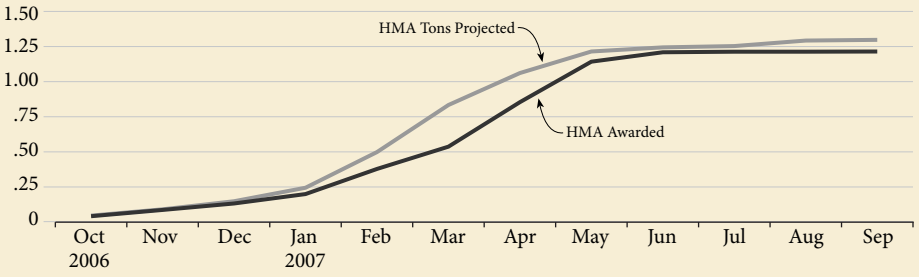
[2]The projection for 2002 was revised in March 2002 by the Transportation Commission following budget cuts.

[3]The 2003 "Nickel" Transportation Funding Package was passed after the projection was made for 2003. WSDOT subsequently awarded five projects from the Nickel funding package with a combined total of 315,285 tons of HMA.

Hot Mix Asphalt Tons Awarded

October 2006 - September 2007

Tons in Millions



Data Source: WSDOT Construction Office

Construction Material Costs

WSDOT's construction cost estimates are suitably based on market conditions drawn from recent bids. There is no method available to provide engineers an accurate prediction of future material price escalation caused by unforeseen market conditions. Like other state transportation agencies, WSDOT must extrapolate for the future based on past records. This makes WSDOT vulnerable to contractors' bids exceeding engineers' estimates during times when prices for construction materials experience steep escalation, as they have since 2004.

WSDOT collects construction cost information from recent bids and calculates a Construction Cost Index (CCI). WSDOT's CCI is a composite of unit price information from low bids on seven of the most commonly used construction materials, which include Hot Mix Asphalt (HMA), Structural Concrete, Roadway Excavation, Crushed Surfacing, Structural Steel, Steel Reinforcing Bar, and Concrete Pavement. These items reflect a composite cost for a completed item of work and include the costs of labor, equipment, and materials.

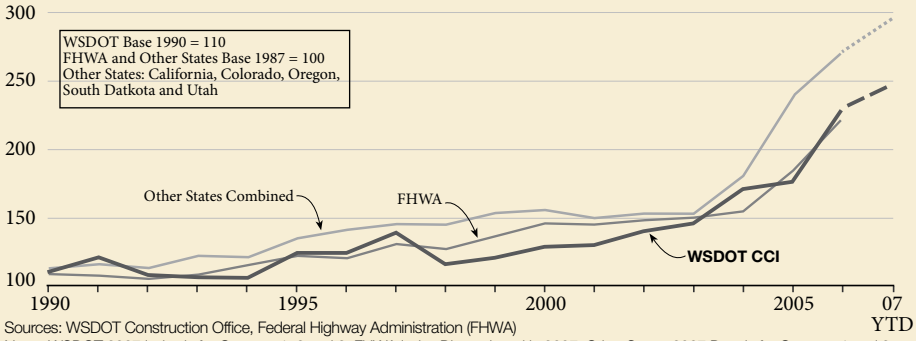
Construction Cost Index Increases by 7.9% in the First Three Quarters of 2007

The graph below 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 2006, the growth rate increased to 13.1% per year. WSDOT's CCI has increased 7.9% in the first three quarters of 2007 over the annual average for 2006, from 228 to 246. While material price escalation for CCI components is slowing from the rate experienced in 2004 – 2006 when WSDOT's CCI rose 57.2%, annual inflation is still far above the levels experienced between 1990 and 2001.

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 9.4% during the first three quarters of 2007 from $57.12 per ton to $62.48 per ton. HMA prices have risen 79.6%, from $34.78 per ton since 2003. The rise in HMA prices is attributable to rising crude oil prices. As the cost of crude oil has increased, refiners have developed ways to more efficiently produce high end products like gasoline. Additionally high crude oil prices are pushing refiners to make a profit on asphalt, which in the past was viewed as a non-lucrative by-product of the refining process.

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, 2 and 3; FHWA Index Discontinued in 2007; Other States 2007 Data is for Quarters 1 and 2.
Note: 2003 and 2004 WSDOT CCI data points adjusted to correct for spiking bid prices on structural steel.

Key Performance

WSDOT's Construction Cost Index rose 7.9% over the past three quarters to 246. The escalation for CCI components is slowing from the rate during 2004 – 2006 when WSDOT's CCI rose 57.2%, annual inflation is still far above the levels experienced since 2001.

WSDOT Utilizes New Strategies to Attract Bidders

WSDOT has very little control over the price fluctuation of construction materials. Unfortunately, as the CCI has illustrated, since 2001, costs have continued to grow beyond the historic inflation rates experienced in the 1990s. This rapid growth has put additional strain on WSDOT and its contractors in their combined efforts to deliver projects both on time and on-budget. However, WSDOT has been working to adopt strategies that address current market conditions for construction materials, helping to minimize financial risk to contractors, encourage a competitive bidding market, and future project planning internally.

HMA and Fuel Escalation Clause Improve Competitive Bidding Climate

HMA Escalation Clause

Hot Mix Asphalt (HMA) prices are of particular concern since they have increased 34% in 2006, and 9.4% during the first three quarters of 2007. The rapidly rising price of this commonly used material prompted WSDOT to implement a HMA Escalation Clause in September 2006.

To gain input from industry on how to better allocate material price escalation risk, the HMA escalation clause was developed jointly with advice from the Washington Asphalt Paving Association (WAPA). To date, WSDOT has awarded fifteen contracts containing the clause.

Construction Material Costs

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. No price adjustments have been made to date on contracts containing the clause.

Implementing the clause has removed uncertainty for both the contractors and WSDOT. The fear of rapid price escalation is lessened for contractors because WSDOT takes on the risk of future HMA costs. In return, WSDOT gets bid prices for HMA that reflect current market value, rather than a price that factors in possible future cost increases for the material. WSDOT's clause allows for either a payment to the contractor or a credit to WSDOT if WSDOT's asphalt binder monthly cost index increases or decreases 10% or more between the month preceding the bid date and the month that the HMA was placed. WSDOT maintains an asphalt binder cost index for both eastern and western Washington.

Fuel Escalation Clause

Increased global consumption of fuels as well as limited and strained crude oil production and refining facilities are contributing to an increase in project costs. The construction industry depends heavily on many products projects derived from crude oil and many aspects of highway construction are highly fuel intensive, meaning that potential fuel price increases can cause contractors to submit higher bid prices not only for materials derived from crude oil but also for items of work that require heavy use of fuel to power machinery or truck items to the work site.

In December 2006, WSDOT implemented a fuel escalation clause for projects lasting longer than 200 working days. Like the HMA clause, this transfers risk from the contractor to the state, reducing the effect of cost uncertainty on contractors' bids, which may result in contractors submitting lower bids. Nine contracts included the fuel escalation clause, and one contract had compensatory payments in the amount $23,846 to date.

WSDOT Escalation Clauses

Hot Mix Asphalt (HMA) prices are up 34% since 2006 and 9.4% for the first three quarters of 2007.

Since October 2006, 15 contracts were awarded with the HMA Escalation Clause.

Since December 2006, nine contracts have been awarded with the Fuel Escalation Clause. Only one reimbursement has been issued to date.

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

Contract Name	Tons Awarded	HMA Price/Ton	Quarter Average Price/Ton	% Difference
I-90, 2-way Transit & Hov Operations	4,339	$120.00	$64.32	86.6%
SR 20 Spur To Sr 536 Vic Paving	7,654	$67.75	$67.85	-0.1%
SR 20, Sidney St Vic To Scenic Heights	17,450	$66.45	$67.85	-2.1%
SR 509 Slayden Rd To Sw 185th St	5,758	$70.20	$64.32	9.1%
SR 20, Fredonia I-5 Widening	56,062	$54.02	$64.32	-16.0%
I-5, Sr 502 Interchange	55,671	$57.13	$64.32	-11.2%
SR 9, Schloman Rd To 258th Ne	19,290	$59.92	$64.32	-6.8%
SR 520, West Lake Sammamish Parkway Flyover Ramp	8,550	$68.18	$64.32	6.0%
SR 539, Horton Rd To 10 Mile Road	75,889	$69.12	$67.41	2.5%
Sr 395, Freya To Fairview	17,690	$55.69	$57.48	-3.1%
SR 395, Freya To Farwell	36,412	$59.55	$57.48	3.6%
I-5, Rush Road To 13th Street	134,105	$58.50	$67.41	-13.2%
Bremerton Transportation Center Access	5,960	$71.26	$67.41	5.7%
SR 518, Seatac Airport To I-5	19,950	$74.00	$67.41	9.8%
SR 20, Safety Improvements Quiet Cove Road	7,286	$83.40	$67.41	23.7%

Data Source: WSDOT Construction Office

Construction Material Costs

Federal Highway Administration and the Offie of the Inspector General Outline Recent Cost Increases in Report

In September, FHWA released a report analyzing growth in highway project costs after a number of states began cancelling and delaying planned projects due to insufficient funds. The Office of Inspector General (OIG) conducted the performance audit of highway construction and maintenance costs to determine the extent of the cost increases and whether they should be viewed as short-term or long-term.

The report found that a dollar will have lost between 27 and 60 percent of its value between 2005 and 2009 if highway project inflation continues at its 2006 pace. It also found that the increases were the result of structural economic changes that suggest the raw materials used in highway construction will remain elevated or even continue to increase. Steel, asphalt, cement and aggregate price escalation caused most of the highway construction cost increases. These materials alone account for 89.3% of WSDOT's CCI. The economic changes driving the price increases for these materials were mostly the result of supply and demand issues as well as crude oil prices. The report determined that the next highway bill may need to provide significantly higher funding to maintain, let alone exceed the volumes of work undertaken prior to 2003.

To view the report in full, visit: http://www.oig.dot.gov/item.jsp?id=2135.

Cross Cutting Management Issues

Endangered Species Act Compliance

Endangered Species Act Compliance Overview

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

Nickel Projects

There are 26 planned Nickel construction projects in the 2007-09 biennium. Of these, 11 have completed ESA review. Two projects (*I-405/SR 167 to SR 169* and *SR 522/Snohomish River Bridge*) are currently undergoing formal consultation at the Services. The remaining 13 projects consist of five projects that will undergo informal consultation, one formal consultation, and seven that will be reviewed for ESA compliance internally.

Transportation Partnership Account Projects

Of the 105 TPA funded projects in the 2007-09 biennium, 35 have completed an ESA review or consultation. As of September 30, 2007, there were four projects undergoing informal consultation:

- *I-5 Blakeslee Junction Railroad Crossing to Grand Mount Interchange*
- *US 2/Wenatchee Pedestrian Trail*
- *I-5 Mellen Street to Grand Mound*
- *I-405/ NE 8th St. to SR 520 Braiding*

Another four projects are undergoing formal consultation with the Services:

- *I-405/ SR 515 New Interchange*
- *US 101/Hoodsport Vicinity*
- *S 12/Tieton River Vicinity* (includes two separate consultations)

WSDOT is working on completing ESA compliance on 60 projects including 16 informal consultations and 11 formal consultations. Thirty-three projects will be reviewed for ESA compliance but do not require consultation at the Services. There are two projects that do not have enough information at this time to determine the need for consultation.

Pre-Existing Funds Projects

For the 2007-09 biennium, there are 284 PEF projects. Nearly half (138) of these have completed an ESA review. Another 129 will complete an ESA review in the future. There are currently five projects undergoing consultation at the Services:

- *US 101/Mud Bay Bridges*
- *SR 106 Embankment Slough*
- *US 2/East End Odabashian Bridge Loop Trail*
- *US 12/Tieton River Vicinity*
- *SR 410/Nile Road Vicinity - Erosion*

The first three projects involve informal consultation and the other two involve formal consultation. The 12 remaining projects do not have enough information to determine the level of ESA review required.

The US 2 Tieton River Bridge in winter

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

Number of projects	2007-2009 Nickel Projects	2007-2009 TPA Projects	2007-2009 PEF Projects
Projects under review at the Services	2	8	5
ESA Review or Biological Assessment underway	13	60	129
Projects which lack sufficient information to start a Biological Assessment[1]	0	2	12
ESA Review complete[2]	11	35	138
Total number of projects	**26**	**105**	**284**

Data Source: WSDOT Environmental Services

[1] 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 or informal) with the services and those that did not require consultation (no effect reviews or programmatic BA's).

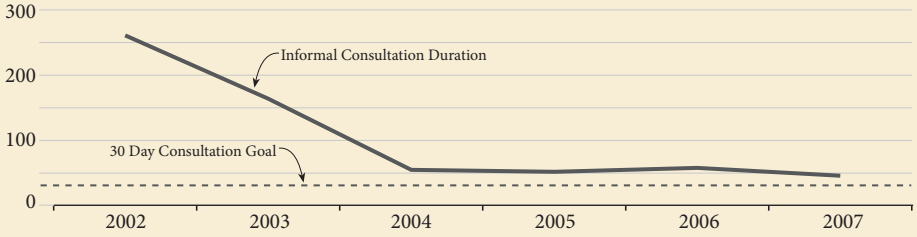
Environmental Species Act Compliance

Consultation Timelines

WSDOT began formally tracking the number of days it was taking to complete consultations in 2003. Some preliminary data was collected as early as 1999. Under ESA, when a formal consultation is mandated, it must be completed within 135 days and the agreed upon timeline for informal consultation completion with the Services is 30 days. A small sample of data collected in 2002 indicated that the average informal consultation was taking 261 days while the average formal consultation was taking 322 days. After WSDOT began tracking consultation timelines in 2003 and the Biological Assessment Training program was developed, informal consultation timelines began to drop rapidly and now average 46 days. Currently, training programs such as the Biological Assessment Writer's Qualification program, guidance documents and other streamlining methods are continually being implemented in order to reduce consultation timelines for formal consultation. Some of the time line fluctuations can be attributed to the workload increases due to new species listings and the overall workforce levels available at WSDOT.

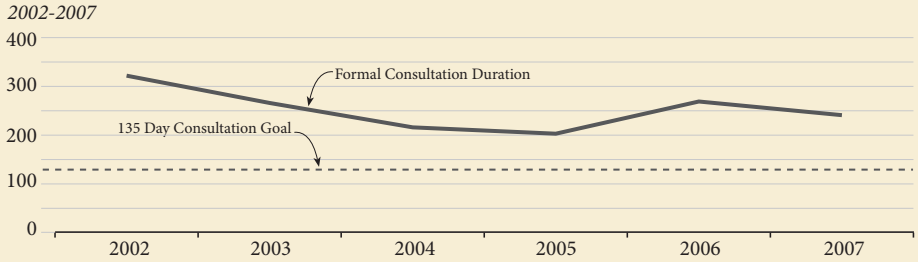
Puget Sound Steelhead. Photo Courtesy of Roger Tabor, US Fish and Wildlife Service

WSDOT's Average Annual Endangered Species Act Consultation Duration
Informal Consultations with USFWS and NOAA Fisheries
2002-2007



Data Source: WSDOT Environmental Services

WSDOT's Average Annual Endangered Species Act Consultation Duration
Formal Consultations with USFWS and NOAA Fisheries
2002-2007



Data Source: WSDOT Environmental Services

Endangered Species Act Update: Puget Sound Steelhead Listing

On June 11, 2007, the Puget Sound Steelhead was listed as threatened under the Endangered Species Act. The listing required that WSDOT review projects that had previously undergone consultation, but which had not completed construction, for potential impacts to this species. At the time of listing,

- 27 WSDOT projects were impacted by the listing decision;
- 17 projects have re-initiated consultation with the Services;
- 3 projects are currently in consultation with the Services ((*I-405/SR 169 to I-90, I-405/I-5 to SR 169* and *SR 305/Poulsbo Vicinity to Bond Road*);
- 4 projects were determined to not require re-initiation;
- 3 projects with construction scheduled for 2008 will be evaluated for potential impacts to Steelhead through the remainder of 2007

All projects that entered consultation after the Steelhead was listed are included in the consultation.

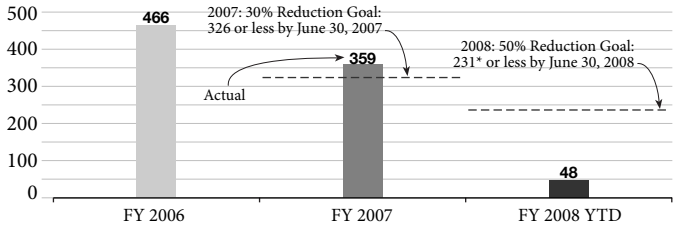
Worker Safety: Quarterly Update

WSDOT Workers: Recordable Injuries and Illnesses

WSDOT Sustains 48 OSHA-Recordable Injuries and Illnesses this Quarter

WSDOT reduced its OSHA-recordable injuries and illnesses by 23% in FY 2007 compared to FY 2006. The goal for FY 2008 is to reduce OSHA-recordable injuries and illnesses by 50% (231 or less injuries/illnesses) from the FY 2006 baseline (466 injuries/illnesses).

Goal to Reduce OSHA-Recordable Injuries and Illnesses for 2006-2008



Data Source: WSDOT Safety Office.
*231 represents half of each region's FY 2006 injury total rounded down and added together.

At of the end of the first quarter of FY 2008, WSDOT has sustained 48 OSHA-recordable injuries and illnesses; this compares favorably with the 116 injuries/illnesses sustained last quarter.

WSDOT OSHA-Recordable Injuries Decline Across the Board

Sprains and strains continue to be WSDOT's largest injury category; 42% of all OSHA-recordable injuries this quarter. The table below shows the total number of injuries by quarter for FY 2008. It provides a regional breakdown of injuries in the maintenance, engineering, and administrative professions.

Highway Maintenance Workers

For the first quarter of FY 2008, highway maintenance workers reported 21 OSHA-recordable injuries, accounting for 44% of all injuries. This was 30 less than the preceding quarter and nine less than the same period in FY 2007. A total of 97 days away from work were associated with the 21 injuries. The most frequently injured part of the body was the ear with seven OSHA-recordable Standard Threshold Shifts (see graph "Number of Work Injuries by Type" on the next page).

Highway Engineering Workers

Highway engineering workers reported eight OSHA-recordable injuries, 17% of all injuries, in the first quarter on FY 2008. This was 11 less from the previous quarter and four less than the same period in FY 2007. A total of 57 days away from work were associated with the eight injuries. Each injury occurred to a different part of the body.

Ferry System

For the first quarter of FY 2008, ferry workers reported 19 OSHA-recordable injuries, 40% of all WSDOT injuries/illnesses this quarter. This was 20 less than the previous quarter and three less than the same period in FY 2006. A total of 142 days away from work were associated with the 19 injuries.

Administrative Staff

There were no injuries to WSDOT Administrative staff for the first quarter of FY 2008. This is seven less than the previous quarter and five less than the same period in FY 2007.

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

FY 2008 (July 2007 - June 2008) Target Goal: 50% Reduction in OSHA-Recordable Injuries

	Maintenance				Engineering				Administrative				FY	50%	FY 08 YTD
Regions	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**07**	**Reduction Goal**	**Total**
Northwest	9				4				0				81	40	13
North Central	3				0				0				33	16	3
Olympic	4				0				0				54	27	4
Southwest	1				0				0				30	15	1
South Central	1				0				0				33	16	1
Eastern	3				0				0				56	28	3
Headquarters	0				4				0				23	11	4
Ferry System	19				0				0				156	78	19
Total	**40**				**8**				**0**				**466**	**231**	**48**

Data Source: WSDOT Safety Office and Washington State Ferries
[1]This table should be not be used to compare region to region due to a different number of employees in each region.

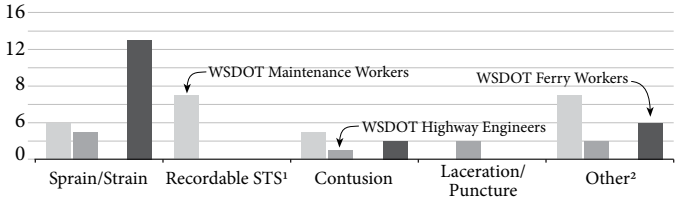
Worker Safety: Quarterly Update

Sprains and Strains Targeted for Reduction

Sprains and strains increased by 12% in FY 2007 over FY 2006 and comprised 53% of WSDOT's total OSHA-recordable injuries/illnesses in the last fiscal year. Consequently, WSDOT has placed a special emphasis in reducing sprains and strains in FY 2008. Controlling sprains and strains is critical to WSDOT's safety program, not only because of the chronic nature of this type of injury/illness but because these injuries often result in days away from work.

Number of Work Injuries by Type

July through September 2007 (1st Quarter FY 2008)



Data Source: WSDOT Safety Office and Washington State Ferries

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

²Calculated by subtracting the above subtotals from the total reported injuries for the quater.

To eliminate unsafe behavior and unsafe work conditions, WSDOT is identifying specific job tasks, equipment, tools, and procedures that can be linked to known risk factors for sprains and strains. Identified risk factors are then noted in job Pre-Activity Safety Plans (PASP) where control measures for those risk factors are established. Knowledge of risk factors contributing to sprains and strains and their control is crucial to developing effective PASPs. For this reason, WSDOT trains its employees to recognize the risk factors associated with strains and sprains.

The goal in WSDOT's efforts is a reduction in sprains and strains by 50% (no more than 85 of the total injuries/illnesses) in FY 2008 compared to the FY 2006 baseline.

Identifying risk factors is crucial to workplace safety

Annualized¹ OSHA-Recordable Injury and Illness Rates

Highway, Street, and Bridge Construction Workers

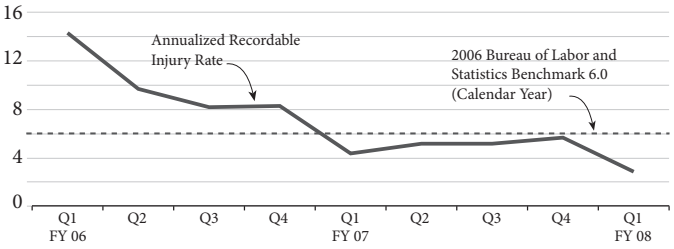
For the first quarter of FY 2008, the annualized injury rate for WSDOT Highway, Street, and Bridge Construction workers was 2.9 per 100 workers. The rate per 100 workers is 2.8 less than the previous quarter and 1.5 less than the first quarter of FY 2007. WSDOT's current OSHA-Recordable Rate is 3.1 lower than the most recent Bureau of Labor Statistics (BLS) Benchmark (2006) of 6.0 per 100 workers.

Ferry System Workers

The ferry workers injury rate for the first quarter of FY 2008 was 4.8 injuries per 100 workers. This is 3 less per 100 workers than the previous quarter and .9 less than the first quarter FY 2007. WSDOT's current OSHA-recordable rate is 0.4 higher than the most recent BLS Benchmark (2006) of 4.4 per 100 workers.

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

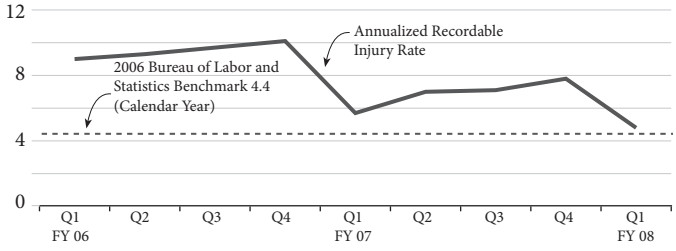
OSHA-Recordable Injury Rate per 100 Workers¹



Data Source: WSDOT Safety Office.

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

OSHA-Recordable Injury Rate per 100 Workers¹



Data Source: WSDOT Safety Office and Washington State Ferries.

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

Worker Safety: Quarterly Update

Quarterly OSHA-Recordable Injury and Illness Rates

The tables presented on this page show quarterly recordable injury rates per 100 workers (see the gray box "How WSDOT Calculates Quarterly Injury Rates" for the calculation used to develop quarterly injury rates). Note: The quarterly rates presented are not comparable to *Gray Notebook* editions published prior to September 30, 2006 (see gray box at right).

Highway, Street, and Bridge Construction Workers

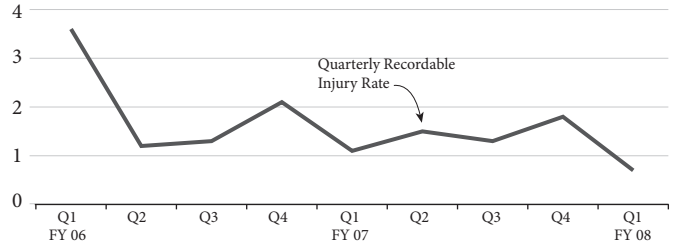
In the first quarter of FY 2008, the quarterly injury rate for Highway, Street, and Bridge Construction workers is 0.7 injuries and illnesses per 100 workers which is 1.1 less than the previous quarter rate of 1.8.

Ferry System Workers

In the first quarter of FY 2008, the quarterly injury rate for Inland Water Transportation workers is 1.2 per 100 workers. This number is a decrease of 1.3 from the previous quarter rate of 2.5.

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

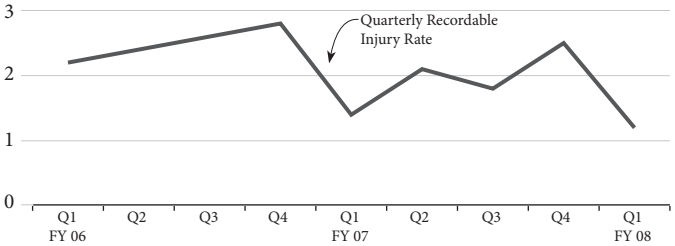
OSHA-Recordable Injury Rate per 100 Workers[1]



Data Source: WSDOT Safety Office and Washington State Ferries.

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

OSHA-Recordable Injury Rate per 100 Workers[1]



Data Source: WSDOT Safety Office and Washington State Ferries.

[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.

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:

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

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

New Employee Recognition Program Allows Workers to Earn Cash for Avoiding Injuries

WSDOT kicked off a new safety initiative in the summer of 2006, highlighting new expectations surrounding worker safety, better safety planning, and heightened accountability for safety results at every level of the organization. Part of that new initiative included a recognition program designed to enhance interest in accident prevention and to promote and maintain a safe and healthful workplace. Employees can qualify for the award as an individual and as part of an organizational group.

For the individual award, performance is measured over a six month period. A financial reward will be given to employees who have worked for any portion of the six months while meeting at least both of the following conditions:

- Worked without sustaining or directly causing a recordable personal injury
- Had no vehicle, equipment, or property damage incidents totaling $500 or greater.

Groups can earn the recognition award if, as an organization, they meet or exceed the fiscal year accident reduction goal for recordable injuries.

Depending on the type of work performed, an employee has the potential to earn up to $200 within a period of one year.

On July 25, WSDOT conducted a mandatory safety stand down for all employees. At that time, approximately 1350 employees received the team recognition award and 6600 employees received individual awards.

Workforce Level and Training: Quarterly Update

Number of Permanent Full-Time Employees at WSDOT

This quarter, WSDOT employed 7166 permanent full-time employees, an increase of 182 employees from the previous quarter. This total does not account for permanent part-time, seasonal, or on-call workers. The chart to the right shows the total number of full-time employees at various points since the end of fiscal year 2000, with significant mandates identified. The total number of full-time equivalencies (FTE's) will generally exceed the number of permanent full-time employees due to seasonal and part-time workers being funded from "FTE" allotments. For information on WSDOT's use of consultants, see page 43.

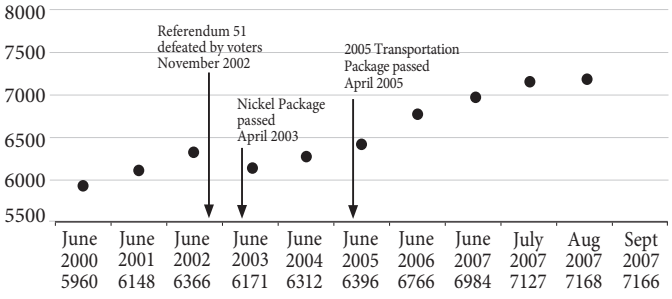
WSDOT Improves Diversity Training Compliance From 2-6%

This quarter, a total of 1,432 workers attended diversity training modules offered by WSDOT, compared to 1585 workers trained last quarter (this number includes all individuals who attended one or more training modules this quarter). WSDOT was able to increase compliance by 2% in the Disability Awareness Diversity Module, 6% in the Valuing Diversity Module, and 3% in the Sexual Harassment/Discrimination Module, while at the same time hiring 182 new employees requiring training.

"No Shows" Continue to Increase

The mandatory diversity modules again saw an increase in the number of "No Shows" this quarter. 293 (17%) of 1725 registered students were "No Shows". This is an increase from the 188 (10.6%) "No Shows" in the preceding quarter; marking a 56% increase between the two quarters. WSDOT continues to explore new methods to increase attendance.

Number of Permanent Full-Time Employees at WSDOT



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

Diversity Training Challenges

Significant challenges persist in increasing compliance for the three diversity modules, including: a growing workforce with new employees (currently 6,414,) requiring basic training; 656 employees needing refresher training as of July 2007; and WAC 357-34, which mandates that supervisors and managers (defined as all Washington Management Service employees, and anyone who supervises one or more employees) attend "Sexual Harassment Awareness and Roles and Responsibility" training every three years beginning July 1, 2008. An estimated 3,400 employees will now be subject to more frequent sexual harassment training.

In the next eight months, significant system modifications and development will be necessary to identify and track the agency's compliance with the WAC 357-34 mandated 3-year refresher training for supervisors and managers. Discussions continue regarding the development of a Computer Based Training (CBT) for a Diversity Training Refresher Course that is a single comprehensive diversity module to address the increasing compliance mandates facing WSDOT.

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	8197	5815	2382	101	283	5714	70%	2%
Ethical Standards	8197	7805	392	1304	450	6501	79%	-1%
Security Awareness	8197	6525	1672	N/A	82	6443	79%	0%
Sexual Harassment/ Discrimination	8197	6371	1826	333	484	6038	74%	3%
Valuing Diversity	8197	5991	2206	222	665	5769	70%	6%
Violence that Affects the Workplace	8197	6659	1538	N/A	170	6659	81%	2%

Data Source: WSDOT Office of Human Resources, Staff Development
In June 2002, OEO training was revised into three courses (Disability Awareness, Sexual Harassment/Discrimination, Valuing Diversity) 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.

Training Program	Total Training Requirements	Total in Compliance	Current Quarter Percent in Compliance	Change from Last Quarter (%)	Past (2005-07) Biennium Average	Current (2007-09) Biennium Average
Blood Bourne Pathogens[1]	558	409	73%	3%	56%	73%
Confined Space Entry	510	425	83%	-1%	79%	83%
Electrical Safety Awareness	306	174	57%	-4%	57%	57%
Fire Extinguisher[1]	1374	1060	77%	1%	57%	77%
First Aid[2]	1453	1168	80%	-2%	83%	80%
Hearing Conservation[1]	1340	983	73%	-5%	76%	73%
Lead Exposure Control[1]	82	49	60%	0%	35%	60%
Lockout/Tag out	574	482	84%	6%	72%	84%
Personal Protective Equipment	1384	1187	86%	1%	83%	86%
Fall Protection	727	594	82%	-1%	84%	82%
Flagging & Traffic Control[2]	1089	982	90%	-4%	92%	90%
Respirator Protection[1]	206	64	31%	1%	17%	31%
Supervisor Return to Work	205	152	74%	-1%	73%	74%
Hazard Communications	1397	1240	89%	3%	84%	89%
Proper Lifting	1438	1133	79%	5%	71%	79%
Railway Work Certification[1]	27	22	81%	2%	69%	81%
Drug & Alcohol Certification	1185	1068	90%	-2%	90%	90%
Drug Free Workplace	337	296	88%	4%	87%	88%
Forklift	1111	984	89%	1%	89%	89%
Hazardous Materials Awareness[1]	821	688	84%	9%	73%	84%
Aerial Lift	186	174	94%	1%	87%	94%
Bucket Truck	380	313	82%	-1%	82%	82%
Excavation, Trenching & Shoring	401	345	86%	-1%	81%	86%
Emissions Certification[3]	77	65	84%	19%	57%	84%
Total	**17168**	**14057**	**82%**	**1%**	**78%**	**82%**

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. WSDOT saw a general reduction in compliance during the third quarter of 2007.

Required Maintenance Training by Region

Region	Current Quarter Percent in Compliance	Change from Last Quarter (%)	Past (2005-07) Biennium Average	Current (2007-09) Biennium Average
Northwest	76%	2%	70%	76%
North Central	86%	0%	79%	86%
Olympic	75%	-1%	71%	75%
Southwest	92%	-2%	91%	92%
South Central	85%	1%	79%	85%
Eastern	95%	-1%	91%	95%
Headquarters -Olympia	74%	-7%	53%	74%

Data Source: WSDOT Office of Human Resources, Staff Development

Workforce Level and Training: Quarterly Update

Required Driver Safety Training

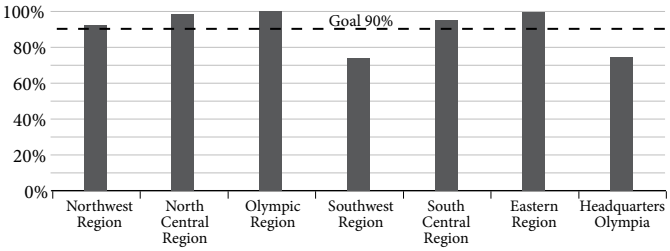
Prior to 2004, WSDOT implemented a voluntary driver enhancement class to provide driver safety training to employees. This class was replaced when the Office of Financial Management (OFM) mandated that a formal program be instituted and agency compliance be reported to OFM.

