



**Washington State
Department of Transportation**

Measures, Markers and Mileposts

The Gray Notebook for the quarter ending
December 31, 2005

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

Douglas B. MacDonald
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 as time passes. 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

The *Gray Notebook* for the quarter ending December 31, 2005
20th Edition, Published February 17, 2006

Contents

Navigating the <i>Gray Notebook</i>	iv	Highway Maintenance: Annual Update	40
Linking Measures to Strategic Objectives	v	<i>Biennial Maintenance Targets</i>	
<i>Beige Pages</i>		<i>Integrated Vegetation Management</i>	
Project Reporting on the Capital Project Delivery Program	vii	Travel Information: Quarterly Update.....	43
<i>Introduction</i>		Incident Response: Quarterly Update.....	44
<i>Project Information Roadmap</i>		<i>Program Trends</i>	
WSDOT's Capital Project Delivery Programs.....	1	Highway Safety Improvement Projects: Annual Update.....	45
<i>Executive Summary: Roll-up of Performance Information</i>		<i>Safety Enhancements</i>	
<i>Overview of WSDOT's Three Capital Project Delivery Mandates</i>		<i>Low Cost Enhancement Program</i>	
<i>Nickel Program: 2003 Transportation Funding Package</i>		<i>High Accident Locations and Corridors</i>	
<i>Partnership Program: 2005 Transportation Funding Package</i>		<i>Highest Ranking Accident Corridors on State Highways</i>	
<i>Pre-Existing Funds Program: Programmatic and Individual Reporting</i>		<i>Highest Ranking Accident Locations on State Highways</i>	
<i>Special Report: Tacoma Narrows Bridge, Quarterly Update</i>		<i>Highest Accident Corridors and Locations on State Highways in Cities with Populations over 22,500</i>	
<i>Special Report: Hood Canal Bridge, Quarterly Update</i>		<i>Cable Median Barrier Performance</i>	
<i>Special Report: End-of-2005 Season Highway Construction Project Evaluations, Annual Update</i>		<i>Pedestrian and Bicycle Safety</i>	
Cross-Cutting Management Issues	25	Environmental Programs: Annual Update	56
<i>Right of Way Risks</i>		<i>Environmental Management Systems (EMS) Update</i>	
<i>Utilities</i>		<i>Erosion Control Preparedness</i>	
<i>Construction Costs Trends</i>		<i>Monitoring Water Quality Impacts for Construction Sites</i>	
<i>Construction Safety Information</i>		<i>Stormwater Treatment Facilities</i>	
<i>Construction Employment Information</i>		<i>Monitoring Replacement Wetlands</i>	
<i>Environmental Documentation, Review, Permitting, and Compliance</i>		<i>Environmental Compliance Assurance</i>	
<i>White Pages</i>		Commute Options: Annual Update.....	64
Worker Safety: Quarterly Update.....	33	Washington State Ferries: Quarterly Update	65
<i>Recordable Injuries for WSDOT Workers</i>		Rail: Quarterly Update.....	69
<i>Prevention Activities</i>		<i>State-Supported Amtrak Cascades</i>	
Workforce Level and Training: Quarterly Update.....	35	<i>State-Supported Washington Grain Train</i>	
Asset Management: Pavement Assessment Annual Update.....	37	Special Feature	73
<i>Pavement Conditions for 2004</i>		<i>WSDOT Tests Portable Incident Screens</i>	
<i>Basic Pavement Types and Ratings Summary</i>		Highlights of Program Activities.....	74
		Gray Notebook Subject Index	78

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 current and all past editions are available on-line at www.wsdot.wa.gov/accountability/

A separate detailed navigation folio is available at www.wsdot.wa.gov/accountability/GNB%20Folio.pdf

Beige Pages

The *Beige Pages* is WSDOT's project delivery performance report on the Nickel, Transportation Partnership Account, and Pre-Existing Funds project programs. It contains detailed narrative project summaries and financial information supporting WSDOT's "no surprises" reporting focus. See page one 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 as data is 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.

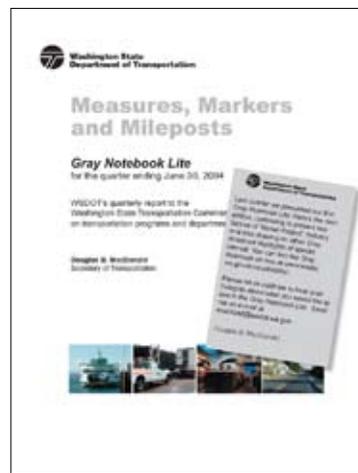
Tracking *Business Directions*' Results

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. For a copy of *Business Directions*, please visit: www.wsdot.wa.gov/accountability/2003-2007_Business_Directions.pdf

Gray Notebook Lite

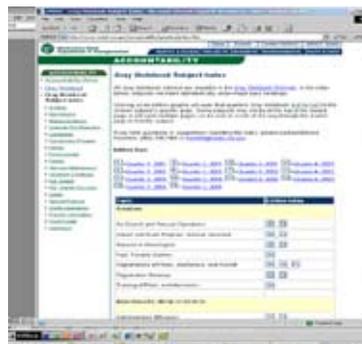
WSDOT publishes a quarterly excerpt of key performance topics and project delivery summaries from the *Gray Notebook*, called *Gray Notebook Lite*. *Lite* allows for a quick review and



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 www.wsdot.wa.gov/accountability/lite.pdf

How to Find 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: www.wsdot.wa.gov/accountability/graybookindex.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.

Introduction

WSDOT's business plan is based on the policies, programs, and budgets adopted by the state Legislature, Governor, and Transportation Commission. WSDOT has important transportation system needs to meet through its day-to-day work to build and operate state highways, manage the ferry system, and implement legislative instructions and program mandates. Everything comes together, however, in the overriding need to demonstrate the best possible return for every dollar of taxpayer investments and legislative appropriation. The *Gray Notebook* reflects this direction for accountability, communicating performance results for all key agency programs and activities.

Priorities of Government & Government Management Accountability and Performance

"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 Government Management Accountability and Performance (GMAP) forums support the POG process by continuously evaluating

and improving the effectiveness of POG activities and reporting its progress in the *Gray Notebook*. Of the ten POG results, WSDOT has partial influence over three. The agency's strategic plan (2003-07 Business Directions) supports the following three POG results:

- Improve economic vitality of business and individuals
- Improve statewide mobility of people, goods, information and energy
- Improve safety of people and property

WSDOT's Strategic Plan

WSDOT actively supports these three POG goals through the agency's six overarching initiatives (objectives) as defined in the agency's strategic plan (2003-07 Business Directions). By tracking the progress of WSDOT's initiatives through the reporting of key performance measures, the *Gray Notebook* connects WSDOT's initiatives with these statewide outcome goals. The table below shows the six WSDOT initiatives and key related performance measures, as well as where and how the results are reported. Some of the data is available annually, such as bridge and pavement conditions, while other data is available quarterly. The reporting cycles for the individual measures reflect this. Note that the first three initiatives are directly linked to the three POG goals, while initiatives four through six indirectly support the POG goals through the achievement of WSDOT's organizational goals.

Strategic Initiative	Performance Measure Key Measures Include	Description	Reporting Cycle	Last Report ¹
1. Plan and build (deliver) capital investment projects for our transportation systems in accordance with the instructions of the legislature.	Schedule, Scope and Budget Summary of Nickel and TPA Projects	Planned vs. actual results of scope, schedule and budget	Quarterly	pp. 3, 12
	Project Delivery Milestone Reporting	Compares planned delivery milestone dates against actual completion dates	Quarterly	pp. 10, 15
	Highway Construction Program Advertisements	Planned vs. actual number of projects advertised	Quarterly	p. 18
	Cash Flow on Highway Construction Projects	Planned vs. actual expenditures for preservation and improvement programs	Quarterly	p. 21
	Individual Contracts: Final Cost to Award Amount	Percent of final cost above or below award	Annual	GNB 18 p. 37
	Pavement Conditions	Percent of pavement in good or poor condition (by type)	Annual	p. 37
	Bridge Conditions	Percent of bridges in good, fair or poor condition	Annual	GNB 19 p. 50
	Ferry Life Cycle Preservation Performance	Planned projects versus actual systems/ structures preserved, change in cost rating	Quarterly	p. 67

¹When no *Gray Notebook* edition is indicated above, the measure can be found in this edition of the *Gray Notebook*. Previous *Gray Notebook* editions are available in the *Gray Notebook* Subject Index at www.wsdot.wa.gov/accountability/graybookindex.htm. When viewing this report electronically, edition numbers are hyperlinked to the respective *Gray Notebook* article.

Linking Measures to Strategic Objectives

Strategic Initiative	Performance Measure Key Measures Include	Description	Reporting Cycle	Last Report ¹
2. Maintain and operate the transportation facilities and systems placed under the department's responsibility, making cost-effective use of the appropriations provided by the Legislature from citizens' taxes.	Maintenance Accountability Process (MAP) targets	Rating for 22 highway maintenance activities	Annual	p. 40
	On-Time Performance: Amtrak Cascades and Ferries	Percent of trips on-time	Quarterly	p. 70 p. 66
3. Optimize the operational efficiency and safety of the transportation systems and facilities committed to WSDOT's charge.	Safety	Fatality rates (Bicyclist, pedestrian, vehicle) Before and After Collision Analysis for Safety Projects	Annual	pp. 54-55 pp. 45-47
	Incident Response Clearance	Number of responses and overall average clearance time	Quarterly	p. 44
	Congestion: Peak Travel Times for Key Commute Routes	Percent of change in travel time performance for 20 Puget Sound Routes	Annual	GNB 19 p. 58
4. Report to the Transportation Commission, citizens, other officials and the legislature on achievements, shortcomings and challenges in WSDOT's performance.	Performance Reporting	Gray Notebook, web pages	Quarterly	
	No Surprises Reporting - Beige Pages	Reporting on capital program delivery	Quarterly	pp. 1-32
	End of Season Highway Construction Summary	Design, construction management, schedule and cost evaluation	Annual	p. 24
5. Support the State Transportation Commission in preparing proposed budgets and plans for transportation systems and facilities	Biennial and annual budget proposals	Submit to commission by deadline	Annual	Budget Report
6. Assure the capability and efficiency of WSDOT's workforce.	Workforce Training	Compliance ratings for 17 training courses	Quarterly	pp. 35-36
	Workforce Safety	Recordable injuries per 100 workers per calendar year	Quarterly	p. 33

¹When no *Gray Notebook* edition is indicated above, the measure can be found in this edition of the *Gray Notebook*. Previous *Gray Notebook* editions are available in the *Gray Notebook* Subject Index at www.wsdot.wa.gov/accountability/graybookindex.htm. When viewing this report electronically, edition numbers are hyperlinked to the respective *Gray Notebook* article.

Transportation Benchmarks

In 2002, the Legislature passed RCW 47.01.012, instituting the transportation benchmarks recommended in 2000 by the Governor-appointed Blue Ribbon Commission on Transportation. The benchmarks require WSDOT to track data related to nine policy elements (see list below).

The benchmarks track transportation performance at a high level, reflecting social goals that are important to the health and safety of Washington State citizen, and to the efficiency

of our state's transportation system. WSDOT does not have control over some of these benchmarks, for instance, the number of people who travel alone to work, or the number of miles they drive. However, the department can and does strive to offer people alternative methods to reach their destination. Similarly, WSDOT works in multiple ways to improve roadway, bridge, congestion, and safety conditions. The data is updated and published annually in the *Gray Notebook*.

- Safety
- Roadway Pavement Condition
- Bridge Condition
- Non-Auto Share of Commute Trips
- Per Capita Vehicle Miles Traveled
- Administrative Efficiency
- Traffic Congestion and Driver Delay
- Transit Cost Efficiency

Information regarding Benchmarks can be found at:

Gray Notebook Special Excerpt: Transportation Benchmarks 2005 Report: www.wsdot.wa.gov/accountability/benchmarks/default.htm
 Annual Transportation Benchmarks Report: June 30, 2005 GNB, www.wsdot.wa.gov/accountability/Archives/graynotebookJun-05.pdf
 Benchmarks Implementation Report: www.wsdot.wa.gov/accountability/benchmarks/BenchmarksImplementationReport.pdf

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:

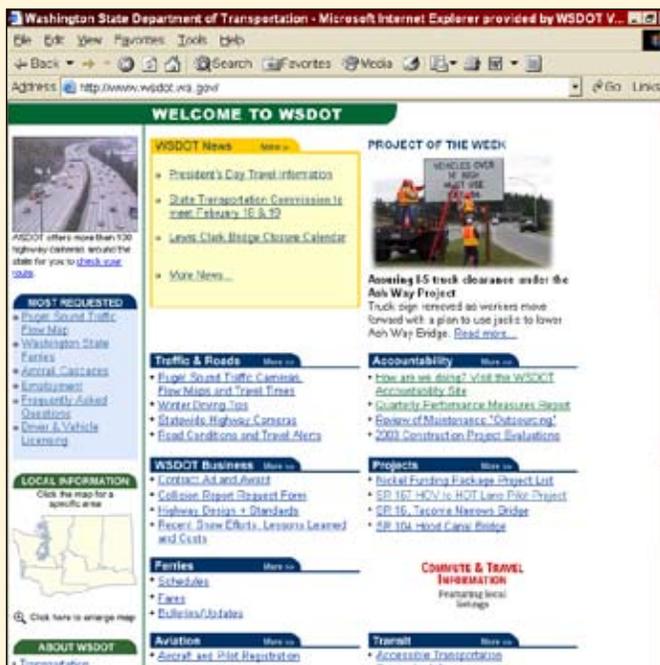
- Overview of the Three Capital Delivery Mandates
- 2003 Transportation Funding Package
- 2005 Transportation Funding Package
- Pre-Existing Funds
- Special Project Updates
- Cross-Cutting Management Issues

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

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

Navigation to the Home Page and the Project Pages

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

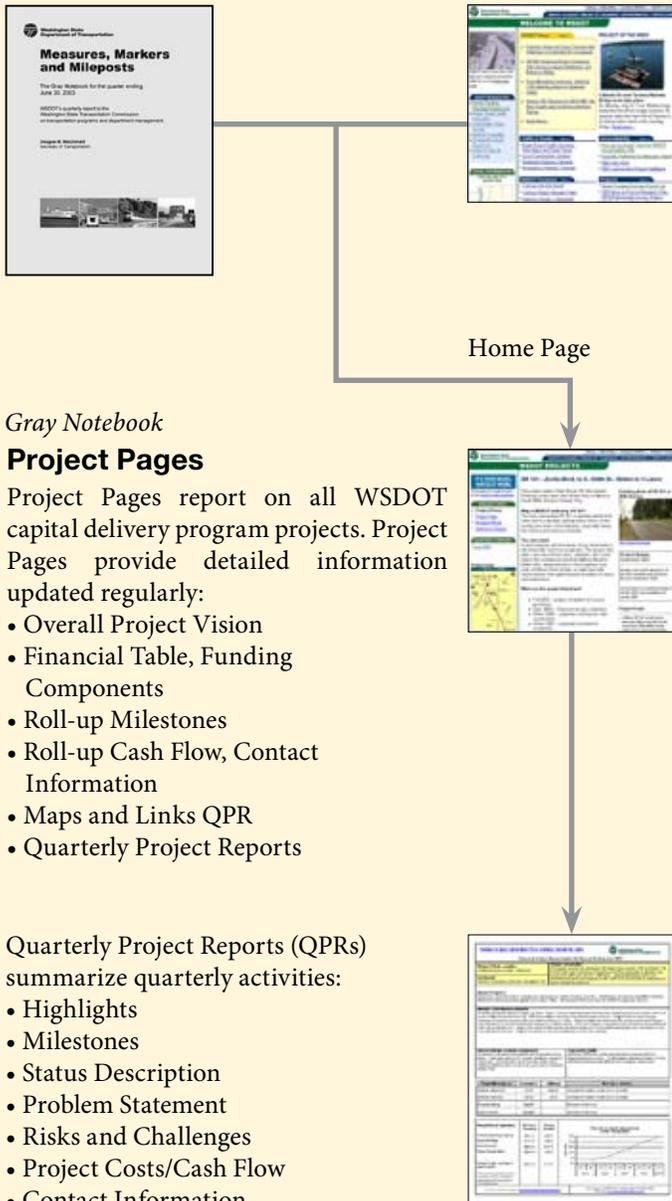


While WSDOT has developed user-friendly reports and front end applications to access project information on-line, it is important to note that the data used to generate these reports comes from antiquated legacy mainframe computer systems. Although the quality of the data is good, the time and effort 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 was addressed in two recently completed reports: one from the Joint Legislative Audit Review Committee titled, "Overview of Washington State Department of Transportation Capital Project Management" and a second report, commissioned by the Transportation Performance Audit Board, titled "Review of WSDOT's Use of Performance Measurement." In each of these reports, a key recommendation was made to conduct an assessment of the effectiveness of current information systems and options for addressing any deficiencies.

Project Reporting on the Capital Project Delivery Program

Project Information Roadmap



Project Pages

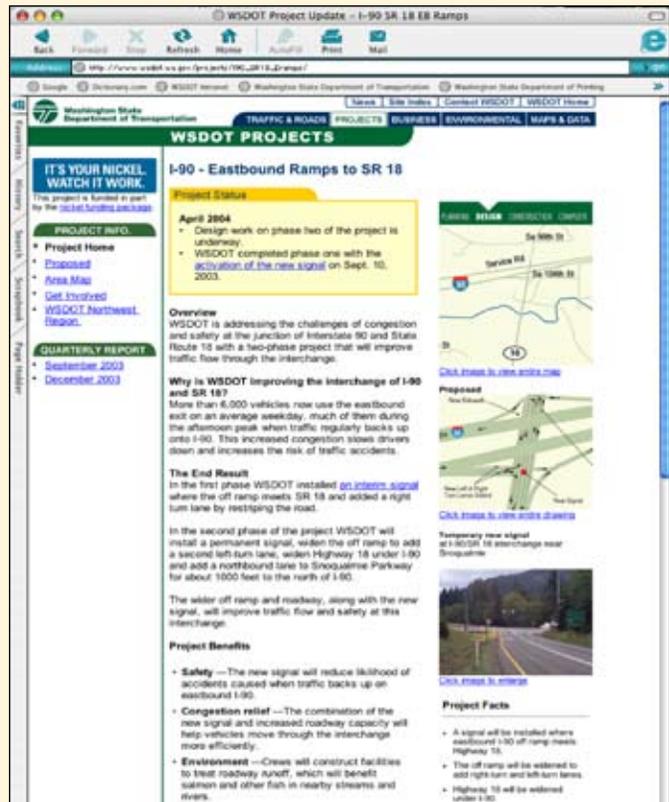
Project Pages contain information on all aspects of a specific project. An existing Project Page is shown below.

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

Roll-Up of Performance Information

Each quarter WSDOT provides a detailed update on the delivery of the highway capital programs through the *Gray Notebook*, and via 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 (Partnership Program).

Since PEF projects are budgeted by programs for improvement and preservation of the highway system, the delivery of the work included in the 329 PEF projects is reported program-matically by six categories of work. By contrast, each of the 40 Nickel and 65 Partnership Program projects funded in the 2005-07 biennium has a line item budget and is monitored and reported at the individual project level.

Performance Information

As of December 31, 2005, Dollars in Thousands

	Nickel (2003)	Partnership Program (2005)	Pre-Existing Funds
Total Biennial Number of Projects (2005-07)	40	65	329
Total Biennial Program (2005-07)	\$1,285,000	\$461,000	\$1,659,000

Schedule, Scope and Budget Summary: Results of Completed Projects

	See Page 3	See Page 12	NA
Cumulative to Date, 2003 – Dec. 31, 2005			
Total Completed	20	2	-
% Completed Early or On-Time	95%	100%	-
% Completed Within Scope	100%	100%	-
% Completed Under or On-Budget	95%	100%	-
Total Planned Project Costs	\$142,336	\$2,400	-
Total Actual Project Costs	\$140,006	\$1,089	-

Biennium to Date, 2005-07

Total Completed	7	2	111
% Completed Early or On-Time	100%	100%	-
% Completed Within Scope	100%	100%	-
% Completed Under or On-Budget	100%	100%	-
Total Planned Project Costs	\$98,758	\$2,400	\$212,600
Total Actual Project Costs	\$99,280	\$1,089	\$218,800

Advertisement Record: Results of Projects Entering into the Construction Phase

	See Page 4	See Page 12	See Page 18
Biennium to Date, 2005-07			
Total Advertised	7	12	39
% Advertised Early or On-Time	43%	100%	75%
Total Award Amounts to Date	\$19,691	\$6,210	NA
	(4 pending bid or award)		

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

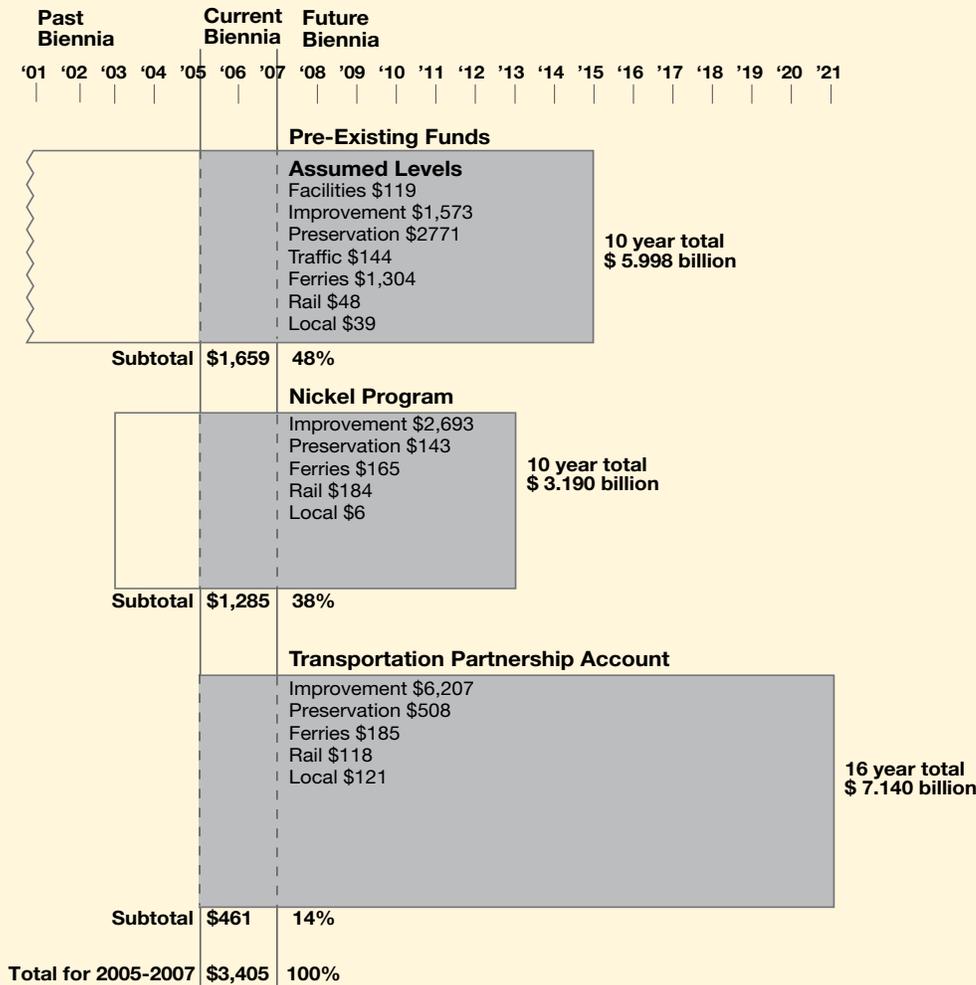
	See Page 5	See Page 13	See Page 18 (graph)
January 1, 2006 through June 30, 2006			
Total in Pipeline	13	7	108
% On or Better than Schedule	69%	71%	-

WSDOT's Capital Project Delivery Programs

Overview of WSDOT's Three Capital Project Delivery Mandates

20-Year and 2-Year Capital Outlook

Dollars in Millions



2005-07 Capital Delivery Program

The department's 2005-07 capital program focuses on project and program delivery from all fund sources. WSDOT continues to move forward with the 10-year investment plan for the 2003 Transportation Funding Package as well as beginning the 16-year investment plan associated with the 2005 Transportation Funding Package.

In the 2005-07 biennium, capital funds total approximately \$3.4 billion. Approximately \$1,285 million will be spent on projects associated with the 2003 Funding Package (Nickel), \$461.5 million will be invested in projects from the 2005 Funding Package (Partnership Program) and \$1,659.6 million will be invested from pre-existing funding sources.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

Schedule, Scope and Budget Summary: Twenty Projects Completed as of December 31, 2005

The completion record is building for the 2003 Transportation Funding Package (Nickel Program) projects. The table below divides the projects into completed projects to date (cumulative), biennium to date, and current reporting quarter. No Nickel projects were completed in the first quarter of the 2005-07 biennium, therefore, results for the current quarter are the same as biennium to date.