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	342	314	92%
North Central	130	127	98%
Olympic	161	160	99%
Southwest	203	149	73%
South Central	110	104	95%
Eastern	179	177	99%
Headquarters -Olympia	19	14	74%
Total	**1144**	**1045**	**91%**

Data Source: WSDOT Office of Human Resources, Staff Development

Measuring Delay and Congestion: Annual Update

Introduction

New Jobs, More People, More Trips, More Congestion: Washington's Economy and Population Continues to Thrive

As Washington's robust economy continues to grow, so does congestion. More people want to travel on the same roads at the same time. Between 2004 and 2006, the central Puget Sound population and economy continued to flourish. In 2007, Forbes Magazine ranked Washington state as the 5th best state for business. Between 2004 and 2006, the Puget Sound's transportation system had to absorb 107,000 new residents and 91,000 new jobs.

2007 Report Analyzes the Most Congested Commute Routes

The annual congestion report compares 2004 and 2006 calendar year for the most congested routes in the Puget Sound region. WSDOT archives real-time data for 51 commute routes in the Puget Sound region. This data is collected from over 5,000 loop detectors embedded in the pavement of the 709 center lane miles. For this report, data is analyzed to measure highway congestion on the 38 most congested commute routes and, as such, represents the worst case scenarios. It is not representative of the entire highway system.

The following report's detailed congestion analysis shows where and how much congestion occurs. Commuters are traveling at slower speeds and spending longer periods of time stuck in traffic during morning and evening commutes.

For more information on specific commutes in the central Puget Sound, visit WSDOT's congestion web site at http://www.wsdot.wa.gov/congestion.

Commute Times have increased on Many of the Most Congested Routes

- The average commute time during peak congestion increased on 32 (84%) of the 38 commute routes tracked, from a 1 minute to a 7 minute increase (see pp. 61-69).
- Thirty three (87%) of the routes show a decrease in reliability as the 95% reliable travel time increased, from 1 minute to 10 minute increase (see pp. 61-69).
- Congested periods (duration of peak period) last longer on 34 (89%) of the commute routes, from 5 minute to 1 hour and 35 minute increase (see pp. 61-69).
- Compared to maximum throughput speeds, commuters experienced an average of over 3 million additional hours of delay (18% increase from 2004 to 2006) (see pp. 73-74).

WSDOT Uses Balanced Strategies to Maximize Highway Throughput and Enhance Reliability

Congestion impacts everyone. It can affect how safely we travel; how well we can predict how long it will take to get to work, to day care, to the airport; and how much of our time is taken traveling to those places. WSDOT deploys effective strategies to lessen the duration of congestion, making trips more reliable and safe and improving overall traffic flow. The following table illustrates these strategies and the opportunities to provide more of these solutions if funding is available. In this annual congestion update, the Highway Systems Plan, and in many other publications and presentations, WSDOT emphasizes its key congestion management objectives: maximize system throughput and enhance reliability.

WSDOT's Key Strategies to Fight Congestion

Approach	Strategies to Fight Congestion	Specific Strategies Discussed in this Report
Manage Demand (Provide Options)	WSDOT can reduce demand on the transportation system by providing citizens with options such as HOV lanes, Commute Trip Reduction programs, and Traveler Information.	**HOV Lane Performance:** More people travel through HOV lanes than general purpose lanes on most highways., pp.75-78. **Commute Trip Reduction:** Commute options resulted in 19,200 fewer vehicle trips taken each weekday morning in 2007, p. 80.
Operate Efficiently	WSDOT can make the existing system operate more efficiently by using tools such as ramp meters, synchronized traffic signals, and incident response trucks to clear traffic incidents.	**Signal Synchronization**: Along SR 532 travel times have been reduced by up to 6 minutes, p.81. **Incident Response:** Incident Response Trucks responded to and cleared 13,401 incidents during the 3rd quarter of 2007, pp. 87-91.
Add Capacity Strategically	By March 31, 2007, WSDOT will have completed or started more than half of the 392 capital projects that were funded through the Nickel and Transportation Partnership Agreement (TPA) funding packages. Capital projects improve safety by increasing highway capacity to relieve chokepoints that cause recurring congestion.	**Project Delivery:** WSDOT will have either completed or started construction on over half of the Nickel and TPA capital funding projects, pp. 26-27. **Tacoma Narrows Bridge** has reduced congestion and increased speeds during peak congestion, p. 84.

Measuring Delay and Congestion: Annual Update

WSDOT's Balanced Strategies to Fight Congestion in Action

Strategically add capacity. The map below shows the segments of highway where WSDOT is delivering $6.5 billion in capital improvement projects to improve safety and increase highway capacity to relieve chokepoints that cause recurring congestion.

33 of the 110 Nickel and TPA capital projects that have been delivered to date add capacity and relieve chokepoints in the central Puget Sound region at a cost of $680.4 million. For more information, go to http://www.wsdot.wa.gov/projects/

Manage Demand. The map below shows where the 205 miles of HOV lanes are located in the central Puget Sound region. Nearly 100 additional miles of HOV lanes are planned to extend the current system.

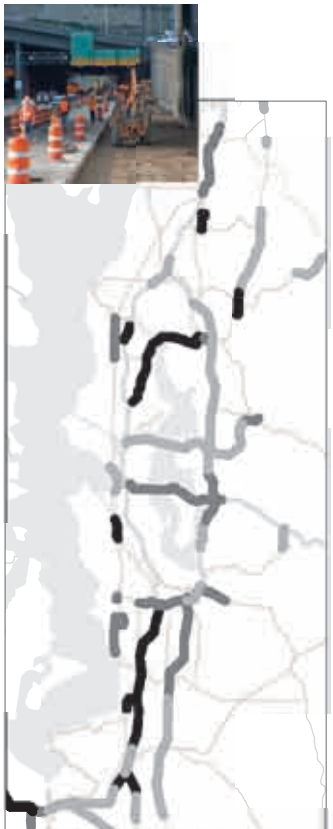
The goal of the HOV lane network is to enhance the efficiency of the freeway network by moving more people in fewer vehicles. For more information on the HOV system, go to http://www.wsdot.wa.gov/hov

Operate Efficiently. The maps below show where WSDOT incident response trucks patrol, where variable message signs provide drivers with travel information, and where ramp meters are located to improve vehicle throughput.

There are 55 incident response vehicles on the freeways to assist drivers and keep traffic flowing when there is an incident. The number of incidents to which WSDOT has responded increased from 17,479 in 2002 to 59,276 in 2006. For more performance information, go to http://www.wsdot.wa.gov/operations/incidentresponse/

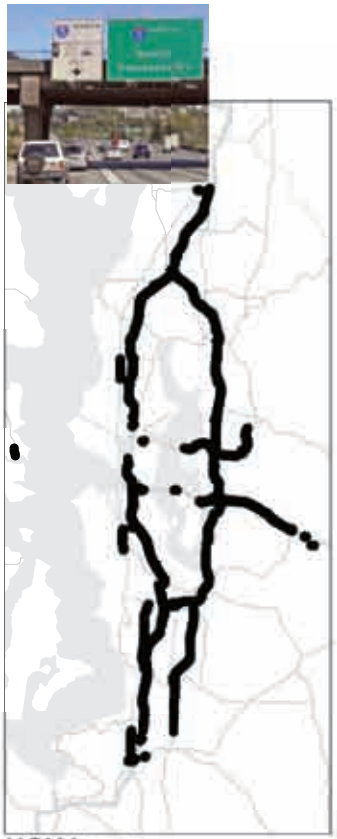
Of the 179 variable message signs statewide, 80 are permanently located in the Puget Sound area. These boards have become an important tool for managing traveler expectations. For more information, please go to http://www.wsdot.wa.gov/traffic/seattle/vms/.

Ramp meters are a proven means of increasing traffic throughput. Since 1981, WSDOT has increased its use of ramp meters in the Puget Sound from 22 to 135 meters.



Mobility Projects

- Complete- 33 projects
- In Progress- 24 projects
- Future- 68 projects



HOV Lanes

- HOV Lanes

Incident Response Routes and Ramp Meters

- Roving Truck Routes
- Ramp Meters- 135

Variable Message Signs

- Planned- 13
- Current- 80
- Display Travel Times- 13

Measuring Delay and Congestion: Annual Update

WSDOT's Balanced Strategies to Fight Congestion in Action

The 2007 annual update on congestion highlights WSDOT's effort to deploy effective strategies to lessen the duration of congestion, making trips more reliable and safe and improving overall traffic flow. Examples of how WSDOT's balanced strategies are working to improve congested conditions in the central Puget Sound region include:

- **Keeping traffic moving during construction.** WSDOT managed demand on I-5 northbound to remove over 57,000 vehicles during construction to maintain maximum throughput by working extensively with local governments, businesses, and transit agencies. See p. 79.
- **Synchronizing signals to improve travel times.** WSDOT retimed lights along SR 532 in Stanwood improved travel times during the morning commute by 2 minutes, and by 6 minutes during the evening commute. See p. 81.
- **Strategically adding capacity to relieve chokepoints and bottlenecks.** WSDOT completed the new eastbound span of the Tacoma Narrows Bridge on July 16, 2007, which has improved speeds during peak congestion from 30-40 MPH to the posted speed limit of 60 MPH. See p. 84.
- **Providing options to commuters.** The new HOV lanes on I-5 from Federal Way to the Pierce County line allow vehicles that travel in those lanes to cut the time it takes to 6-8 minutes, compared to the 14-16 minutes it takes commuters who choose to use the general purpose lanes to complete the same segment. See p. 85.
- **Using intelligent transportation systems to shift travelers away from congested highways.** WSDOT is planning to use Integrated Corridor Management practices between SeaTac and downtown Seattle, which will facilitate shifting travelers from congested highways to parallel routes and transit lines in order to reduce congestion. See p. 83.

For more information on specific commutes in the central Puget Sound, visit WSDOT's congestion web site at http://www.wsdot.wa.gov/accountability/TravelTimes/default and www.wsdot.wa.gov/congestion

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Congestion Performance Audit Recognizes WSDOT as Leader and Suggests Building on Existing Strategies

In October 2007, the State Auditor's Office completed a performance audit of how WSDOT manages the state highway system for maximum throughput and minimal congestion. The audit offered 22 recommendations and acknowledged the Department's proactive efforts to address congestion and its status as a national leader in several areas of congestion management. The audit recommendations included: Elevate Congestion Reduction in Decision Making; Pursue Major Infrastructure Investments and Further Increase Traffic Demand Management Programs.

Congestion is a priority at WSDOT but several recommendations such as tolling and major capacity projects cannot be implemented without new funding or budget priority changes subject to the discretion of the Governor and Legislature. WSDOT has developed an action plan based on the recommendations and is already addressing many of the suggested strategies within WSDOT's control. WSDOT's response to the Congestion Performance Audit is located at: www.wsdot.wa.gov/NR/rdonlyres/4D383DE3-8394-4FCA-AB3D-3023B54DE660/0/WSDOT_Congestion_Response.pdf.

Key Congestion Performance Measures

Measure	Definition
Average Peak Travel Time/Minutes	The average travel time on a route during the peak travel period
95% Reliable Travel Time/Minutes	Travel time with 95% certainty (i.e. on-time 19 out of 20 work days)
Vehicle Throughput	Measures how many vehicles move through a highway segment in an hour
Lost Throughput Productivity/Percent (%)	Percentage of a highway's lost throughput due to congestion
Delay (Hours/Minutes)	The average total daily hours of delay per mile based on maximum throughput speed (51 MPH- 85% of the posted speed, measured annually as cumulative (total) delay
Percent of Days that the Speed Falls Below 35 mph	Percentage of days annually that observed speeds fall below 35 MPH (severe congestion) on key highway segments
Before and After (Travel Time Analysis)	Before and After analysis of performance of selected highway projects and strategies.
Duration of Congestion (Hours/Minutes)	The period when speeds fall below 70% of the posted limits (less than 42 MPH)
Maximum Throughput Travel Time Index (MT^3I)	The ratio of peak commute period travel time compared to maximum throughput speed travel time

Measuring Delay and Congestion: Annual Update

Maximum Throughput as a Basis for Congestion Measurement

Travelers perceive delay when they are unable to travel at expected speed, which is typically believed to be the posted speed limit. Many travelers define delay as the difference in the amount of time it should take to get to a destination during off-peak hours and the actual amount of time it takes to get to their destination. Traditionally, delay and other congestion measures have been calculated based on the difference between actual travel times and the travel time that would have been if the traffic was free flowing or moving at the speed limit.

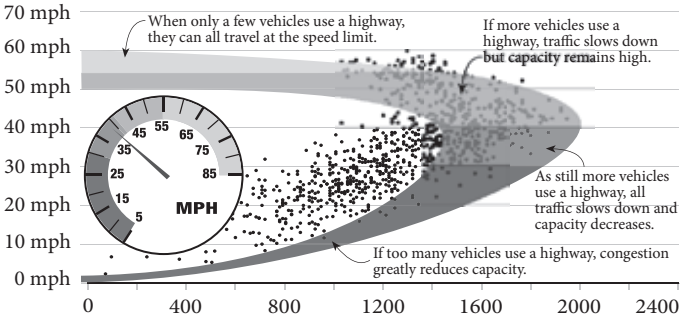
The Highway System Operates at Peak Efficiency When Vehicles Travel at 70-85% of the Posted Speed Limit

From the perspective of operating the highway system as efficiently as possible, speeds at which the most vehicles can move through a highway segment (maximum throughput) is the most meaningful basis of measurement for WSDOT's management needs. It is logical for WSDOT to aim towards providing and maintaining a system that yields the most productivity (or efficiency) versus providing a free flowing system where not as many vehicles are passing through a segment during peak travel periods. Maximum throughput is achieved when vehicles slow to a range between 70-85% of the posted speed, which results in less space between vehicles than what is observed at posted speeds. When vehicle speeds have slowed down into the range where maximum throughput occurs, the segment of highway is operating at peak efficiency because more vehicles are passing through the segment than there would be at posted speeds. This phenomenon is illustrated in the chart to the right. Maximum throughput speeds vary from one highway segment to the next depending on prevailing roadway and traffic conditions, such as lane width, slope, shoulder width, pavement conditions, traffic compositions, conflict traffic movements, presence or lack of median barrier, etc. It should also be noted that maximum throughput speed is not static and can change over time. Currently, maximum throughput speed on a typical freeway segment in the Central Puget Sound region is about 70% to 85% of the posted speed limits. For surface arterials, maximum throughput speeds are difficult to predict due to the fact that they are heavily influenced by conflicting traffic movements at intersections. Ideally, maximum throughput speeds for each highway segment should be determined through comprehensive traffic studies and validated based on field surveys.

An Adaptation of the Speed/Volume Curve: Relating Speed and Volume

I-405 Northbound at 24th NE, 6-11 AM Weekdays in May 2001

Hourly Volume/Lane



Because operating at peak efficiency moves more vehicles through a segment than at any other range of speed, a number of the measures in the annual congestion report are reported in two ways: relative to posted speed limit and relative to maximum throughput speed.

In this 2007 Annual Congestion Update, WSDOT uses maximum throughput as a basis of measurement for the following measures:

- Travel Time Index (Maximum Throughput Travel Time-MT^{3}I)
- Duration of Congestion (measures the length of time when the highway operates at less than 70% of the posted speed)
- Delay (both statewide and for individual corridors)

WSDOT Congestion Thresholds*

Posted speed	52 mph or above (85% of posted speed or higher)	Vehicles are moving through a highway segment at approximately the posted speed. However since there are fewer vehicles on the highway, the highway segment is not reaching its maximum productivity under these conditions.
Maximum throughput	42 - 51 mph (70%-85% of posted speed)	Vehicles are moving slower than the posted speed and the number of vehicles moving through the highway segment is higher. These speed conditions enable the segment to reach its maximum productivity in terms of vehicle volume and throughput.
Congestion	35 - 41 mph (60-70% of posted speed)	Average vehicle speeds are below 70% of the posted speed (~42 MPH) causing drivers to have less than optimal spacing between them, and reducing the number of vehicles that can move through a highway segment. The highway begins to operate less efficiently because fewer vehicles are moving through a highway segment under these conditions than they would at maximum throughput.
Severe congestion	35 mph or below (Less than 60% of posted speeds)	Speeds and spacing between vehicles continue to decline in a highway segment and the highway operates well below maximum productivity.

*Based on a posted speed limit of 60 MPH.

Measuring Delay and Congestion: Annual Update

Travel Time Analysis

WSDOT identifies the worst commutes in the central Puget Sound region and shows how congestion on key commutes have changed over the course of two years. WSDOT uses the following performance measures as part of its travel time analysis: average travel time, 95% reliable travel time, traffic volume, the duration of congestion during the peak periods, and the maximum throughput travel time index. These measures are reported in the travel time tables on pages 62-63. The measures also include the percent of days when speeds fell below 35 mph, which is also known as severe congestion (see stamp graphs on pages 66-67). This report compares calendar year 2006 data with 2004 data for the same routes.

Most Routes Show Increases in Congestion Across All Measures

Average Travel Times Increase on 32 of the 38 Most Congested Commutes

Overall, average travel times increased on 32 commute routes, remained constant on three routes, and improved on three routes. The commute with the largest increase in average travel times (in minutes) was the *Tukwila to Bellevue morning commute*. During the peak commute period, the duration of this commute was seven minutes longer in 2006 than it was in 2004. Other commutes that showed significant increases in average travel times (minutes) include the *Federal Way to Seattle morning commute*, the *Bellevue to Seattle via I-90 evening commute*, the *Everett to Seattle morning commute*, and the *Bellevue to Tukwila evening commute*. The three routes that showed a slight improvement in average travel times were the *Tukwila to Bellevue evening commute*, the *Redmond to Bellevue morning commute*, and the *Bellevue to Seattle via SR 520 morning commute*.

95% Reliable Travel Times Increase on 33 of the 38 of Most Congested Commutes

The 95% reliable travel time performance measure relates to the amount of time necessary to make it to a destination on time on an average of 19 out of 20 work days. For the *Tukwila to Bellevue morning commute*, the 95% reliable travel time increased by 11 minutes between 2004 and 2006. Of the five commute routes that did not show an increase in 95% reliable travel time between 2004 and 2006, two decreased (the *Seattle to Everett evening commute* and the *Redmond to Bellevue morning commute*) and three stayed the same.

Duration of Congestion Increased on 31 of 38 the Most Congested Commutes

The duration of congestion – defined as the period of time in which average speeds fell below 70% of posted speeds, which is the lower limit of the maximum throughput/efficiency range increased for 31 commute routes. On 9 of these 31 commutes, the duration of congestion increased by over one hour. The commute with the longest duration of congestion is the *Bellevue to Tukwila evening commute*. Speeds fall below 70% of the posted speed for 5 hours and 35 minutes during an average evening commute. The commute route that had the largest increase in the duration of congestion was the *Everett to Seattle evening commute*. In 2004, the average duration of congestion was one hour. In 2006, the average duration of congestion on this route had increased to 2 hours 30 minutes. Two routes, the *Seattle to Bellevue via I-90 evening commute* and the *Redmond to Seattle morning commute*, experienced no change in duration of congestion. One route, the *Bellevue to Seattle via SR 520 morning commute*, experienced a 25 minute decrease in duration

National Report Indicates Seattle's Congestion Ranking Remains Stable

The Texas Transportation Institute publishes an annual congestion report ranking all urban areas in the US. The report uses several measures including the Travel Time Index (TTI) and the annual number of hours of delay experienced by travelers during peak congestion. The 2007 report, shows that delay in the Seattle urban area (which combines Tacoma, Seattle, and Everett) is well below the national mean (45 hours per traveler delay compared to 54 hours, the average of similarly-sized urban areas). Seattle's per traveler delay and TTI values have largely remained the same over the past 10 years. For example, TTI was 1.31 in 1997 and 1.30 in 2007. Seattle's rankings relative to other cities has actually improved from being rated the second worst congested urban area in 1999 to 19th in 2007.

The TTI is the average travel time during peak congestion divided by the free flow travel time. Any ratio larger than 1.0 indicates that traffic is moving at speeds lower than free flow, and can be considered congestion. If replicating the TTI measurement approach but using WSDOT's data for the 38 congested Puget Sound commutes, the TTI values would typically fall in the range between 1.5 and 3.1 for all but one route (the Redmond to Bellevue morning commute, which is 1.1). The reason for this difference is that the Texas Transportation Institute measures traffic conditions across the whole Puget Sound area (congested and un-congested areas), while WSDOT only measures the most congested routes in the system. In addition, the statistics reported in the Urban Mobility Report are derived from modeled data, whereas WSDOT uses real time data taken from loop detectors embedded in the roadways. More on the Urban Mobility Report and Spokane's ranking can be found on page 69.

Travel Time Analysis: Morning Commutes

MORNING: Key Commute Routes: Changes in Travel Time Performance, 2004 to 2006

				Travel Time (in min.)		Average Peak Travel Time, Based on Peak Time (in minutes)			95% Reliable Travel Time (in minutes)			Ratio of Peak Travel Time to Maximum Through-put Travel Time		Traffic Volume Peak Period	Duration of Congestion (hours and minutes that average speed falls below 70% of posted speeds)		
Route	Route Description	Peak time	Length (Miles)	At Peak Efficiency	At Posted Speed	2004	2006	Change (%)	2004	2006	Change (%)	MT^3I 2004	MT^3I 2006	Change (%)	2004	2006	change (in minutes)
To Seattle																	
I-5	Everett to Seattle	7:25 AM	23.7	28	24	45	50	11%	73	81	11%	1.62	1.80	-3%	1:55	2:30	0:35
I-5	Federal Way to Seattle	7:20 AM	21.8	26	22	40	46	15%	56	66	18%	1.56	1.80	-1%	2:15	2:50	0:35
I-90/I-5	Issaquah to Seattle	7:40 AM	15.5	18	15	22	26	18%	30	39	30%	1.21	1.43	+4%	*	1:20	1:20
SR 520/I-5	Redmond to Seattle	7:50 AM	14.8	17	15	22	22	0%	32	32	0%	1.27	1.27	+1%	0:15	0:15	0:00
I-5	SeaTac to Seattle	7:45 AM	12.9	15	13	23	27	17%	31	37	19%	1.51	1.77	-1%	2:15	3:30	1:15
I-405/I-90/I-5	Bellevue to Seattle	8:05 AM	10.7	13	11	14	16	14%	22	27	23%	1.12	1.28	0%	*	0:10	0:10
I-405/SR 520/I-5	Bellevue to Seattle	7:55 AM	10.5	12	10	19	18	-5%	26	26	0%	1.54	1.46	+1%	1:45	1:20	-0:25
To Bellevue																	
I-5/I-405	Everett to Bellevue	7:30 AM	23.4	28	23	47	51	9%	74	83	12%	1.71	1.85	-3%	2:05	2:45	0:40
I-405	Lynnwood to Bellevue	7:35 AM	16.0	19	16	38	41	8%	64	67	5%	2.02	2.18	-3%	2:20	3:05	0:45
1-405	Tukwila to Bellevue	7:45 AM	13.5	16	13	35	42	20%	52	63	21%	2.21	2.65	-2%	3:25	4:05	0:40
I-5/I-90/I-405	Seattle to Bellevue	8:40 AM	10.6	12	10	16	18	13%	25	27	4%	1.29	1.45	+2%	0:45	1:35	0:50
I-5/SR 520/I-405	Seattle to Bellevue	8:40 AM	10.1	12	11	20	23	15%	29	33	14%	1.69	1.94	0%	2:30	2:50	0:20
I-90/I-405	Issaquah to Bellevue	7:45 AM	9.5	11	9	17	18	6%	25	27	8%	1.53	1.62	+4%	1:35	2:15	0:40
SR 520/I-405	Redmond to Bellevue	7:45 AM	7.1	8	7	9	8	-11%	12	9	-25%	1.07	0.95	+1%	*	*	*
To Other Locations																	
I-5/SR 520	Seattle to Redmond	8:40 AM	14.7	17	15	25	27	8%	34	38	12%	1.45	1.56	0%	1:40	2:25	0:45
SR 167	Auburn to Renton	7:30 AM	9.8	12	10	16	17	6%	24	30	25%	1.39	1.48	-3%	1:20	2:00	0:40
I-5/I-90	Seattle to Issaquah	8:15 AM	15.7	18	16	19	21	11%	24	30	25%	1.03	1.14	+3%	*	*	*
I-405	Bellevue to Tukwilla	7:40 AM	13.5	16	13	21	22	5%	28	32	14%	1.33	1.39	-2%	0:20	0:40	0:20

Data Source: WSDOT Traffic Operations and the Washington State Transportation Center (TRAC) at the University of Washington
Note: An asterisk (*) indicates that speeds did not fall below 70% of posted speed on a route; and n/a means that no information is available for a route.
2004 figures have been recalculated since their last publication in the 2005 annual congestion update, using a more refined data quality control process.

of congestion. The remaining four routes did not have enough congestion in either 2004 or 2006 for speeds to fall below 70% of the posted limit. These routes are indicated with asterisks in the "duration of congestion" column in the tables on pages 62 and 63.

Maximum Throughput Travel Time Index (MT^3I) Increased on 32 of the 38 Commute Routes

The MT^3I is a measure that was developed by WSDOT to compare peak travel times to travel times observed at maximum throughput speeds: speeds that allow the largest number of cars to pass along a route at one particular time. For more information on WSDOT's use of maximum throughput as a basis for measuring congestion, please see page 60 and the gray box on page 64. As the MT^3I goes higher than 1.0, the efficiency of the road drops: traffic is moving at speeds that are lower than maximum throughput levels, and congestion increases.

The commute route with the highest MT^3I is the *Tukwila to Bellevue morning commute*, which is 2.65. This means that during

Travel Time Analysis: Evening Commutes

EVENING: Key Commute Routes: Changes in Travel Time Performance, 2004 to 2006

Route	Route Description	Peak time	Length (Miles)	Travel Time (in minutes) At Peak Efficiency	Travel Time (in minutes) At Posted Speed	Average Peak Travel Time (in minutes) 2004	Average Peak Travel Time (in minutes) 2006	Average Peak Travel Time (in minutes) Change (%)	95% Reliable Travel Time (in minutes) 2004	95% Reliable Travel Time (in minutes) 2006	95% Reliable Travel Time (in minutes) Change (%)	Ratio of Peak Travel Time to Maximum Through-put Travel Time MT³I 2004	Ratio of Peak Travel Time to Maximum Through-put Travel Time MT³I 2006	Traffic Volume Peak Period Change (%)	Duration of Congestion (hours and minutes that average speed falls below 70% of posted speeds) 2004	Duration of Congestion (hours and minutes that average speed falls below 70% of posted speeds) 2006	Duration of Congestion (hours and minutes that average speed falls below 70% of posted speeds) change (in minutes)
From Seattle																	
I-5	Seattle to Everett	4:20 PM	23.7	26	22	42	43	2%	65	60	-8%	1.51	1.54	-3%	2:25	2:45	0:20
I-5	Seattle to Federal Way	4:35 PM	22.1	26	33	34	37	9%	49	56	14%	1.31	1.42	0%	1:15	1:55	0:40
I-5	Seattle to SeaTac	4:35 PM	12.9	15	13	18	19	6%	24	28	17%	1.18	1.25	+1%	*	*	*
I-5/I-90/I-405	Seattle to Bellevue	5:30 PM	10.6	12	11	18	18	0%	30	32	7%	1.45	1.45	-1%	0:50	0:50	0:00
I-5/SR 520/I-405	Seattle to Bellevue	5:35 PM	10.1	12	10	19	21	11%	30	32	7%	1.60	1.77	-1%	2:30	2:45	0:15
I-5/SR 520	Seattle to Redmond	5:35 PM	14.7	17	15	29	30	3%	42	44	5%	1.68	1.73	-1%	2:10	3:15	1:05
I-5/I-90	Seattle to Issaquah	5:35 PM	15.7	18	16	23	23	0%	35	37	6%	1.25	1.25	+2%	*	*	*
From Bellevue																	
I-405/I-5	Bellevue to Everett[1]	4:25 PM	23.4	28	23	40	44	10%	56	62	11%	1.45	1.60	-4%	2:35	3:25	0:50
I-405	Bellevue to Lynnwood[1]	5:25 PM	16.0	19	16	28	32	14%	38	44	16%	1.49	1.70	-3%	2:40	3:25	0:45
I-405	Bellevue to Tukwila	4:20 PM	13.5	16	13	28	33	18%	39	45	15%	1.77	2.08	-4%	4:20	5:35	1:15
I-405/I-90/I-5	Bellevue to Seattle	5:20 PM	10.7	13	11	23	28	22%	37	46	24%	1.83	2.23	-1%	2:35	3:50	1:15
I-405/SR 520/I-5	Bellevue to Seattle	5:20 PM	10.5	12	10	25	26	4%	33	38	15%	2.03	2.11	-1%	4:30	4:40	0:10
I-405/I-90	Bellevue to Issaquah	5:30 PM	9.3	11	9	16	19	19%	21	24	14%	1.46	1.74	+1%	2:10	3:20	1:10
I-405/SR 520	Bellevue to Redmond	5:40 PM	6.8	8	7	14	15	7%	22	24	9%	1.76	1.88	-3%	3:00	3:35	0:35
From Other Locations																	
I-5	Everett to Seattle	3:50 PM	23.7	28	24	37	40	8%	56	62	11%	1.33	1.44	-1%	1:00	2:30	1:30
I-90/I-5	Issaquah to Seattle	5:20 PM	15.5	18	15	24	28	17%	40	46	15%	1.32	1.54	+2%	0:10	1:20	1:10
SR 520/I-5	Redmond to Seattle	5:35 PM	14.8	17	15	35	37	6%	57	62	9%	2.02	2.13	-3%	3:25	3:55	0:30
SR 167	Renton to Auburn	4:20 PM	9.8	12	10	17	20	18%	32	36	13%	1.48	1.74	-1%	2:50	3:10	0:20
I-5	SeaTac to Seattle	5:20 PM	12.9	15	13	20	21	5%	30	35	17%	1.31	1.38	-1%	0:15	1:20	1:05
I-405	Tukwila to Bellevue	5:15 PM	13.5	16	13	21	20	-5%	27	27	0%	1.33	1.26	-1%	0:30	0:35	0:05

Data Source: WSDOT Traffic Operations and the Washington State Transportation Center (TRAC) at the University of Washington
Note: An asterisk (*) indicates that speeds did not fall below 70% of posted speed on a route; and n/a means that no information is available for a route.
[1]Year ends on 11/19/06 due to unavailable data
2004 figures have been recalculated since their last publication in the 2005 annual congestion update, using a more refined data quality control process.
The Lynnwood to Bellevue commute route is an expansion of the Bothell to Bellevue commute route that has been published in prior annual updates. In the 2006 annual update, the Bothell to Bellevue commute route should have been refered to as the Lynnwood to Bellevue commute route.

peak congestion, it takes 2.65 times longer to complete this trip than it would when traveling at 85% of the posted speed. In 2006, six of the 38 commute routes have an MT³I of over 2.0.

Between 2004 and 2006, the MT³I dropped on three routes, stayed the same on three routes, and increased on the 32 remaining routes. The largest percentage increase in MT³I was 22%, on the *Bellevue to Seattle via I-90 evening commute*. The MT³I went down on the *Tukwila to Bellevue evening commute*, the *Redmond to Bellevue morning commute*, and the *Bellevue to Seattle via SR 520 morning commute*.

Measuring Delay and Congestion: Annual Update

Travel Time Analysis

Travel Times Increase While Volume Remains Constant or Drops on Most Commute Routes

Despite the increases observed in travel times, 95% reliable travel times, and MT^{3}I across the most congested commutes in the central Puget Sound, demand on the system in terms of number of vehicle miles traveled stayed relatively constant. Increases in volume were observed on only 11 of the 38 most congested routes. Why has the increase in the central Puget Sound's population and economic growth not caused an overall increase in the number of vehicle miles traveled? Most work-based travel tends to happen during the morning and evening commute times. Discretionary trips to the grocery store or movie theater tend to take place outside peak commute periods. With significant increases in the price of gasoline and longer periods of congestion, a number of these discretionary trips may have been postponed, consolidated, or eliminated. Some of these additional trips may have been absorbed by other modes such as transit or moved to local arterials. WSDOT will need to examine additional data where available to further analyze the relationship between vehicle miles traveled and congestion as well as examine other factors that contribute to congestion such as weather, incidents on the highways, and the impact of construction.

Duration of Congestion in the Morning is Generally Shorter than in the Evening

Congestion on evening commutes generally lasts longer than congestion on morning commutes. During the morning commute, the duration of congestion lasts longer than three hours on three commutes. During the evening commute, the duration of congestion lasts longer than three hours on ten commutes. This is because morning traffic is usually for work or school purposes, while evening traffic is more likely to encompass discretional travel, such as additional travel for shopping or recreational purposes. In the morning, people generally have to be at their destination at a certain time for work or school. By contrast, people generally have more discretion on when they need to arrive at their destinations in the evening; they also generally have more flexibility as to when they leave their office or school sites than when they arrive.

The Duration of Congestion is Getting Longer in the Evening- Especially When Leaving Bellevue

As congestion worsens, travelers are trying to "beat the peak" by leaving earlier or later than their fellow commuters. Thirteen of the twenty evening commutes average more than two hours of conditions where the average speed fell below 70% of the posted speed. An increase of an hour or more in the duration of congestion was observed on seven of the 20 evening commutes.

As more people shift their commute times, congestion grows at both the beginning and the end of peak congestion periods, which is often referred to as "peak spreading". The stamp graphs on pages 66 and 67 illustrate how congestion is getting worse at the begining and towards the end of both evening and morning commutes.

Evening commutes leaving Bellevue experience congested conditions longer than commutes leaving any other city in the central Puget Sound. All seven of the evening commutes out of Bellevue experienced conditions in which speeds fell below 70% of the posted speed for over three hours.

Evening Commutes Into Seattle are Getting Worse

Evening traffic into Seattle on all routes shows an increase in average travel time, 95% travel time, severe congestion, MT3I, and duration of congestion. Three of the six commutes with an MT3I, of 2.0 or higher (which means the commute takes twice as long when motorists travel at peak efficiency speeds) are on evening commutes into Seattle. Meanwhile, evening routes into Bellevue are showing mixed results: increases on the Seattle to Bellevue via SR 520 evening commute, but generally staying flat or slightly declining on the Tukwila to Bellevue evening commute and the Seattle to Bellevue via I-90 evening commute.

MT^{3}I Facilitates Comparisons Between Different Routes

When comparing travel times, the MT^{3}I measure enables WSDOT to make "apples to apples" comparisons of travel times between routes of varying distances. For instance, the *Seattle to SeaTac evening commute* and the *Bellevue to Issaquah evening commute* both have average travel times of 19 minutes. However, the first route is 13 miles long and the second is 9; using average travel times alone would not be a very meaningful comparison. By contrast, the MT^{3}I value incorporates the expected travel time under maximum throughput conditions, which takes into account the length of the route. As the MT^{3}I value increases, travel time performance deteriorates. In this example, the *Seattle to SeaTac evening commute* has an MT^{3}I of 1.25, which means that the commute route takes 25% longer than the time it would normally take at maximum throughput speeds. The *Bellevue to Issaquah evening commute* has an MT^{3}I of 1.74, which means that the commute will take 74% longer than the commute route would take at maximum throughput speeds. Therefore, the *Bellevue to Issaquah evening commute* is considered to be the "worse" commute of the two.

Measuring Delay and Congestion: Annual Update

Travel Time Analysis

The Worst Commute of the 38 Commutes Measured by WSDOT in the Central Puget Sound is Between Tukwila to Bellevue

Motorists who use the *Tukwila to Bellevue morning commute* experience the most congested conditions of the commutes measured. The average duration of this commute at the peak travel time is 42 minutes, which is more than twice as long as the peak efficiency travel time of 16 minutes. The result is that this commute has the highest MT^3I ratio of any of the 38 commute routes at 2.65. Between 2004 and 2006, the seven minute increase from 35 to 42 minutes in travel time was the biggest increase observed in the central Puget Sound. This commute also had the largest increase in 95% reliable travel time. From 2004 to 2006, the 95% reliable travel time increased by 11 minutes from 52 minutes to 63 minutes. The duration of congestion for this route is 4 hours 5 minutes, which represents the longest duration of congestion for any morning commute.

As one might presume, the return home commute (*Bellevue to Tukwila evening commute*) is very congested as well. On the average weekday, speeds fall below 70% of the posted speeds for 5 hours 35 minutes during the evening commute, which represents the longest duration of congestion for any commute route in the central Puget Sound. This route was tied with the *Everett to Bellevue evening commute* for the largest decrease in volume for any of the 38 commute routes in the central Puget Sound.

Four Commutes Show Decreases in Travel Times or Remain Steady

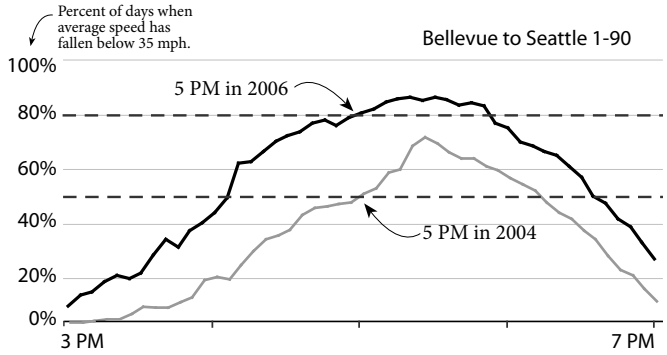
The *Redmond to Bellevue morning commute*, the *Redmond to Seattle morning commute*, the *Bellevue to Seattle via SR 520 morning commute*, and the *Tukwila to Bellevue evening commute* all avoided the dominant trend of increasing congestion across most or all measures. These four commutes showed slight decreases or no growth across most measures. The return home commutes for the three morning routes did in fact show small to moderate increases in congestion across almost all measures. These three morning routes also all overlap on SR 520.

Stamp Graphs Show How the Duration of Peak Congestion is Spreading

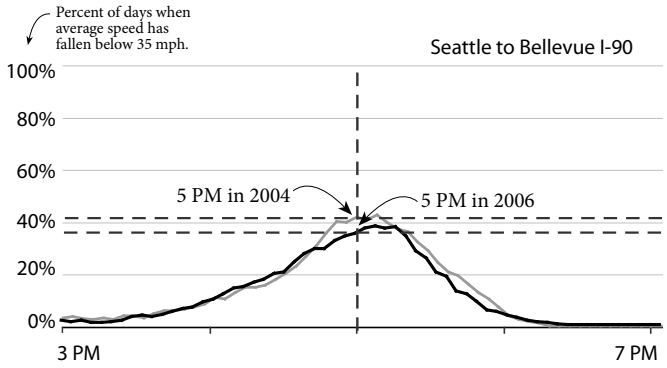
The most visual evidence of peak spreading can be seen in the stamp graphs on the following two pages. The "stamp graphs" that show severe congestion on the 38 central Puget Sound commute routes that are tracked by WSDOT for performance reporting. These graphs, comparing 2004 and 2006 data, show the percentage of days annually that observed speeds which fell below 35 MPH on the key highway segments. For specific information on how to read stamp graphs, see the illustration to the right.

How to Read a Stamp Graph: Percent of Days When Speeds Were Less Than 35 MPH - Thirty-Eight Puget Sound Commutes

How frequently (and when) did the average trip speed drop below 35 mph? How have those conditions changed from 2004 to 2006?



At 5:00 pm in 2004, there was about a 50% chance that traffic would be moving less than 35 mph. In 2006, the situation became worse (black line above the gray line); the chance that traffic would be moving slower than 35 mph was about 80% in 2006.



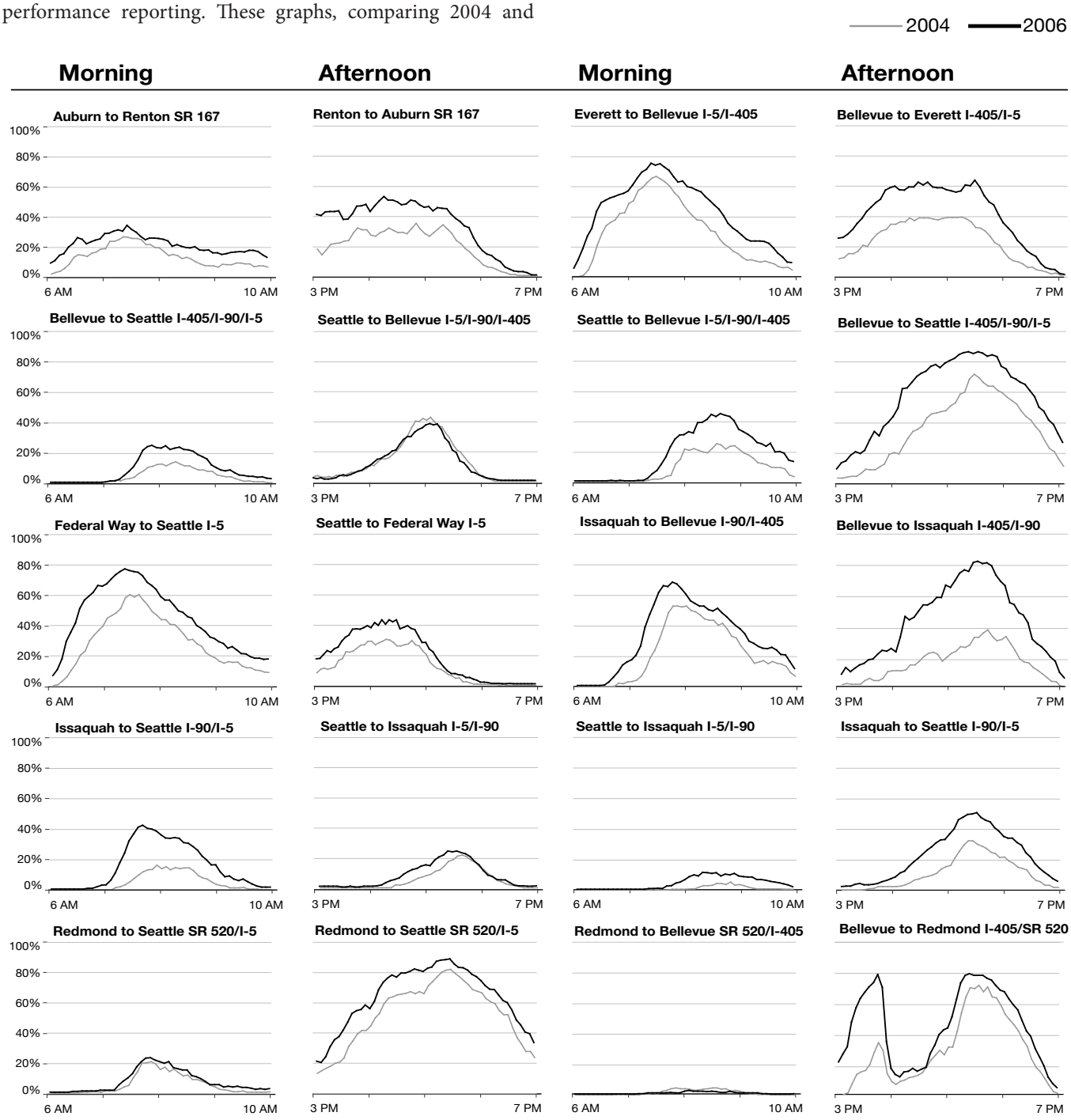
At 5:00 pm in 2004, there was about a 41% chance that traffic would be moving less than 35 mph. In 2006, the situation was better (black line below the gray line); the chance that traffic would be moving slower than 35 mph was about 37%.

Measuring Delay and Congestion: Annual Update

Travel Time Analysis: Stamp Graphs

Percentage of Weekdays with Average Speeds of 35 mph or Below

The "stamp graphs" that show severe congestion on the 38 central Puget Sound commute routes that are tracked by WSDOT for performance reporting. These graphs, comparing 2004 and 2006 data, show the percentage of days annually that observed speeds fell below 35 MPH on the key highway segments. For specific information on how to read stamp graphs, see the illustration below.

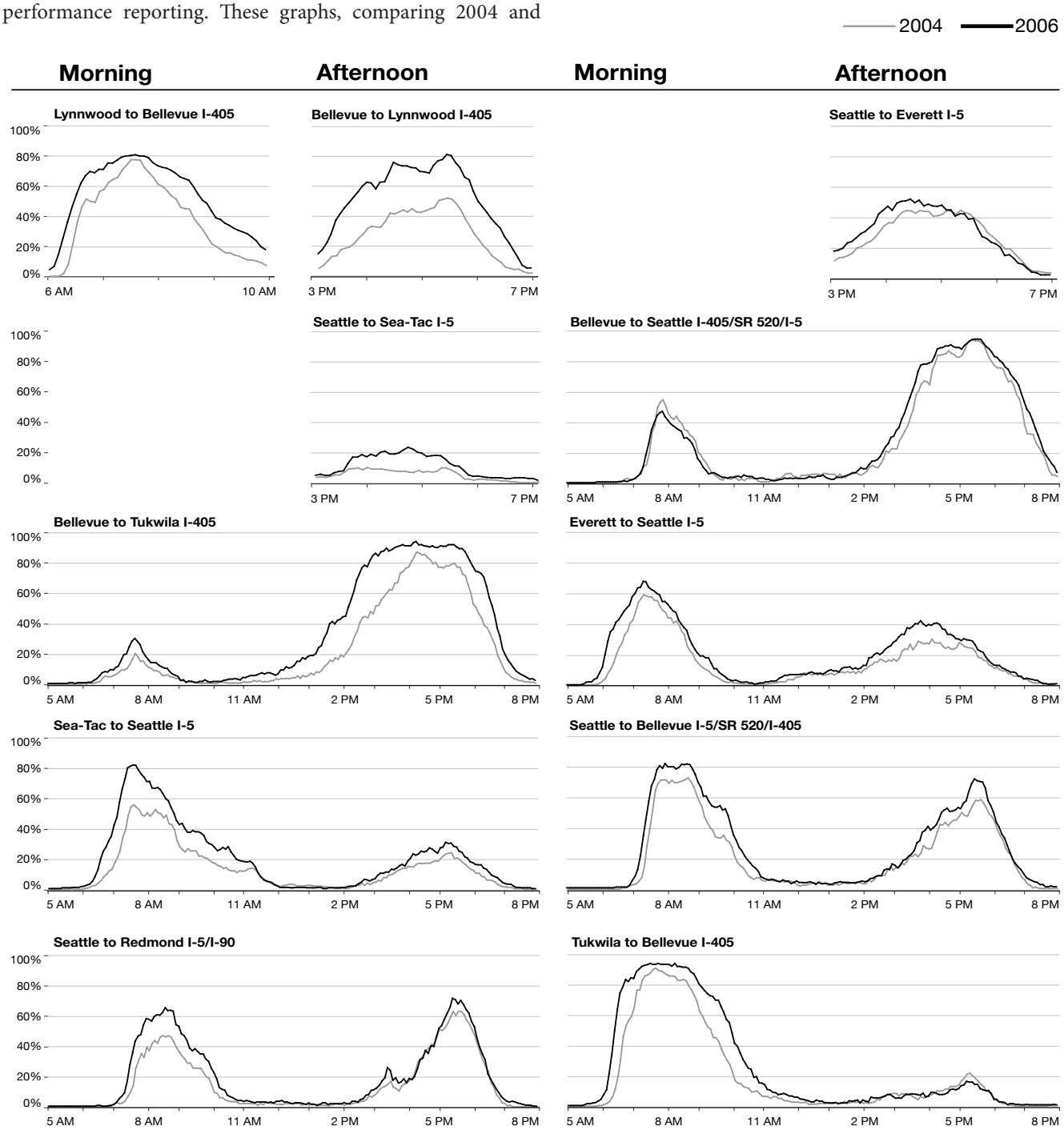


Measuring Delay and Congestion: Annual Update

Travel Time Analysis: Stamp Graphs

Percentage of Weekdays with Average Speeds of 35 mph or Below

The "stamp graphs" that show severe congestion on the 38 central Puget Sound commute routes that are tracked by WSDOT for performance reporting. These graphs, comparing 2004 and 2006 data, show the percentage of days annually that observed speeds fell below 35 MPH on the key highway segments. For specific information on how to read stamp graphs, see the illustration below.



Measuring Delay and Congestion: Annual Update

Travel Time Analysis

Below is a graphical representation of the tables from pp. 62-63, showing four of the reliability performance indicators: travel times at posted speeds, travel time at maximum throughput speeds (51 MPH), average peak travel times, and 95% reliable travel times.

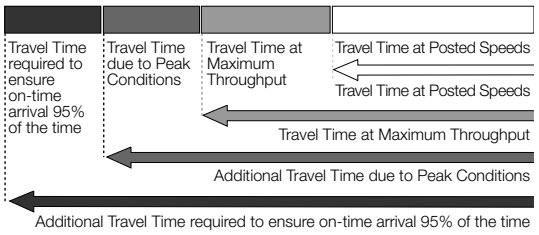
Travel Times at Posted Speeds, Maximum Throughput Speeds, Peak Travel Times, and 95% Reliable Travel Times

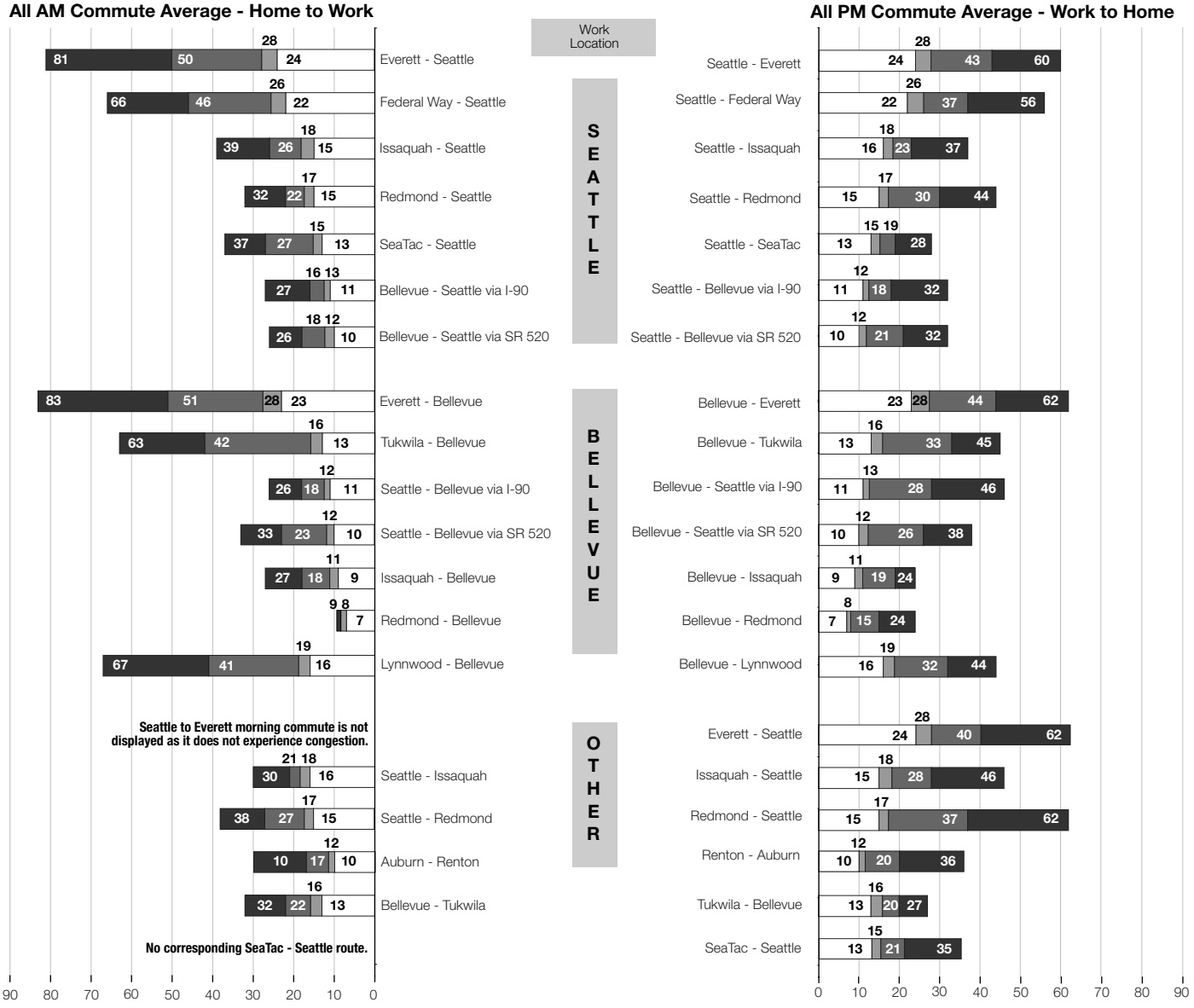
Morning and Afternoon Commutes by Work Location

Central Puget Sound Area, 2006

Travel Time in Minutes

- Travel Time at Posted Speeds with no congestion (in minutes)
- Travel Time due to Peak Condition (in minutes)
- Travel Time at Maximum Throughput Speeds 51 mph (in minutes)
- Travel Time required to ensure on-time arrival 95% of the time (in minutes)





Measuring Delay and Congestion: Annual Update

Travel Time Analysis: Key Spokane Commute Routes

Route	Route Description	Peak time	Length (Miles)	Travel Time (in minutes) At Posted Speeds	Average Peak Travel Time in minutes	95% Reliable Travel Time in minutes	Ratio of Peak Travel Time to Maximum Throughput Travel Time	vehicles per day	change (%)	Duration of Peak Period (hours and minutes that average speed falls below 70% of posted speeds) 2005	2006	change (in minutes)
I-90	Argonne Rd. to Division St.	7:50 AM	7.5	7	8	8	1.00	34,780	n/a	*	*	*
I-90	Division St. to Argonne Rd.	5:20 PM	7.5	7	8	9	1.03	36,762	n/a	*	*	*

Source: Spokane Regional Transportation Management Center (a partnership among WSDOT, the Cities of Spokane and Spokane Valley, Spokane County, the Spokane Regional Transportation Council and the Spokane Transit Authority)

Note: This data is gathered from the Performance Measurement System (PeMS), created by Berkeley Transportation Systems. It is a different system than the one used for gathering Puget Sound congestion data. Therefore, a direct comparison of data from the two regions is difficult. Furthermore, the road network in each of the two regions have different characteristics and different capacities, both of which are reflected in the data.
Note: An asterisk (*) indicates that speeds did not fall below 70% of posted speed on a route; and n/a means that no information is available for a route.

Spokane Peak Travel Analysis

Much of the congestion in the Spokane area is incident-related; the average travel times along the corridor are nearly what might be expected with free-flow speeds. Because the corridor is a relatively short segment (7.5 miles), even minor incidents can severely impact expected travel times as there is little opportunity to make up any incurred delay, as shown in the 95% reliable travel times.

2007 Urban Mobility Report Ranks Spokane as the Least Congested Urban Area in the Nation

The Texas Transportation Institute's 2007 Urban Mobility Report ranked Spokane as the least congested urban area in the nation along with Brownsville, Texas, out of the other 85 urban areas covered in the report. According to the report Spokane's travel time index (TTI) dropped from 1.05 in 2003 to 1.04 in 2005. More on the Urban Mobility Report and Seattle's rankings can be found on page 61.

Measuring Delay and Congestion: Annual Update

Lost Throughput Productivity

Lost throughput productivity measures the percentage of a highway's vehicle throughput capacity that is lost due to congestion. Under ideal conditions, the maximum throughput of vehicles moving through a freeway segment can be as high as 2,000 vehicles per lane per hour, when traveling at speeds in the range of 42-51 mph (70%-85% of the posted speed). Under congested conditions, however, the volume of traffic moving through a given freeway segment can be as few as 700 vehicles per lane per hour. For more information on the concept of maximum throughput and why WSDOT uses it as a basis for measuring congestion, please go to page 60.

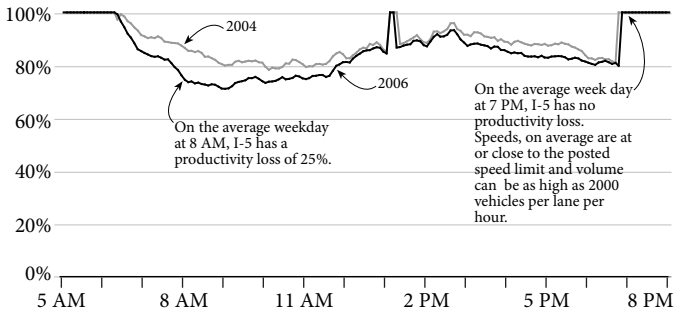
When vehicles are caught in congestion, the highway is serving less vehicles than it is designed to carry. The difference between the optimal capacity of the roadway and the number of vehicles that the road is actually serving is called lost throughput productivity.

New Analysis Compares Actual Capacity to Ideal Capacity

In the past, WSDOT has measured capacity lost based on the ideal capacity of 2,000 vehicles per lane, per hour (vplph). However, not all lanes can achieve a maximum throughput of 2,000 vplph because highway capacity varies depending on prevailing roadway and traffic conditions. For this reason, the ideal throughput of 2,000 vplph has not been observed on all highway segments. This year's analysis compares the ideal capacity of 2,000 vplph to the actual capacity which is defined as the highest five minute flow rate. The example below shows I-5 at I-90 in Seattle. The highest five minute flow rate of 1,938 vplph is used as the basis for measuring productivity loss for this location.

Lost Vehicle Throughput Productivity: Example

Based on 1938 Vehicles per Lane per Hour (based on highest average five minute flow rate) Intersection of I-5 at I-90 in Seattle



Using the Highest Five Minute Flow Rate as a Basis for Measurement

In past editions of the *Gray Notebook*, lost productivity has been calculated by comparing the actual counts to an ideal roadway capacity of 2,000 vplph. There are several factors that directly impact a roadway's actual carrying capacity. These factors include roadway physical features (i.e. lane and shoulder widths, pavement conditions), weather conditions, terrain, the presence of bottlenecks up- or down-stream, and traffic characteristics (i.e. congestion levels or vehicle density, percentage of heavy vehicles).

WSDOT continues to search for the most meaningful measure to gauge lost capacity due to congestion. In this edition of the *Gray Notebook*, lost capacity is estimated two ways:

- Compare observed average flow rates to ideal capacity (2,000 vphpl for freeways). This comparison is designed to reveal lost capacity due to roadway congestion as well as geometric constraints and has been WSDOT's basis for reporting lost throughput productivity in the past.
- Compare the actual average flow rates to the observed highest average five minute flow rate of traffic. This basis of measurement reveals capacity loss primarily due to congestion.

The graphs on the following two pages show the difference between the two measures by comparing lost throughput productivity between 2004 and 2006 at selected locations on central Puget Sound freeways. Lost throughput productivity is shown at a given location using both measures. The lost throughput productivity graph on the left hand side of the following two pages uses actual productivity loss based on the highest average five minute flow rate of traffic as the basis for measurement. The lost throughput productivity graph on the right hand side uses ideal capacity as the basis for measurement. The graph to the left on this page is an example of a lost productivity graph, and provides a basis for interpreting the graphs.

Using the Highest Five Minute Flow Rate Basis of Measurement Isolates the Impact of Congestion on Productivity Loss

All evaluated locations show a decrease in throughput from 2004 to 2006, with the most apparent losses observed on I-5 and I-405. The charts on pages 71 and 72 compare the observed average flow rates to the observed highest average five minute flow rate.

Using the highest average five minute flow rate as the basis for measuring lost throughput productivity directly estimates the capacity loss due to congestion. As expected, the magnitude of capacity loss due to congestion is lower than the compounded effect of both congestion and limiting factors. Close examination of these two sets of charts can provide great insights on the potential return of removing roadway physical constraints and managing demand separately or in combination.

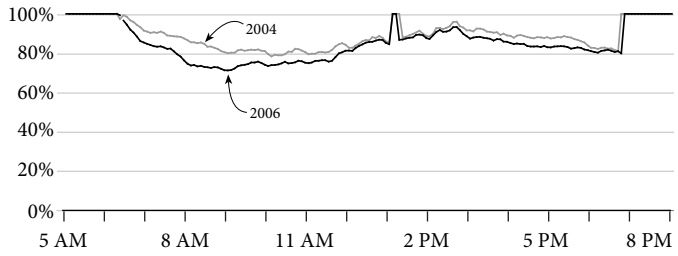
Measuring Delay and Congestion: Annual Update

Lost Throughput Productivity

Compare to Actual Capacity (highest average five minute flow rate)

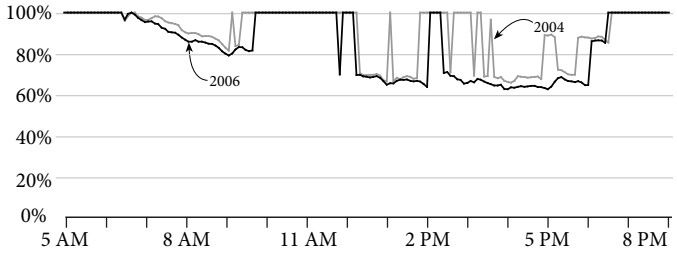
I-5 at I-90

(based on 1938 vehicles per lane per hour)



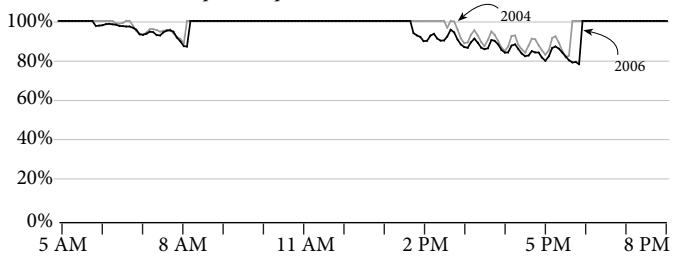
I-5 at NE 103rd St. near Northgate

(based on 1812 vehicles per lane per hour)



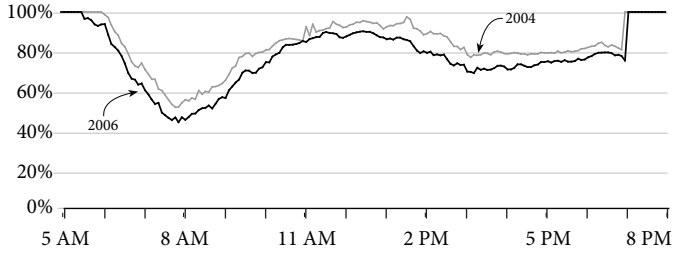
SR 167 at 84th Avenue SE

(based on 1495 vehicles per lane per hour)



I-405 at SR 169 in Renton

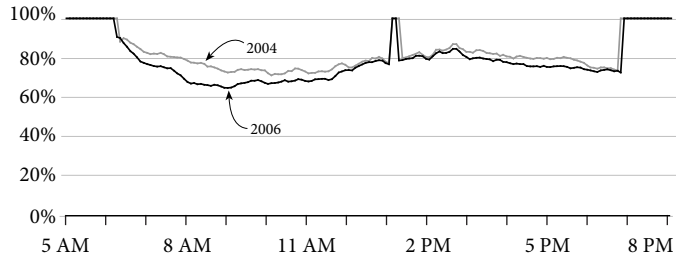
(based on 1788 vehicles per lane per hour)



Compare to Ideal Capacity (2000 vehicles per lane per hour)

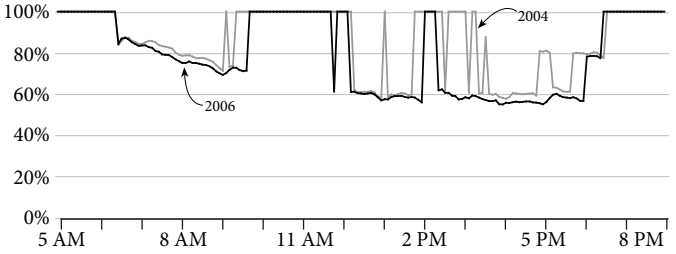
I-5 at I-90

(based on 2000 vehicles per lane per hour)



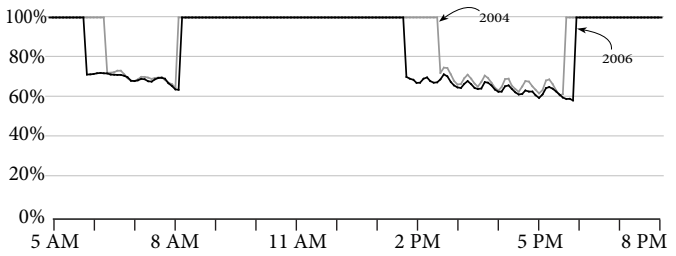
I-5 at NE 103rd St. near Northgate

(based on 2000 vehicles per lane per hour)



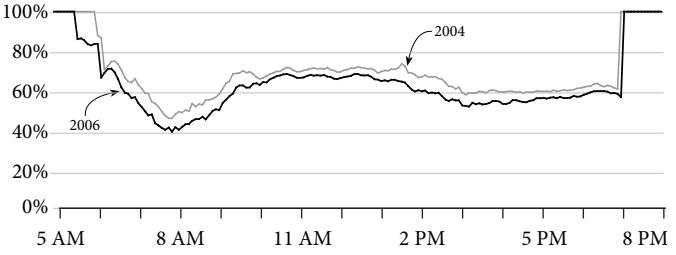
SR 167 at 84th Avenue SE

(based on 2000 vehicles per lane per hour)



I-405 at SR 169 in Renton

(based on 2000 vehicles per lane per hour)



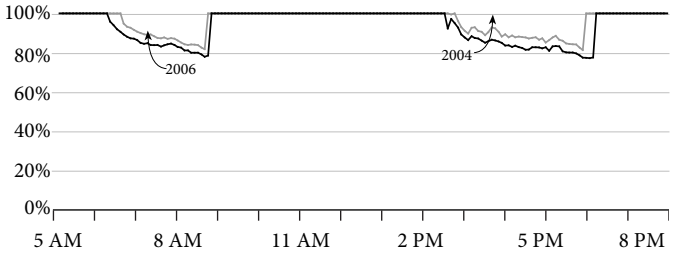
Measuring Delay and Congestion: Annual Update

Lost Throughput Productivity

Compare to Actual Capacity (highest average five minute flow rate)

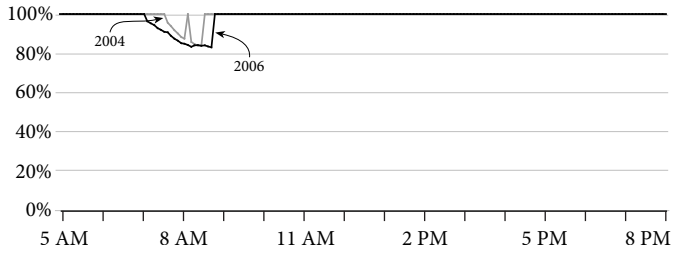
I-5 at S. 188th St. near Sea-Tac

(based on 1750 vehicles per lane per hour)



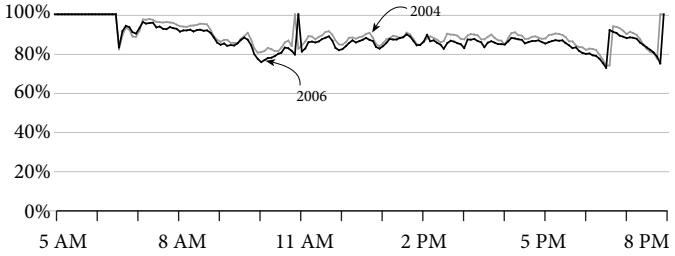
I-90 at SR 900 in Issaquah

(based on 1834 vehicles per lane per hour)



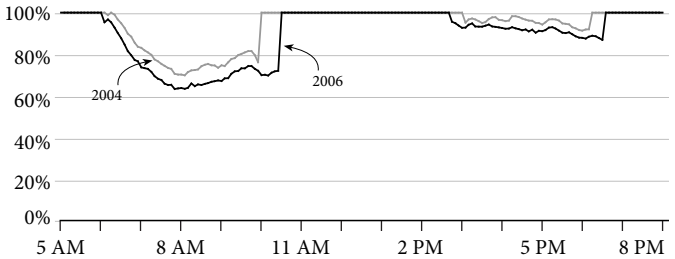
SR 520 Floating Bridge

(based on 1838 vehicles per lane per hour)



I-405 at NE 160th St in Kirkland

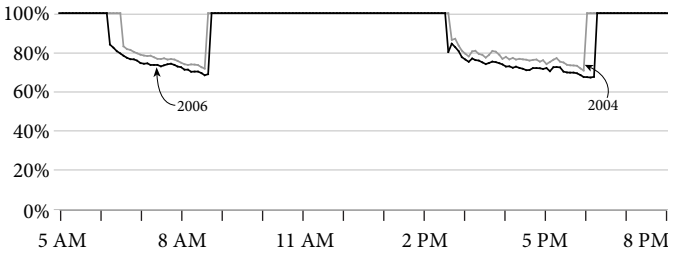
(based on 1785 vehicles per lane per hour)



Compare to Ideal Capacity (2000 vehicles per lane per hour)

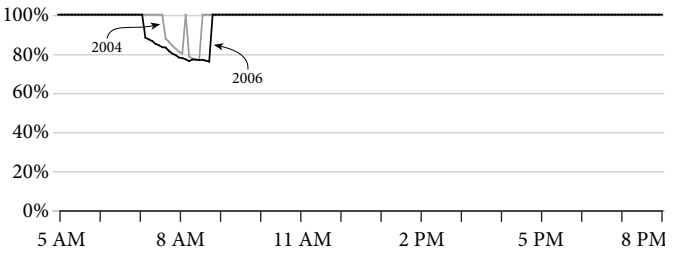
I-5 at S. 188th St. near Sea-Tac

(based on 2000 vehicles per lane per hour)



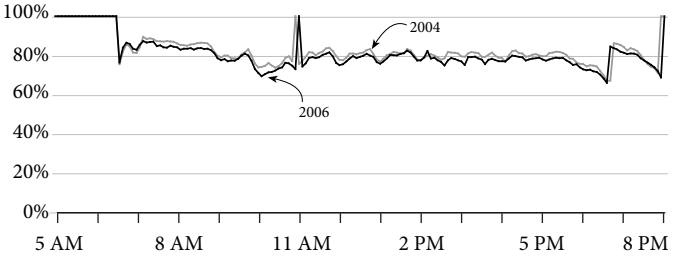
I-90 at SR 900 in Issaquah

(based on 2000 vehicles per lane per hour)



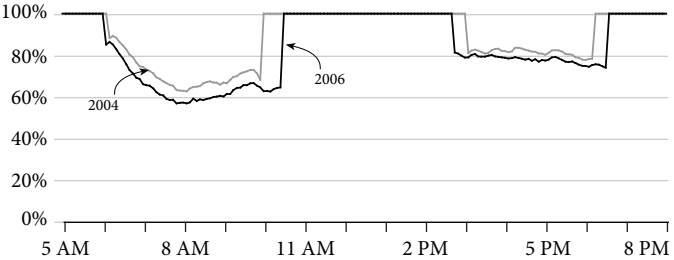
SR 520 Floating Bridge

(based on 2000 vehicles per lane per hour)



I-405 at NE 160th St in Kirkland

(based on 2000 vehicles per lane per hour)



Measuring Annual Delay and Congestion: Annual Update

Measuring Travel Delay

Drivers experience delay when congestion occurs. Simply put, delay is the extra period of time it takes a driver to get to their destination of choice. Delay is typically calculated as the difference between actual travel times and posted speed travel times. WSDOT uses the maximum throughput standard as a basis for measurement to assess delay relative to a highway's most efficient condition. For the purpose of this analysis, delay is reported based on both standards: relative to posted speed limit and relative to maximum flow speed. For both standards, WSDOT measures the sum of vehicle delay (in hours) across an average twenty-four hour day as one of the most basic measures for describing congestion. The measure is used to demonstrate the extent, severity and duration of congestion.