Project Description	On-Time Advertised	On-Time Completed	Within Scope	On-Budget (Dollars in Thousands)		
				Planned	Actual*	% Over/Under*
Cumulative to Date						
I-5 Roanoke Noise Wall	✓	✓	✓	\$3,500	\$1,166	✓ ¹
SR 9/SR 528 Intersection - Signal	✓	✓	✓	710	565	20% Under
I-90, Cle Elum River Bridge	✓	✓	✓	1,272	784	38% Under
I-90, Geiger Road to U.S. 2 Median Barrier	Early	Early	✓	781	781	✓
I-90, Highline Canal to Elk Heights - Truck Climbing Lanes	Early	Early	✓	4,200	4,483	7% Over ²
I-90, Ryegrass Summit to Vantage - Truck Climbing Lanes	Early	Early	✓	8,389	8,389	✓
I-90, Sullivan - State Line Median Barrier	Early	Early	✓	1,040	973	25% Under
SR 97A, Entiat Park Entrance - Turn Lanes	Early	Early	✓	196	136	31% Under
SR 124, East Jct SR 12 - Reconstruction	✓	✓	✓	295	295	✓
I-182/U.S. 395 Interchange - Roadside Safety	✓	Early	✓	76	59	22% Under
SR 203, NE 124th/Novelty Road Vicinity	✓	Early	✓	1,487	1,487	✓
U.S. 395, Kennewick Variable Message Sign	✓	Late	✓	332	308	7% Under
SR 500, NE 112th Ave. - Interchange	Early	Early	✓	21,300	21,300	✓
Biennium to Date (2005-07)/Current Quarter (Ending December 31, 2005)						
I-5, 2nd Street Bridge - Replace Bridge	✓	Early	✓	14,679	14,333	✓
SR 161, 204th Street to 176th Street	Late ³	Early	✓	16,754	16,789	✓
SR 161, 234th St to 204th Street E	✓	Early	✓	17,060	17,248	✓
U.S. 12/SR 124 to McNary Pool - Add Lanes	✓	✓	✓	12,203	12,244	✓
I-90, Pines Road to Sullivan Road - Widen	Early	✓	✓	17,894	17,894	✓
I-90, Argonne Road to Pines Road - Widen	Early	✓	✓	18,389	18,996	✓
SR 106, Skobob Creek - Fish Passage	✓	✓	✓	1,779	1,776	✓
Totals this Quarter	86%	100%	100%	\$98,758	\$99,280	
Totals Biennium to Date	86%	100%	100%	\$98,758	\$99,280	
Totals Cumulative to Date	95%	95%	100%	\$142,336	\$140,006	

*Based on cost at substantial completion stage (operationally complete); will be updated based on final contract close-out cost, to be reported in future quarters.

Definitions:

"On-Time Advertised": the project was advertised within the quarter as planned.

"On-Time Completed": the project was operationally complete within the quarter as planned in the 2003-05 Budget.

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

"On-Budget": within +/- 5% of the baseline budget.

Section 603 of the 2005 Supplemental Budget provides the Transportation Commission flexibility to balance project cost increases and decreases between Nickel projects, and to balance cash flow between biennia near biennial lines, as long as the adjustment does not impact the overall delivery of the ten-year program and does not involve changing the scope of any Nickel funded project.

Project Details:

¹ This project was split into two stages to allow work to continue while elements are re-designed. The second stage will be completed during the 2006 construction season.

² This project was previously reported on-budget but is now identified as over-budget. After the project was awarded, the construction cost was revised to reflect the lower-than-anticipated bid. However, during excavation for the new lane, a large amount of saturated clay—unsuitable roadway material—was found. The cost increase put the project construction total 1.5% over the original allocation but 7% over the revised budget.

³ This project is the 2nd stage of a a two stage project. The advertisement date has been delayed to better accommodate construction work and lessen impacts to the public.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

Advertisement Record: Twenty-Six Projects Now in Construction Phase as of December 31, 2005

Project Description	On-Time Advertised	Ad Date	Contractor	Operationally Complete Date	Award Amount <i>Dollars in Thousands</i>
Cumulative To Date					
I-5, Salmon Creek to I-205 - Widening	Early	May-03	Hamilton	Jan-07	25,920
SR 527, 132nd St SE to 112th St SE	✓	Dec-03	KLB	Mar-06	15,630
U.S. 395, NSC-Francis Avenue to Farwell Road	Late ¹	Jan-04	Max J. Kuney	Mar-09	4,980
SR 16/I-5 to Tacoma Narrows Bridge - HOV	Early	Mar-04	Tri-State	May-07	47,300
SR 18, Covington Way to Maple Valley	✓	Jul-04	Terra Dynamics	Dec-07	3,070
SR 31, Metaline Falls to Int'l Border	✓	Sep-04	M.A. Deatley	Nov-06	10,990
SR 161, Jovita Blvd to S 360th St	✓	Sep-04	Tri-State	Jan-07	16,300
I-5, NE 175th St to NE 205th St - NB Lane	✓	Oct-04	Pacific R & B	Apr-06	5,820
I-5/SR 526 to Marine View Drive	Early	Nov-04	Atkinson	Jun-09	184,990
SR 16, 36th St to Olympic Dr NW, Core HOV	Early	Nov-04	Woodworth	Apr-06	3,870
I-5, Pierce Co Line to Tukwila Interchange - HOV	Early	Nov-04	Icon Materials	Dec-07	35,850
SR 240, Richland Y to Columbia Center Interchange	✓	Dec-04	Icon Materials	Oct-07	30,470
SR 240/I-182 to Richland Y - Add Lanes	✓	For construction efficiencies this project combined with the above			
SR 24/I-82 to Keys Road	Early	Feb-05	Max J. Kuney	May-07	33,960
I-5, S 48th to Pacific Avenue - Core HOV	Early	Mar-05	Kiewitt	Dec-07	72,870
SR 9/SR 522 to 228th St SE - Widening (Stage 2)	Late ²	May-05	Wilder	Jun-07	17,990
SR 9, 228th St SE to 212th St SE (SR 524) (Stage 1)	Late ²	For construction efficiencies this project combined with the above			
SR7/SR 507 to SR 512 - Safety	Late ³	May-05	Scarsella	Oct-06	13,740
SR 99, Aurora Ave N Corridor Project	✓	Jun-05	City of Shoreline	Dec-07	10,000
Biennium to Date (2005-07)					
SR 3/SR 303 Interchange (Waaga Way) - New Ramp	Late ²	Jul-05	Scarsella	Nov-06	16,700
SR 202, Junction 292nd Ave SE	Early	Aug-05	Transtech	Sep-06	290
Quarter Ending December 31, 2005					
SR 543/I-5 to International Boundary	Late ¹	Nov-05		Apr-08	Award Pending
SR 9, Nooksack Rd Vicinity to Cherry St	Late ¹	Dec-05		Oct-07	Bid Opening Feb-06
SR 167, 15th St SW to 15th St NW - HOV	Late ⁴	Dec-05		Dec-07	Bid Opening Feb-06
I-90, Moses Lake Area - Bridge Clearance	✓	Dec-05	Weaver Const.	Dec-06	\$2,701
U.S. 12, Atallia Vicinity - Add Lanes	✓	Dec-05		Dec-07	Bid Opening Mar-06
Totals this Quarter	40%			(4 Awards Pending)	\$2,701
Totals Biennium to Date	43%				\$19,691
Totals Cumulative to Date	69%				\$553,441

Project Details:

¹Right-of-way acquisition delay

²Right-of-way and environmental permitting issues

³Requested delay to coordinate with local community

⁴Funding uncertainties caused the design of this project to sit on the shelf for many years. Additional time was needed for redesign and resubmitting of environmental requirements.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

Advertisement Schedule and Budget: Thirteen Projects in Delivery Pipeline through June 30, 2006

This chart shows the status of Nickel projects now being advertised for construction or planned to be advertised between January 1, 2006 and June 30, 2006. The next *Gray Notebook* will report on projects in the pre-construction delivery pipeline for March 1, 2006 through September 31, 2006.

Project Description	On Schedule	Ad Date	Current Legislative Budget* <i>Dollars in Thousands</i>
SR 516, 208th and 209th Ave SE	Delayed ¹	Jan-06	1,354
SR 4, Svensen's Curve - Realignment	✓	Jan-06	5,838
SR 202, 244th Avenue NE Intersection	✓	Feb-06	1,105
I-5, SB Ramps at SR 11/Old Fairhaven Parkway	✓	Feb-06	1,647
SR 167, Ellingson Rd Interchange NB Off Ramp	✓	Feb-06	923
I-5, 52nd Ave W. to SR 526 - SB Safety	✓	Feb-06	2,695
I-90, Eastbound Ramps to SR 18 - Signal	Advanced	Feb-06	3,191
SR 270, Pullman to Idaho State Line	Delayed ²	Mar-06	30,603
I-5/SR 532 Northbound Interchange Ramps	✓	Mar-06	8,106
SR 99, S 284th to S 272nd St - HOV	Delayed ³	Apr-06	15,396
SR 18, Maple Valley to Issaquah/Hobart Rd	✓ ⁴	Apr-06	108,239
I-205, Mill Plain Exit (112th Connector)	✓ ⁵	Apr-06	12,000
SR 522/I-5 to SR 405 Multimodal Project ³	Delayed ⁶	May-06	20,859
Total (Jan. 1, 2006 - June 30, 2006)	69%		\$211,956

*Dollars shown include all fund types, not just Nickel or Partnership Program, based on the 2005 Legislative Transportation Budget.

Project Details:

¹The advertisement date has been delayed one month from December 2005 to January 2006 because right-of-way was not certified for all parcels.

²The advertisement of this project was delayed due to environmental permitting issues due to the need for re-design to keep the project within budget after geological conditions, right-of-way cost increases due to rezoning, and Corps of Engineers mitigation negotiation.

³The advertisement of this project may be delayed. The City of Federal Way has requested a late revision to Puget Sound Energy's (PSE) utility relocation plan in order to relocate a portion of the existing utility line. This design revision requires additional utility easements not anticipated by the original relocation plan, requiring more time.

⁴The ad date listed is for the Nickel funded revegetation portion of this project. This project may be delayed due to lack of access to landscape areas. See Watch List description on page 7.

⁵The ad date for this project may be delayed due to the consideration of combining this project with a Partnership Program project in the same vicinity.

⁶This project had been reported as a Nickel project. Significant Partnership Program funds have been added to the project and it will be reported as a 2005 Partnership Program project in future editions of the *Gray Notebook*. The advertisement of this project has been delayed from November 2003 and is expected to occur in late Spring 2006. WSDOT has accommodated requests from local and state elected officials for the City of Lake Forest Park to coordinate this project with local improvement work in order to improve efficiencies and reduce traffic disruptions from construction. However, issues with right-of-way and access planning for local businesses could further delay an ad date that now is tentatively set for May 2006. The project remains on the "Watch List" because of a potential for right-of-way cost increases.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

Selected Construction Highlights

I-5, Salmon Creek to I-205 – Widening

This project widens two miles of I-5 from NE 99th Street to NE 134th Street to six through lanes, plus an additional lane in each direction between interchanges. Traffic has been shifted onto the new northbound bridge. Work necessary to widen the southbound lanes is currently underway. The temporary detour bridge and the old southbound bridge have been demolished to allow the contractor to begin constructing a new southbound bridge.

I-5/48th to Pacific – HOV

This project prepares for High Occupancy Vehicle (HOV) lanes from South 48th Street to Pacific Ave, widens existing bridges, constructs several retaining walls, and constructs a northbound collector distributor. The contractor is working on noise barrier retaining walls and has completed the trenchless construction, which installs pipes through a process of horizontal drilling instead of digging an open trench.

SR 24/I-82 to Keys Road

This project widens SR 24 by adding one lane in each direction from I-82 to Riverside Road, improves the interchange, and constructs a new bridge over the Yakima River. The contractor, Max J. Kuney, has placed beams (tub girders) on the first stage of the I-82 interchange bridge and is placing “false work” for a deck pour in the spring when weather is warmer. Ninety percent of the foundation, column, and cross beam work for the new Yakima River Bridge is complete and 50% of the bridge beams (super girders) have been placed. The contractor has reconstructed 22nd Street and has begun building the SR 24 roadway.

SR 240/I-182 to Richland Y – Add Lanes

SR 240, Richland Y to Columbia Center Interchange

This project constructs additional lanes on SR 240 between Richland and Kennewick, linking I-182 with the U.S. Department of Energy's Hanford site, the Columbia Center commercial areas, and east Kennewick's industrial zones. Recent activities include completion of the new eastbound lanes embankment and surfacing, and asphalt paving between the Yakima River Bridge and the Richland Y Interchange. Construction of bridge structures on I-182 and SR 240 continue with the bridge decks poured in late November and early December. Wetland mitigation construction continues with grading nearly 75% complete. This project is currently on budget and ahead of schedule.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

“Watch List” Projects – Cost and Schedule Concerns (Updated Since September 30, 2005)

Highway Construction Program

U.S. 2/U.S. 97 Peshastin East - Interchange

This project will construct an interchange at the junction of U.S. 97 and U.S. 2 near Peshastin in Chelan County. The project is on schedule with an expected construction start in Spring 2008. Due to zoning changes and the escalation in real estate values over the last two years, WSDOT is anticipating an increase in right-of-way costs of \$2-\$3 million.

I-5/SR 526 to Marine View Drive – HOV

This is a design-build project that will widen I-5 for the construction of northbound and southbound HOV lanes between SR 526 and the vicinity of Marine View Drive in Everett. The project also includes: northbound and southbound auxiliary lanes between 41st Street and U.S. 2; a new right-hand exit; widening or replacement of 21 bridges; noise walls at certain locations; and stormwater treatment facilities.

Change in staff and agreement procedure at BNSF Railway has the potential of delaying the open to traffic date of the new HOV and auxiliary lanes on I-5. Timely reviews, approvals, and ongoing coordination between WSDOT, the railroad, and the design-builder consultant/contractor are necessary to avoid impacts. A more detailed evaluation of impacts will be provided next quarter.

SR 9, 108th Street NE (Lauck Road)

This project is a partnership between WSDOT and Snohomish County that constructs right- and left-turn lanes at the intersection of SR 9 and 108th Street NE (Lauck Road), north of Marysville. In the process of working out the agreement details, it was discovered that the wrong formula was used to determine the county's contribution for the project, which has resulted in a potential funding shortfall. WSDOT is monitoring this project and will provide an update in the next quarterly report.