Daily Vehicle Hours of Delay Increases on Washington State Highways

Overall, there has been an increase in the amount of delay on state highways between 2004 and 2006. Statewide delay, relative to posted speed limits and relative to maximum flow speeds, increased by 8.0% and 17.2% respectively. The higher percentage increase relative to maximum throughput speeds indicate that many congested highways got even more congested from 2004 to 2006.

Expanded Approach for Estimating the Cost of Delay

In this edition of the annual congestion update, the cost of delay is calculated by applying monetary values to the estimated hours of delay incurred in passenger and truck travel plus additional vehicle operating costs. The value of time for passenger trips was assumed to be half of the average wage rate. In the September 30, 2006 *Gray Notebook*, cost of delay was calculated by applying values to the estimated hours of delay incurred in passenger and truck travel plus additional vehicle operating cost; and the value of time for passenger trips was assumed to be half of the average wage rate. The current approach considers additional costs from delay that had not been considered in previous editions of the annual congestion update.

Delay increased between 2004 and 2006 in the central Puget Sound while Vehicle Miles Traveled remained unchanged:

On an average day, the number of hours of delay experienced on Washington State highways was 108,100 hours based on optimal flow speeds in 2006.

This is a 35% increase in delay from 2004 on major highways in the central Puget Sound.

The estimated annual cost of delay on Washington State highways was $624 million based on optimal flow speeds in 2006.

The number of vehicle miles traveled (VMT) in the central Puget Sound region remained relatively unchanged between 2004 and 2006.

Congestion, or delay, imposes costs due to lost time of travelers, higher vehicle operating costs from wasted fuel, and other effects of stop and go driving. Truckers and shippers and their customers also bear large costs from traffic delay. It is generally recognized that delay has a variety of direct and indirect impacts:

- Increased travel time for personal travel
- Increased travel time for business travel
- Increased vehicle operating expense
- Direct Shipper/recipient productivity lost
- Indirect (downstream) productivity lost
- Local income/economy suffered from lost opportunities to attract new businesses
- Increased vehicle emissions due to stop and go conditions

All State Highways: Average Weekday Delay Comparison (Daily and Annual) and Estimated Cost of Delay on State Highways (Annual), 2004 and 2006

	DAILY Average Vehicle Hours of Delay (Weekdays)			Total Annual Weekday Vehicle Hours of Delay (in thousands)			ANNUAL Cost of Delay on State Highways (in Millions of 2006 dollars)		
Actual Travel Compared to	2004	2006	Change	2004	2006	Change	2004	2006	Change
Optimal Flow Speeds (Approx 51 mph)	88,500	103,700	17%	22,120	25,940	17%	$531	$624	18%
Posted Speeds	168,100	181,600	8%	42,035	45,390	8%	$1,009	$1,092	8%

Data Source: WSDOT Urban Planning Office

Note: In the 2004 and 2006 annual congestion updates, only the first three items were reflected in this estimation.

Measuring Annual Delay and Congestion: Annual Update

Measuring Travel Delay

Delay Increases on Major Central Puget Sound Corridors

There was an increase in the daily vehicle hours of delay on all major corridors in the central Puget Sound region between 2004 and 2006. Because the sizes (length and width) of these corridors are different, it is not meaningful to compare and rank the corridors. Delay on I-90, SR 167 and I-405 increased significantly in percentage terms. Overall, delay on the five key freeways increased by 20% relative to the posted speed limits, and by nearly 35% relative to the maximum flow speed. The higher percentage increase relative to the maximum free flow speed indicates some of the most congested freeway sections became worse between 2004 and 2006.

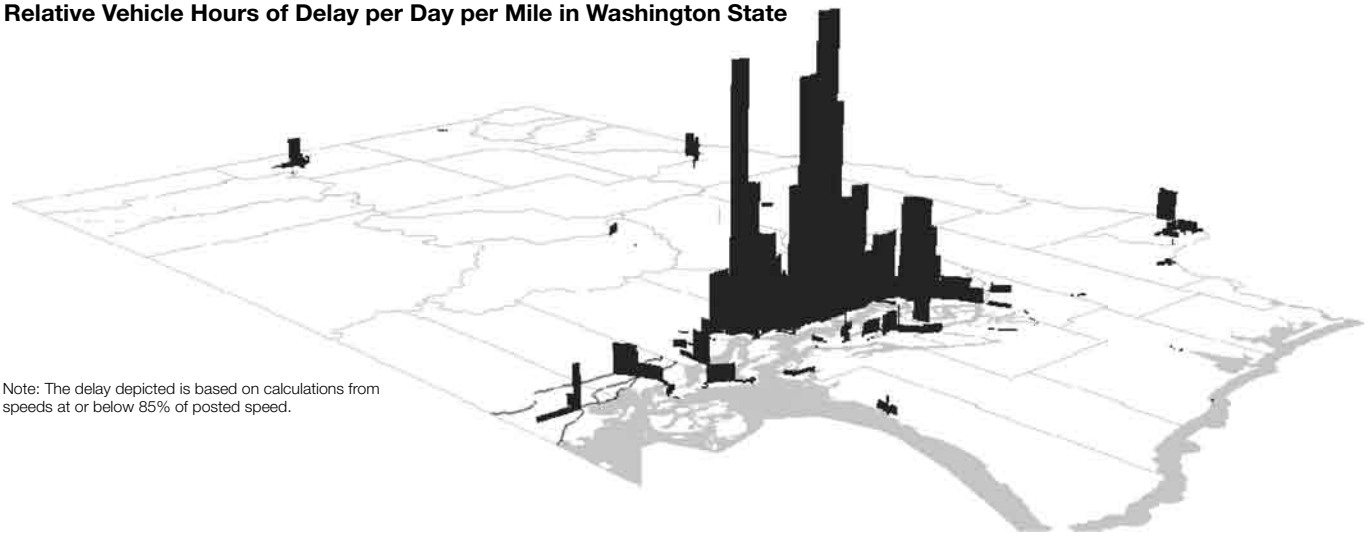
With the exception of I-90, vehicle miles traveled (VMT) between 2004 and 2006 has remained relatively unchanged. This was first observed from 2003 to 2005 (see the September 30, 2006 *Gray Notebook*). This possibly suggests that congestion has worsened to a point that negatively affects the roadway throughput.

Central Puget Sound Freeways: Average Weekday Delay Comparison 2004 and 2006

State Route	Lane Miles	Vehicle Hours of Delay per Day						Vehicle Miles Traveled (1000's)		
		Relative to 60 mph (posted speed limit)			Relative to approx. 51 mph (maximum throughput speed)			2004	2006	Change
		2004	2006	Change	2004	2006	Change			
I-5	369	17,260	20,200	17%	7,920	10,490	33%	7,843	7,736	-1%
I-90	95	1,640	2,250	37%	470	870	86%	1,657	1,689	2%
SR 167	41	2,440	3,125	28%	770	970	25%	1,004	1,005	0%
I-405	152	11,650	14,210	22%	6,310	8,730	38%	3,649	3,649	-2%
SR 520	52	3,300	3,680	12%	1,850	2,270	23%	1,049	1,026	-2%
Total	709	36,300	43,460	20%	17,320	23,330	35%	15,203	15,034	-1%

Data Source: WSDOT Urban Planning Office
Note: Because both the lengths and widths of these corridors are different, it is not possible to use the delay numbers to rank the corridors.

Relative Vehicle Hours of Delay per Day per Mile in Washington State



Note: The delay depicted is based on calculations from speeds at or below 85% of posted speed.

HOV Lane Performance

The goal of the HOV lane network is to enhance the efficiency of the freeway network by moving more people in fewer vehicles. The HOV network is designed to provide a less-congested alternative to general purpose lanes that encourages the use of buses, carpools and vanpools, provides a more reliable travel option, and helps reduce associated environmental effects. Approximately 200 miles of HOV lanes have been constructed in central Puget Sound since 1970, with 58 miles of additional HOV lanes now under construction. More information about the HOV lane system can be found at http://www.wsdot.wa.gov/hov/.

WSDOT monitors two important aspects of HOV lane performance: 1) travel time and reliability benefit to users, and 2) number of people traveling via HOV lanes as compared to the general purpose lanes.

HOV Lane Performance: Reliability

WSDOT and the Puget Sound Regional Council (PSRC) adopted a performance standard for freeway HOV lanes stating that 90% of the time, the HOV lane should be able to maintain an average speed of 45 mph or greater during the peak hour.

Nine HOV Corridors Did Not Meet the Performance Reliability Standard In 2006

The 2006 performance results for the Puget Sound HOV lane system indicate that significant portions of the HOV system are experiencing increased usage and reduced performance during the peak periods, continuing a trend seen during the past few years. Six of the seven HOV corridors in the peak direction during the evening peak period have high enough traffic volumes that the corridors fail the HOV performance standard, and four of the seven corridors in the peak direction during the morning peak period fail the performance standard. In 2004, five corridors failed the standard during the PM peak period, and three in the AM peak period. In addition, every HOV corridor that does not meet the performance standard experienced a decline in travel reliability in 2006 compared to 2004. The accompanying table illustrates which corridors and directions meet or fail the performance standard during the morning peak period and evening peak period.

Speed and reliability of the HOV lanes are monitored and the results are published at http://depts.washington.edu/hov/.

Puget Sound Corridors Meeting HOV Lane Reliability Performance Goal

2004 and 2006, Based on Reliability Goal of the HOV Lane Maintaining a Speed of 45 mph for 90% of the Peak Hour[1]

Route	Did Not Meet the Standard[2] = x					
	2004		2005		2006	
	AM	PM	AM	PM	AM	PM
I-5, SR 522 to 112th St. (NB)	99%	75% x	100%	73% x	99%	54% x
I-5, SR 526 to Northgate Way (SB)	58% x	98%	49% x	99%	35% x	96%
I-405, I-5 Interchange (Tukwila) to NE 8th St. (NB)	88%* x	98%	70% x	99%	49% x	100%
I-405, NE 8th St to I-5 Interchange (Tukwila) (SB)	99%	76% x	100%	59% x	99%	44% x
I-90, S Rainier Ave to SR 900 (EB)	100%	100%	100%	100%	100%	100%
I-90, SR 900 to S Rainier Ave (WB)	100%	99%	100%	99%	100%	99%
SR 520, I-405 to West Lake Sammamish Pkwy NE (EB)	99%	99%	98%	99%	96%	97%
SR 520, West Lake Sammamish Parkway NE to 84th Ave NE (WB)	97%	66% x	98%	55% x	97%	61% x
SR 167, 15th St NW to I-405 Interchange (NB)	100%	99%	100%	99%	99%	100%
SR 167, I-405 Interchange to 15th St NW (SB)	100%	99%	100%	98%	100%	93%
I-5, S 320th St to I-90 Interchange (NB)	71% x	97%	61% x	99%	47% x	97%
I-5, I-90 Interchange to S 320th St (SB)	100%	66% x	99%	66% x	99%	46% x
I-405, NE 8th St to I-5 Interchange (Swamp Creek) (NB)	100%	89%* x	100%	81% x	100%	69% x
I-405, I-5 Interchange (Swamp Creek) to NE 8th St (SB)	97%	93%	88%* x	87%* x	70% x	82% x
Number of commutes that did not meet the standard	**8**		**10**		**10**	

Data Source: Washington State Transportation Center (TRAC)
Data Notes: TRAC analyzes performance data for all complete segments of HOV lanes that have a loop detector. In some cases, data is not analyzed for the very beginning and ends of the lanes because there are not detectors at the very beginnings and ends of the HOV lanes.
NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound
[1]HOV reliability performance standards are based on the peak hour. Peak hour is the one-hour period during each peak period when average travel time is slowest.
[2]Numbers represent the percentage of the peak hour when speeds are above 45 mph.
*Performance on these corridors was close to the standard; the corridor's failed performance was borderline.

Measuring Delay and Congestion: Annual Update

HOV Lane Performance

HOV Lane Performance: Person Throughput[1]

HOV Lanes Continue to be More Effective at Moving People When Compared to GP Lanes

The reduced reliability observed in the HOV lanes is due to their increasing usage. The WSDOT HOV lane monitoring program tracks volume in the HOV and general purpose lanes at 10 locations around the central Puget Sound area that are representative of freeway use on all major freeway corridors in the region. Vehicle and person volumes are measured in both directions for both HOV and general purpose lanes at each of these locations during the peak periods.

Vehicle Volumes Increase for HOV Lanes, Decrease for GP Lanes

During the peak periods in the direction of peak travel volume, all but two of the Puget Sound freeway HOV lanes gained vehicle volume between 2004 and 2006. During that two-year period, vehicle volume in the HOV lanes at the monitoring locations increased by an average of approximately 150 vehicles during the 3-hour morning peak period and approximately 180 vehicles in the 4-hour evening peak period. Traffic volumes measured in the general purpose lanes at those locations declined by an average of nearly 500 vehicles in the morning peak period and approximately 560 vehicles in the evening peak.

The percentage of vehicles that did not meet the HOV occupancy requirement is relatively low compared to other locations around the country. While HOV compliance varies by location in the system, the average observed violation rates were about 4% during the A.M. peak period, and 5% during the P.M. peak period.

[1]Person volume data is based on observation samples. At selected locations, observers standing on overpasses or alongside the road count the number of people in each car. Those samples, along with estimated bus ridership data and vanpool ridership data provided by transit agencies, are used to estimate average vehicle occupancies at those locations. The per-vehicle occupancies are then combined with vehicle counts (from the loop detector data) to get person volume estimates.

HOV Lanes Move 31% of Morning Commuters and 36% of Evening Commuters

HOV lanes are designed to move more people in fewer vehicles, by providing incentives that encourage people to share rides, either in carpools or by using transit. The HOV lane system generally succeeds in attracting large numbers of users, despite consisting of only one lane in each direction on each freeway route. The average HOV lane carries about 31% of the people on the freeway in the morning and almost 36% in the evening.

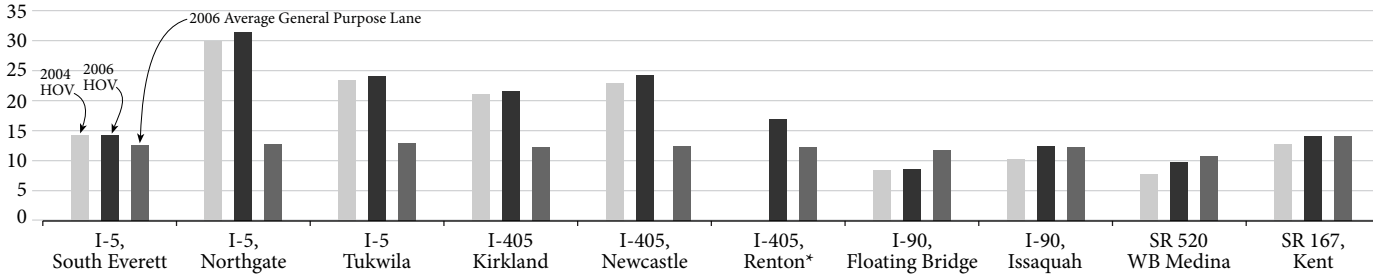
HOV Lanes Are Not Equally Used

HOV lanes are not equally used throughout the region. The highest HOV lane use occurs where HOV lanes have a time advantage over general purpose lanes or where excellent transit service encourages use of the HOV lanes. I-5 near Northgate is an example of the person moving capability of comprehensive transit service. In the morning peak period the southbound HOV lanes move about 14,100 people, or 44% of the people on that section of I-5, in only 21% of the vehicles. The HOV lane carries an average of 3.4 people in each vehicle, making it three times as effective at moving people as the average general purpose lane next to it. While not all HOV lanes in the region carry such high percentages of freeway travelers, nearly every monitoring location has experienced increasing person volumes in HOV lanes from 2004 to 2006, combined with a drop in person volumes in the adjacent general purpose lanes.

From 2004 to 2006, HOV Lane Usage Increases at Four Identified Underperforming Locations

The 2006 annual congestion report noted that HOV lane person throughput was not exceeding general purpose lane throughput at four monitoring locations: the I-90 Floating Bridge, I-90 in Issaquah, SR 520 westbound at Medina, and SR 167 in Kent. However, from 2004 to 2006, these locations have all

2004 and 2006 HOV Lane and General Purpose Lane Person Throughput Comparison
Total of AM and PM Peak Period Volumes
In Thousands



Note: Volumes are for peak period directions only.
Note: * Corresponding 2004 data is not available for this location. In 2005, the monitoring location changed from I-405 Tukwila to I-405 Renton.
Data Source: Washington State Transportation Center (TRAC).

HOV Lane Performance

experienced an increase in HOV lane usage. On I-90, new or expanded park and ride lots and bus service have been put into place along the corridor during the past few years, providing enhanced access to transit service. The number of persons using the I-90 HOV lane near Issaquah in the peak direction during peak periods has grown by 20% from 2004 to 2006. On SR 167 near Kent, HOV person throughput has grown by 10% during the past two years.

The other two locations that previously did not meet the person throughput goal both have unique facility or operational characteristics that can affect HOV person throughput performance. On I-90's floating bridge, the two-lane HOV/express facility has a limited number of access points, unlike other freeway HOV lanes in the region. That facility also allows single-occupant vehicles to travel between Mercer Island and Seattle. On SR 520 westbound at Medina, a 3+ person occupancy restriction is in effect for safety reasons, reducing the number of vehicles eligible to use that HOV lane. The HOV lane regularly experiences congestion but still provides a travel time savings benefit for transit service on that corridor.

HOV Survey Results: Availability of HOV Lanes Affects Mode Choice

Two surveys were conducted in 2006-2007 to learn more about freeway users and their choices regarding HOV lane use. WSDOT distributed 30,000 surveys to HOV lane users in January 2006 and received 5,700 responses (19%). The WSDOT survey focused on understanding the extent to which HOV lanes encourage various types of ridesharing, and also the characteristics of mid-day ridesharing.[1] In January 2007, the Washington State Transportation Center (TRAC) conducted its periodic survey of freeway travelers as part of its ongoing HOV lane evaluation project for WSDOT. The TRAC survey was distributed to HOV and non-HOV freeway travelers; of the 5,249 surveys distributed, 1,064 (20%) were returned. Although the two surveys had different methodologies, they contained overlapping themes concerning HOV lanes and traveler attitudes.

Both surveys examined the extent to which the HOV lane network influenced travelers' choices about sharing rides, by asking what decisions HOV lane users would make if HOV lanes were no longer available. The WSDOT survey found that 15%-18% of peak period HOV users would probably switch to driving alone in that situation, and that carpoolers would be somewhat more likely to switch than transit and vanpool users.

[1] The September 30, 2006 *Gray Notebook* has additional discussion of the WSDOT HOV survey results.

The TRAC survey results showed that approximately 22% of carpoolers, 17% of vanpoolers, and 12% of transit users would probably change their travel mode if there were no HOV lanes. These percentages are consistent with the WSDOT survey results suggesting that transit users and vanpoolers were more likely to continue to use their current mode than carpoolers, if HOV lanes were not available.

The TRAC survey also asked about likely mode choice decisions specifically for commuting between home and work, if HOV lanes were no longer available. The results indicated that between 19% to 32% of carpoolers, vanpoolers, and transit users would drive alone more often than before.[2] These results suggest that respondents who rideshare for their commute are possibly more likely to switch modes than respondents who rideshare for other purposes.

Both surveys asked about HOV users' motivations for choosing to rideshare. In both surveys the leading response was the same: carpoolers mentioned travel time savings most frequently, while transit and vanpool users mentioned saving money most often.

[2] For more discussion about TRAC and WSDOT survey results on this question, see "HOV User Survey: Washington State Freeway System", PRR, September 2007, page 2-9, available at http://wsdot.wa.gov/hov; that document also summarizes the other WSDOT survey results.

Reasons for Ridesharing*

	TRAC Survey (2007)	WSDOT Survey (2006)
Carpoolers		
	1. Travel time savings (64%)	1. Travel time savings (79%)
	T2. Saving money (53%)	2. Convenience (68%)
	T2. Convenience (53%)	3. Saving money (45%)
Transit		
	1. Saving money (82%)	1. Saving money (83%)
	2. Less stressful (79%)	2. Less stressful (64%)
	3. Avoiding parking hassles (75%)	3. Convenience (50%)
Vanpoolers		
	1. Saving money (97%)	1. Saving money (85%)
	2. Concern for the environment (81%)	2. Less stressful (57%)
	T3. Convenience and Travel time savings (both 78%)	3. Travel time savings (54%)

Sources: Washington State Transportation Center (TRAC) and WSDOT Urban Planning Office
*Data Note: Numbers represent the percentage of respondents who chose each reason. The WSDOT survey asked respondents to choose their top three reasons for ridesharing, while the TRAC survey allowed respondents to select as many reasons as they wished. In addition, the list of possible reasons was not identical. Therefore, the percentages from the two surveys are not directly comparable.

Measuring Delay and Congestion: Annual Update

HOV Lane Performance

Other Survey Findings: Majority of SOV and HOV Drivers Support Continued HOV Lane Construction

The WSDOT survey results also showed that employer incentives play a large role in the decision to take shared rides. Eighty-seven percent of bus riders and vanpoolers, and 24% of carpoolers, use employer rideshare incentives such as free bus passes, discounted parking, flextime, etc. Forty to sixty percent (depending on mode) would either discontinue their mode without incentives, or are not sure.

The TRAC survey includes questions about traveler attitudes toward the HOV system. Results showed that 89% of peak-period HOV users and 66% of peak-period SOV drivers thought HOV lane construction should continue. When asked whether HOV lanes should be open to all traffic, all the time, 88% percent of peak-period HOV users and 62% of peak-period SOV drivers disagreed.

The full WSDOT survey results can be found at http://www.wsdot.wa.gov/hov/. The full report of the 2007 TRAC HOV survey results is expected to be available later this year at http://depts.washington.edu/hov/.

WSDOT's HOV Action Plan

WSDOT has initiated an HOV Action Plan which is intended to identify near-term facility improvements and potential operating policy modifications that improve HOV lane speed, reliability and throughput. The study is funded by WSDOT. The Transportation Research Center (TRAC) at the University of Washington has been retained as the principal investigator. Preliminary results are expected in December of 2007. Follow-on work will continue into 2008. The study will focus on I-5 HOV lane performance. The study scope has been crafted to complement WSDOT corridor planning work and ongoing pricing analyses.

WSDOT continually monitors HOV system performance, including measurement of speed, reliability and person throughput. Performance trends show that HOV utilization has steadily increased but peak hour speed and reliability have decreased and often fail to meet the adopted performance standard. An objective of the HOV Action Plan is to determine what near term actions could be taken to bring HOV speed and reliability into conformance with the performance standard. Study elements include:

- Identify and analyze I-5 HOV segments failing to meet performance standards.
- Model future HOV system performance to identify how planned and programmed projects will change HOV system speed, reliability and person throughput.
- Identify and evaluate potential physical modifications that would improve I-5 HOV performance.
- Analyze HOV operating policy options to determine how they would influence HOV performance.
- Review proposed I-5 HOV projects to determine if they remain beneficial.
- Evaluate the existing HOV performance standard to determine if it approximates optimal performance and ascertain whether policy modifications would be beneficial.

Measuring Delay and Congestion: Annual Update

What WSDOT is Doing About Congestion

Manage Demand

Managing Demand During the I-5/Spokane Street to I-90 Bridge Rehabilitation Project

The 40 year old northbound I-5 bridge from Spokane Street to I-90 south of downtown Seattle exhibited worn-out expansion joints, potholes, poor pavement conditions with heavy rutting, and exposed steel rebar. The project rehabilitated 1.5 miles of bridge deck to "good" condition in addition to providing safe driving conditions to the 125,000 vehicles that travel the segment every weekday.

WSDOT pursued an aggressive work-plan concentrated the surface rehabilitation activities in a round-the-clock, 19 day schedule in August (which has lower traffic volumes then other summer months). The project began with an available three lane configuration for traffic which would be reduced capacity to two lanes for the last half of the project. To maximize vehicle throughput and offset lost capacity during construction, WSDOT needed to remove 57,000 vehicles from northbound I-5 each day.

In order to meet this reduction goal, WSDOT worked extensively with local governments, businesses and transit agencies and provided some funding to provide options to help keep traffic moving. These intensive coordination efforts started more than nine months before the major I-5 lane closures began. For example, the City of Seattle designated a lane on Airport Way for trucks, buses, and vanpools, retimed dozens of traffic signals on alternate routes; and provided police officers to direct traffic on the alternate routes. King County Metro added Elliot bay water taxi runs; provided vanpool incentives and together with Pierce Transit adjusted transit routes. WSDOT provided temporary P&R spaces with marketing support from Sound Transit. King County Metro and Pierce Transit adjusted transit routes and provided vanpool incentives and temporary park and ride lots. Local businesses offered alternate work sites, flexible work schedules and encouraged employees to use vacation days. They also rescheduled truck delivery schedules. WSDOT led extensive community and media outreach starting nearly a year in advance of the August construction lane closures.

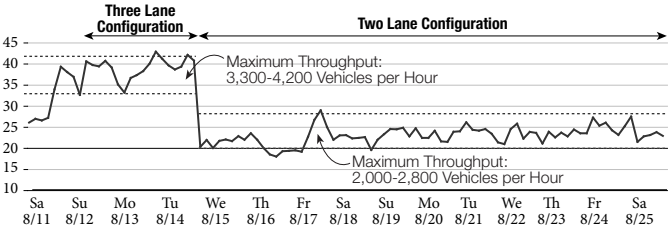
Achieving Maximum Throughput in the Construction Zone

Using narrowed lanes and reduced shoulder widths, WSDOT was able to maintain an additional lane during each phase of construction, greatly offsetting the throughput reduction. Under the modified conditions, WSDOT estimated that 3,300 to 4,200 vehicles could pass through the three lane configuration each hour, and 2,000-2,800 vehicles could pass through the corridor each hour under the two lane configuration.

Daily Maximum Throughput Levels During Lane Reconfigurations at I-5/Spokane Street to I-90 Rehabilitation Project

August 2007

Measured Over 24 Hour Period, Vehicle Number in Hundreds



Data Source: WSDOT Northwest Region Traffic Office

As the graph above illustrates, WSDOT was able to manage conditions to achieve maximum throughput for all but a few instances during construction. Traffic was able to move expeditiously through the channelized configurations because demand rarely exceeded available capacity: volume was reduced by 34,000 vehicles during the three lane configuration and up to 58,000 during the two lane configuration as the table (above/below) illustrates. WSDOT was only able to account for roughly 2/3 of the displaced vehicles and was unable to account for the remaining 1/3 of the diverted traffic. However, the volume reduction ensured that backups rarely exceeded 10 minutes during the three lane configuration and no more then 60 minutes during the two lane configuration.

Average Number of Vehicles Diverted Away from Construction Zone

	Peak Morning Commute		All Day Commute	
	3 Lanes	2 Lanes	3 Lanes	2 Lanes
Arterials	3,000	4,000	13,000	27,000
I-405	1,000	1,000	5,000	7,000
Transit	3,500	2,500	5,300	4,300
Unknown	4,000	11,000	11,000	20,000
Total Cars Diverted	11,500	18,500	34,300	58,300
Remained on I-5	25,000	18,000	87,000	63,000

Data Source: WSDOT Traffic Office, King County Metro

Measuring Delay and Congestion: Annual Update

What WSDOT is Doing About Congestion

Manage Demand

CTR is Effective at Reducing Delay in the Central Puget Sound Region

The Commute Trip Reduction (CTR) Program is one of several demand management strategies aimed at reducing delay statewide. The CTR Program helps to make the state transportation system more efficient by reducing the number of single-occupancy vehicle trips and the level of VMT on the transportation system. A higher proportion of trips made in high-occupancy vehicles, or by walking or bicycling, or avoided altogether during the morning commute means reduced delay for everyone traveling on system when the use of the system is peaking. For more information on CTR see pages 92-95.

In the central Puget Sound region, the Washington State CTR Program plays an important role. Employees commuting to worksites participating in the CTR program in the central Puget Sound made approximately 19,200 fewer vehicle trips each weekday morning in 2007 than they did when these worksites entered the program. This is up from 14,200 fewer vehicle trips reported in 2005.

Many of the reduced trips would otherwise have passed through the region's major traffic chokepoints during peak periods. Their absence has a significant impact on congestion, reducing delay by an estimated 19% during the peak travel period on average mornings in the region. This is a significant increase from 2005, which saw an estimated 11.6% reduction in delay due to CTR.

By providing more options for commuting, the CTR program reduces congestion on the state's busiest corridors. Here Sound Transit's Tacoma Link reduces drive alone trips by transporting commuters from Park and Ride lots through the busy downtown Tacoma corridor.