U.S. 12, Attalia Vicinity – Add Lanes

This project widens U.S. 12 from two to four lanes from SR 124 to Wallula in Walla Walla County. As discussed in previous *Gray Notebooks*, the new projected cost for this Nickel project is \$15 million, \$4.7 million over the original estimate of \$10.3 million. The project was advertised for construction bids on December 19, 2005, two months later than planned. The delay is not expected to affect the open to traffic date. If WSDOT can

certify the right-of-way for the project by obtaining the right of entry from Union Pacific Rail Road and BNSF, bids could be opened as early as February 2006. An update will be provided in next quarter's report.

SR 18, Maple Valley to Issaquah/Hobart Road

This project widens Highway 18 to four lanes between Maple Valley and Issaquah Hobart Road, creates a grass median, builds an interchange at 244th Avenue Southeast, constructs an overpass at Southeast 200th Street, and removes intersections at 244th Avenue Southeast, Southeast 200th Street, and 236th Avenue Southeast. A lack of access to landscape areas may delay the Spring 2006 planting schedule for up to one year. An update will be provided in next quarter's report.

SR 20, Fredonia to I-5 – Widening

This project widens approximately five miles of SR 20 to four lanes between SR 536 and I-5 in Burlington and improves the on-ramps and off-ramps at the SR 20/I-5 interchange. The advertisement of this project is potentially delayed. In the September 2005 *Gray Notebook* (p. 19), WSDOT reported a switch from a private wetland mitigation bank to a new wetland mitigation site due to concerns that the bank may not be permitted in time for Stage 1 advertisement. A recovery plan was developed to reduce the effect of permitting delays. Permitting delays continue to be a concern for the Stage 1 advertisement with the recovery plan behind schedule.

Also, the SR 20/I-5 interchange section of this project has a potential for significantly higher than expected right-of-way costs due to a possible need to acquire several commercial properties. A Cost Risk Assessment is scheduled for next quarter to verify the funding requirements for this project. An update will be provided in next quarter's report.

SR 99, S 284th to S 272nd Street – HOV

This project builds an HOV-only lane in each direction for carpools, vanpools and buses between South 284th Street and South 272nd Street on SR 99 north of Federal Way. There is a potential for the advertisement of this project to be delayed. The City of Federal Way has requested a late revision to Puget Sound Energy's (PSE) utility relocation plan in order to relocate a portion of the existing utility line. This design revision requires additional utility easements not anticipated by the original relocation plan. An update will be provided in next quarter's report.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

I-205 Mill Plain Exit (112th Connector)

This Vancouver-area project constructs an off-ramp connector at the Mill Plain Boulevard intersection that will provide a direct connection from northbound I-205 to NE 112th Avenue. The off-ramp connector on SR 205 overlaps with Mill Plain to 18th Street Partnership Program project. Coordinating the two projects may require cash flow adjustments. Stage 1 (112th Connector) must include a second bridge and additional noise walls to accommodate Stage 2 (Mill Plain to 28th Street). More analysis is needed to come up with a proposed adjustment for both projects. An update will be provided in next quarter's report.

SR 270, Pullman to Idaho State Line

This project improves capacity and safety by widening SR 270 between Pullman and the Idaho state line from two lanes to four lanes, with a continuous center turn lane. This project has been previously reported in the *Gray Notebook* as 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 negotiation. There is a potential for further delay due to continuing environmental permitting issues. WSDOT is continuing to work towards an advertisement date of March 2006.

SR 522/I-5 to SR 405 Multimodal Project

This project constructs pedestrian enhancements and a transit signal in the City of Lake Forest Park along SR 522 in the vicinity of NE 153rd Street and replaces the two-way left-turn lane with a raised median. The advertisement of this project is delayed and is expected to occur in late Spring 2006. The project remains on the "Watch List" because of a potential for right-of-way cost increases. Property acquisition has begun, but the right-of-way complications and challenges described in the September *Gray Notebook* (pages 17-18) may result in right-of-way costs exceeding the current budget. An update will be provided in next quarter's report.

Other Capital Programs - Rail

Cascade and Columbia River Upgrade

The \$890,000 project would upgrade the light-duty tracks entering Oroville in Okanogan County to handle larger modern cars. However, the BNSF Railway has notified the major shipper and the Cascade and Columbia River Railroad that they are reducing the availability of the special railcars needed for loading wood chips. This puts the necessity for the project into question. At WSDOT's suggestion, the short line

has been exploring private leasing alternatives and believes it may have a solution. WSDOT will continue to gather information and assess the situation.

Palouse River & Coulee City Railroad Acquisition

The Legislature provided \$1.208 million to conclude acquisition of the Palouse River and Coulee City (PCC) Railroad's right-of-way in Spokane, Lincoln, and Grant Counties, known as the CW or Coulee City line. The owner, Watco Incorporated, changed its position and is refusing to sell. Watco has stated its intention to file for formal abandonment of the line with the federal Surface Transportation Board.

PCC Cheney - Coulee City - Pullman Upgrades

The Legislature provided \$21.089 million to begin the total rehabilitation of the PCC Railroad's trackage over several biennia. Watco's change of plans to not sell the CW-Coulee City line to the state and its announcement that it will cease operation of the P&L line (Marshall to Pullman via Rosalia, Oakesdale, and Palouse) further complicate these plans.

Geiger Spur Connection

The Legislature provided a total of \$5.0 million (\$3.5 from the 2003 Transportation Funding Package and \$1.5 million from the 2005 Transportation Funding Package) to build a new rail connection to Spokane County's Airway Heights industrial park. The project cannot be done if the entire PCC Railroad's CW line, also known as the Coulee City line, is abandoned. To assure connection to the BNSF Railway mainline, up to \$1 million in additional funding or permission to use the funds appropriated to acquire the whole line as part of the PCC Railroad Acquisition is needed to purchase the eastern most seven miles of the CW line.

Everett - Delta Jct. Curve Realignment and Delta Yard Storage Tracks

This project will reduce travel times through the area and provide storage tracks to keep freight switching work off the main line. This will result in improved on-time reliability for trains traveling north of Seattle. The 2003 Transportation Funding Package provided \$1 million in 2003-05 for Preconstruction Engineering on this project and \$13 million in the 2005-07 biennium for construction. Preconstruction Engineering began in August 2003, but scoping issues involving the railroad's desire to restructure rail operations in and around the Everett area have delayed the engineering work. These issues needed to be resolved before designs could be finalized.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

This delay left an estimated \$700,000 in project funds unexpended in 2003-05. WSDOT has requested that the unexpended funds be re-appropriated in the 2006 Supplemental Budget. The completion of engineering and environmental permitting that will be needed will cause the construction to be delayed by about 20 months. This will likely delay the construction date into the 2007-09 biennium.

Other Capital Programs - Ferries

WSF has been negotiating treaty fishing rights impacts with Puget Sound tribes for new terminal development for nearly ten years. The proposed Edmonds Ferry Terminal at Point Edwards was the first location for which WSF reached a settlement. The terms of the settlement agreement were first reached in Spring 2004, and WSF has been working with the four affected tribes since that time to develop a mutually acceptable legal agreement. While it has been challenging to resolve differences between tribal (four tribes) and State laws, the biggest obstacle is in reaching agreement on the equitable distribution of the settlement among the tribes. WSF has negotiated payment for impacts to Treaty Fishing rights at Edmonds, but they are still in the process of working through negotiations for Mukilteo, Anacortes, Seattle, Port Townsend, Keystone, and Bainbridge Island. The process is complicated by the number of tribes involved and different tribal concerns at each location. Unique to the negotiations at the Northern Puget Sound locations is the commonality between the tribes at three locations—the Suquamish, Tulalip, Lummi, and Swinomish each have treaty fishing rights at Edmonds, Mukilteo, and Anacortes.

Anacortes Multimodal Terminal

In 1997, WSDOT completed a master plan for a new Anacortes Multimodal Terminal. The project will modernize the existing ferry terminal, which serves four different San Juan Island

destinations and the international route to Sidney, B.C. Project elements over the next ten years include upland improvements for site circulation, replacing and expanding the terminal building, and relocating the tie-up slips to deeper water. One of the relocated tie-up slips will include a new access trestle capable of loading and unloading service vehicles.

The Anacortes Multimodal project will use the General Contractor Construction Manager (GCCM) delivery method for the terminal building construction. The GCCM contractor will assume the role of construction manager, take responsibility for the constructability review of the design documents and, as necessary, function as the value engineer. WSF has selected the GCCM contractor and executed the preconstruction services contract. Thirty percent design documents were submitted in July 2005 for the terminal building and the site circulation projects.

WSDOT's Capital Project Delivery Programs

Nickel Program: 2003 Transportation Funding Package

Schedule Milestone Reporting

The following table summarizes the milestone results for all Nickel projects that had one or more milestone activity in the 2005-07 biennium to date (July 1, 2005 through December 31, 2005) and the cumulative results to date (2003 to December 31, 2005). This table has been adjusted from the version presented

last quarter in the *Gray Notebook* (p. 5) as continual improvements are made. In future *Gray Notebooks*, the current quarter status of project delivery milestones will also be reported in the table below.

Milestone	Number of Projects with this Milestone	Number of Scheduled Milestones Achieved	Number of Scheduled Milestone Not Achieved	Achievement Rate
Project Definition Complete				
Biennium to Date (2005-07)	0	0	NA	NA
Cumulative to Date (2003-Dec. 05)	25	25	0	100%
Begin Preliminary Engineering				
Biennium to Date (2005-07)	1	1	0	100%
Cumulative to Date (2003-Dec. 05)	56	52	4	93%
Environmental Documentation Complete				
Biennium to Date (2005-07)	2	2	0	100%
Cumulative to Date (2003-Dec. 05)	25	22	3	88%
Right of Way Certification				
Biennium to Date (2005-07)	7	6	1	86%
Cumulative to Date (2003-Dec. 05)	18	13	5	72%
Advertisement Date				
Biennium to Date (2005-07)	7	3	4	43%
Cumulative to Date (2003-Dec. 05)	48	37	11	77%
Operationally Complete				
Biennium to Date (2005-07)	7	7	0	100%
Cumulative to Date (2003-Dec. 05)	20	19	1	95%

Baseline Data: Baseline milestone dates are derived from the 2003 Legislative Transportation 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.

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 first very 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 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, and 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

Nickel Program: 2003 Transportation Funding Package

Paying for the Projects: Financial Information

2003 Transportation Funding Package Highlights:

Deposited into the Transportation 2003 (Nickel) Account (established by the 2003 Legislature)

- 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
- A \$20 license plate number retention fee

Revenue Forecast Update

The following information incorporates the November 2005 March 2003 Legislative Baseline Compared to November 2005 Transportation Revenue Forecast Council

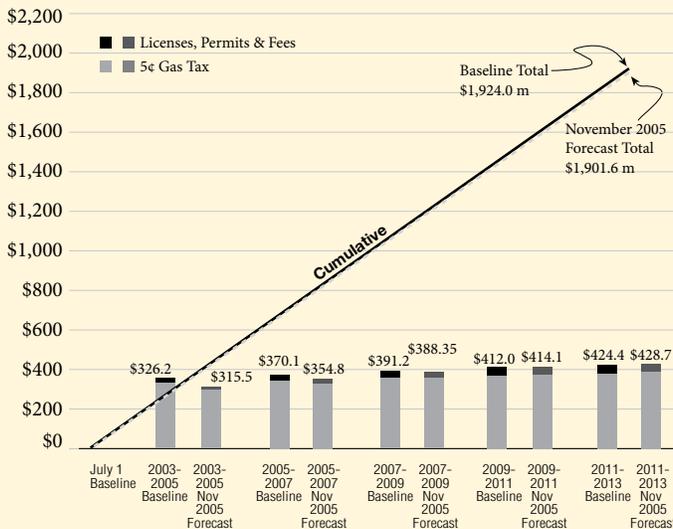
The accompanying charts compare the current projected revenue forecast to the “baseline” forecast used in the budget making process when the 2003 Funding Package was adopted. The 2003 Funding Package was developed as a ten-year plan extending from 2003 through 2013. Due to timing issues, the 2005 Legislature moved several preservation projects into the 2013-15 biennium. Both cumulative ten-year totals and individual biennial amounts are shown.

Current forecasted revenues include actual revenue collection data to date as well as updated projections based on new and revised economic variables. Over the initial ten-year period (2003-13), gas tax receipts for the 2003 Transportation

Transportation 2003 (Nickel) Account Revenue Forecast

March 2003 Legislative Baseline Compared to November 2005 Transportation Revenue Forecast Council

Millions of Dollars



(Nickel) Account decreased slightly from the baseline forecast. The forecast for licenses, permits, and fees also show a slight decrease. Overall, these factors have caused a slight decrease in the ten-year outlook for the account (-1.2%).

In the Multimodal Account, projections for the vehicle sales tax are slightly higher than the baseline forecast, resulting in a slight increase in the ten-year outlook. Forecasted revenues are still closely aligned with the legislative baseline projection (+0.9%).

Bond Sales Plan for Authorizations Provided by the 2003 Transportation Funding Package

In addition to the new revenue sources, the 2003 Transportation Funding Package contained two new bond authorizations:

- Gas tax bonds: authorization of \$2.6 billion
- State General Obligation (GO) bonds: authorization of \$349.5 million

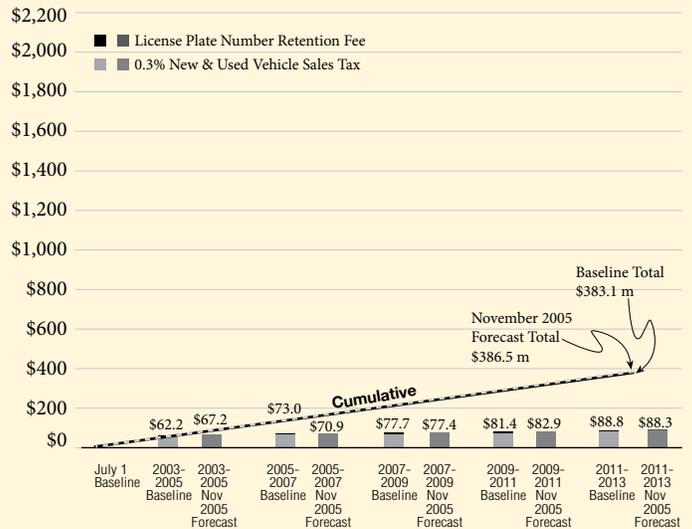
For the 2005-07 biennium the Legislature appropriated \$940 million in proceeds in gas tax bonds and \$49.7 million from the state GO bonds. The current bond sale plan for this biennium is anticipated to be \$917.1 million for the Nickel Account and \$48.5 million for the Multimodal Account.

For details on the current bond sale plan and detailed account information, please visit the WSDOT website www.wsdot.wa.gov/finance

Multimodal Account (New Sources) Revenue Forecast

March 2003 Legislative Baseline Compared to November 2005 Transportation Revenue Forecast Council

Millions of Dollars



WSDOT's Capital Project Delivery Programs

Partnership Program: 2005 Transportation Funding Package

Schedule, Scope and Budget Summary: Two Projects Completed as of December 31, 2005

The completion record is building for the 2005 Transportation Funding Package (Partnership Program) projects. The following table lists the two projects completed to date (December 31, 2005) in the current fiscal year. There were no projects completed at the close of fiscal year 2005.

Project Description	On-Time Advertised	On-Time Completed	Within Scope	On-Budget (Dollars in Thousands)		
				Planned	Actual	% Over/Under
I-90, Silica Road to East of Adams Road - Median Cross Over Protection	✓	Early	✓	1,200	312	74% Under
I-90, SR 17 to Grant/Adams County Line - Median Cross Over Protection	✓	Early	✓	1,200	777	35% Under
Totals this Quarter, Biennium and Cumulative to Date	100%	100%	100%	\$2,400	\$1,089	

Definitions:

"On-Time Advertised": the project was advertised within the quarter as planned.
 "On-Time Completed": the project was operationally complete within the quarter as planned in the 2005-07 Budget.

"Within Scope": the project was completed within the specific functional intent of a project as approved by the Legislature.
 "On-Budget": within +/- 5% of the baseline budget.

Advertisement Record: Twelve Project Now in Construction Phase as of December 31, 2005

Twelve Partnership Program projects have been advertised and are now in the construction phase as of December 31, 2005. The individual projects are listed in the following table.

Project Description	On-Time Advertised	Ad Date	Contractor	Operationally Complete Date	Award Amount	
					Dollars in Thousands	
I-5/Blaine Vicinity - Median Cross Over Protection	✓	Aug-05	Petersen Brothers, Inc.	May-06	3,508 ¹	
I-5/300th Street NW Vicinity to Anderson Rd Vicinity	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
I-5/SR 11 Vicinity to Weigh Station Vicinity	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
I-5 /SR 11 to 36th Street - Median Cross Over Protection	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
I-5/SR 542 Vicinity to Bakerview Road	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
I-5 /Main Street to SR 548 - Median Cross Over Protection	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
SR 18 /SE 304th to SR 516 - Median Cross Over Protection	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
SR 16 /NW of Tacoma Narrows to SE of Burley/Olalla - Median Cross Over Protection	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
SR 410 / Traffic Ave to 166th Ave E - Median Cross Over Protection	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
SR 522/North Creek Vicinity to Bear Creek Vicinity - Median Cross Over Protection	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
SR 167/SR 410 to Pierce/King County Line - Median Cross Over Protection	Early	Aug-05	Petersen Brothers, Inc.	May-06	Combined with above	
I-90 Potato Hill Bridge Bicycle and Pedestrian Bridge	✓	Dec-05	Weaver Construction Co.	Dec-06	2,701	
Totals Biennium/Cumulative to Date	100%				\$6,210	

¹For construction efficiencies the 11 Median Crossover Protection projects were bundled into one construction contract that was awarded to Petersen Brothers for \$3,508,000.

WSDOT's Capital Project Delivery Programs

Partnership Program: 2005 Transportation Funding Package

Advertisement Schedule and Budget: Seven Projects in Delivery Pipeline through June 30, 2006

The table below shows the status of the seven projects now being advertised for construction or planned to be advertised for bid between January 1, 2005 and June 30, 2006.

Project Description	On Schedule	Ad Date	Current Legislative Budget* <i>Dollars in Thousands</i>
U.S. 12/Vicinity Montesano to Elma - Median Cross Over Protection	✓	Mar-06	1,219
I-205/Mill Plain SB Off-Ramp Improvement	Early	Mar-06	542
SR 522/UWBCC Campus Access	Late ¹	Mar-06	27,827
U.S. 97 Kittitas, Chelan and Okanogan Counties Roadside Safety Improvement	✓	Apr-06	1,000
SR 17/Pioneer Way to Stratford Road - Widen to Four Lane	✓	May-06	15,215
U.S. 12, Naches River - Flood Plain Work	Late ²	Jun-06	2,116
SR 99/SR 599 to Holden Street	✓	Apr-06	380
Total (Jan. 1, 2006 - June 30, 2006)	71%		\$48,299

*Dollars shown include all fund types - not just Nickel or TPA.

Project Details:

¹This project was funded in part by the 2003 Nickel program. Previous *Gray Notebooks* reported this project as being delayed because of the need for additional funding for construction. The balance of the funding has been committed in the 2005 Transportation Partnership Program and the advertisement date was reset to March 2006.

²This project was scheduled to go to advertisement in October 2007. WSDOT worked with local agencies and designed this project with an accelerated

advertisement date of June 2006. When the cost estimates were refined for the current design, the project exceeded the budgeted amount. To stay within budget, the project will need to be redesigned. The additional time necessary for redesign will require the original advertisement date of October 2007 to be maintained.

WSDOT's Capital Project Delivery Programs

Partnership Program: 2005 Transportation Funding Package

Selected Construction Highlights

Highway Construction Program

I-5 Et. al. Puget Sound Vic. Cable Guardrail

This project constructs 38 miles of cable guardrail in six different counties across six different highways. The project will help to prevent head-on collisions caused by drivers crossing the median and entering oncoming traffic. The contractor installed cable barrier information signs, over 3300 feet of beam guardrail, and the high-tension cable barrier along I-5 in the Blaine vicinity.

“Watch List” Project - Cost and Schedule Concerns (Updated Since September 30, 2005)

Highway Construction Program

SR 522, UWBC Campus Access

This project will construct a new south access to the UW Bothell/Cascadia Community College Campus from I-405 and SR 522. In cooperation with University of Washington staff, WSDOT implemented wall design changes which mandate easements from two right-of-way parcels. These changes impacted the right-of-way and environmental permitting processes. In addition, the title of one parcel needs to be cleared of judgments before it can be purchased. Because of the above, the advertisement date for this project may be delayed to late May 2006. An update will be provided in next quarter's report.

Other Construction Program - Rail

New Creston Livestock Feedmill (Lincoln County)

Lincoln County has been working to set up a livestock feed mill just west of Creston for several years with funding from three sources: A \$45,000 grant from the Department of Community, Trade, and Economic Development (CTED) to the Lincoln County Public Development Authority; a \$170,000 federal grant to Lincoln Co. for both nearby highway improvements and rail spur construction; and a 2005 state grant of \$30,000 to complete the rail spur. The project cannot be built if the PCC Railroad's CW line is abandoned.

Dayton Yard Rehabilitation – Port of Columbia County

The loss of the Seneca Green Giant asparagus cannery in Dayton led the port district to search for a suitable replacement industry to preserve local jobs. At the time legislative requests were being prepared in late 2004, the port thought it had two prospects whose operations would require replacement of century-old rail at Dayton yard. However, Seneca

pulled the old Green Giant property off the market and these prospects are no longer as interested. Without an immediate prospect in hand, it's unclear what should be constructed at Dayton with the \$270,000 in state funds.

Snohomish Riverfront Redevelopment

The City of Everett is pooling the state's \$1.8 million federal and local funds to reconstruct an existing BNSF Railway (BNSF) line along the river further up the bank next to existing mainline tracks. A somewhat complex set of related land swaps is also required to enable the full redevelopment of the area. Two of the parcels being swapped have easements important to the I-5 widening project in the area. The city-BNSF contract was proceeding to completion in November when BNSF suggested that the new track may have to be raised another 18 inches on a wider footprint. If the track must be raised, the formal land swaps will be delayed because new environmental studies and reviews will be required. The original signing date of December 15, 2005 has been set back until the matter is resolved.

Mukilteo Temporary Sounder Station

This project provides \$1.5 million to construct a temporary station to allow commuter service to begin prior to completion of the permanent station to be constructed by Sound Transit. The Sound Transit Board has decided that Sound Transit will not construct a temporary station and will complete the permanent Mukilteo Station in mid-2007.

Swift Customs Facility Capacity Improvements, Blaine, WA

This project funded in the 2005 package at \$3.0 million will increase rail line capacity at the Swift Customs Facility and will ensure Amtrak Cascades schedule reliability. State funds will supplement a \$3.0 million federal earmark. The Legislature assumes an additional \$3.0 million in private/local/other funds that have not been secured. The project is spread over the next two biennia (2005-07 and 2007-09). BNSF is working to secure additional funds from other sources such as the Department of Homeland Security.

BNSF Railway began Preconstruction Engineering in December 2005 which will result in a phased construction plan to match the funds available while providing incremental improvements to rail and inspection operations. The initial phase of the project will be designed and constructed to provide some benefit to rail and inspection operations and fulfill the state's obligation to the project.

WSDOT's Capital Project Delivery Programs

Partnership Program: 2005 Transportation Funding Package

Schedule Milestone Reporting

The following table summarizes results for all Partnership Program projects that had one or more milestone activity to date in the 2005-07 biennium (July 1, 2005 through December 31, 2005). Project Definition and Engineering delays were due

to Initiative 912. WSDOT is working to re-assess the schedule, budgets and risk factors of each of the projects impacted by I-912. This assessment will be included as part of the 2007-09 budget/program development process.

Milestone	Number of Projects with this Milestone	Number of Scheduled Milestones Achieved	Number of Scheduled Milestone Not Achieved	Achievement Rate
Project Definition Complete				
Biennium to Date (2005-07)	57	38	19	67%
Begin Preliminary Engineering				
Biennium to Date (2005-07)	111	32	79	29%
Environmental Documentation Complete				
Biennium to Date (2005-07)	15	15	0	100%
Right of Way Certification				
Biennium to Date (2005-07)	8	8	0	100%
Advertisement Date				
Biennium to Date (2005-07)	14	14	0	100%
Operationally Complete				
Biennium to Date (2005-07)	2	2	0	100%

Baseline Data: Baseline milestone dates are derived from the 2005 Legislative Transportation 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.

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 first very 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 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, and 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

Partnership Program: 2005 Transportation Funding Package

Paying for the Projects: Financial Information

2005 Transportation Package Revenue Sources

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

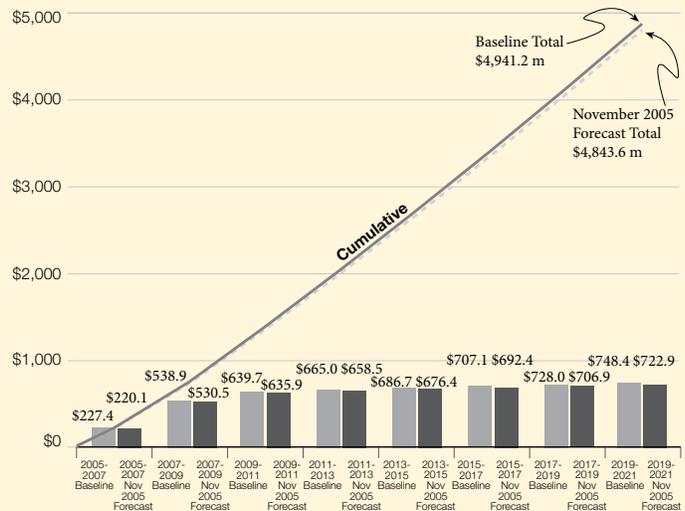
Revenue Forecast Update

The following information incorporates the November 2005 forecast projections. The accompanying chart compares the current projected new gas tax 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. Currently, only the 10-year outlook has been decreased. Work on the 2015-21 biennia is still under development.