Measuring Delay and Congestion: Annual Update

What WSDOT is Doing About Congestion

Operate Efficiently

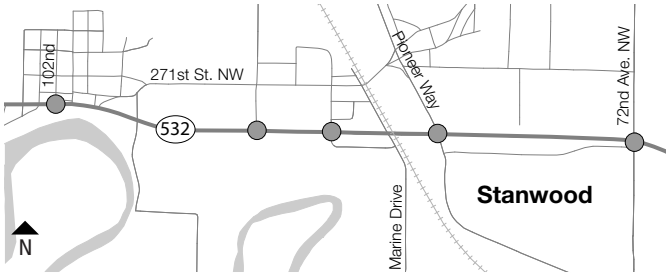
SR 532 Signal Improvements Have Immediate Congestion Benefits

Increasing development and a rise in population along SR 532 in Stanwood has resulted in increased congestion and congestion-related collisions. In the last ten years, traffic has increased by almost 70% in some locations. Some sections of SR 532 now serve an average of 20,000 vehicles per day.

As one of the first components of WSDOT's SR 532 corridor improvement program, the 72nd Ave. to 102nd Ave. signal improvement and interconnect project provided considerable travel time benefits for drivers and provided the necessary equipment to remotely manage these traffic signals during upcoming construction projects. The $60,000 needed for this work was designated as an early action item, and the work was completed in less than six months. WSDOT crews placed video detection at several intersections between Sunrise Blvd. and 72nd Ave. and added connections from these signals to the central Traffic Management Center in Shoreline. This allowed signal engineers to remotely adjust the signal timing to improve traffic flow and monitor intersection performance along the corridor.

Travel time benefits were both significant and immediate, with westbound travelers saving up to six minutes and eastbound travelers saving up to two minutes along this three mile section of roadway. Additional projects planned for the corridor will include additional intersection improvements and replacement of the General Mark W. Clark Memorial Bridge.

Location of SR 532 Signal Improvements



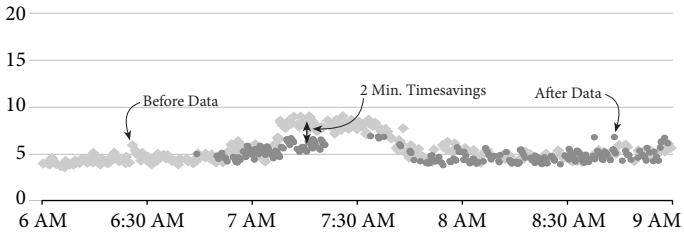
Signal Improvements
WSDOT interconnected and synchronized the signals to improve traffic flow through the city of Stanwood. Newly added electronic traffic detection devices and five cameras provide up-to-the-minute information on the WSDOT website.

Data Source: WSDOT Northwest Region.

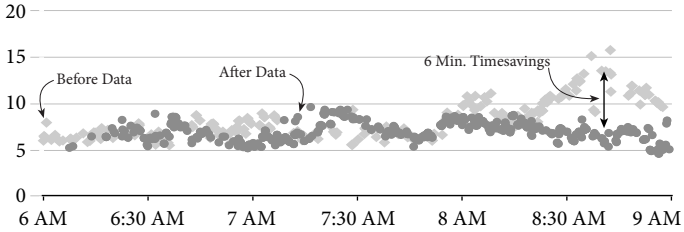
SR 532 Before and After Travel Times

Travel Times in Minutes by Time of Day

Eastbound SR 532 A.M. Travel Times at Mileposts 3.05 to 5.9, 2.85 Miles



Westbound SR 532 P.M. Travel Times at Mileposts 6.83 to 3.7, 3.13 Miles



Data Source: WSDOT Northwest Region.

Measuring Delay and Congestion: Annual Update

What WSDOT is Doing About Congestion

Operate Efficiently

Intelligent Transportation Systems (ITS) are important tools to manage highway system efficiency at WSDOT. WSDOT's vehicle detectors and video monitoring systems are the agency's eyes and ears, helping the Traffic Management Center (TMC) assess the system's performance and manage traffic flow accordingly. For instance, staff at the TMC can control the ramp meter system to regulate traffic entering the mainline; this helps eliminate merging conflict and delay or even prevent congestion on the mainline. Meanwhile, tracking and posting travel times measured by vehicle detectors on the web helps commuters schedule their trips to avoid congested times. Posting current travel times on variable message signs (VMSs) en-route helps drivers make real-time decisions to select alternate routes to commute. WSDOT continues to look for new ITS technologies and strategies to manage traffic with greater sophistication and effectiveness. Two such strategies include Integrated Corridor Management and Active Traffic Management. For more information on ITS at WSDOT, see pages 101-102.

Active Traffic Management Offers New Approaches For Maximizing System Efficiency

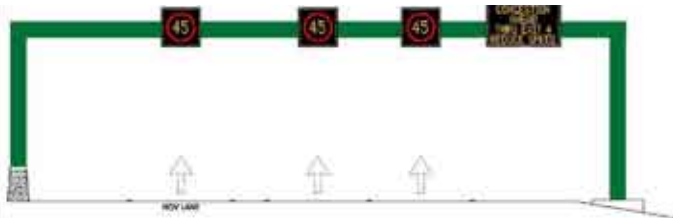
Active Traffic Management (ATM) is the next generation of ITS: a series of improvements to highway technology that provide more sophisticated safety efforts, as well as traffic reliability control that dynamically adapts to the existing levels of congestion. The Federal Highway Administration (FHWA) recently completed a survey of ATM processes used in several European countries; WSDOT participated in this survey and is a candidate to help advance some of these processes in the U.S. ATM tools with potential to be rolled out in the Puget Sound region include queue warning signs to warn drivers of backups ahead, speed harmonization signs instituting slower speeds to help prevent rear-end accidents and to maximize traffic flow on the roads during peak periods, and conversion of the shoulder into a traffic lane temporarily during peak periods. The full FHWA study on ATM can be found at http://international.fhwa.dot.gov/pubs/pl07012/.

WSDOT Receives Two Major Federal Grants for ITS Programs to Improve Mobility

This year, Washington State received major grants from the federal government for two major roadways in the state. Both include money to add additional ITS programs.

Washington State received $138.7 million from the "Urban Partnership Program" to help reduce congestion on SR 520. Potential solutions include adding variable pricing on SR 520 between I-5 and I-405, implementing Active Traffic Management technologies on the roadway, and improving traveler information. WSDOT, the Puget Sound Regional Council (PSRC), and King County will share the responsibility for these improvements.

The federal government also provided $15 million from the "Corridors of the Future" program to Washington for the I-5 Columbia River Bridge Crossing between Vancouver, WA and Portland, OR. This project will include ITS and ATM efforts to improve mobility, as well as a review of the feasibility of variable pricing.



An example of Active Traffic Management: Speed Harmonization and Queue Warning signs dynamically and automatically reduce speed limits approaching areas of congestion, collisions, or special events. This averts accidents and also can prevent or delay congestion breakdown by helping maximize the throughput of vehicles on the road.

Measuring Delay and Congestion: Annual Update

What WSDOT is Doing About Congestion

Operate Efficiently

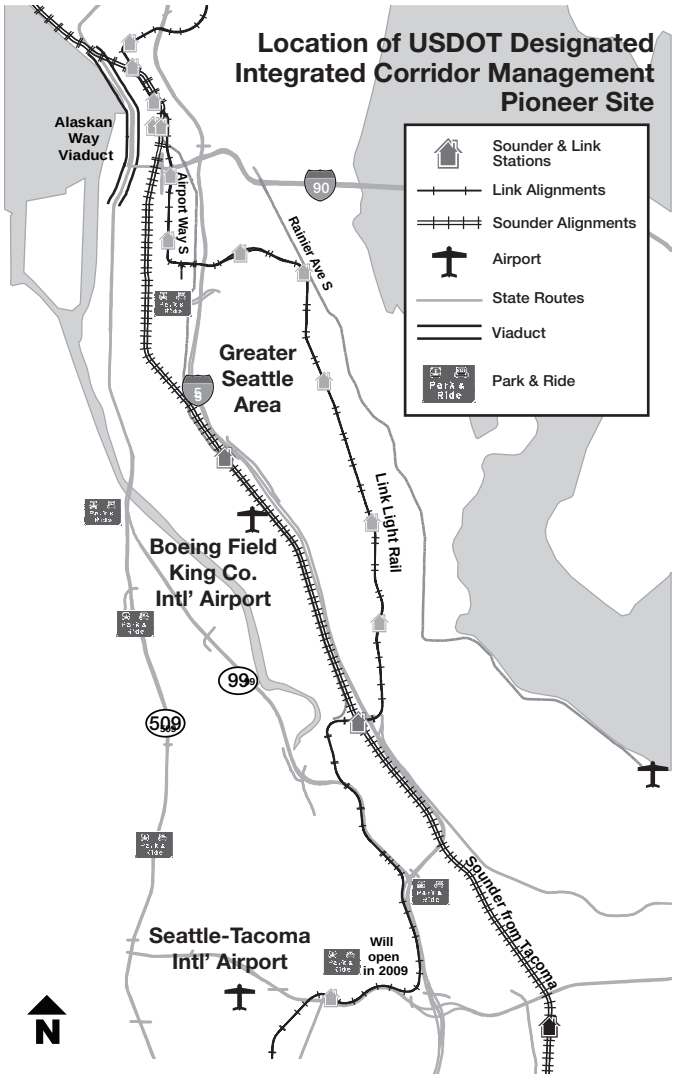
WSDOT Plans Integrated Corridor Management from SeaTac Airport to Downtown Seattle

Nationally, Integrated Corridor Management (ICM) is an emerging function of ITS. In 2006, USDOT chose Seattle as a "pioneer site" for their Integrated Corridor Management pilot program. ICM facilitates shifting travelers from congested highways to parallel routes and transit lines in order to reduce congestion. The cornerstones of the program are comprehensive, accurate, and timely traveler information, coupled with careful coordination between WSDOT and multiple local transportation agencies.

Seattle's ICM corridor is located between SR 518 near the SeaTac Airport and Jackson Street in downtown Seattle (see map). This regionally critical corridor carries thousands of commuters every weekday, as well as significant amounts of freight to and from the Port of Seattle. However, this corridor is geographically constrained and burdened with complex and expensive right-of-way limitations, preventing further highway expansion. While I-5, the main route, experiences increasing daily and peak period congestion, the corridor will face acute strain when a primary parallel route, SR 99, faces major construction work at the location of the Alaskan Way Viaduct.

Multiple alternate highways and transit systems exist that could take the pressure off I-5. Parallel routes such as Airport Way, East Marginal Way, 4th Avenue S., 1st Avenue S., and Rainier Avenue have unused capacity and could carry diverted traffic. In addition, several King County Metro bus routes traverse the corridor, the Sounder commuter train runs parallel to it, and Sound Transit light rail service from the airport to downtown will open in 2009. Further, in 2009, Sound Transit will open a Park and Ride with 600 spaces at SR 99 and 154th Street, to be served by multiple bus routes.

The corridor recently had a chance to apply several ICM strategies and demonstrated its ability to absorb major traffic disruptions during the August 2007 14-day closure on I-5 northbound. Pre-closure efforts to inform commuters were successful: roughly one-third of commuters moved their peak-period trips from I-5 to buses, the Sounder commuter train, arterials, and I-405. This prevented major back-ups expected from the closure. During construction, the WSDOT traffic management center (TMC) in Shoreline coordinated with local jurisdictions' TMCs, using a network of variable message signs, highway advisory radio transmitters, and the 511 system to broadcast travel time, construction delays, and traffic conditions on the corridor. This helped drivers make choices en-route about their commute route and mode. Arterial signal timings were also adjusted dynamically to accommodate the shifted traffic. More information on the I-5 closure and its results is located on p. 79.



Data Source: WSDOT Traffic Office and Sound Transit.

WSDOT plans to replicate these successful ICM practices on other corridors in the region, and also expand it into incident and emergency response and mitigation.

Measuring Delay and Congestion: Annual Update

What WSDOT is Doing About Congestion

Add Capacity Strategically

The New Tacoma Narrows Bridge Relieves Congestion in Pierce County

When the new eastbound span of the Tacoma Narrows Bridge opened on July 16, 2007, the effect of the added capacity on congestion on SR 16 was profound. While new tolling operations did not seem to have an effect on the volume of traffic using the bridge, the added capacity made it possible for vehicles to travel close to the posted speed limit at all times of the day

Volume Remains Steady Compared to 2006 Traffic

Approximately, 3,215,000 vehicles crossed the Tacoma Narrows Bridge between July 16, 2007 and September 20, 2007. This is roughly 2,000 less vehicles, than the number of vehicles that crossed the bridge during the same time period in 2006. During the month of September, there was a 1.4% increase in the number of vehicles that crossed the bridge compared to September 2006.

Before and After: Volume of Vehicles on the Tacoma Narrows Bridge

	2006 Volume	2007 Volume	Change	% Change
July 16-September 30 (11 weeks)	3,215,000	3,213,000	-2,000	0.0%
Month of September	1,238,000	1,256,000	18,000	1.4%

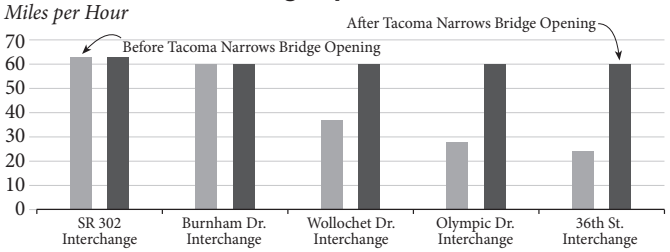
Data Source: WSDOT Olympic Region Traffic Office

Tacoma Narrows Bridge Added Capacity Reduces Delay Between Gig Harbor and Tacoma

Improved, consistent traffic flow marked the opening of the second Tacoma Narrows Bridge. While the number of vehicles crossing the Tacoma Narrows each day remained constant compared to 2006, average speeds across the bridge during peak periods of congestion increased to posted speed with the additional capacity. Prior to opening the new bridge, morning traffic between Gig Harbor's Olympic Drive and the bridge slowed to less than 25 mph between 6 and 10 a.m. Following the new bridge opening, traffic speeds average 60 mph (slightly faster then the 55 mph speed limit) in that same area and time period. See graph below.

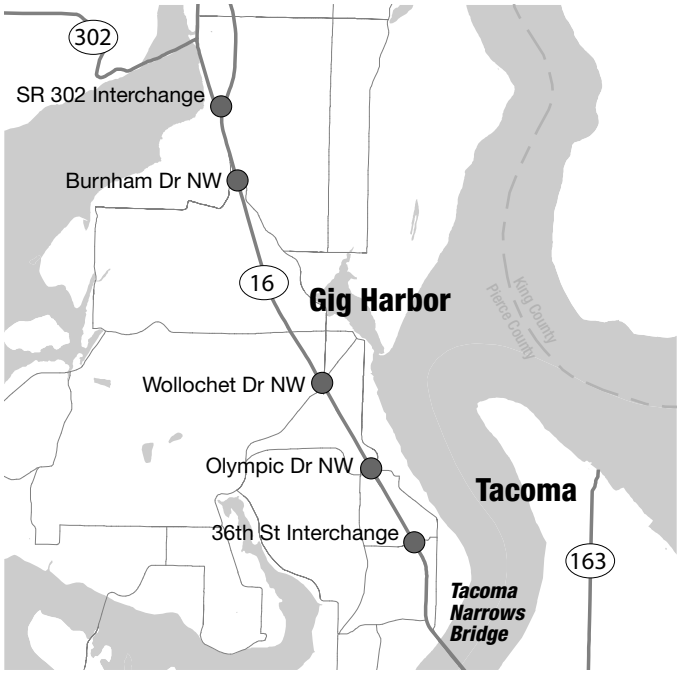
The added capacity has increased average speeds on Eastbound Traffic on SR 16 at all times of the day. Prior to the opening of the new bridge, speeds observed at the 36th Street interchange on SR 16 were consistently less than 50 mph. Since the bridge opened on July 16, speeds have been consistently observed at or near the posted speed at the same location, as shown on the graph to the right.

Eastbound SR 16: Average Speed between 6 and 10 A.M.

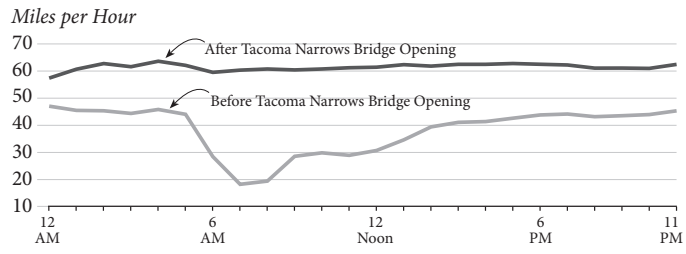


Data Source: WSDOT Tolling Office.

Speed Counters Located on Eastbound SR 16
Approaching Tacoma Narrows Bridge



Eastbound SR 16 and 36th Street Interchange
Average Speed Before and After Tacoma Narrows Bridge Opening



Data Source: WSDOT Tolling Office.

What WSDOT is Doing About Congestion

Add Capacity Strategically

I-5 HOV Project, Stage 4: HOV Lane Users See Substantial Travel Times Savings

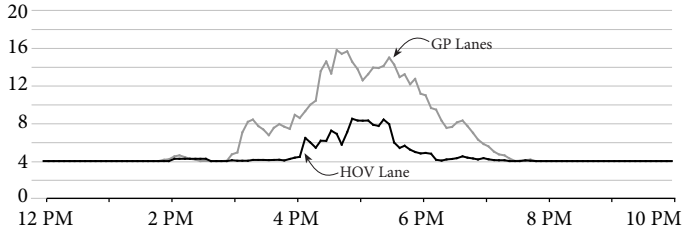
WSDOT recently extended the HOV lanes on I-5 by four miles through the city of Federal Way. The lanes opened July 16, 2007. The project extended the HOV lane and ITS from S. 320th St. to the Pierce County line. Construction began in Spring 2005. It is the fourth stage of a 13 mile project, I-5 Pierce County line to Tukwila HOV.

During the evening commute, carpoolers, vanpoolers, and transit riders are now saving an average of five minutes on their commute home. On a typical weekday, between 3 p.m. to 7 p.m. approximately 4,300 vehicles - more than 10,000 people - are seeing this benefit. Below is a graph of the southbound I-5 travel times in the general purpose and HOV lanes during the P.M. peak.

I-5 Southbound Travel Times for HOV and General Purpose Lanes

S. 320th St. to the Pierce Co. Line, 3.9 Miles

September 2007, Average Tuesday-Thursday, In Minutes by Time of Day



Data Source: WSDOT Northwest Region.

SR 18 Improvements Provide Congestion and Safety Benefits

WSDOT widened SR 18 to four lanes between Maple Valley and Issaquah Hobart Road. The project separated eastbound and westbound traffic with a 48-foot-wide grass median, built an interchange at 244th Avenue SE, constructed an overpass at SE 200th Street, and removed intersections at 244th Avenue SE, SE 200th Street, and 236th Avenue SE.

These improvements have provided significant travel time and safety benefits to drivers along the corridor. Prior to the project completion, this corridor served approximately 23,000 vehicles a day (March-August 2006 weekday). Now, approximately 29,000 vehicles travel this corridor daily (March-August 2007 weekday). The speed limit through this section is 55 mph and 15% to 18% of the vehicles using the route are trucks.

On August 31, 2006 the new eastbound roadway was opened to traffic, the 244th Avenue interchange was in operation, and the 244th signal was turned off. It was the last signal on SR 18 between I-5 and I-90. A second lane of traffic in both directions was open to drivers by late October of 2006.

The improvements have more than doubled the roadways capacity and increased its reliability and efficiency. The project has eliminated backups through this area. This makes for 15 to 20 minute benefits westbound during the evening peak and 6 to 10 minute benefits eastbound during the morning peak.[1] Due to increased volumes and limited capacity at the I-90 interchange, the eastbound benefits through the area have been offset by a similar increase in delay at the backup approaching I-90 during the morning commute.

The corridor has also seen significant safety benefits as a result of the improvements. Total collision rates and injury collisions in this 4-mile stretch of roadway have dropped by 50%.[2]

1. Travel Time benefits through project area based on floating car travel time studies, travel time impacts approaching I-90 based on constituent reports.

2. Collision rates were compiled for milepost 16-20. Before period: 2001-2005; after period: Nov 2006 – Jul 2007.

Crews turn off the signal at 244th SE - the last signal on SR 18 between I-5 and I-90.

What WSDOT is Doing About Congestion

Add Capacity Strategically

SR 522 Interchange Improvements Save Morning Commuters an Average of 10 Minutes

The signalized intersection of SR 522 and Fales/Echo Lake Road was a major choke point for commuters traveling from Monroe to Woodinville. Traffic from Monroe commutes westbound on SR 522 in the morning and returns eastbound in the evening. The morning commute had the most significant delay due to travel patterns. With the signal in place, the traffic volumes pick up around 5:30 in the morning and the backup would reach four miles to West Main Street on a regular basis. It would take vehicles approximately 25 minutes to travel the four mile segment between West Main Street and Fales/Echo Lake Road during the morning peak hour (as observed on March 21, 2006).

On August 17, 2006, WSDOT opened the Fales/Echo Lake Road Interchange to traffic and turned off the signal. Initially, in the four mile segment between West Main Street and Fales/Echo Lake Road, vehicle travel times dropped from 25 minutes to 4 minutes during the morning peak hour. After several months, the vehicle volumes through this stretch of roadway had grown, and the morning peak hour travel times grew to 10-15 minutes, as observed on January 25, 2007. There was also a 2-4 minute delay observed at the westbound merge from Fales/Echo Lake Road.

Overall, the interchange provides approximately ten minutes of benefit to commuters traveling on SR 522 westbound during the morning peak hour.

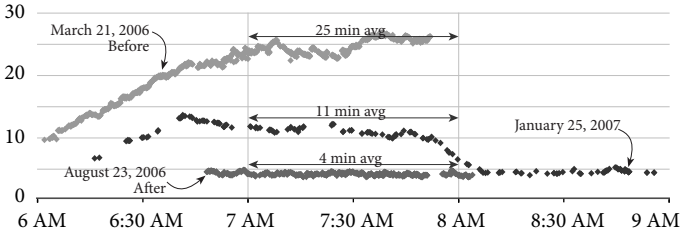
The graph below depicts the observed travel times between West Main Street and Fales/Echo Lake Road on March 21, 2006, August 23, 2006, and January 25, 2007.

The new bridge eliminates the daily bottlenecks on SR 522 at Fales/Echo Lake Road and greatly improves commute times.

SR 522 Interchange Project Initially Improves Travel Times by 21 Minutes

Morning WB Traffic from West Main to Fales-Echo Lake Rd., 4.1 Miles

Travel Times in Minutes by Time of Day



Data Source: Northwest Region.
Data Note: Data gathered using Automated License Plate Recognition (ALPR).

Incident Response Quarterly Update

WSDOT's Incident Response (IR) program works to safely and quickly clear traffic incidents on state highways. Roving IR units, which operate during peak traffic periods, help motorists with flat tires and jump starts, re-locate blocking vehicles, and provide other types of incident assistance. Additionally, IR units are called out to major incidents 24-hours a day, seven days a week to provide traffic control, traffic rerouting, mobile communications, and assistance in incident clearance and clean up. The Incident Response Program works in partnership with the Washington State Patrol (WSP), other public agencies, and third party incident responders. As of October 2007, WSDOT's IR program includes 55 vehicles and 53 designated roving routes statewide, 48 of which are currently filled. In addition to this, the WSDOT IR program has implemented innovative strategies to help reduce incident clearance times, including:

- Agreements with 14 county coroners for off-site extrication of the deceased;
- Instant Tow Program which dispatches tow trucks more quickly to the scene of incidents (see pg. 88); and
- Major Incident Tow Program, which provides incentives to tow companies to clear incidents involving heavy trucks more quickly (see pg. 90).

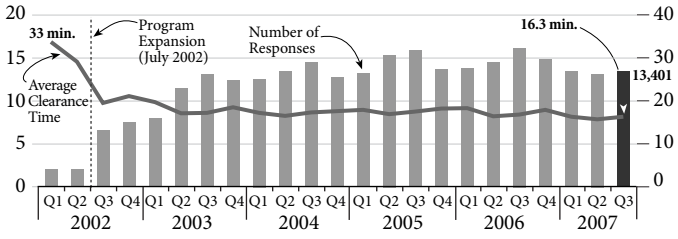
More information on the IR program can be found at www.wsdot.wa.gov/Operations/IncidentResponse/.

Number of Responses Statewide Decreases by 17% From Same Quarter Last Year

In Quarter 3 of 2007, the WSDOT Incident Response Program responded to 13,401 traffic incidents. This is an increase of 1.3% from last quarter, and a decrease of 17.2% from the same quarter last year. It should be noted that the 15,227 responses by the program in Quarter 3 of 2006 was the largest number of responses in a quarter ever. The average clearance time was 16.3 minutes this quarter, a 4.2% increase from the 15.7 minute-average last quarter, and a 3.0% decrease from the 16.8 minute-average from the third quarter of 2006.

Number of Responses and Overall Average Clearance Time

January 2002 - September 2007, Number in Thousands



Source: WSDOT Incident Response Tracking System.

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

IR Performance Results for the Quarter Ending September 30, 2007:

WSDOT's IR Program responded to 13,401 traffic incidents, a 1.3% increase from last quarter, but a 17% decrease from the same quarter last year. The average clearance time for all incidents was 16.3 minutes, a 4.2% increase from last quarter (15.7 min).

WSDOT responded to 35 fatality collisions statewide with an average clearance time of 204 minutes, a 41 minute decrease from last quarter.

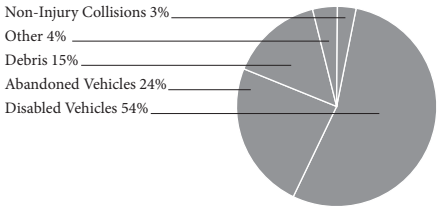
Cabinet Strategic Action Plan: WSDOT has committed to reducing the average duration of over-90-minute incidents by 5%. The average duration of all incidents as of September 30, 2007 was 163 minutes, which is 2% below the target of 165 minutes.

Seven extraordinary incidents occurred lasting 6+ hours, up from three last quarter, all seven involving commercial motor vehicles.

For Quarter 3, 2007, 8,346 (62.3%) of the 13,401 responses were resolved in under 15 minutes, 4,056 (30.3%) took 15 to 90 minutes to resolve, and 213 (1.6%) took 90 minutes or longer to clear. The remaining 786 incidents (5.9%) were dispatched IR trucks that were unable to locate the incident.

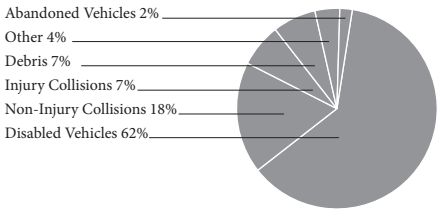
Incidents Lasting Less Than 15 Minutes (8,346) 62.3%

Fatality, Injury and Non-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.

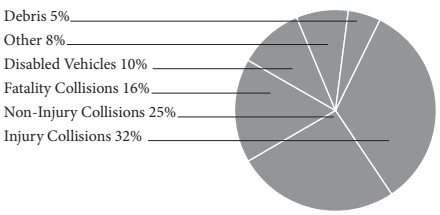


Incidents Lasting 15 to 90 Minutes, (4,056) 30.3%

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 (213) 1.6%



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

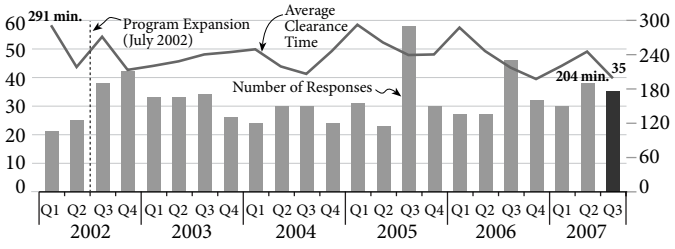
Incident Response Quartery Update

Clearance Time of Fatality Incidents Attended by WSDOT Down 17% from Previous Quarter

In Quarter 3 of CY 2007, WSDOT responded to 35 fatality collisions statewide. WSDOT assisted the WSP with clearing those incidents in an average time of 204 minutes. This is an 8% decrease since last quarter in the number of fatality collisions responded to by WSDOT, and it is a 17% decrease in clearance time compared to last quarter, which had 38 fatality incidents and an average clearance time of 245 minutes. Compared to one year ago, Quarter 3 of 2006, fatality collisions are down 23%, from 46, while the average clearance time for fatality collisions is down 6%, from 217 minutes.

IR Responses to Fatality Collisions

January 2002 - September 2007



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

Washington State Emergency Responders Adopt National Unified Goal for Traffic Incident Management

In September 2007, representatives from multiple emergency responders and stakeholder groups in Washington State met in Seattle and adopted the National Unified Goal for Traffic Incident Management, which consists of three initiatives:

- Responder Safety
- Safe, Quick Clearance
- Prompt, Reliable, Interoperable Communications

Washington is one of the first states in the country to adopt this goal. Representatives from the DOT, the State Patrol, the Firefighter's Association, the towing industry, the trucking community, the Insurance Commissioner's Office, the Department of Ecology, AAA, and others are leading this multidisciplinary effort. In the future, the group will develop policies and practices that support implementation of the National Unified Goal throughout Washington.

Instant Tow Program Provides $25 to Tow Companies for Dry Runs

In late August 2006, the Incident Response Program began an "Instant Tow" program for lane-blocking incidents in Seattle. Previously, a WSP trooper would drive out to the site of a blocking incident and confirm the presence of the vehicle, then call in the tow. Now, the tow is dispatched at the same time as the trooper, eliminating the verification step. A 2003 study from the Washington State Transportation Center found that the program, when used, saved on average 15 minutes per incident, since tows were dispatched on average in 18 minutes with trooper verification, and in 3 minutes without. Earlier notifications also mean quicker arrivals because there is less congestion for the tow truck to negotiate. One estimate estimate shows that the program could save up to $20,000-35,000 per incident in societal costs for the 15 minutes per incident that is saved, depending on the location, number of lanes, and traffic condition.

The Instant Tow Program saves time, but a downside is that a vehicle might be cleared and gone already before the tow arrives. The tow industry calls these "dry runs". This reduces the incentive for tow companies to respond, since they would not recover the cost of fuel and driver time in such an instance. To offset these costs, WSDOT began reimbursing towing companies $25 for "dry runs" in April of 2007. Since then, the program has been used successfully on 109 occasions, resulting in a savings of approximately $2.18 million in societal costs from prevented minutes of lane blockage. The cost to taxpayers since the inception of the dry run reimbursements has been only $550.

Activations and Costs of WSDOT and WSP's Instant Tow Program

Quarters 2 and 3, 2007

	Tows	Dry Runs	Cancelled/ Unavailable	Cost
Pierce County				
Q2, 2007	10	3	6	$75
Q3, 2007	7	1*	7	$0
King County				
Q2, 2007	30	5	29	$125
Q3, 2007	62	14	35	$350
Total				
	109	**23**	**77**	**$550**

Data Source: Washington State Patrol
*Tow company failed to submit the invoice to receive compensation.

Incident Response Quartery Update

Incidents Lasting 90 Minutes or Longer

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

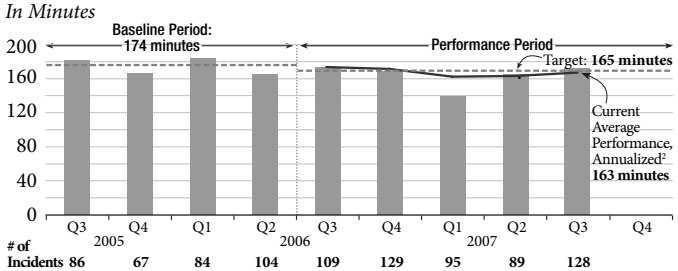
Through the Cabinet Strategic Action Plan (CSAP), Governor Gregoire has set a target to reduce the total average duration of over-90-minute incidents by 5% for nine key highway segments.The Cabinet Strategic Action Plan goal is to reduce the average duration to 165 minutes for each incident (see the September 30, 2006 *Gray Notebook* for more information).

The data used to calculate these performance measures is jointly provided by WSDOT and the Washington State Patrol (WSP). This particular measure tracks the duration of clearance time between detection of the incident and all lanes clear for traffic. Ideally, the incident clearance timewould be calculated based on "all response vehicles have left the scene" of the incident, but currently this data is not available for all incidents.

Average Duration for Incidents Lasting 90 Minutes or Longer Remains Below Target

During Quarter 3 of 2007, WSDOT and WSP responded to 128 over-90-minute incidents on nine highway segments, the second-highest number of incidents ever in a quarter. Quarter 3 is typically the busiest quarter for incidents in Washington State. The average duration of incidents lasting 90 minutes or longer was 167 minutes, an increase of 1% over the previous quarter and a decrease of 3% from the same quarter of 2006. However, even with this increase, the average duration of all incidents for the CSAP measurement period is 163 minutes, which is 2% below the target goal of 165 minutes.

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

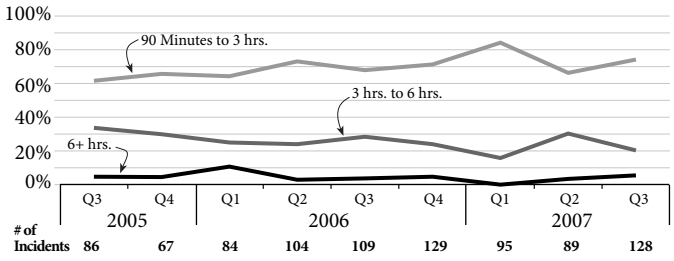


Data Source: WSDOT Traffic Office and Washington State Patrol
Baseline Data Source: 2005--WSDOT Incident Response Tracking System; 2006--WSP-Computer Aided Dispatch System.
[1]*Selected Key Highway Segments*--I-5 (Oregon to Canadian Border), I-90 to North Bend, I-405, SR 18 to I-90, SR 16 to Purdy, SR 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 quarterly duration of incidents lasting over 90 minutes for the performance tracking period for this measure.