The November 2005 forecast for gas tax receipts over the 16-year period has decreased slightly; however, forecasted revenues are still closely aligned with the legislative baseline projection (-2.0%).

Transportation Partnership Account Gas Tax Revenue Forecast

March 2005 Legislative Baseline Compared to November 2005 Transportation Revenue Forecast Council
Millions of Dollars



Bond Sales Plan for Authorization Provided by the 2005 Funding Package

The 2005 Transportation Funding Package includes a new bond authorization of \$5.1 billion over the 16-year period.

2005-2007 Biennium

For the 2005-07 biennium, the Legislature appropriated \$400 million in proceeds from the gas tax bonds. The current bond sale plan is anticipated to be \$200 million this biennium since project construction was put on hold, pending the outcome of Initiative 912, in the November 2005 election.

For details on the current bond sale plan and detailed account information please visit the WSDOT website www.wsdot.wa.gov/finance

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Program: Programmatic Reporting

Next Steps in Pre-Existing Funds Reporting

Future editions of the *Gray Notebook* will begin reporting on the progress of Pre-Existing Funds (PEF) projects by programmatic categories. The chart below shows the six programmatic categories that will be reported and the number of projects associated with each category for the biennium.

Each category will be reported by the actual and forecasted amount for the following measures:

- Number of Projects Beginning Engineering
- Number of Projects Advertised for Bids
- Number of Projects "Operationally Complete"
- Program Cash Flow

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

Unlike Nickel and Partnership Program projects that are fixed lists of projects set by the Legislature and funded with a line item budget for each individual project, the Pre-Existing Funds fund programs to correct deficiencies defined by categories and subcategories at a 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 Partnership Program 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 programmatically, this type of data has not been collected and is not currently available. Future programs will collect benchmark project data such as the three milestones: Begin Preconstruction Engineering, Advertisement Date, and Operationally Complete Date.

Pre-Existing Funds Projects for the 2005-07 Biennium

Dollars in Millions

Programmatic Categories	# of Projects 2005-07	Total Sub-Program Estimate for These Projects	Average Project Size
Pavement Preservation	184	\$219.0	\$1.2
Bridges (Preservation/ Replacement)	56	\$68.1	\$1.2
Slope Stabilization	17	\$18.3	\$1.1
Safety (roadside, rumble strips, median cross-over, etc.)	54	\$61.2	\$1.1
Environmental Retrofit (fish passage improvement, stormwater runoff)	14	\$5.5	\$0.4
Other Facilities (rest area, weight stations)	39	\$146.7	\$3.8
Total	364	\$518.8	\$1.47 (Average)

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Program: Programmatic Reporting

Advertisement Record: Thirty-Nine Projects Now in Construction as of December 31, 2005

Biennium to Date (2005-07)

The 2005-07 Highway Construction Program includes a commitment of 329 advertisements. Pre-Existing Funds (PEF) advertisements through the quarter ending December 31, 2005, were 39 of the planned 52, or 75% of the "planned" commitments for the quarter.

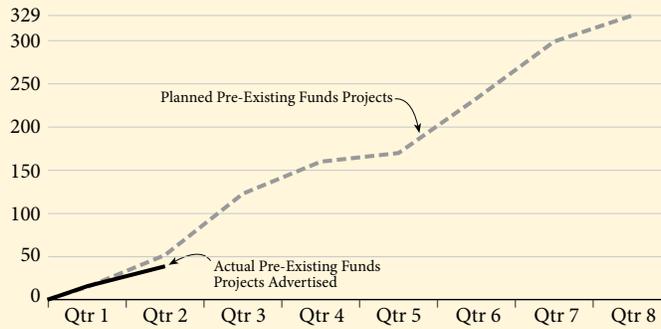
Current Quarter (October - December 31, 2005)

Of the 36 planned advertisements for the second quarter, 24 were advertised as scheduled, one was advertised last biennium, ten were delayed to later in the biennium, and one was deferred to the 2011-13 biennium. Therefore, a total of 25 projects scheduled for the second quarter have been advertised and are now in the construction phase.

The table below summarizes the delivery status of PEF projects advertised during the second quarter of the 2005-07 biennium. This summary includes safety improvement projects and project delivery accomplishments within this quarter.

Highway Construction Program Advertisements Pre-Existing Funds Projects

Planned vs. Actual Number of Projects Advertised
2005-2007 Biennium, Quarter 2 ending December 31, 2005
Project Count

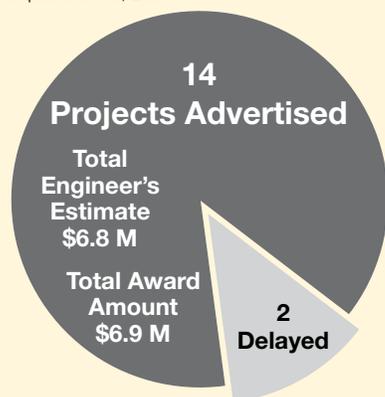


Source for all graphs: WSDOT Project Control and Reporting Office

NOTE: The September 3, 2005 *Gray Notebook* (p. 39) erroneously reported 330 Pre-Existing Funds projects scheduled for advertisement during the 2005-07 biennium. One Nickel funded project (*SR31/Metaline Falls to the International border*) was incorrectly included as a Pre-Existing Funds project advertisement.

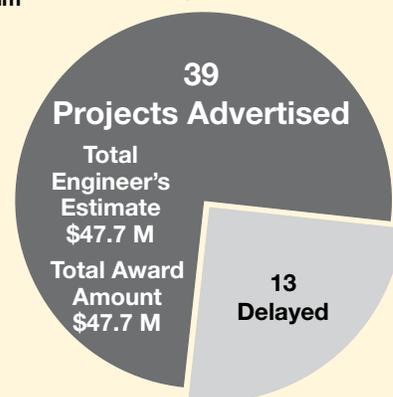
Pre-Existing Funds Projects: A Snapshot of Quarterly Progress and Total Biennial Progress to Date

End of Last Quarter
September 30, 2005



	Projects Through Last Quarter	This Quarter's Progress	Biennium to Date Total
Projects Advertised			
As Scheduled	10	24	34
Project Ads Early	4	1	5
Project Ads Late	0	0	0
Emergency Projects	0	0	0
Total Advertised	14	25	39
Projects Delayed			
Within the biennium (delayed)	2	10	12
Out of the biennium (deferred)	0	1	1
Total Delayed	2	11	13
Projects Deleted			
Projects Deleted	0	0	0
Total Deleted	0	0	0

End of This Quarter
December 31, 2005



WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Program

Advertisement Record: Projects Advertised for this Quarter (October - December 31, 2005)

Here is the status of the 36 PEF projects scheduled to be advertised for construction during the second quarter of the 2005-07 biennium.

Project Description	On-Time Advertised	Project Description	On-Time Advertised
Regionwide Controller Replacement - Electrical Rehabilitation	✓	*SR 161/Center Street E to Vic 264th Street E - Centerline Rumble Strip	✓
I-90/Lacey V Murrow and Homer Hadley - UPS	✓	*SR16/Wollochet Dr. Signal	✓
U.S. 97/South of Omak Bridge Deck Repair	✓	*SR 20/Sidney St. Vicinity to Scenic Heights ⁹	Delayed
SR 283/Winchester Wasteway Bridge - Deck Rehabilitation	✓	*U.S. 2/Iron Goat Byway Interpretive Facility ¹⁰	Delayed
U.S. 2/Coulee City Area East - 2006 Seal	✓	Total On-Time this Quarter - All Projects	67%
SR 17/Jct. SR 174 to 8 Mile NW - 2006 Seal	✓	*Safety Projects: While elements that improve safety are a part of almost every highway construction project, a special program with a sub-category established by the Legislature covers projects designed to address specific issues in "high accident corridors" (HAC) and "high accident locations" (HAL). WSDOT tracks the award of these projects in order to provide a picture of program delivery on issues that are of great importance.	
SR 20/Winthrop to SR 153 - 2006 Chip Seal	✓	Project Details:	
SR 20/Tonasket to 4.5 Miles East-2006 Seal	✓	¹ This advertisement is being delayed four months from December 2005 to March 2006 in order to better define the project design based on additional field analysis. This delay will delay the Operationally Complete date.	
SR 20/Wauconda Summit East - 2006 Seal	✓	² This advertisement is being delayed three months from October 2005 to January 2006 due to a delay in receiving the Biological Assessment Opinion, a required step to complete the design approval process. This delay will not affect the planned Operationally Complete date.	
U.S. 97/Tonasket to 11.75 Mile North-2006 Seal	✓	³ This advertisement is being delayed sixteen months from October 2005 to February 2007 in order to better define the project design based on additional field analysis. This delay will delay the Operationally Complete date nine months from September 2006 to June 2007.	
SR 155/25 Mile South to Grand Coulee-2006 Seal	✓	⁴ This advertisement is being delayed three months from November 2005 to February 2006 in order to complete the project design and to reduce contractor risk for increased asphalt prices. This delay will delay the Operationally Complete date three months from September 2006 to November 2006.	
SR 174/SR 17 to Grand Coulee - 2006 Seal	✓	⁵ This advertisement is being delayed three months from November 2005 to February 2006 in order to complete the project design and to reduce contractor risk for increased asphalt prices. This delay will delay the Operationally Complete date three months from September 2006 to November 2006.	
North Central Region Guardrail Update - Year 2006	✓	⁶ This advertisement is being delayed one month from December 2005 to January 2006 in order to allow time to split this project out from two other projects, all were intended to be constructed together under the same contract. Increased costs for fuel and materials, especially conduit, resulted in insufficient funding for all three projects; therefore, this project will proceed and the other two projects will be delayed (see below). This delay will not affect the planned Operationally Complete date.	
U.S. 2/97 Sunnyslope/Vicinity to SR 28	✓	⁷ These two advertisements are being delayed ten months from December 2005 to October 2006 in order to determine additional funding sources. These projects were delayed in order to fully fund I-90/SR 970 Interchange-Illumination (see previous write-up for I-90/SR 970 Interchange-Illumination). This delay will affect the planned Operationally Complete date for both projects (length of delay to be determined).	
U.S. 2/97 Junction SR 28 to Rocky Reach – BST	✓	⁸ This advertisement is being delayed 76 months from October 2005 to February 2012 in order to allow the City of Arlington to incorporate a direct connection from our Recreational Vehicle Dump Stations into their engineering investigation and future capacity improvements. This will delay the planned Operationally Complete date to May 2013.	
U.S. 2/Cashmere East – Paving	✓	⁹ This advertisement is being delayed five months from October 2005 to March 2006 in order to resolve right of way acquisition and utility relocation issues. During the 1970's, Puget Sound Energy (PSE) purchased easements from property owners in the vicinity of the current project site in order to install electrical transmission and distribution lines. In 1984, WSDOT purchased right-of-way from the adjacent property owners but did not purchase or clear the PSE easements from the purchased property. These overlooked encumbrances within a portion of the existing WSDOT right of way will now require the unanticipated relocation of 11 transmission and five distribution PSE poles. WSDOT may also need to purchase additional right of way. This delay will not affect the planned Operationally Complete date.	
SR 17/Franklin County Line to Othello – BST	✓	¹⁰ This advertisement is being delayed six months from November 2005 to May 2006 in order to complete the Cultural Resource (CRS) portion of the environmental process. The CRS has been delayed due to unfavorable site conditions caused by heavy rainfall. This delay will not affect the planned Operationally Complete date.	
SR 28/Rock Island to Crescent Bar – Pave	✓		
U.S. 97A/South of Chelan-Tunnel Lining Stage 3	✓		
SR 16/Wollochet Drive NW Interchange – Paving	✓		
SR 112/Bear Creek Culvert	✓		
U.S. 12/Attalia Vicinity-Paving	✓		
SR 167/Springbrook Creek (Late last biennium)	✓		
SR 900/I-405 Vicinity to Harrington Avenue NE ¹	Delayed		
U.S. 2/Mill Creek Fish Passage ²	Delayed		
SR 107/Chehalis River Bridge – Scour ³	Delayed		
SR 305/Ferry Terminal to Seabold Road – Paving ⁴	Delayed		
SR 305/Seabold Rd to Bond Road – Paving ⁵	Delayed		
I-90/SR 970 Interchange-Illumination ⁶	Delayed		
I-90/West Nelson Siding Interchange – Illumination ⁷	Delayed		
I-90/Golf Course Road Interchange - Illumination ⁷	Delayed		
I-5/Smokey Point NB/SB Safety Rest Area RV Sewage System Rehabilitation ⁸	Delayed		

WSDOT's Capital Project Delivery Programs

Pre-Existing Funds Program: Individual Reporting

Schedule Milestone Reporting

Six Pre-Existing Funds projects have been selected for individual project reporting on a quarterly basis. These six projects have been selected due to the size and visibility of each project. The following table summarizes the three schedule milestones

tracked for six active Pre-Existing Funded projects: Begin Preliminary Engineering, Advertisement Date, and Operationally Complete.

Six Individually Tracked Pre-Existing Funds Project Results through December 31, 2005

Dollars in Millions

	First Legislative Budget	Baseline: Current Legislative Approved	Scheduled Date to Begin Preliminary Engineering		Schedule Date for Advertisement		Schedule Date to be Operationally Complete
			Date	On-Time	Date	On-Time	
SR 28 - East End of George Sellar Bridge	\$9.4 (2004)	\$9.5 (2005)	May 2004	✓	Oct. 2008	✓	Sept. 2010
SR 539 - Horton to Tenmile Road	\$32.0 (2001-03)	\$53.0 (2005)	Oct. 1990	✓	April 2006	Late	June 2009
SR 202 - SR 520 to Sahalee Way	\$36.9 (2001-03)	\$70.8 (2005)	May 1998	✓	Oct. 2004	Late	June 2008
U.S. 101 Purdy Creek Bridge Replacement	\$6.0 (2001-03)	\$11.2 (2005)	Aug. 2004	Late	Jan. 2008	✓	Jan. 2010
U.S. 2/Ebey Island Viaduct and Ebey Sl Br	\$32.1 (2002)	\$35.5 (2005)	Dec. 2005	✓	April 2008	✓	Sept. 2011
SR 303/Manette Br Bremerton Vic. - Br. Replacement	\$25.5 (2001-03)	\$25.5 (2005)	Sept. 1996	✓	July 2007	✓	Sept. 2009

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. 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 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 Program

Paying for the Projects: Financial Information

WSDOT submitted an expenditure plan to the Legislature for the second quarter of the biennium totaling approximately \$273 million. As of December 31, 2005, actual expenditures totaled \$231 million, leaving a variance of approximately \$42 million or 16% from the biennium plan.

The 16% variance as of the end of the second quarter for the Highway Construction Program was divided between the Improvement and Preservation programs. The Preservation program planned cash flow was \$158 million, and actual expenditures were \$138 million. This was under plan by \$20 million, contributing to approximately 8% of the current cash flow variance. The Improvement program planned cash flow was \$115 million, and actual expenditures were \$93 million. This was under plan by approximately \$22 million, contributing to about 8% of the variance. The under-spending in the Preservation program was due to the extension of the selection process for Hood Canal Bridge alternate construction sites as a result of archeological discoveries at the originally planned construction site (see p. 42 of the December 31, 2004 *Gray Notebook* for more information). Additionally, closure of the bridge has been delayed until next biennium, which has delayed the need to lease a park and ride lot for the west side passenger-only ferry terminal until 2008. The under spending in the Improvement program was primarily due to slower than expected expenditures for several projects, including:

SR 202/SR 520 to Sahalee Way – Widening

SR 240/I-182 to Richland Y – Add Lanes

SR 161/128th to 176th – Safety

SR 509/Miller/Walker Impervious Area Project

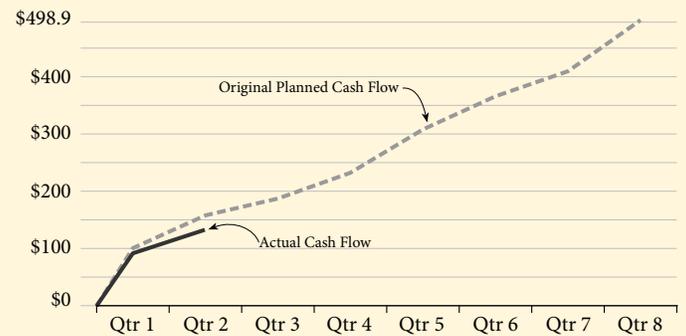
Preservation Program Cash Flow

Pre-Existing Funds

Planned vs. Actual Expenditures

2005-2007 Biennium, Quarter 2 ending December 31, 2005

Dollars in Millions



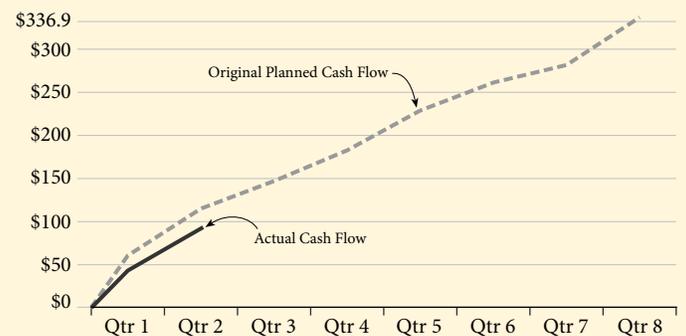
Improvement Program Cash Flow

Pre-Existing Funds

Planned vs. Actual Expenditures

2005-2007 Biennium, Quarter 2 ending December 31, 2005

Dollars in Millions



WSDOT's Capital Project Delivery Programs



Special Report: Tacoma Narrows Bridge, Quarterly Update

Bridge Construction

As of December 31, design-builder Tacoma Narrows Constructors (TNC) has completed 77% of the construction on the SR 16 Tacoma Narrows Bridge (TNB) project. During the fourth quarter, TNC began spinning the bridge's main suspension cables. On October 13, crews pulled the first suspension cable wire from the Tacoma anchorage over the tops of the towers to the Gig Harbor anchorage and back again. The two main suspension cables are 20 1/2" in diameter.

In mid-November, TNC discovered corrosion on many of the stored wire coils. The entire inventory of stored wire was inspected and any wire not meeting contract specifications will not be used. TNC has ordered more wire from England, China and Korea to replace wire not meeting specifications.

In South Korea, completion of deck fabrication progressed from 55% to 81% during this quarter. All bridge suspender cables have been fabricated and are on-site. As a result of the wire corrosion issue, TNC is expected to miss the lifting of the first deck section milestone scheduled in May 2006. WSDOT will continue to evaluate schedule impacts as wire and deck fabrication progress. WSDOT anticipates the new bridge will open on-time.

Roadway Construction

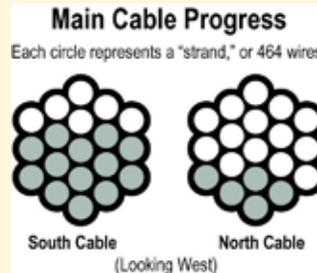
East of the bridge, the project completed relocation of the Living War Memorial Park to the southwest corner of Jackson Avenue NW and SR 16. The original park was built in 1952 as a memorial to fallen service men and women. It was relocated because it sat in the alignment of the new bridge and the new east anchorage. A park rededication ceremony is planned for May 13, 2006.

West of the bridge, crews completed construction of stormwater Pond C, which was redesigned into a more natural shape. Throughout the project, extensive erosion control measures were taken in preparation for the winter wet season. Landscaping has been taking place throughout the project with many areas fully landscaped. This quarter, crews also performed seismic retrofit work on the existing bridge east anchorage and several of its piers and struts.

Tacoma Narrows Bridge Progress as of Dec. 2005

Percent Complete	
Design	99.9%
Construction	74.7%
Total	76.5%

Source: WSDOT Engineering and Regional Operations Division.



Within each main suspension cable are 19 strands comprised of 464 individual wires—a total of 8,816 wires per suspension cable. By the end of December, TNC crews had completed five strands on the north cable and 13 strands on the south main cable.

Toll Facility Construction/Toll Operations

The toll operations building and toll plaza structures were completed at the end of September and turned over to TransCore on October 31. TransCore is progressing with the Toll Collection and Accounting System and began installing tolling hardware in November.

In October and November, WSDOT conducted five public toll workshops in the Gig Harbor and Tacoma area. The workshops presented information on tolling to the public and provided a forum for the public to ask questions and provide input on tolling business practices. Based on the input, the project is writing toll guidelines related to methods of paying tolls, establishing electronic toll accounts, violations/penalties, etc. WSDOT staff continues to develop Washington Administrative Code rules to specify toll policies.

For more information visit www.tacomanarrowsbridge.com.



Compacting and banding strands on the north cable.



First trip of the spinning wheel on October 13, 2005.

WSDOT's Capital Project Delivery Programs



Special Report: Hood Canal Bridge, Quarterly Update

This quarter's construction on the canal site portion of the SR 104 Hood Canal Bridge Project was brought closer to completion. The projected completion date for the west-half road deck widening and approach span replacements is February 2006. December marked the beginning of site preparation at the pontoon construction facility in the Tacoma area.

West-Half Widening

Travelers crossing the Hood Canal Bridge now have more room to maneuver. WSDOT lifted lane restrictions November 23, 2005 on the Hood Canal Bridge when the contractor, Kiewit-General of Poulsbo, removed the old barrier gate and completed roadway striping. Lane widths increased from 11 feet to 12 feet. West-half roadway shoulders are now eight feet, providing room for disabled vehicles to pull off the road and allow traffic to move smoothly around them. Crews have also placed compression seals and permanent signs.

Approach Span Replacement

West Approach

Crews removed north work trestle sections in November and December. The remaining work includes a small amount of paving, installing curbs, putting in barrier and guardrail, finishing storm gate installation, completing signing, removing the remainder of the trestles, and demolishing old Pier 2.

East Approach

Old piers 7 and 8 were demolished, a gantry (framework used during pier removal) was fabricated, and a portion of the concrete cleanup work completed.



Crews saw cut the old approach span pier into sections for removal.

Pontoon Construction

Pontoon construction for the Hood Canal Bridge replacement project will now take place at commercial sites around Puget Sound. Fourteen pontoons will be constructed at Concrete Tech in Tacoma. Another three pontoons, built during the west-half bridge replacement in the early 1980s, will be retrofitted in Seattle. The pontoons will be moored in the Port of Seattle prior to outfitting them at Todd Shipyards and other commercial sites in Seattle. The completed east-half pontoon roadway sections and fully assembled east-half draw span will be floated into place during scheduled bridge closures in May and June 2009.

The Tacoma site, owned by Concrete Tech and submitted by Floating Concrete Bridges (FCB) Facility Group, a Puget Sound shipyard coalition that includes Seattle's Todd Shipyards and the Duwamish Shipyards, was one of three properties identified by WSDOT in March 2005 as the most feasible pontoon construction sites. The Concrete Tech fabrication site was selected after extensive consultations between WSDOT, Kiewit-General and FCB Group. Using these facilities allows the project to better predict costs and project timelines without the risks associated with building a new graving dock.

Hood Canal Bridge Project Communication

Washington State Department of Transportation won "Best In-House Campaign Award" in the 2005 Magellan Awards' communications campaign competition for the Hood Canal Bridge August 2005 Closure Outreach. The campaign material received the highest total score within its competition class and was presented with the Platinum Award.

"We know the August 2005 closure went so smoothly because of the Peninsula community. They found ways to inform others about the closures, form partnerships and provide alternate travel options for those who rely on the bridge for their livelihood," said Eric Soderquist, Hood Canal Bridge Project Director. "We will continue to maintain and build more of these important partnerships to help the community prepare for the closures in 2009."

For more information about the Hood Canal Project, visit www.hoodcanalbridge.com

WSDOT's Capital Project Delivery Programs

Special Report: End-of-2005 Season Highway Construction Project Evaluations, Annual Update

Each spring WSDOT selects a handful of highway construction projects from each of its regions for a year-end evaluation of the project's construction phase. The 2005 Construction Highlights Report provides the results of this self-assessment of on-time and on-budget performance. This is WSDOT's fifth annual report. WSDOT has learned from over 100 years of constructing highway projects that there are few challenges that cannot be overcome by effective construction management and the strong partnerships that have developed between WSDOT and its contractors.

These 25 projects, selected back in April 2005, provide a snapshot of the variety, complexity, and size of the construction program. Nine of the projects (37.5%) had five-star ratings in each of the four evaluation categories. One project had a

score less than 50%. Project evaluation standards focus on design, construction administration, schedule, and cost, rating each project in these categories.

This report is a sampling of the many projects that were built in 2005. There were 186 active construction projects ranging in cost from \$68,000 to \$615 million (construction contract amount for the Tacoma Narrows Bridge). This represents approximately \$1.884 billion in ongoing construction work. Below are the construction projects that were completed, or nearly completed, during the 2005 construction season (one project was not awarded due to contractor's bids coming in too high). The complete report, which provides details of how and why the project received its rating, can be found at www.wsdot.wa.gov/Projects/Highlights/2005.

Project	Design	Construction Management	Schedule	Cost	Contractor
I-5, James to Olive	*****	*****	*****	*****	Gary Merlino Const.
U.S. 12, SR 124 to McNary	*****	*****	*****	*****	Steelman-Duff, Inc.
SR 14, Cape Horn Rockfall	*****	*****	*****	*****	Diamaco, Inc.
I-90, George Paving	*****	*****	*****	*****	Central WA Asphalt
I-90, Argonne Signal	*****	*****	*****	*****	Power City Electric
U.S. 97, Tonasket Paving	*****	*****	*****	*****	Basin Paving, Co.
SR 161, 204th to 176th	*****	*****	*****	*****	Scarsella Brothers, Inc.
SR 225, Benton City Paving	*****	*****	*****	*****	Transtate Paving
SR 240, Yakima River Bridge	*****	*****	*****	*****	Wildish/F.E. Ward
I-5, Ash Way	*****	*****	*****	***	Mowat Const.
SR 9, US 2 Interchange	*****	*****	****	*****	Wilder Const.
I-90, SR 26 Interchange	*****	*****	****	*****	Steelman-Duff, Inc.
I-90, Harvard Ped/Bike Bridge	****	*****	*****	*****	Max J. Kuney Co.
U.S. 2, Spokane River to Euclid	*****	****	****	*****	Spokane Rock Products
SR 16, 36th to Olympic	*****	*****	***	*****	Woodworth & Co.
SR 20, SR 20 Spur to SR 536	****	****	*****	*****	Rinker Materials
SR 161, 128th to 176th	****	*****	***	*****	Tucci & Sons, Inc.
SR 432, I-5 to Oregon Way	****	****	****	****	Lakeside Industries
U.S. 101, SR 105 Mitigation	***	****	****	****	Scarsella Brothers, Inc.
SR 164, 158th Ave Turn Lanes	***	****	****	***	Tri State Const.
SR 527, 132nd to 112th	***	****	***	****	KLB Const.
I-5, S 317th HOV Direct Access	***	***	***	***	Icon Materials
I-5 Roanoake Noise Wall	***	***	****	**	Mowat Const.
I-90, I-405 Bridges - Seismic	*	****	*	*	Mowat Const.
I-5, I-205 to N. Fork Lewis River ¹	Not rated	Not rated	Not rated	Not rated	None

Source: WSDOT 2005 Construction Highlights Report

¹This project was not awarded in 2005. It was advertised for bids twice in Summer 2005, and both times the apparent low bid was approximately 30% over our engineer's estimate.