The proportion of all over-90-minute incidents that lasted between three to six hours dropped to 20.3% this quarter, down from 30.3% in Quarter 2 of 2007. This is the second-lowest proportion of incidents in the three to six hour category, after Quarter 1 of 2007's 15.8%. The number of extraordinary (6+ hours) incidents was high, at seven (5.5%), making this the second-largest quarterly number and the second-largest proportion of the total since the measure began being tracked, after Quarter 1 of 2006, which had nine extraordinary incidents for 10.7% of the total. This quarter's increase in incidents lasting over six hours appears to be due to a number of incidents involving commercial motor vehicles. A more thorough analysis on extraordinary incidents can be found on pages 90-91. There were six incidents involving fatalities in the over-90-minute incidents; this equates to only 4.7% of the total number of incidents, the lowest proportion in a quarter since WSDOT and WSP began tracking this measure.

Percentage of Over-90-Minute Incidents by Quarter

Quarter 3, 2005 - Quarter 3, 2007



Data Source: WSDOT Traffic Office and WSP.

On Average, Longest 90+ Minute Incidents on I-5 Corridor in Pierce, Thurston, & Cowlitz Counties

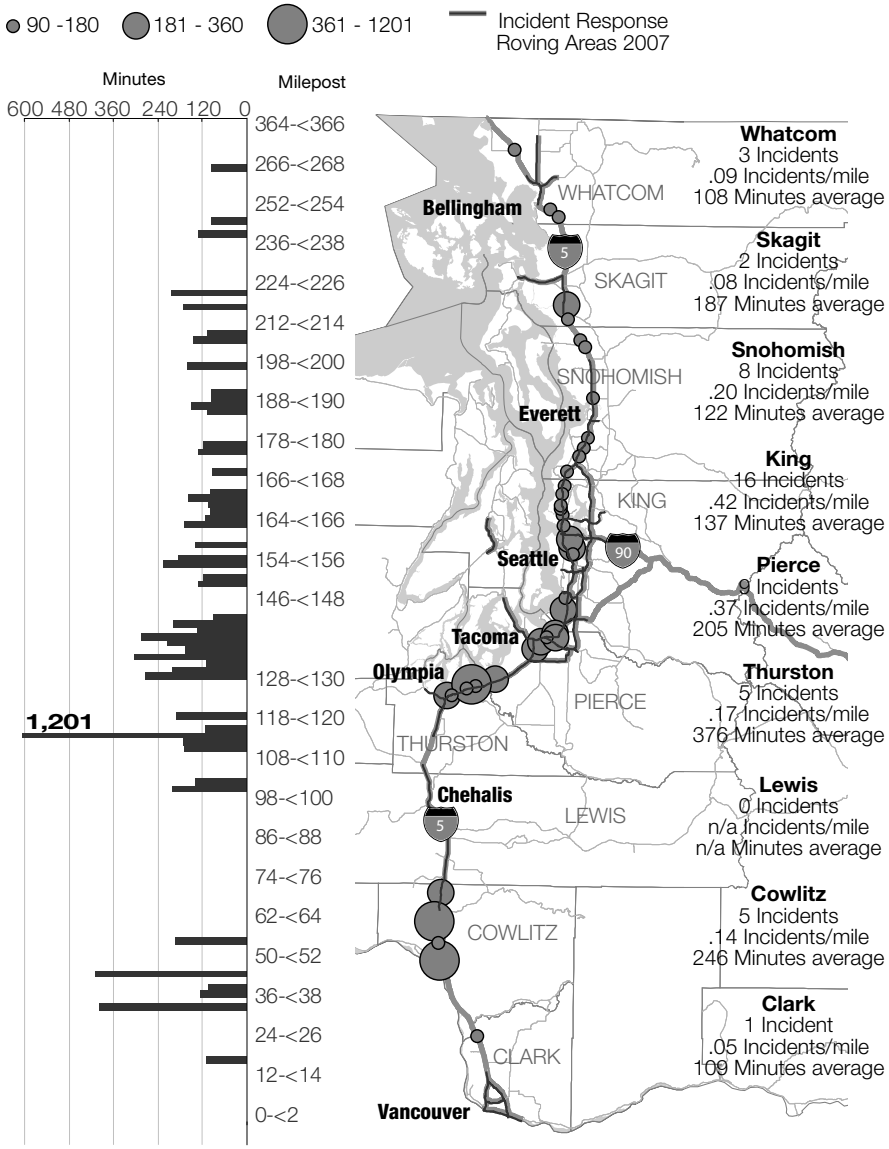
The map on the following page shows the breakout of 90+ minute incidents that occured on I-5 by county. The incidents that took the longest to clear, on average, took place in Pierce, Thurston, and Cowlitz Counties. In Cowlitz County, all but one of the five incidents occurred in the early morning hours, when it generally takes longer to clear incidents because on-call staff take more time to reach the scene. This is also a fairly rural segment of I-5, so there are fewer responders close by. The segment in Thurston County had one extraordinary incident last quarter, the 20-hour Nisqually event discussed on p. 91. Finally, Pierce County, with no extraordinary incidents, had a high average lane-blocking duration of 205 minutes. WSDOT and WSP will continue analysis of this data to determine if this is an ongoing trend.

Incident Response Quartery Update

Incidents Lasting 90 Minutes or Longer

Blocking Time of 90+ Minute Incidents on the I-5 Corridor for Quarter 3, 2007

In Minutes



Data Source: Washington State Patrol and WSDOT Traffic Office.

No Over-90-Minute Incidents During August I-5 Closure

From August 11-24, traffic on the I-5 corridor in Seattle was restricted to 2 and 3 lanes between Spokane Street and I-90 for construction purposes. Over the duration of the two week project, WSDOT responded to 134 incidents, none of which were over 90 minutes, and no significant injury accidents were reported. More on the I-5 closure can be found on page 79.

Seven Extraordinary Incidents in Q3 2007

Unlike last quarter, in which all three extraordinary (6+ hour) incidents were fatality events, this quarter there were no extraordinary incidents with fatalities. All seven incidents that lasted six hours or longer this quarter involved a commercial motor vehicle (see table on the following page).

Major Incident Tow Program Looks To Quickly Clear Truck Related Incidents

In July of 2007, WSDOT and WSP implemented the Major Incident Tow (MIT) program, which received $346,000 in funding from the Legislature in the 2007 session, to help reduce the duration of truck related incidents. The program provides a $2,500 incentive to private towing companies for removing oversized commercial trucks and bus blockages from the road in 90 minutes or less. This pilot program is funded for about only 40 activations per year. Incidents are prioritized by time of day – incidents occurring during off-peak hours, which have little impact on traffic, are generally deferred from the program. A more complete analysis of the program is planned for the next edition of the *Gray Notebook*.

Incident Response Quartery Update

Incidents Lasting 90 Minutes or Longer

All but two of these extraordinary incidents involving commercial motor vehicles occurred during off-peak times. This makes them a lower priority for removal because they are not blocking traffic during heavy-use times on the roads. Therefore, only the August 21 incident was eligible for the MIT program. The July 11 incident was only partially blocking on a ramp, and traffic was still getting through, so it was not considered urgent enough for MIT. A more complete analysis of incidents involving comercial motor vehicles is planned for the next edition of the *Gray Notebook*.

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

Quarter 3, 2007, Duration in Minutes

Date	Duration	Location	Description
July 4	**408**	SB I-5, Near Kelso	Semi rollover collision with injury.
July 9	**421**	SB I-405 116th St.	Semi rollover collision.
July 11	**380**	Offramp from NB SR 167 to SB I-405	Semi rollover collision with injury.
Aug. 16	**1201**	N I-5 at Nisqually	Semi rollover with hazardous materials. (See gray box)
Aug. 21	**429**	Offramp from WB SR 512 to SB I-5	Semi rollover. Major Incident Tow (MIT) event.
Aug. 28	**398**	NB I-5, MP 34	Semi collision with injury.
Sept. 28	**371**	SB SR 167 at SR 18	Two car and semi collision, injury and hazardous materials.

Data Source: Washington State Patrol and WSDOT Traffic Office

Anatomy of a 20-Hour Incident

In the early morning hours of August 16, 2007, a semi-truck carrying paint and flammable pesticides ran off of northbound I-5 at MP 114 and crashed near the Nisqually River. This created an unusual confluence of factors which made this a long incident. Because the hazardous materials were in danger of leaking into the river, this incident called for a cautious reaction by emergency responders. Also, because the chemicals were dangerous, emergency responders took careful precaution so as not to harm themselves during the removal process. Although the road was closed for slightly over seven hours total, WSDOT and WSP chose to measure this as a 20+ hour incident, because the traffic backup from the initial closure lasted all day and did not clear until late evening.

Incident Timeline, August 16, 2007:

1:38	Incident occurs
1:40	WSP receives a call regarding a double-trailer semi rollover accident with no injuries
1:46	WSP arrives at scene
1:54	The Department of Ecology is advised of a potential hazardous material (HazMat) event
1:57	WSDOT Incident Response arrives at scene
2:20	Preliminary investigation suggests that the truck is potentially carrying explosives; bomb squad called.
2:36	Trucking company reveals that the truck is actually carrying paint and flammable pesticides, not explosives.
2:38	WSDOT closes two lanes of traffic
2:58	The trailer begins leaking paint
3:50	WSP investigators determine that DOE should take responsibility for the clean-up
6:02	DOE's HazMat cleanup contractors arrive at scene
7:29	The traffic backup on NB I-5 extends seven miles
8:43	WSDOT re-opens all lanes to traffic, continues to keep shoulder closed
10:56	Traffic backup extends five miles
21:09	WSDOT IT team begins a rolling slowdown of traffic at MP 112 to prepare for re-closure of lanes
21:27	Semi and one trailer are completely removed
21:38	Lane one closed to remove second trailer
21:40	Second trailer is clear. Incident is considered complete.

21:46-approx. 5:00 am: Lane is closed for repair to guardrail damaged in the accident. This is considered a maintenance event and not counted as an incident response blockage.

Commute Options Annual Update

Commute Trip Reduction Program

Commute Trip Reduction Program Aims to Reduce Drive Alone Rates

The Washington State Legislature passed the Commute Trip Reduction (CTR) Law in 1991, incorporating it into the Washington Clean Air Act. The goals of the CTR Program are to reduce traffic congestion, air pollution, and fuel consumption by working with local jurisdictions and major employers to reduce drive-alone commuting. Nearly 1,200 worksites in Washington State participate in the program.

How does Commute Trip Reduction work?

The CTR program's results are achieved through collaboration between local jurisdictions, employers, and WSDOT. State funds for the CTR program are compounded through additional investments made by local jurisdictions and employers. Employers are required to develop a commuter program designed to achieve reductions in vehicle trips and may offer benefits such as subsidies for transit fares, flexible work schedules, telework opportunities, or other tailored options.

What is WSDOT's role?

WSDOT provides technical assistance to jurisdictions and employers to help implement their CTR program. Technical assistance includes training, support administration of the data tools, and maintaining networks of partners and documentation on Best Practices.

Washington State Continues to Reduce Drive Alone Rate

Washington and Oregon were the only states where the percentage of people driving alone to work decreased between 1990 and 2000. In Washington State, the percentage of people who drove alone to work decreased slightly from 73.9% to 73.3%. Nationally, drive-alone commuting increased 3.4% during the decade

At the 430 worksites that have participated in the CTR Program since 1993, the drive-alone rate dropped from 68.2% in 1993 to 61.6% in 2007. All CTR commuters statewide reduced more than 4,000 tons of air pollution in 2007 through the choices they made. They also reduced petroleum consumption by about 7.9 million gallons and 74,000 tons of carbon dioxide (CO^2), saving them over $23.7 million in fuel costs (at $3.00 a gallon for gasoline).

Commute Trip Reduction Sites in Washington

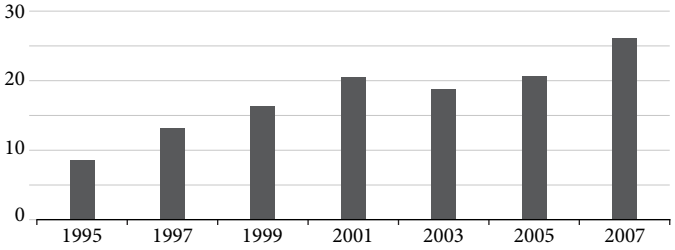
The number of employees participating has continued to grow since 1995 when the program recorded a reduction of nearly 8,500 average daily trips. In comparison, CTR sites in 2007 showed a reduction of nearly 26,000 average daily trips. From 2005-2007 the average number of reduced trips grew by 26% from 20,673 in 2005 to 26,037 in 2007. Since 1995, employee use of commute alternatives at CTR sites statewide has grown from 30% to nearly half of all eligible employees.

Performance Highlights:

In 2007, Commute Trip Reduction participants reduced nearly 26,000 drive alone trips daily.

Washington State is one of only two states to witness a decline in Drive-Alone rates from 1990-2000.

Average Number of Morning Trips Reduced per Day
From Sites with Measurement Surveys, Fiscal Years 1995-2007
Number in Thousands



Data Source: WSDOT Commute Options Program

WSDOT Internal Commute Trip Reduction Program

In 2006, WSDOT had 2,009 registered (28% of the Full-Time-Equivalency [FTE] workforce) CTR participants with an average one-way daily commute of 18 miles (a total of over 36,000 one-way daily commute miles). Based on the electronic tracking system used by CTR participants, these WSDOT employees removed a total of 215,871 annual commute trips from Washington's roadways during the year.

WSDOT Commute Alternative Usage, 2006

Mode	Participants	Trips Reduced
Carpool	829	96,131
Transit	520	40,411
Bike	279	20,275
Vanpool [1]	156	20,503[1]
Compressed Work Week	50	18,107
Walk	113	15,730
Train	53	3,296
Telework	9	1,388
TOTAL	**2,009**	**215,871**

Data Source: WSDOT Commute Trip Reduction Tracking System
[1] Includes Full and Part Time Vanpools

Commute Options Annual Update

Commute Trip Reduction Efficiency Act

Commute Trip Reduction Efficiency Act

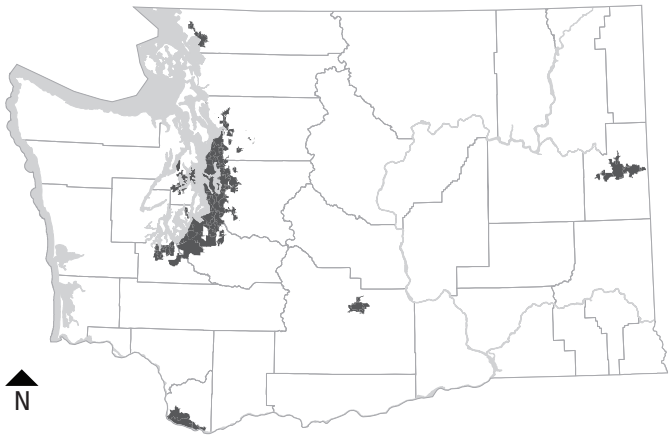
During the 2006 Legislative session, Washington's Legislature passed the CTR Efficiency Act (ESSB 6566) based on recommendations from the CTR Task Force's 2005 Legislative performance report. The report noted that fewer Washingtonians were driving alone to work, but that the CTR program could be improved, resulting in an increase in participation levels. The changes focused on targeting urban corridors with heavily congested state highways, rather then including counties by population. This allows for greater planning coordination between local jurisdictions, regional organizations, and the state, and an increase in local flexibility for required and voluntary parties.

Amendments Provide for the Development of Growth & Transportation Efficiency Centers

Generally, the Task Force's recommendations proposed modest, incremental changes to the current program. The most substantive changes focus on the establishment of a voluntary program for urban-scale employment and residential activity centers. The adoption of Growth and Transportation Efficiency Centers (GTEC) is a local priority in 14 communities for reducing drive-alone trips in congested state highways and urban corridors. The GTEC's will serve as a modern, multi-modal hubs giving commuters a greater variety of integrated transit options when commuting to and from the urban core of a city, whether they choose to use high-speed buses, vanpools, or light rail.

The performance of pre-GTEC activity centers in Washington State was one of the primary reasons for this significant change: the trip reduction rate for CTR worksites in designated urban centers in the Puget Sound is 6.0 reduced trips per 100 employees, outperforming those worksites outside the original activity centers, which reduce trips at a rate of 3.9 reduced trips per 100 employees.

Designated Urban Growth Areas under the Commute Trip Reduction Efficiency Act



Data Source: WSDOT Commute Options Program

The GTEC voluntary program is designed to be flexible enough for local jurisdictions to craft their own solutions to reducing drive-alone trips. The concept builds upon a similar system implemented in the Lloyd District of Portland, Oregon. The change in the CTR statutes provides a financial incentive and formalizes the state's prioritized interest in supporting the success of those centers.

For more information on the GTEC program and other program changes, visit WSDOT's CTR Efficiency Act webpage at: www.wsdot.wa.gov/TDM/CTR/efficiency.htm.

How the Commute Trip Reduction Program is Changing

Effective January 1, 2008

	Previous CTR Program	Current (Modified) CTR Program
Participation Criteria	County population over 150,000	Congested highway corridors > 100 person hours of delay
Locations	County-wide (ten counties)	Urban growth areas
Membership	Major employers (over 100 employees) in ten counties required to participate	Major employers (over 100 employees) in urban growth areas required to participate; in voluntary centers, smaller employers and residents may participate
Program Oversight	28 member CTR Task Force establishes policy, provides guidance,	16 member CTR Board establishes policy and provides guidance and allocates funding
Performance Goals	All employers have same performance targets	Employer goals may vary based on local and regional objectives beyond the state minimum target
Performance Review	Worksite programs reviewed each year	Worksite programs may be reviewed every two years
Planning Requirements	No planning required	Coordination with transportation and growth planning required

Source: WSDOT Commute Options Program

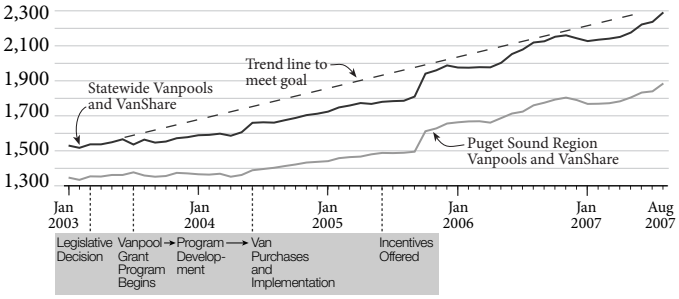
Commute Options Annual Update

Vanpool Programs

Nation's Largest Vanpool Program Sees 44% Ridership Growth Since 2003

With 2,291 vanpools in operation as of August 2007, Washington's vanpool program is the largest and most successful in the nation, accounting for more than 40% of public vanpools in the US. This number includes 577 vans recently purchased by WSDOT, which represents a 46% increase in the number of operating vanpools over 2003. The number of commuters in vans has also increased to 18,636 average daily riders, an increase of 44% since 2003. In 2006, vanpools carried 6.9 million passenger trips, eliminated an estimated 23.8 million drive-alone miles, and 9.5 million gallons of fuel were conserved because of the use of public vanpools statewide.

Number of Public Vanpools Operating in Washington State
January 2003 to August 2007



Data Source: WSDOT Vanpool Database

Public Vanpools Operating in Washington State
2003-2007

Year	Number of Operating Vanpools and VanShares	Annual % Change
June 2003	1,566	N/A
June 2004	1,660	6%
June 2005	1,780	7.2%
June 2006	2,053	15.3%
June 2007	2,222	8.2%

Source: WSDOT Vanpool Database

In the 2003 – 2005 biennium, the Legislature funded the vanpool program at $4 million. The 2005-07 biennium, funding was increased to $5 million. Demand exceed supply and the 2006 Legislature added $3.9 million to the program. In 2007, the Legislature funded the program at $8.6 million. Vanpooling's impact on congestion mitigation and emission reductions continue to grow because of strong legislative support. In turn, this support builds off the successful programs developed by the transit systems.

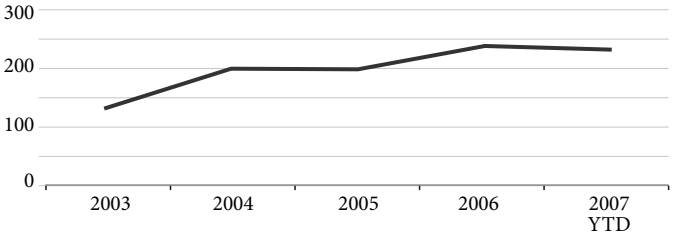
Eastern Washington Vanpools Continue to Grow

Washington State's continued success in growing the size and level of ridership in public vanpools is not limited to the central Puget Sound region. Transit Authorities in Eastern Washington have successfully grown vanpool programs over the years. Despite larger service areas, infrastructure, and funding constraints, these transit authorities share the success of the central Puget Sound operations.

Ben Franklin Transit

As of August 2007, over 230 vanpools operated in Ben Franklin Transit's fleet (which services Franklin and Benton counties). These vanpools serve customers in both Washington State and Idaho, over a five county radius, and 18 cities. Despite a variety of factors that encourage drive-alone commuting, including lack of perceived interest from potential private partners and an abundance of parking, the number of vanpools in service continues to grow: since 1983, the number of vanpools has grow nearly 17-fold to their current levels in 2007. The program owes its success to efficiency and reliability, including one-on one-customer outreach, 24 hour turnaround on van repairs and Ben Franklin Transit's continued involvement with the statewide vanpool program.

Ben Franklin Vanpool Operations
2003 - 2007 YTD
Number of Vanpools



Data Source: WSDOT Public Transportation Division.

Columbia County Public Transportation

Columbia County currently has six vanpools in operation with a total of 11 vans in their fleet. These vanpools account for the reduction of 20,900 passenger trips off of Washington's highways in 2006. Washington State, Idaho and Oregon, as well as six counties and eight cities are served by these vanpools.

In order to meet customer demand, Columbia County quickly developed a vanpool program, became a County Transportation Authority, and joined the Washington State Transit Insurance Pool – all in just 4 months. In order to accomplish this, they borrowed vans (they lacked a budget to buy vans), solicited vanpool program mentors who provided operational guidelines and advice, and transitioned from a volunteer non-profit agency to a full county wide transit authority.

Commute Options Annual Update

Additional Programs for Commute Options

Trip Reduction Performance Program Saves Nearly 1.1 Million Commute Vehicle Trips

The 2003 Legislature created the Trip Reduction Performance Program (TRPP) to provide incentives or compensation to public and private organizations that implement and administer sustainable, cost-effective projects that increase the capacity of the transportation system by reducing the number of vehicle trips and miles traveled for commute purposes. A total of $1.5 million was available for the 2007-2009 program in Round 1 with an additional $1.0 million made available to participants as a one time allocation to help meet some of the un-met demand identified in Round 1. A list of selected projects is available online at: http://www.wsdot.wa.gov/TDM/TRPP/SelectedProjects.htm

2005-2007 Biennium Program Results

A total of 18 projects were selected for funding. Of the 18, 15 were completed. Four of the projects exceeded their goal of reducing a set number of trips. The City of Redmond's Employer Commuter Club project accounted for 67% of all the trips reduced during the 2005-2007 time frame. The City of Redmond's project allowed Redmond area employers to use the popular R-TRIP commute calendar system to offer incentives to their employees beyond R-TRIP's one-time-only start-up incentives.

Statewide, the overall TRPP exceeded the proposed trip reductions by over 36%. Over the course of the two year period, the individual projects removed nearly 1.1 million commute vehicle trips from the highway system. The cost incurred for each trip removed was 93¢.

Park and Ride Lots

Washington State's park and ride lots remain a popular means for accessing transit. Park and Ride lots are constructed and administered by a variety of agencies, including WSDOT. The occupancy rate at some of the most popular lots meets or exceeds 100% capacity on a daily basis. The unreliability of finding parking spaces discourages expanded use of vanpools and transit, leading to a reduction of efficiency on the transportation system.

WSDOT continues to partner with other government and transit agencies to provide funding and support for the expansion of existing or planned park and ride lots through it Regional Mobility Grant Program (additional information on the program is available online at: http://www.wsdot.wa.gov/TDM/Mobility/regmob_grant_program.htm). Finally, WSDOT continues to develop a park and ride facility policy for measuring performance. Developments on this policy will be included in future editions of the Gray Notebook.

With Growth Transportation Efficiency Centers, more people could access centers for work and shopping such as the city of Vancouver above

Carpooling remains an excellent commute option for workers. HOV lanes like this one on SR 16 in Tacoma help to reduce drive alone commuting on congested corridors

This Intercity Transit vanpool from Thurston County is one of the 2,222 vanpools and vanshares currently operating in Washington State

Highway Safety

Motorcycle Fatalities

2006 Motorcycle Fatalities

Trends in motorcycle registrations indicates more Washington State residents are riding motorcycles now than in any time in the state's history. Since 1997 motorcycle registrations increased from 94,081 to 175,000. In 2006, there were 82 motorcycle fatalities. Motorcycle fatalities in 2006 accounted for 13% of all traffic fatalities on Washington State highways. Last year, a motorcycle task force recommended a combination of education and enforcement strategies to address the rise in fatalities.

Traffic Safety Report to Governor Indicates Reduction in 2007 Motorcycle Fatalities

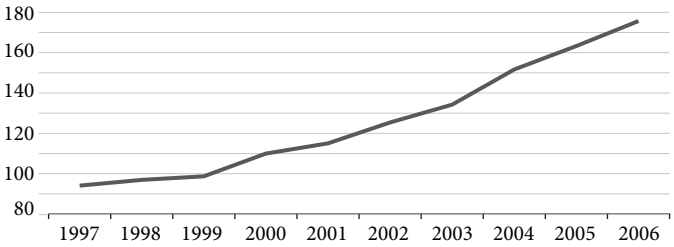
On October 9, 2007 the Washington State Patrol, Department of Licensing, and Washington Traffic Safety Commission provided Governor Gregoire with a comprehensive Government Management, Accountability, & Performance (GMAP) report on traffic safety. The report stated motorcycle fatalities totaled 57 for the first three quarters of the 2007 calendar year. This is down from 70 fatalities recorded during the same period in 2006.

Some key strategies reported by the agencies that appear to have impacted the reduction are:

- increased motorcyclist training opportunities and public awareness campaigns
- enforcement actions, consistent with legislation passed in the 2007 Legislative session;
- 53 motorcycles have been impounded (through August) since the Motorcycle Impound Law started in July 2007;
- speed arrests for motorcyclists are up 49% year-to-date compared to 2006, with 1,903 arrests.

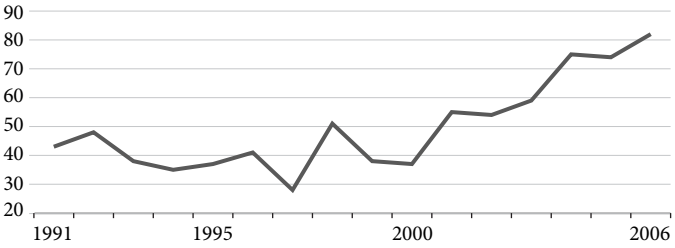
For the comprehensive GMAP report on traffic safety which includes action plans and the progress of the 2006 Motorcycle Task Force recommendations go to http://www.accountability.wa.gov/reports/safety/default.asp.

Washington State Motorcycle Registrations
1997-2006
Number in Thousands



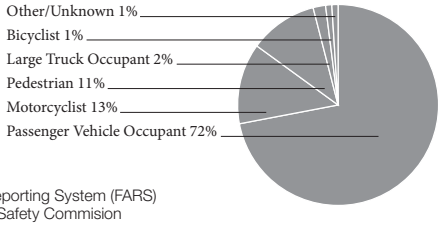
Data Source: Washington State Department of Licensing

Washington State Motorcycle Fatalities by Year
1991-2006



Note: Helmet Law was reinstated in 1990
Data Source: Motorcycle Rider Safety Task Force

2006 Washington Statewide Traffic Fatalities by Mode
All Roads



Data Source: Fatality Analysis Reporting System (FARS)
Provided by: Washington Traffic Safety Commision

The At Risk Driver

Everyday the potential exists for an unexpected traffic collision to occur that may result in a fatal or serious injury. In an average year throughout 2002 –2006, 623 people died on Washington roadways while another 2,946 people encountered serious injuries. As part of the state's continued effort to focus on reducing collisions and keeping roadways safe, this report will take a closer look at driver behavior and characteristics.

Demographic analysis indicates that a specific driver age group may exhibit a consistent trend of driver behavior. As shown in the first two graphs, young drivers under the age of 25 account for approximately 15% of the licensed driver population, yet account for 28% of the collisions that result in fatalities and other serious injuries. In fact, the same age group of drivers are also involved in 43% of speed-related fatal and serious injury collisions, as well as approximately 30% of all alcohol or drug impairment as a contributing circumstance. Another growing concern is drivers over the age of 71 who fail to yield to others on the roadway (see graph below). This concern is expected to increase through 2030 as the number of baby boomers enter into this age group.

At Risk Driver Taskforce

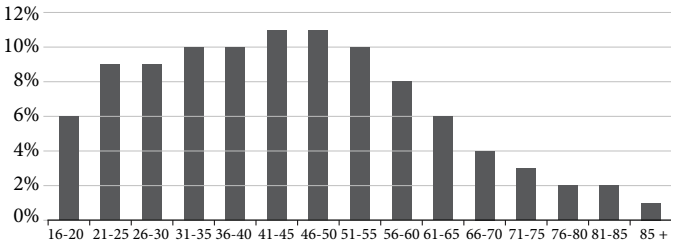
In response to a Government Management, Accountability and Performance (GMAP) forum in March 2007, the Governor's Public Safety Team consisting of the Washington State Traffic Safety Commission, Department of Licensing and the Washington State Patrol requested a taskforce to be established in order to help tackle the issues associated with drivers determined to be at risk to themselves and others while using Washington's public roadways. The taskforce defined a at risk driver as: "Drivers whose behavior, physical, or cognitive capabilities, or other traits present substantial risk to either themselves or others."

Based on the evidence reviewed by the taskforce three "at risk" groups identified are:

- Young and aggressive drivers
- Elderly and medically impaired drivers
- Drug impaired drivers

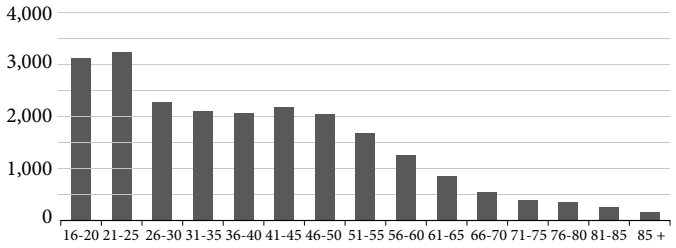
As a result of the available data and the concentration on the above three focus groups, the taskforce in September 2007 established recommendations that were submitted to the Department of Licensing to consider and develop strategies and report later to the Governor.

Washington State Licensed Drivers
Percentage by Age Group
2002-2006



Data Source: Washington State Department of Licensing
Provided by WSDOT Transportation Data Office

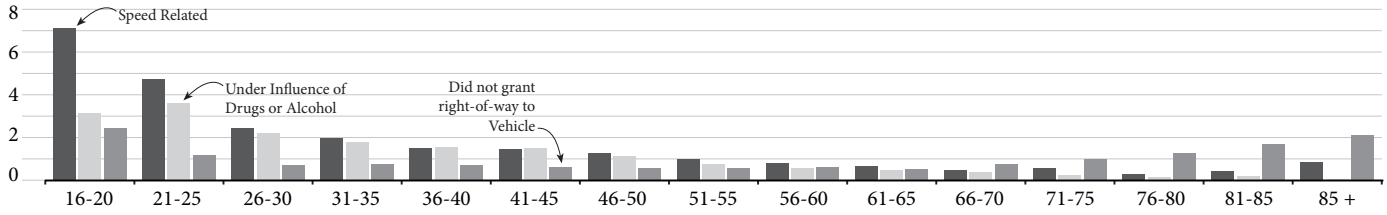
Washington State Fatal and Serious Injury Collisions
All Roads
2002-2006



Data Source: Washington State Departmen of Licensing
Provided by: WSDOT Transportation Data Office

Washington State Contributing Circumstances to Fatal and Disabling Crashes
Rate by Driver Age

2002-2006
Rate per 10,000 Licensed Drivers



Data Source: WSDOT and Washington State Department of Licensing
Provided by WSDOT Transportation Data Office

Corridor Safety Program

Corridor Safety Program Reduces Fatalities and Injuries

The goal of the Corridor Safety Program is to reduce fatalities and disabling injuries in Washington State. The program is a joint effort between the Washington State Department of Transportation and the Washington Traffic Safety Commission. Many partner agencies are also involved, including the Washington State Patrol, county public works departments and sheriffs' offices, and city public works and police departments. The Corridor Safety Program works to reduce collisions on roadways using low-cost, near-term solutions through the use of partnerships with engineering, enforcement, education, and emergency services. The program is coordinated locally in each community. This coordination includes providing local leadership to chair meetings of the steering committee. It also requires local involvement including agency governments, interested citizens, businesses, schools, and any other organizations that have a vested interest in the safety of their roadways.

While all Corridor Safety Projects involve local agencies, a city project relies on city partners to complete most of the work. The local police department takes the lead role in providing additional enforcement. The public works department provides a significant part of the engineering work, and local community members take on the lead role in educating their community.

Overall, the Corridor Safety Program has reduced total collisions by 5%, total injuries by 11%, and fatal and disabling injuries by 34%. These safety benefits amount to a savings of more than $4.1 million per year, per corridor.

The following corridors are currently active in the program:

- SR 20 in Skagit County
- Rainier Ave in Seattle
- Mill Plain Blvd in Vancouver
- SR 27 & SR 278 in Spokane Valley

Since the program started in 1991, to date, 27 Corridor Safety Projects have been completed statewide, with additional projects currently underway. One of the recently completed projects was the first city street corridor on Fourth Plain Boulevard in the city of Vancouver.

Corridor Safety Program Performance Summary

Total injuries reduced 11% (145 per year before, compared to 129 per year after)

Fatal and disabling injuries reduced 34% (10 per year before, compared to 7 per year after).

Benefits to society are more than $4.1 million ($16.0 million per year before compared to $11.8 million per year after).

Case Study: Fourth Plain Boulevard Corridor Safety Project Reduces Congestion

On the Fourth Plain Boulevard Corridor Safety Project, several engineering improvements were made to the roadway. First, signs along the corridor were improved. For example, the street name signs were changed to use larger fonts to make them easier to read. This was an attempt to better assist drivers in finding their destination amid all of the other distractions along the roadway. Another engineering improvement was upgrading signal timing along the route. The timing of the signals was reviewed and pedestrian countdown timers were installed at many intersections. Finally, additional pedestrian crossing opportunities were created at mid-block locations with the installation of refuge islands and crosswalk markings.

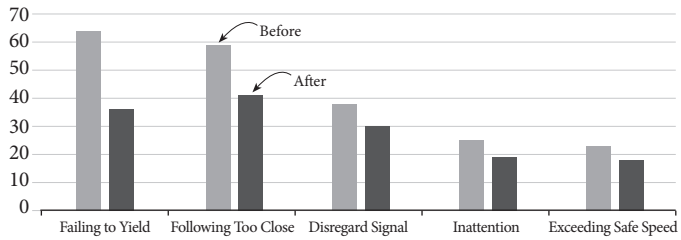
In the two years since the project began:

- total collisions were reduced by 13% (305 per year to 265 per year)
- total injuries were reduced by 20% (186 per year to 148 per year)
- fatal and disabling injury collisions were reduced by 25% (4 per year to 3 per year)

Before and After Results for Fourth Plain Blvd. Corridor Safety Project

Jan. 1, 2001 to Dec. 31, 2003 vs. Oct. 8, 2004 to Oct. 7, 2006

Average Number Collisions per Year Based on Drivers Cited for Contributing Causes



Highway Speeds

WSDOT collects vehicle speed data on a continual basis through 147 Permanent Traffic Recorder stations. The department uses data from 47 stations as a sample to calculate speed statistics. These 47 sites include both Interstate and non-Interstate highways, and all are on controlled-access roadway segments without traffic signals or pedestrian activities.

Prior to 2006, driving speed statistics were calculated by using a 10% sample of all the data collected, from 72 hours of typical, mid-weekday traffic (Tuesdays-Thursdays) each month. With the development of a new data mart for traffic-related information, WSDOT now has the capacity to collect and store speed data for 24 hours a day, 365 days a year. Thus, the 2006 updates presented below reflect this increase in reportable speed data.

The additional data in 2006 did not result in any noticeable changes to existing driving speed trends. However, it did confirm the continuation of the past five year trends, that driving speeds have been quite stable from 2001 through 2006.

Average Speeds

Average speeds closely tracked posted speeds in both 70 mph and 60 mph zones. In 65 mph zones, average speeds were slightly slower than the posted speeds (62 mph in 2006).

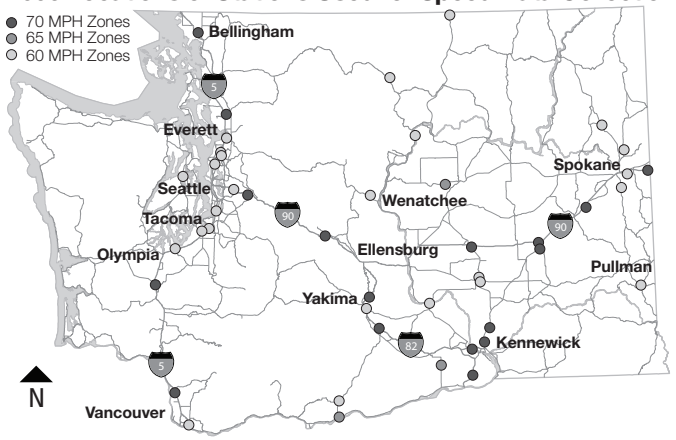
85th Percentile Speeds

The 85th percentile speed is the speed at which 85 percent of vehicles travel at or below, and are monitored by engineers for design speeds and safety. Over the last six years, the 85th percentile driving speeds have been within two to eight mph above the posted speeds on all state highways.

Vehicles traveling at or above posted speeds

The percent of vehicles traveling at or above the posted speed is also a useful measure to assess vehicle speed trends. For 2006 in Interstate 70 MPH rural zones, 50% of the vehicles were at or above the posted speed. In Non-Interstate 70 MPH rural zones, slightly less than half (46%) were traveling at or above the posted speed. In 60 MPH urban Interstate zones 63% were traveling at or above the posted speed, while in 60 MPH rural zones, only 58% were. In 65 MPH zones, only 33% were at or above posted speeds.

2006 Locations of Stations Used for Speed Data Collection



Average Annual Speed by Highway Posted Speed

	2001	2002	2003	2004	2005	2006
70 mph zones						
Interstate	68	69	69	68	69	69
Non-Interstate[1]	67	69	69	68	68	69
65 mph zones[2]	59	62	62	61	61	62
60 mph zones						
Interstate	60	61	61	60	60	60
Non-Interstate[1]	59	60	59	60	60	60

Data Source: WSDOT Transportation Data Office
[1]Controlled-access Non-Interstate Highways
[2]All 65 mph zones are non-interstate, controlled access highways.

85th Percentile Speed by Highway Posted Speed

	2001	2002	2003	2004	2005	2006
70 mph zones						
Interstate	75	76	75	75	76	76
Non-Interstate[1]	74	76	75	75	75	75
65 mph zones[2]	67	70	70	69	69	70
60 mph zones						
Interstate	68	68	68	68	67	66
Non-Interstate[1]	67	67	67	67	66	67

Data Source: WSDOT Transportation Data Office
[1]Controlled-access Non-Interstate Highways
[2]All 65 mph zones are non-interstate, controlled access highways.

Percent of Vehicles Traveling At of Above Highway Posted Speeds

	2001	2002	2003	2004	2005	2006
70 mph zones						
Interstate	43%	42%	42%	47%	47%	50%
Non-Interstate[1]	40%	38%	38%	44%	45%	46%
65 mph zones[2]	25%	27%	27%	28%	30%	33%
60 mph zones						
Interstate	51%	60%	60%	56%	58%	63%
Non-Interstate[1]	61%	59%	59%	62%	62%	58%

Data Source: WSDOT Transportation Data Office
[1]Controlled-access Non-Interstate Highways
[2]All 65 mph zones are non-interstate, controlled access highways.

Roundabouts

WSDOT and a number of Washington State communities have been building roundabouts for the last ten years. Approximately 102 roundabouts are in the public roadway system in Washington State, with 16 on the state highway system. Roundabouts cost between $370,000 and $1.7 million to design and build, making them more expensive than low-cost efforts such as rumble strips, but much less expensive than major highway safety projects such as road widening.

Roundabouts are some of the safest intersection control devices, and their use on the public roadway system now frequently augments traditional American approach of stop signs and traffic signals. National studies from the Insurance Institute for Highway Safety show that fatality crashes at a roundabout intersection drop 90% after installation, and injury collisions drop by approximately 76%.

Roundabouts: Before and After Safety Study

To measure roundabout performance in Washington State, WSDOT performed a Before and After study of nine roundabouts located at intersections on the state highway system. The study analyzed urban and rural roundabouts as well as single-lane and multi-lane roundabouts. In all nine locations, collision data was collected for the three years prior to installation of a roundabout. Once roundabouts were open to traffic, collision data was collected in the same locations. The table to the above right shows a comparison of the number of fatal and disabling injury collisions and evident injury collisions before and after installation of roundabouts.

Based on the analysis of the nine WSDOT roundabouts, fatal and disabling injuries dropped 80%. In fact there were no fatality collisions in any of the the intersections after installation of the roundabouts. Evident injuries dropped an average of 43% at the nine locations. This analysis of rates by month show similar results. Many of the roundabout intersections in the study also have shown reduced average wait times for drivers at the intersection.

The initial results of this Before and After study were previously reported in the June 30, 2006 *Gray Notebook*. At that time, fatal disabling injury collisions had dropped 80% and evident injury collisions had dropped 73%. With additional months in the after analysis period, the evident injury rate has changed to a 43% reduction in this type of collision because of five additional evident injury crashes at two multi-lane roundabouts. Even though five more injuries were experienced than the previous period, overall roundabout performance still remains strong.

Total Collisions in WSDOT Study of Nine Roundabouts by Type of Collision

Before and After Installation of Roundabouts

Type of Collision	Selected Before Period	Selected After Period	% Change (Last Report)	% Change
Fatal and disabling	5	1[2]	80%	80%
Evident injury[1]	14	8	73%	43%

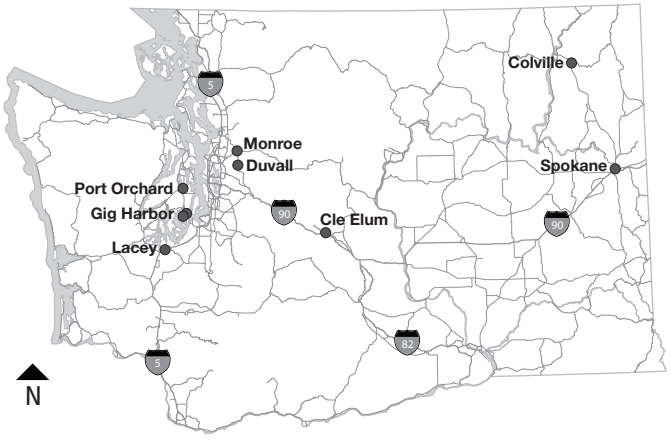
Source: WSDOT Traffic Office

[1]An evident injury is an injury that is verifiable by the police officer when arriving at the crash location and interviewing occupants of the vehicles (i.e. lacerations and broken bones)

[2]This was a disabling collision. There were no fatality collisions in any of the nine intersections after installation of the roundabouts.

Roundabout at the intersection of SR 903 and Bullfrog Road near Cle Elum.

Roundabout Locations Included in Before and After Study



Intelligent Transportation Systems Annual Update

Running parallel to virtually the entire state highway network is a less visible, but very important, technology infrastructure. This technology infrastructure is generally referred to as Intelligent Transportation Systems, or ITS. The many elements of ITS help ensure safety, improve the reliability of traffic flow, maintain roads more efficiently, and gather data on highways.

For instance, Variable Message Signs (VMSs) warn drivers to prepare to slow down to avoid colliding with backed-up traffic. Ramp meters control the flow of traffic entering the mainline and delay breakdown of traffic flow due to congestion. Road/Weather Information Systems (RWISs) units at the side of roads tell WSDOT which roads are near the freezing point and allow WSDOT to deploy maintenance resources efficiently. Meanwhile, data loops and television traffic cameras provide information to travelers and data that helps WSDOT better manage the system.

Traditionally, transportation agencies have found it difficult to measure the performance outcomes of ITS systems on safety and traffic flow. The impacts of several elements working together on a collective system make it hard to connect any one element to any specific performance improvements. However, WSDOT is making efforts to collect data on new additions to the system, and to study emerging ideas for measuring existing elements.

WSDOT Did Not Meet Target for ITS Maintenance in 2006

While some significant improvements have been made in the information management system used to track maintenance needs and accomplishments for ITS components, challenges remain regarding system maintenance and operations. WSDOT's current Maintenance Accountability Process (MAP) performance measure for ITS is based on the number of repairs per system per year. The definition of a repair is work done to correct a malfunctioning system. The current Level of Service (LOS) Target for ITS is a "B-", which translates to one repair per system per year. WSDOT missed this target in 2006, with a LOS score of C+.

Inventory Increases

Rapid growth of the ITS inventory is one major reason for missing the target. In recent years there have been significant increases in the numbers of ITS features added to the highway system. For instance, in WSDOT's Eastern Region, the ITS inventory went from 67 items to 99 items during 2006. The same level of growth is projected for 2007. Simply put, WSDOT is falling behind because the number of systems needing maintenance and repairs is increasing.

Intelligent Transportation Systems Elements Inventory

As of October 2007, WSDOT Owned Elements

Device Type	Number of Devices or Sites	Approximate Cost per Device or Site
Closed Circuit Television Cameras (CCTVs)	521	$15,000-$30,000
Variable Message Signs (VMSs)	179	$100,000
Highway Advisory Radio Transmitters (HARs)	70	$50,000
Road/Weather Information Systems (RWIS)	94	$25,000-$50,000
Metered Ramps	137	$10,000-$100,000
Traffic Data Stations	530	$10,000-$20,000
Traffic Management Centers (TMCs)	8[1]	N/A

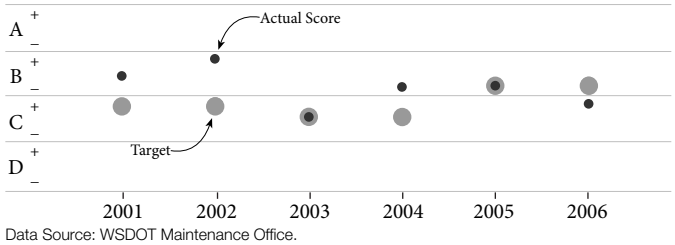
Data Source: WSDOT Traffic Operations Office
[1] This includes one winter operations site at Snoqualmie Pass

Cost Increases

Meanwhile, electricity costs continue to increase, taking away from already-limited resources. In addition, much of the technology comprising the older systems that have been in place for many years is obsolete, and replacement parts are hard, if not impossible, to obtain. This makes for challenging and time-consuming "duct tape and baling wire" repairs. Currently, resources are limited for updating technologically outdated systems. Finally, the increasing demands balanced with limited resources is creating an inability to keep up with needed preventative maintenance, which would help minimize systems malfunctions in the first place. During 2006, WSDOT was able to conduct 27% (statewide) of the optimal preventive maintenance for ITS.

MAP Level of Service Scores for ITS Maintenance[1]

Calendar Years 2001-2006



Data Source: WSDOT Maintenance Office.
[1]LOS scores for MAP range from A (excellent) to F (very low).

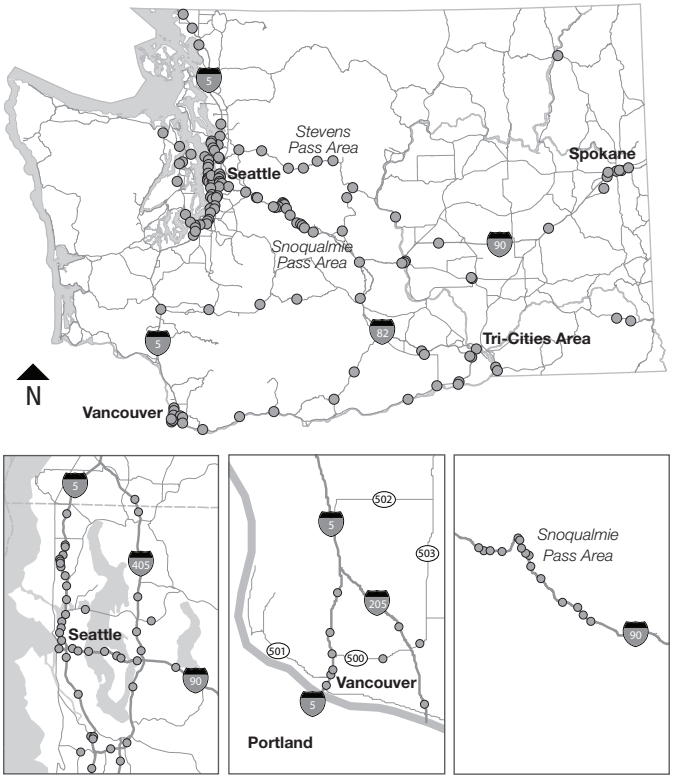
Intelligent Transportation Systems Annual Update

How to Measure the Effects of Variable Message Signs on Traveler Decisions?

WSDOT's 179 Variable Message Signs (VMS) are used to provide motorists with important information on traffic congestion, incidents, work zones, travel times, special events, and temporary speed limit changes. They may also suggest alternative routes, warn of traffic slowdowns ahead, or provide other alerts and warnings. VMSs provide superior communication capabilities compared to other ITS technology such as Changeable Message Signs (see photos to the right).

WSDOT is working in conjunction with the Minnesota State DOT to measure how VMS travel time messages affect traveler decisions. Several VMSs are located on key decision points on major Washington highways – points where motorists can leave the highway and take alternative highways or city streets to their destinations rather than face major slowdowns. If funded, this research would determine if certain thresholds of travel time lengths posted on VMSs result in increases in people exiting the highway, presumably to find these alternative routes.

Locations of Variable Message Signs (VMSs) Statewide
As of Quarter 3, 2007



Understanding how travel time messages affect traveler behavior will allow WSDOT to better manage the highway system, such as adjusting ramp meter rates and traffic signalization for alternative routes. This could possibly include posting travel time information on VMSs for alternative routes in order to give travelers more complete information.

Variable Message Signs can give road conditions, warn of accidents and delays, and provide anticipated travel times.

Changeable Message Signs have limited capabilities for communication. Generally they only provide the status, open or closed, of special lanes through a rolling drum.

AMBER Alerts on WSDOT Variable Message Signs and Highway Advisory Radio

The AMBER Alert Communications Network has its origins in the 1996 abduction and murder of 9-year old Amber Hagerman. In response to this tragedy, Dallas-Fort Worth broadcasters teamed with local police to develop an early warning system to help find abducted children. In 2002, AMBER Alert became a nationally coordinated effort, and all states now have AMBER Alert plans in place.

WSDOT is one of several active members of the Washington State AMBER Alert program. WSDOT's role is to post AMBER Alerts on Variable Message Signs (VMS) and Highway Advisory Radio (HAR) messages.

Since it began, Washington's Amber Alert system has issued 20 alerts for a total of 29 children. Of these alerts, four involving six children were unsubstantiated. Of the remaining 16 genuine alerts, 22 children were recovered successfully. Sadly, one child was found deceased.

Highway Maintenance

WSDOT Emergency Operations Center

The WSDOT Emergency Operations Center (EOC) is an integral part of WSDOT's overall Emergency Management Program. It is designed and activated using the Incident Command System and the National Incident Management System which satisfies the federal requirement that all emergency response groups utilize these systems for coordination and information exchange during an emergency or disaster.

The purpose of the EOC is to coordinate response and recovery activities to emergencies and disasters that involve WSDOT. The EOC manages the information flow between personnel on scene, WSDOT executive management, the Washington State EOC, the Governor, the media, and the public.

An EOC is activated anytime there is an incident that is deemed an emergency or disaster. Some examples are:

- Flooding
- Severe winter weather
- Large fires
- Earthquakes
- Bridge collapse
- Acts of terrorism
- Incidents causing large scale evacuations (volcanic eruption, tsunami, etc.)

WSDOT also participates in the Washington State EOC operated by the Emergency Management Division of the Military Department when an event involves or has the potential to impact the transportation system.

Last winter, there were five EOC activations for floods in November, a wind storm in December and three snow storms. The goal is around-the-clock operations with three shifts; however, identifying and training enough people for all the positions in the EOC has been challenging. EOC staff are WSDOT employees who volunteer, and WSDOT is increasing internal recruitment efforts.

Data collection is done with SharePoint and WebEOC, a program that is used by the State EOC, WSDOT EOCs and many county EOCs. Once the event is over and the EOCs are deactivated, an After Action Report is completed. If the State EOC was activated, the Military Department produces this report for the governor. Otherwise, WSDOT will complete a report for the Secretary of Transportation. The After Action Report provides a summary of events, what worked, what did not, and what should be done differently in the future. The principle purpose of the report is to capture what the response was to the incident and then develop procedural and organizational changes based on that experience to help improve future response actions.

WSDOT Creates Culvert Management System

As Washington State highways age, so do the drainage systems, which include approximately 50,000 culverts. Over the past few years several pipes and culverts have failed. These failures impact the ability of the transportation system to move people and freight.

In June of 2006, crews began collecting data for the Roadside Features Inventory Program (RFIP), a database of fixed objects which includes culverts and other features such as signs and guardrails located within the roadway clear/safety zone. This data is used for safety analysis, asset management, project and system design and overall system analysis. It is anticipated that the culvert data collection will be complete within five years.

While the RFIP will record where culverts are located, a more detailed Culvert Maintenance Management System (CMMS) is being developed to document the maintenance activities conducted on culverts, such as inspecting, cleaning, repair. Prior to CMMS, no central database existed for culvert information being collected, and maintenance actions conducted on individual culverts were not being documented in a way that could be used for management purposes. Using a single application, WSDOT will be able to access culvert data stored in both the RFIP and CMMS databases. The goal is to have CMMS operational by the end of 2007.

CMMS has three levels of inspection:

- Level 1 - Maintenance crews perform a visual condition assessment inspection. The inspection will be documented using a PDA. If a culvert fails this visual inspection, a Level 2 inspection is requested.
- Level 2 - Hydraulics and Water Quality Office performs a more detailed visual inspection with more thorough documentation. If a Level 2 inspection is not sufficient to determine the condition of the complete culvert, a Level 3 inspection is requested.
- Level 3 – Transportation Data Office culvert inspection crews perform a video inspection through the use of a motorized, remote control video vehicle. Video and still images are gathered and stored.

Culvert Maintenance is one of the 33 Maintenance Accountability Process (MAP) activities.

Meet Rovver, the video culvert inspector

Washington State Ferries: Quarterly Report

Revenue, Ridership, and Customer Feedback

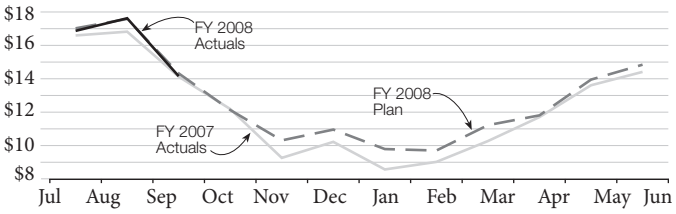
The WSDOT Ferry System serves as both an extension of the state's highway system and as a regional mass-transit provider. It provides a critical link to communities separated by water or longer driving distances, and is critical to the movement of goods and people in the Puget Sound region. Currently, it is the largest operating auto-ferry fleet in the world, and the third largest by passenger volume, carrying over 11 million vehicles and 24 million passengers each year.

Farebox Revenue Close To Expectations

Farebox revenue was only 0.6% below projected levels for the first quarter of fiscal year (FY) 2008. Farebox revenue totaled $48,646,577, which is only $279,123 less than the projected revenue ($48,925,700). The ferry system took in 2.3% more in fares this quarter compared to the first quarter of FY 2007 ($47,540,231). The 2.3% increase in farebox revenue approximates the 2.5% fare increase implemented in May, 2007.

Farebox Revenues by Month

Dollars in Millions



Data Source: WSDOT Ferry System

During the busy summer quarter, projected and actual farebox revenues are higher than other quarters due to increased demand and to the seasonal surcharge levied on trips from the beginning of May through mid-October. WSDOT Ferry System schedules Ferry Advisory Committee hearings in communities served by the ferry system in order to gather input and make informed decisions when considering any fare increases. All fare increases are approved by the Washington State Transportation Commission before they can take effect. In addition, the department produces revenue and ridership projections that are approved by the Transportation Revenue Forecast Council.

Ridership Data Not Available

The last edition of the *Gray Notebook* reported technical problems about ridership data in relation to the new electronic fare system, *Wave2Go*. While the department has made progress on correcting these issues, a technical solution to the problem has not been fully implemented. As a result, the department hopes to report ridership statistics in the next edition of the *Gray Notebook*. In addition, future editions will cover ridership data for all unreported quarters.

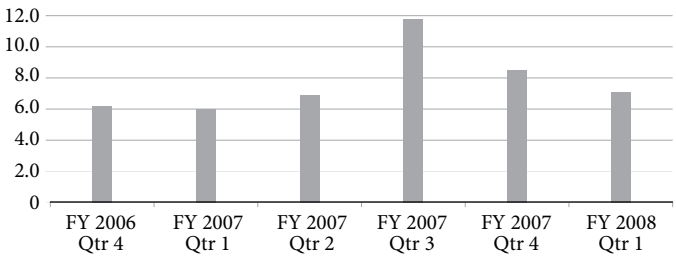
Customer Complaints Decrease for Second Consecutive Quarter

WSDOT Ferry System monitors customer complaints, comments and compliments. The department 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.

In the first quarter of FY 2008, the department received 528 complaints, for an average complaint rate of 7.1 complaints per 100,000 customers. Compared to the previous quarter, customer complaints decreased by 17% during the quarter ending September 30, 2007.

This is the second consecutive quarter in which customer complaints have decreased. The reduction in complaints is due to a significant decrease in complaints about ticketing (down 40.2% from the previous quarter) which had risen in tandem with the new electronic fare system, *Wave2Go*, that has since been fully implemented. In addition, a policy decision to require receipts for all toll-booth transactions, causing increased transaction times, has caused frustration with some customers. In general, ticketing complaints have declined as a greater number of ferry riders have grown accustomed to the new electronic fare system.

Average Number of Complaints per 100,000 Customers



Data Source: WSDOT Ferry System

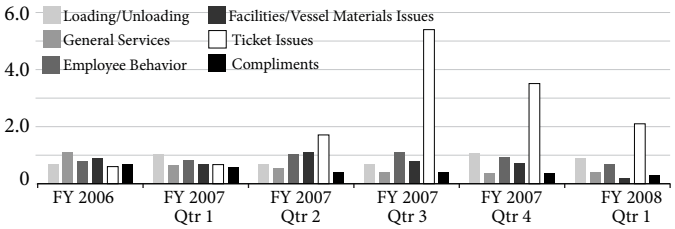
Washington State Ferries: Quarterly Report

Trip Reliability

Complaint Averages Down in Key Categories

WSDOT Ferry System sorts comments into 26 categories to capture riders' concerns, suggestions, and compliments. During the second quarter, the leading areas of complaint included Loading/Unloading (down 17% from the previous quarter), Employee Behavior (down 24% from the previous quarter), and General Services (down 3% from the previous quarter). The ferry system 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.

Common Complaints Per 100,000 Customers



Data Source: WSDOT Ferry System

Wave2Go Electronic Fare System Deployment Continues

WSDOT Ferry System's new electronic fare system, *Wave2Go,* will have automated drive-through toll booths operating at four terminals (Bainbridge, Bremerton, Kingston and Clinton) in the near future. These automated toll-booths will allow drivers with pre-purchased fares to board ferries more quickly and will ease traffic demand at staffed ferry tollbooths. For more information, visit to the *Wave2Go* web site at http://www.wsdot.wa.gov/ferries/wave2go/.

Trip Reliability Declines During Quarter

In the first quarter of FY 2008, 43,371 trips were scheduled. Of that total, 410 trips were cancelled and 64 trips were made-up, resulting in a total of 43,025 completed trips (43,371 scheduled trips –410 cancelled trips + 64 replacement trips = 43,025 net trips).

WSDOT Ferry System'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 rate of 3.2 trips annually, assuming 400 trips per year per commuter.

The average trip reliability declined 23% from an average of 2.6 trips missed per year reported last quarter. Last year, trip reliability averaged 1.0 cancellations for the first fiscal quarter in FY 2007. Primary factors for a decline in trip reliability is the shift to a one-boat schedule on the Port Townsend – Keystone route, due to needed repairs on the Steel Electric class vessels that service this route, and to the continued marine and operating challenges on this particular route.

Trip Reliability Index

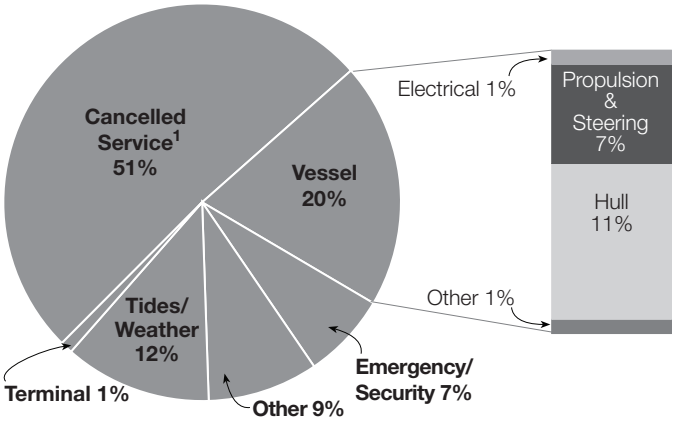
Calculated Average of Missed Trips

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

Data Source: WSDOT Ferry System.
Note: Trip Reliability is based on the number of trips missed per year for one commuter making 400 trips per year

Reasons for Trip Cancellations

First Quarter, Fiscal Year 2008



Data Source: WSDOT Ferry System
[1]The Cancelled Service category consists of cancelled trips that are eliminated due to an unplanned change in scheduled service. In September, the Port Townsend - Keystone route changed from a two-boat to a one-boat service schedule, a month earlier than planned

Seasonal On-Time Performance Declines With Increased Vehicle Traffic Demand

WSDOT Ferry System uses an automated tracking system to record vessel departures from terminals to determine if a trip is "on-time"; defined as any trip leaving within ten minutes of the scheduled departure time. In the first quarter of FY 2008, the automated tracking system counted 34,342 out of 41,250, which is 83% of recorded trips departing on-time. This is a decline in performance of about 7.3% as compared to the previous quarter (90.5%). Compared to the same quarter one year ago, on-time performance was 4% lower. During the first quarter of FY 2008, the average delay was 5.7 minutes past the on-time window, an increase of 1.6 minutes from the previous fiscal quarter (4.1 minutes).

Washington State Ferries: Quarterly Report

On Time Performance

On-Time Performance Comparison

Route	First Quarter, Fiscal Year 2007			First Quarter Fiscal Year 2008		
	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 Islands (Domestic)	7,441	78%	6.7 minutes	7,293	73%	8.2 minutes
Anacortes-Sidney, B.C. (International)	336	73%	7.3 minutes	359	65%	11.0 minutes
Edmonds-Kingston	4,577	83%	5.7 minutes	4,509	74%	7.2 minutes
Seattle-Vashon (Passenger Only)	232	99%	2.4 minutes	363	98%	3.0 minutes
Fauntleroy-Vashon-Southworth	10,371	88%	4.7 minutes	10,275	86%	4.9 minutes
Keystone-Port Townsend	2,680	78%	6.7 minutes	2,427	62%	10.8 minutes
Mukilteo-Clinton	6,941	96%	3.3 minutes	6,886	92%	3.9 minutes
Pt. Defiance-Tahlequah	3,115	90%	4.8 minutes	2,509	93%	4.1 minutes
Seattle-Bainbridge Island	4,125	91%	3.4 minutes	4,097	88%	3.8 minutes
Seattle-Bremerton	2,339	97%	3.2 minutes	2,532	96%	3.2 minutes
TOTAL	**42,157**	**87%**	**4.9 minutes**	**41,250**	**83%**	**5.7** 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, nor all trips counted are 'On-Time'.

During the first fiscal quarter of FY 2008, WSDOT Ferry System experienced higher vehicle traffic demand than the previous quarter and also higher demand than the same quarter one year ago. When ferries are filled to capacity, it may take more time to load and unload vessels and this may contribute to delays in departure.

The on-time performance rating used by WSDOT Ferry System does not include all of the actual trips completed for the reporting quarter. The equipment used to record departing vessels is susceptible to marine and other atmospheric conditions which disrupt the accuracy of radio wave transmissions, as these transmissions are used to detect when a ferry leaves a terminal. While it is a reliable means of measuring relative performance of the ferry system, the automated system cannot represent an absolute measure of all completed sailings.

Port Townsend - Keystone has 70% of Cancellations

Of the 410 cancelled trips incurred system-wide, 286 cancellations (70% overall) occurred on the Port Townsend – Keystone route. This figure is disproportionately high considering that this route is one out of thirteen ferry routes, and one of the smallest by traffic volume. This route continued to face challenges related to weather (10 cancellations), tidal conditions (35 cancellations), and other, miscellaneous factors (11 cancellations). The majority of cancellations (230 cancellations) were from two Steel Electric class vessels that were assigned to this route being pulled from service for additional hull inspections. These two boats were replaced with a single vessel.

The Port Townsend - Keystone Route used two vessels to transport traffic between the destinations during the summer quarter. A third vessel was kept in reserve if one of the two primary vessels needs to be removed from the route. During the quarter, two of the three vessels were discovered to have small holes in their hulls, and were removed from service. The route was left with one vessel, and used a 'one boat schedule' for the rest of the quarter. The lost trips from the second vessel were counted as cancellations.

Steel Electric Class Vessels Pulled From Service

On November 20th WSDOT announced that the Steel Electric ferry vessel class would be pulled out of service due to safety concerns related to the deteriorating condition of the vessels' hulls. This decision meant that the Port Townsend - Keystone auto ferry route would be closed immediately until further notice. The 80 year old vessels, the M/V *Quinault*, M/V *Klickitat*, M/V *Illahee* and M/V *Nisqually*, are the oldest operating auto ferries in the US.

WSDOT is conducting meetings with the Legislature and the Governor's office to find a solution to restoring auto ferry service to the Port Townsend – Keystone route. In the interim, WSDOT re-launched the M/V *Snohomish* on November 25, 2007, one of two high-speed passenger only ferries originally designed for the Bremerton – Seattle route. Arrangements were made with local transit agencies and vanpool operators to provide reliable connections for commuters traveling between the Olympic Peninsula and Whidbey Island. For additional information related to this development, please visit the WSDOT news page at: http://www.wsdot.wa.gov/ferries/commuter_updates/index.cfm?fuseaction=press_releases.

Washington State Ferries: Quarterly Report

Preservation and Emergency Repairs

WSDOT Ferry System makes capital investments in its vessels and terminals through the Washington State Ferries Construction Program (WSFCP). This program preserves existing vessels and terminals and builds new vessels and terminals as well. The resulting infrastructure gives the ferry system the capacity to deliver responsible and reliable marine transportation services to riders. The program consists of three sub programs; Vessel Construction, Terminal Construction, and Emergency Repairs.

New Life Cycle Evaluation System Underway for Ferry Vessels and Terminal Structures

The 2007 Legislature has amended the rules regarding preservation maintenance. Under Engrossed Substitute House Bill 2358, WSDOT Ferry System will be required to use a life cycle cost model for its preservation work for both vessels and terminals. With this change, work will be classified and reported on as preservation work if the infrastructure is identified in the individual vessel or terminal life cycle cost model. Inspections will be required every three years to evaluate and update life cycle cost models.

Vessels Preservation

WSDOT Ferry System is re-evaluating its existing life cycle cost modeling systems for vessels in relation to the direction of ESHB 2358. The department will continue to conduct preservation work on ferry vessels and is developing a performance measurement model that will reflect some of the requirements for the new legislation.

Terminal Preservation

Under ESHB 2358, WSDOT will use its bridge structural condition rating system for evaluating the useful lifespan of ferry terminals across the system. The structural condition of each terminal is determined by inspections carried out by WSDOT bridge preservation personnel, ferry system engineers, and external consultants. Inspection findings are converted into the WSDOT bridge structural condition rating scores of good, fair, poor, and sub standard to assess the overall condition of the superstructure and substructure. These ratings allow for prioritization and planning in the WSFCP related to terminal preservations and replacements in the future.

The bridge structural condition rating system evaluates the critical components of the terminal's super- and substructures including the landing aids (wingwalls and dolphins), vehicle transfer span systems, overhead loading systems, trestles and bulkheads, and pavements. The rating system evaluates the level of deterioration, damage, and compromised functionality on terminal components before giving them a structural condition rating. The table above right details the condition levels of these components for the 20 terminals in the ferry system. Eighty seven percent (87%) of WSDOT ferry system terminal are rated in good or fair condition.

Structural Condition Ratings for Terminal Systems

	Good	Fair	Poor	Sub-Standard
Landing Aids[1]	49%	26%	15%	10%
Vehicle Transfer Spans	28%	63%	9%	0%
Overhead Loadings	59%	33%	8%	0%
Trestles & Bulkheads	43%	51%	3%	3%
Pavements	58%	33%	5%	4%
Total Average	**43%**	**44%**	**9%**	**4%**

Data Source: WSDOT Ferry System
[1] Includes Wingwalls and Dolphins

WSDOT Bridge Structural Condition Definitions

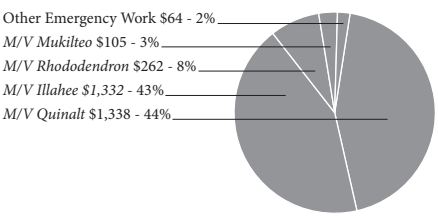
Category	Description
Good	The structure is performing as designed with all elements functioning as intended.
Fair	All primary structural elements are sound but may have deficiencies such as crushed timbers, deterioration, and some section loss of anchor chain.
Poor	There is moderate deterioration of some of the elements due to section loss or rotten and crushed timbers, and moderate loss of anchor chain are present.
Sub-Standard	There is advance deterioration due to section loss of steel elements, rotten or crushed timbers, broken or leaning pilings, broken hardware, and severe section loss of anchor chain. Flotation structure may be compromised.

Source: WSDOT Ferry System

Emergency Repairs

Emergency repairs have cost $3.1 million for the quarter ending September 30, 2007. Emergency repairs for the 2007-09 biennium were budgeted at $6.4 million, however nearly half of these funds were spent in this first quarter repairing vessels belonging to the 80 year old Steel Electric class. The M/V *Quinalt* and M/V *Illahee* are two of the older Steel Electics that were pulled from service on the Port Townsend to Keystone route. They have required a number of emergency repairs after small holes were found in their hulls The M/V *Rhododendron* is another older vessel, but it required less expensive repairs compared with the Steel-Electrics. Additional repairs to the Mukilteo terminal were made resulting from the June 1st allusion (accident) of the M/V *Cathlamet* with the north wingwall. For additional information, see the June 30, 2007 *Gray Notebook*, p. 90.

Emergency Expenditures
For the Quarter Ending Sept. 30, 2007
Dollars in Thousands



Data Source: WSDOT Ferry System

Washington State Ferries: Quarterly Report

Ferry System Audit Conducted by State Auditors Office

On September 4, 2007, the State Auditor's Office completed a performance audit of the Washington State Ferries Division. The audit findings focused on two areas of the WSDOT Ferry System: the Eagle Harbor Maintenance Facility and off-peak ferry runs.

Eagle Harbor

The audit recommends improvements to business practices at Eagle Harbor, which include strengthening the timekeeping system and adopting additional performance measures at the individual shop level. The auditors also suggest that adding a second shift to Eagle Harbor might improve efficiency and reduce overtime. WSDOT is reviewing these recommendations to assure that local noise ordinances and staffing needs could both be addressed if a second shift were to be added. WSDOT's review will be completed by April 2008.

Service Levels

The auditors recommend eliminating certain underutilized ferry runs, as well as shortening the service day to achieve an estimated $10 million in annual savings. However, the WSDOT Ferry System is defined by the legislature as both an extension of the state highway system and a mass transit provider. As a mass transit provider, there must be a balance in accommodating peak demand periods with providing some level of connection and usefulness to customers in off-peak hours. As such, WSDOT must balance potential financial savings with the basic principle of providing reliable and predictable service to customers.

WSDOT will work with the Legislature to evaluate this recommendation as part of Phase II of the Legislative Ferry Financing Study that is currently underway. This study is developing options for attracting more riders to less utilized off-peak sailings. If successful, more revenue would be generated from off-peak trips while still maintaining necessary connections for off-peak riders. Current efforts, as part of both the current ferry finance study and processes underway as part of Engrossed Substitute House Bill 2358, are scheduled throughout 2008 and 2009.

The complete audit is available online as an Adobe PDF (1.64 MB) at: http://www.wsdot.wa.gov/NR/rdonlyres/2DBA6117-BB25-46D5-B480-7F521C517EFA/0/WSF_Audit_September2007.pdf

Tollbooths on Bainbridge Island. Soon, automated toll booths will be available to handle passes bought electronically with *Wave2Go*

The M/V *Quinalt* is one of four Steel Electric class ferries

Vehicles line up waiting to board a ferry at Colman docks in Seattle

Rail: Quarterly Update

State Supported Amtrak *Cascades*

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

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

Ridership Remains Steady Despite Service Disruptions in the Third Quarter of 2007

Ridership on state-supported Amtrak *Cascades* trains was 126,617 in the third quarter of 2007. This represents a 0.21% increase over the same period in 2006.

Service disruptions occurred in August due to maintenance issues with the Talgo trainsets that were removed from service for repairs. Amtrak *Cascades* service was suspended for three days with an additional four days of partial service while Amtrak positioned substitute equipment from other parts of the country. Limited availability of substitute equipment forced state-supported service between Seattle and Bellingham to be replaced by bus transportation during August and September. Despite the service disruptions, ridership remained steady for the quarter.

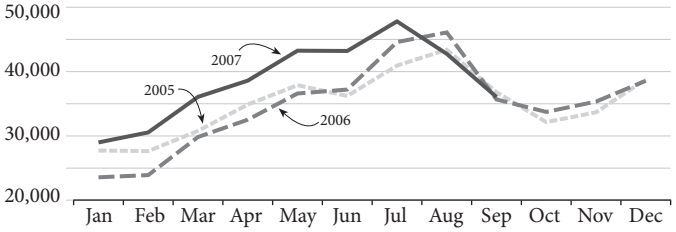
On-Time Performance Improves, But Still Below Target

On-time performance for state-supported Amtrak *Cascades* trains averaged 62% in the third quarter of 2007. While still below the 80% goal, it is more favorable than the 47.6% on-time rate during the same period in 2006.

In July, only 43.95% of the trains operated on-time due to slower train speeds and rail congestion in areas where track maintenance and upgrades were taking place. On time performance in August and September improved as track work was completed. September's on time performance of 74.8% marked the best monthly performance for state-supported Amtrak *Cascades* trains in almost three years.

State Supported Amtrak Cascades **Monthly Ridership**

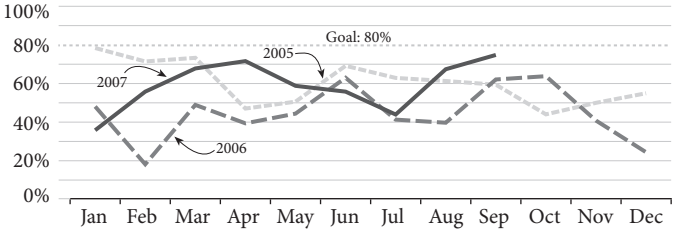
Number of Passengers



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 State, 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 nine months of 2007 and 2006.

State Supported Amtrak *Cascades*
Ridership by Funding Entity

Funding Partner	2006	2007[1]
State of Washington	311,019	347,114
State of Oregon	75,626	80,209
Amtrak	81,693	84,184
Total Ridership	**468,338**	**511,507**

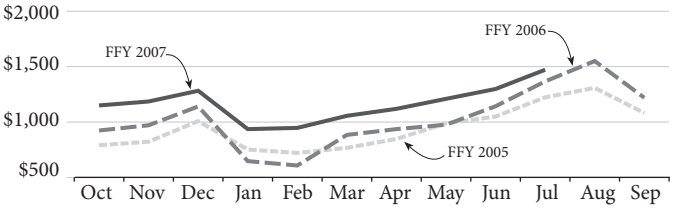
Data Source: Amtrak and WSDOT Rail Office
[1]New Seattle-Portland daily round trip added in July 2006. This service is funded by the State of Washington
Note: Washington-funded service: Amtrak *Cascades* 501, 506, 507 (between Seattle and Portland), 508, 510, 513, 516, and 517.
Oregon-funded service: Amtrak *Cascades* 500, 504, 507 (between Portland and Eugene), and 509 (between Portland and Eugene).
Amtrak-funded service: Amtrak *Cascades* 500 and 509 (between Seattle and Portland).

Rail: Quarterly Update

Amtrak *Cascades* Increases 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.

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 timeframe used in this measurement is the federal fiscal year (FFY), which starts in October and ends in September, to coincide with the WSDOT/Amtrak annual operating contract timeframe.

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 17.9% when compared to the same period in FFY 2006. This significant revenue increase is primarily caused by more ticket income generated by the new Seattle-Portland round trip that began operating in July 2006.

Amtrak *Cascades* Trains Out of Service for Repairs

A routine maintenance inspection on Amtrak *Cascades* trainsets on August 2, 2007 revealed cracks in the suspension support system of many cars of the Talgo trainsets. WSDOT, Amtrak, and Talgo voluntarily removed the trains from revenue service as a precautionary measure until the root cause of the cracks was determined and repairs could be made.

In order to keep Amtrak *Cascades* operating, Amtrak quickly scoured its national system to find alternative equipment. Cars were pulled out of revenue service in California and the Washington D.C. area and were placed into Amtrak *Cascades* service between August 6-9. The substitute equipment will operate until the Talgo trainsets have been repaired.

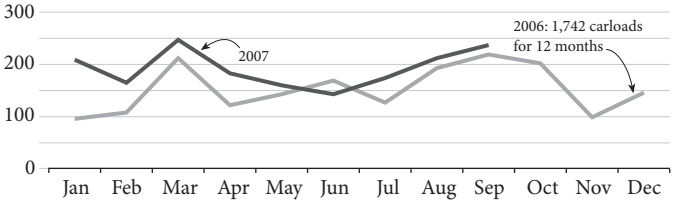
After extensive analysis, the root cause of the cracks was determined. The cracks were fatigue cracks caused by welding techniques in the manufacturing process. The cracks do not pose a safety risk. The Federal Railroad Administration approved the proposed fix and repairs began in mid-September. The manufacturer, Talgo, has a contractual responsibility for the maintenance of the trainsets, and these maintenance operations were performed in Seattle. It was originally anticipated that the trainsets would be repaired and placed back into regular service before mid-November, but all trains returned to service ahead of schedule on October 21.

Washington State Grain Train

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

Use of the grain cars remains strong. Total carloads for the third quarter of 2007 increased 16% over the same quarter in the previous year. There were 623 carloads shipped in the third quarter of 2007 compared to 539 in the third quarter of 2006.

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.

The Grain Train Serves Farmers

In the early 1990s, a national shortage of rail grain 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.

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.

Special Report:
Transportation Policy Goals Attainment Report

Baseline Report Due in December 2007

During the 2007 Legislative Session, the Washington State Legislature directed the Office of Financial Management (OFM) to prepare a new report to the Governor and Legislature on the attainment of five overarching state transportation policy goals. the initial baseline report is scheduled to be released in December 2007. WSDOT is working closely with OFM to develop the report.

The new attainment report replaces a previous requirement to report on the multiple detailed measures and benchmarks recommended by the Blue Ribbon Commission on Transportation, and subsequently codified by the Legislature. The new approach provides more flexibility to respond to changing priorities and circumstances that arise over time.

To build the attainment report, OFM is identifying detailed objectives and measures under each goal. The report will draw upon existing agency measures, including those reported in the *Gray Notebook*, Government Management, Accountability, and Performance (GMAP) reports to the Governor, and OFM's Performance Measure Tracking System.

Since the report is focused on statewide performance, it will cover multiple state agencies and, eventually local governments. In addition to WSDOT, OFM is working with the Transportation Commission, County Road Administrative Board, Transportation Improvement Board, Washington State Patrol, Department of Licensing, Traffic Safety Commission, and Freight Mobility Strategic Investment Board. In the future, OFM also hopes to work with local governments and tribes to present a more complete picture of the overall transportation system.

Following the initial baseline attainment report due this December, OFM must submit updated reports beginning in October 2008 and continuing every two years thereafter.

New Statewide Transportation Policy Goals

Preservation: to maintain, preserve, and extend the life and utility of prior investments in transportation systems and services

Safety: to provide for an 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

Stewardship: to continually improve the quality, effectiveness, and efficiency of the transportation system

Highlights of Program Activities

Project Starts, Updates or Completions

Project Starts

US 2 Gold Bar
Crews began work in July to improve safety and traffic flow at the intersection of US 2 and Pickle Farm Road/Gunn Road in Gold Bar. Improvements include adding left-turn lanes, reconstructing the existing right-turn lane, installing new signs and upgrading sight distance and side slopes.

I-5 Kelso
A freeway repair project on I-5 in Cowlitz County began on August 9. Crews will repairs ruts and provide safety improvements to just over 17 lane miles of I-5, from Woodland to Ostrander Creek, north of Kelso. In addition, they will install guardrail, pavement markings, rumble strips, and signs. Construction is expected to last through the fall.

I-5 Centralia
In July crews began a widening project on I-5, from Rush Road to 13th Street in Lewis County. This project widens four miles of I-5 from two to three lanes in each direction. In addition, a new interchange will be constructed at LaBree Road. Construction began in July, and is expected to be complete in late 2009. This project is the first of several with the goal of relieving congestion, improving freight mobility, economic development and safety through the I-5 corridor.

I-5 Lacey
On August 20, crews began work on a six-week project to widen the southbound off-ramp at I-5/Marvin Road intersection, Exit 111, creating an additional left-turn lane onto Marvin Road. The projects will help improve traffic flow in the rapidly developing Hawks Prairie vicinity. This project is a partnership between WSDOT and the City of Lacey.

I-5 Marysville
Crews began work in August on the I-5, 88th Street interchange in Marysville to ease congestion and increase safety on this busy overpass. By the end of fall, crews will have added an additional left-turn lane at the west end of the 88th Street overpass and a second left-turn lane on the northbound I-5 exit ramp to 88th Street. The new turn lanes will increase capacity and help prevent traffic from backing up onto I-5, reducing the risk of high speed rear-end collisions.

US 12 Rochester
On August 2, crews began work on a month-long paving project on US 12 in Thurston County. This project paved a two-mile stretch of US 12 from Joselyn Street SW to I-5 in Rochester. Crews completed this job in late August.

SR 20 Deception Pass
WSDOT started construction September 17 on a project to rebuild almost half of the SR 20 guardrail that runs through Deception Pass State Park. The $5.5 million project will replace the most collision-prone sections of the unique 1930's stone masonry posts and Douglas fir railing. The new guardrail will retain the look and feel of the original, while meeting current safety standards. Crews will also widen a section of SR 20 north of Cornet Bay Road and install a two-way left turn lane.

SR 28 Ephrata
A project to repair and resurface nine miles of SR 28 from Ephrata to Winchester started in July. Crews will cut back the rock face around the railroad overcrossing between Martin and 13 Northwest to improve sight distance. In partnership with Grant County, the intersection with 13 Northwest will be relocated to allow crews to widen SR 28 for a left-turn lane.

US 101 Mt. Walker
Crews began a project in early July to construct truck passing lanes on US 101 in the Mt. Walker area, north of Quilcene. Work involves building a new lane in both directions that allows drivers to safely pass slower-moving trucks and recreational vehicles traveling uphill. The project is scheduled for completion this fall.

SR 304 Bremerton
Construction kicked off in July for the SR 304 Bremerton Tunnel project, which redirects off-loading ferry traffic away from the downtown area. This $30.7 million project reduces the pedestrian/vehicle conflict by building a 950-foot long tunnel that moves a substantial portion of off-loading vehicle ferry traffic through the new tunnel and onto State Route 304/Burwell Street.

I-405 Bellevue
On July 9, WSDOT started construction to widen four miles of I-405 within the city of Bellevue between 112th Avenue SE and SE 8th Street. The I-405 South Bellevue Widening Project helps relieve congestion by adding lanes and improving merging conditions on the drive into and out of downtown Bellevue. WSDOT will open the new northbound lane between 112th Ave SE and Coal Creek Parkway by May 30, 2008; more than a year before the second stage of the project will be completed in Fall 2009.

Project Updates

SR 3/303 Silverdale
Significant changes were made at the SR 3/SR 303 interchange on September 17, when WSDOT crews activated a new traffic signal on the Waaga Way overpass. The signal activation coincided with opening of two new ramps to traffic at the north end of the project area. The stoplight controls traffic to and from the new ramps as well as the flow of traffic across the overpass. Work is part of a

Highlights of Program Activities

$16.7 million project that started in April 2006 and is slated for completion this fall. Once finished, drivers will have a direct-access route between SR 3 and SR 303.

I-5 Everett
WSDOT opened a new lane on July 26 for motorists traveling northbound I-5 in Everett. The right-most lane begins at 41st Street and ends at US 2. It is designed to help relieve the back-ups caused by merging vehicles exiting at US 2 and Pacific Avenue and entering I-5 at 41st Street. All that weaving will now happen in the new lane, adjacent to the mainline traffic heading north toward Marysville. The new lane is part of a $263 million I-5 Everett HOV expansion project. The project is scheduled to end in June 2008.

I-405 Bellevue
In August, crews began constructing a wetland at Kelsey Creek Park to provide environmental mitigation for projects along the I-405 corridor. The two-plus acre wetland is north of the intersection of Richards Road and the Lake Hills Connector east of I-405 in Bellevue. Restoration includes removing about 850 truck and trailer loads of dirt and re-grading the area to historic elevations. Crews will plant native vegetation and install standing snags and woody debris to improve habitat. The wetland also will improve water quality and help reduce flooding.

SR 543 Blaine
WSDOT switched traffic onto the new northbound lanes of SR 543 in Blaine in August to make room for construction on the D Street interchange and future southbound lanes. Crews lowered the highway more than 25 feet to make this possible. WSDOT expects to open D Street and the new truck lane this fall, and finish the southbound lanes and D Street interchange ramps next spring.

Project Completions

I-5 Seattle
Crews completed repairs on northbound Interstate 5 just south of downtown Seattle after a 14-day, round-the-clock work schedule. During the 14-day closure, crews swarmed I-5 with as many as 85 people on the deck at a time. Drivers could see crews on the freeway around the clock breaking apart old concrete and pulling out 40-year-old expansion joints. They moved in with 34 new expansion joints and welded them in place. Crews also repaved 1.13 miles of northbound I-5 between Spokane St and I-90. WSDOT engineers said the work could be done in 19 days but wrote $100,000-a-day incentives into the contract to get the work done a quickly as possible.

US 2 Stevens Pass
In September, crews completed work on an 8-mile-long paving project on US 2 at Stevens Pass. This project provided a new driving surface on the west side of Stevens Pass from Deception Creek Bridge to the summit. In addition to the badly needed paving, crews added safety improvements including new guardrail, warning signs, centerline rumble strip and reflective pavement markers.

I-5 Cowlitz County
The new I-5/SR 411, Lexington Bridge opened to traffic on September 7. The bridge is 40 feet wide with one lane in each direction. As part of this project, new traffic signals were also installed at the I-5, Ostrander Road interchange (Exit 42), and at the SR 411, Sparks Drive intersection. The bridge provides a faster way to reach I-5 from the SR 411, Westside Highway. The new bridge will ease traffic on SR 411 and provides improved emergency access to areas west of the Cowlitz River. The $15 million project was constructed ahead of schedule and on-budget.

I-5 Bellingham
WSDOT repaired cracked and broken sections of Interstate 5 in Bellingham in early September. Crews made temporary repairs between Sunset Drive and Samish Way by sealing cracked panels and pouring new concrete in areas where the panels have broken into chunks. This temporary repair is intended last through winter. The plan was to repair more than 200 broken concrete panels and pave several on- and off-ramps this summer, but the only bid was $1 million more than our $3 million engineers estimate. WSDOT will advertise the project again this fall, and hopes to attract more contractors and competitive bids.

SR 9 Marysville
In just 10 weeks, crews widened the intersection of SR 9 and Lauck Road/108th Street NE. The improved intersection and new turn lanes opened on August 14. Crews widened the intersection to add left-turn lanes on SR 9, built out shoulders, installed lighting and constructed a southbound right-turn lane onto SR 9 from Lauck Road. Crews also installed a new facility to treat the road's stormwater run-off and will replant the slope in the project area. The project eases congestion and reduces backups at this busy intersection.

SR 24 Yakima
SR 24 improvements in Yakima opened to traffic on June 28, five months ahead of schedule and on budget. The I-82/SR 24 interchange now has four new lanes to accommodate traffic and a new bridge crossing the Yakima River, eliminating serious erosion issues threatening the old bridge. Project work included paving a bicycle and pedestrian path that provides a new connection between Yakima, the Yakima Greenway and the communities east of I-82.

Highlights of Program Activities

I-90 Liberty Lake
Contractor crews completed work in August on the second I-90 Liberty Lake interchange pedestrian bridge. This project added a pedestrian bridge across the westbound I-90 on-ramp. The new bridge adds an element of safety for trail users who previously had to cross the busy on-ramp at a marked crosswalk. The first bridge, completed in 2005, spans the mainline lanes of the freeway.

A new pedestrian and bicycle bridge opened with celebration on August 22 at Liberty Lake

I-90 Spokane
Contractors for WSDOT finished two major Spokane area projects ahead of schedule and on budget. The big job, a two-season project to resurface a 1.7-mile section of Interstate 90 in downtown Spokane, finished on August 6, 15 days early. Two Spokane-area firms, Degerstrom/Acme Joint Venture, combined to tackle this major, two-season project. The second project – work to resurface Sullivan Road between Mission Avenue and Indiana Avenue in the Spokane Valley – was completed on July 27, three days ahead of schedule. The existing asphalt pavement was replaced with Portland Cement Concrete Pavement in a fast-paced project that is a part of the I-90/Sullivan Road Interchange. A full closure of Sullivan Road allowed the job to be performed over a period of a few weeks, avoiding several months of traffic gridlock.

Newly resurfaced I-90 lanes through downtown Spokane

SR 99 Federal Way
On September 7 crews opened new HOV lanes in both directions of SR 99 between S. 284th Street and S. 272nd Street. Drivers now have a total of six lanes in the area, three northbound and three southbound. The lanes opened to traffic one month earlier than scheduled. This project is WSDOT's part in a plan to improve traffic flow and safety on SR 99 from Federal Way to the Seattle city limits by adding HOV lanes and other improvements.

US 101 Lilliwaup
Contractor crews built a rock wall to stabilize a slope and repair a section of US 101 in Lilliwaup near milepost 327. The project's purpose is to keep drivers safe, preserve the roadway, and prevent future roadblocks and delays. Work began in August and was completed in September.

SR 123 Cayuse Pass
SR 123 within Mount Rainier National Park reopened on Friday September 28, following extensive flood damage repair. Due to the nature of the damage, a 10.9-mile long segment of SR 123, from just south of Cayuse Pass (intersection with SR 410) to just north of the intersection with the Stevens Canyon Road, has been closed to all traffic since November 2006. Crews will work through most of October to restore vegetation at the repaired sites along SR 123.

SR 501 Ridgefield
On August 16, WSDOT completed Clark County's first highway roundabout on SR 501, also known as Pioneer Street. The roundabout at 45th Avenue has been under construction as part of a local development project since late June. This is one of five roundabouts that may be constructed on SR 501 in the coming years.

A new concrete culvert will allow fish to pass beneath SR 548 in a more natural streambed

SR 548 Blaine
Crews replaced a culvert under SR 548 (Blaine Road) at Terrell Creek, and removed a significant dip in the road. This project will help fish swim upstream and improve drivers' ability to see oncoming traffic. Before July, Terrell Creek passed under Blaine Road through a rusted steel pipe and blasted out the other side about a foot above the creek's surface. That pipe was replaced by a concrete box culvert that mimics a natural stream bed. Blaine Road has been closed since July 26 while crews cut out the old culvert – a corrugated steel pipe about 110 feet long and 12 feet in diameter. The new concrete rectangular culvert is 145 feet long, 18 feet wide

and 10 feet tall. Crews opened the road in September, nearly three weeks ahead of their original estimate.

SR 903 Cle Elum

WSDOT completed paving eight miles of SR 903 from Cle Elum, through Roslyn and ending at the National Forest Boundary. Improvements to West 1st Street in Cle Elum and South Cle Elum Way have created smoother pavement and upgrades to the guardrail and signs.

Ferries

WSF and USCG Address Essential Maintenance for 80-year-old Vessels

Washington State Ferries (WSF) performed additional hull inspections on its 80-year-old Steel Electric Class vessels, which temporarily affected the San Juan inter-island run from July 15 through July 21. The additional hull inspections were requested by the US Coast Guard following recent unplanned maintenance of the Steel Electric Class vessels. On July 15, the 34-car Hiyu was placed on the inter-island route while the Evergreen State went to the ferry system's Eagle Harbor Maintenance Facility for its required annual inspection.

WSF Increased Passenger-Only Sailings during I-5 Construction

Washington State Ferries (WSF) made a number of vessel and schedule changes in August to respond to major construction on I-5 between Spokane Street and I-90 in Seattle. For the Seattle/Bremerton route, the 188-car MV Walla Walla was replaced by the 144-car Kaleetan. The Kaleetan carries fewer vehicles but it carries 500 more passengers than the Walla Walla.

WSF encouraged customers to park their vehicles on the Bremerton or Seattle side and walk-on the ferry during the I-5 construction to avoid waits and to streamline their commute. WSF also added two passenger-only sailings to the Seattle/Vashon passenger-only schedule to assist during the I-5 construction.

Public Transportation

WSDOT Completes First Regional Mobility Grant Project - City of West Richland Celebrates Park and Ride Lot Expansion

City of West Richland officials held a project dedication ceremony on June 26 to celebrate the completion of the West Richland Transit Center and Park and Ride facility expansion. This is the first project to be completed under WSDOT's Regional Mobility Grant program funded by the Legislature in 2005. Demand at the Park and Ride exceeded the available space and the $134,000 Regional Mobility grant was used to expand it from 24 parking spaces to 134 parking spaces. Local funds were provided by the City of West Richland and Ben Franklin Transit. The Park and Ride lot is served by Ben Franklin Transit which runs the 4th largest vanpool program in the Northwest. The state's Regional Mobility Grant Program is designed to improve the coordination of transit services and to increase the use of transit to reduce congestion.

WSDOT Calls for Projects that Reduce Drive-Alone Commuting

In August WSDOT issued a call for innovative and effective programs that get people out of their cars and into buses, trains, vanpools, or other commute options. Private, public, and non-profit entities are eligible to compete for Trip Reduction Performance Program funds to reduce drive-alone vehicle trips. Successful organizations can receive up to $100,000 per year by creating a project that reduces the number of employees who drive alone to work. Projects with multiple partners can earn even more, up to $250,000 per year. WSDOT will reimburse startup costs and, if the project is successful at getting people to take a bus, a bike, or other commute alternative on a regular basis, WSDOT will pay for vehicle trips reduced. The Washington State Legislature made $1 million available for Round II grants. Proposals were due on September 21, 2007.

Motorist/project information

WSDOT's New Cameras Bring a Clearer Picture of Vancouver Area Traffic

WSDOT added four new cameras to the traffic maps at http://www.wsdot.wa.gov/traffic/vancouver/. With the addition of these four cameras, there are now a total of 27 cameras online in the Vancouver area for drivers to check out before they hit the road. Drivers will find the new cameras at the following locations:

- I-5 at 35th Street (showing I-5, SR 500 Interchange)
- I-205 at NE 18th Street
- I-205 at 76th Street
- I-205 at Padden Parkway

The cameras provide a clearer picture of Vancouver traffic and helps drivers make choices before they hit the road. WSDOT has also made traffic maps and cameras available for many Web-accessible cell phones at http://www.wsdot.wa.gov/small/

Rail

WSDOT Calls for Capital Freight Rail Projects that Advance Economic Development

WSDOT is seeking proposals for projects that promote economic development through the advancement of freight rail activities. Railroads, port districts, rail districts, private companies and local governments are eligible to compete for Rail Bank project funds. Applicants will compete for $2.5 million total for 2007-2009 projects. Funding for the Rail Bank may increase to $5 million in future bienniums. An organization can receive up to $250,000 for rail capital projects, and

must be matched by at least 20 percent of funds from other sources. Proposals are due on October 25, 2007. "The goal of the Rail Bank is to assist with the funding of smaller capital rail projects," said Scott Witt, State Rail & Marine Director. "By making these funds available, the legislature is helping to improve freight movement by rail throughout the state."

Aviation

WSDOT to Fund $1.3 Million in 2007 Airport Improvement Projects

For the 2007-2009 biennium, WSDOT Aviation has awarded $1.3 million in state grants to 44 airports for 88 different projects. Of that $1.3 million, WSDOT is using approximately $219,000 to leverage $8.4 million in federal funds. Airports also contribute a required 2.5% local match to federal funds for their specific projects. Therefore, the combination of state, federal and local match funds brings the project total for this round of grants to more than $10 million.

Funding Breakdown:
State: $1,334,703.28
Federal: $8,424,799.85
Local Match: $360,927.09
Total: $10,135,155.22

Announcements, Awards, and Events

Bridging Futures: Young Artists Honored for Depiction of Future I-90 Project to Increase Safety and Protect Wildlife

WSDOT and I-90 Wildlife Bridges Coalition selected two winners from students around the state who participated in the third annual Bridging Futures contest. WSDOT announced a design for the I-90 Snoqualmie Past East Project that includes two wildlife overpasses and numerous underpasses. The Bridging Futures III Contest encouraged children in Washington State to submit ideas for how the wildlife bridges might look.

I-90 Wildlife Bridges Coalition and WSDOT co-sponsored the art and essay contest. The two finalists were honored on June 21 by then WSDOT Secretary of Transportation Doug MacDonald and Coalition Director Charlie Raines at the Hope for a Wild Future auction at the Woodland Park Zoo. Students, ages six to 11, participated from schools and organizations in Seattle, Tacoma, Bothell, Ellensburg and Wenatchee. The winners' art is displayed on billboards in Seattle and Ellensburg, sharing the message of safety with motorists across the state.

The two winning student artists are:
Sandra Brown 10, fourth grader, Jefferson Elementary, Tacoma Brenda Medina, 10, fourth grader, Mission View Elementary, Wenatchee

Community Celebrates an Improved SR 7

After years of planning, WSDOT's safety improvement project on SR 7, from State Route 512 to the Roy Wye in Pierce County, is complete. July 31, state and local elected-officials gathered with community members and others to celebrate the project's completion at a ribbon-cutting ceremony. WSDOT engineers began designing safety improvements for this high accident location in the 1990s. In 2004 WSDOT delayed the project an additional year – giving Pierce County the opportunity to secure more funding to build in additional enhancements. Members from the Washington State Corridor Program were represented by the Pierce County Sheriff's office, the Washington State Patrol and Washington Traffic Safety Commission. This project is one of 30 that the safety program identified for funding and brings the program closer to its 'Target Zero' goal of zero fatalities or disabling injuries on our highway in 2020.

Outstanding local projects chosen for awards by FHWA and WSDOT

The Federal Highway Administration (FHWA) and WSDOT announced the 2007 Awards of Excellence. Projects completed by the cities of Seattle and Tacoma, the Town of Odessa, and Grays Harbor County were recognized as the "best of the best" of local agency transportation projects funded by FHWA. The award categories were Best City Project, Best County Project, Best Special Project, and the Director's Award. Winners are:

- Best City Project: City of Seattle Northgate Revitalization
- Best County Project: Grays Harbor County Cougar Smith Road
- Best Special Project: City of Tacoma Downtown Redevelopment
- Director's Award: Town of Odessa State Route 21 Realignment 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