Cross-Cutting Management Issues

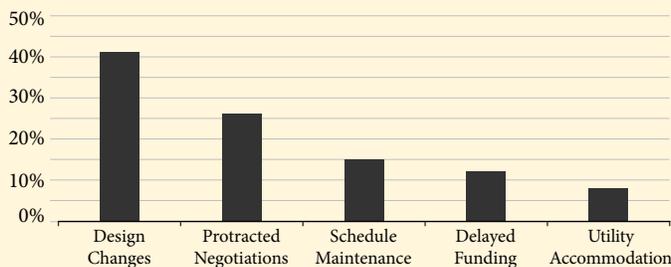
Right of Way Risks

On-Time Certification Analysis

Before a project can be advertised for bidding to contractors, WSDOT must certify that all rights necessary to construct the project have been acquired. WSDOT's business practices in acquiring real estate are strictly guided by state and federal laws, and regulations such as RCW's, WAC's, and federal regulations, specifically the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended July 2005.

WSDOT's goal is to deliver 100% on-time certification for all projects. In the 2003-05 biennium, WSDOT advertised 294 projects. These include PEF and Nickel projects and exclude emergency projects. Of the 294 projects, 68 had a right-of-way phase; 20 of those 68 projects (29%, or 6.8% of the total) were documented as late due to right-of-way issues.

Root Causes of Right of Way Certification Delays 2003-2005 Biennium



Note: Since some projects had multiple root causes of Right of Way delays, these percentages will not add up to 100%.

Source: WSDOT Real Estate Services Office

Root Causes for Right of Way Delays

Twenty-seven specific right-of-way causes were attributed to advertisement delays in these 20 projects. (Some projects had more than one reason for a right-of-way caused delay). The right-of-way delays broke down as follows:

Design Changes were a factor 41% of the time and occurred in eight of the projects (40%) requiring right-of-way. These are

attributed to things like permitting requirements, requests by property owners, and additional design detail determined later in the schedule.

Protracted Negotiations were a factor 26% of the time and occurred in seven projects (35%) requiring right-of-way. These are right-of-way negotiations with railroads, local governments, tribes, and utilities, involving bureaucratic processes and in some cases WSDOT's reluctance to pursue condemnation.

Schedule Management was a factor 15% of the time and occurred in four of the projects (20%). This included inadequate time in the schedule for negotiations, an unanticipated condemnation, difficult negotiations with an out-of-country owner, and a consultant's failure to perform.

Delayed Funding, resulting in a delayed right-of-way start, was a factor 12% of the time, occurring in three projects (or 15% of the 20 projects). One of these projects was eventually cancelled.

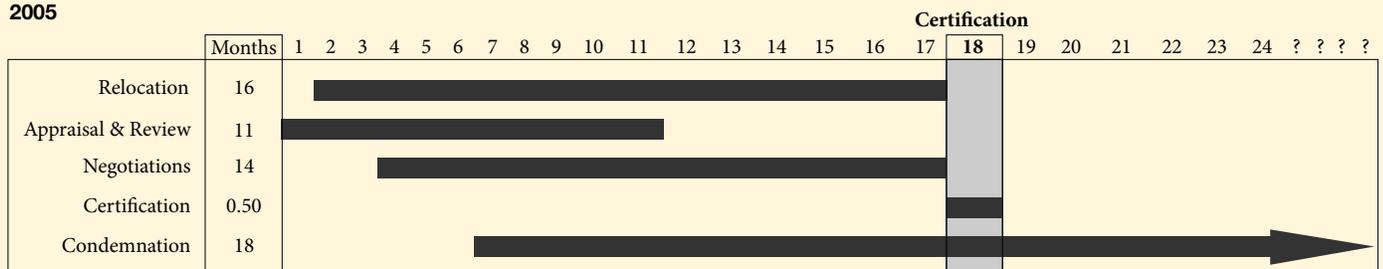
Utilities Accommodation was a factor 8% of the time occurring in two projects (10%) due to delays in identifying existing utilities and related right-of-way needs.

Starting January 2006, WSDOT will perform monthly assessments of completed projects, tracking the right-of-way certification date (projected vs. actual), and determining the cause of missed dates. This information will be tracked in a database and reported in the *Gray Notebook* routinely.

What is Required to Certify

Today, a schedule for a typical 40-parcel project suggests that, under *ideal* conditions, Certification could take place 18 months after the right-of-way plan is approved and the appraisals begin. (See the chart below.) Many projects face difficulties that prevent this optimal schedule from being reached, however.

Current Optimal Right of Way Acquisition Schedule for a Typical 40 Parcel Project 2005



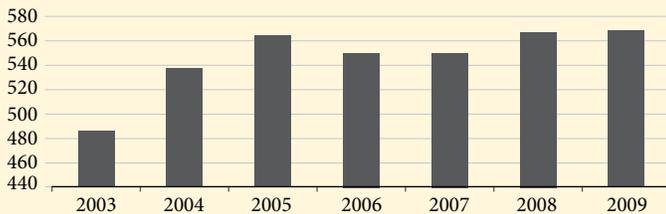
Source: WSDOT Real Estate Services Office

Cross-Cutting Management Issues

2006 Acquisitions

Projections through 2006 show a slight decrease in the number of parcels to be acquired.¹

Acquisitions for all PEF, TPA and Nickel Projects Actuals 2003-2005 and Projections 2006-2009



Source: WSDOT Real Estate Services Office

How does WSDOT manage these risks?

Set at the end of the project development schedule, the Right of Way process attempts to absorb delays created by previous stages of the project development schedule in order to keep the project on-time. This puts the Right of Way process in a unique situation: overall project schedule recovery is within a now-compressed Right of Way schedule. This forces WSDOT to seek or develop efficiencies and innovations in the Right of Way phase. Trying to complete a process that has become more complex, subject to schedules of impacted property owners, while working to recover previous lost schedule time within the framework of strict statutory controls and regulation, is very challenging. The focus on schedule recovery has led to business practices aimed at speeding up the Right of Way process.

Recently WSDOT enacted several process changes (outlined in the June 2005 *Gray Notebook*, pages 25-27) to help expedite the schedule. In addition to the root delays listed on page 25, the department is currently surveying other states to evaluate best practices and possible changes to WSDOT's condemnation process.

Nickel "Right of Way Watch List" Projects – Cost and Schedule Concerns

U.S. 2/U.S. 97 Peshastin East – Interchange

Due to zoning changes and the escalation in real estate values over the last two years, WSDOT is anticipating an increase in right of way costs of \$2-\$3 million.

U.S. 12, Attalia Vicinity – Add Lanes

If WSDOT can certify the right of way for the project by obtaining the right of entry from Union Pacific Rail Road and Burlington Northern and Santa-Fe RR, bids could be opened as early as February 2006. An update will be provided in next quarter's report.

SR 99, S 284th to S 272nd Street – HOV

The city of Federal Way has requested a late revision to Puget Sound Energy's (PSE) utility relocation plan in order to relocate a portion of the existing utility line. This design revision requires additional utility easements not anticipated by the original relocation plan, requiring more time and effort. An update will be provided in next quarter's report.

SR 522/I-5 to SR 405 Multimodal Project

This project remains on the "Watch List" because of a potential for right-of-way cost increases. Property acquisition has begun, but the right of way complications and challenges described in the September *Gray Notebook* may result in right of way costs exceeding the current budget.

SR 522, UWBC Campus Access

In cooperation with University of Washington staff, WSDOT implemented wall design changes which mandate easements from two right of way parcels. These changes impacted the right of way and environmental permitting processes. In addition, the title of one parcel needs to be cleared of judgments before it can be purchased. Because of the above, the advertisement date for this project is delayed to late May 2006.

¹ Due to a change in how parcel acquisition data is tracked, this graph will not match the data provided in the June 2005 *Gray Notebook* (pg. 25).

Cross-Cutting Management Issues

Utilities

Twenty Nickel Projects¹ were completed as of December 2005. None of these projects experienced construction delays due to utilities work.

Managing utilities that lie within state highway right-of-way brings with it a certain amount of risk. When existing utilities are in the way of highway projects, the utilities must be given reasonable time to relocate away from the project. This places risk on WSDOT in getting the project to advertisement and constructing it within the project schedule.

It is the goal of the department to eliminate or minimize risks associated with the project bid packages prior to advertisement. When complete elimination of risk is not possible, the department must carefully assess the risk and strategy for moving forward with the project.

The department has identified three risk levels it assigns to projects. Utility issues are components of risk along with environmental and right-of-way issues. See the table below for a description of the risk level classifications for utilities work.

Risk Levels For Projects Going to Advertisement: Utilities Risks

Level 1	Utilities have been relocated, or are clear of construction.
Level 2	The utility companies are actively pursuing relocation and the department has assurances they will be clear by the date bids are opened.
Level 3	Utilities that have not been relocated, and will not be relocated by the bid opening date that has been cited in the contract provisions. The department has assurances that the utility company will be able to meet the date stipulated in the contract.

Seven projects were advertised between July 2005 and December 2005. Of these, one was at Risk Level 2 and four were at Risk Level 3 for utilities concerns.

¹This report currently refers to Nickel Projects only. No TPA project so far has required utilities work that might delay advertisement. WSDOT is still developing a reporting system for utilities work on PEF projects.

Projects at Risk Levels Two and Three for Utilities Work (July - December, 2005)

SR 516, 208th and 209th Avenue Intersection Widening

The power company must provide electrical service for WSDOT's lighting system. The agreement to complete this work during the construction was not quite finished prior to going to advertisement. This is considered low risk work, in that it should not delay the construction and the cost is low. This project was advertised at Risk Level 3 for utilities.

SR 543, I-5 to International Boundary Widening and Border Crossing Improvements

This project went to advertisement in November at Risk Level 3. In addition to right-of-way acquisition needs, the project still required minor paperwork to allow utilities to relocate their facilities.

SR 106 Skobob Creek Bridge Replacement

This project was advertised at Risk Level 3. WSDOT had to arrange work windows in the construction schedule for the utilities to move their lines.

SR 9 Nooksack Road Vicinity to Cherry Street Road Widening

This project was advertised at Risk Level 3 because of a combination of utilities, railroad and right-of-way needs. The utilities have been notified their work must be completed by July 1, 2006 to meet the contractor's schedule.

I-90 Moses Lake Area - Bridge Clearance

This project went to ad at Risk Level 2 because utilities were in the process of being relocated during advertisement but were expected to be out of the way prior to bid opening.

Cross-Cutting Management Issues

Construction Costs Trends

Construction costs have been rising ahead of inflation costs for the past several years. WSDOT's Construction Cost Index (CCI) is prepared by compiling the most recent bid data, which reflects the prevailing market conditions. See the graph at the bottom of the page for WSDOT's CCI and the CCI of other nearby states and the Federal Highway Administration (FHWA). To view some of the most recent costs by quarter, see www.wsdot.wa.gov/biz/construction/constructioncosts.htm.

The eleven-year average growth rate of the CCI from 1990 through 2001 was 1.5% per year, but since 2001, the average growth rate has been 8.0% per year. During this period the CCI has been driven up by several factors, among them: the increasing worldwide demand for construction materials such as steel and cement; rising crude oil prices and other energy supply issues that have driven fuel prices up; and recent increases in costs in national and international construction activity, including (most recently) hurricane rebuilding in the South.

A Competitive Bidding Market is WSDOT's Best Tool in an Inflationary Market

The best way to manage growing construction costs is to nurture a competitive bidding environment: the more qualified and responsible bidders, the better. The goal is to have three or more bidders per contract, when possible. On certain emergency contracts, such as the recent rockslides on I-90 through Snoqualmie Pass, WSDOT selects a prequalified contractor (based on type of work and location) in order to expedite the project. On some regular contracts, the location, type and size of the project reduces the number of interested bidders.

The following components (weighted as shown) are used to compute the CCI:

Concrete Pavement (3.2%)	Steel Reinforcing Bar (5.4%)
Crushed Surfacing (7.9%)	Structural Steel (6.9%)
Roadway Excavation (10.7%)	Hot Mix Asphalt (48.5%)
Structural Concrete (17.4%)	

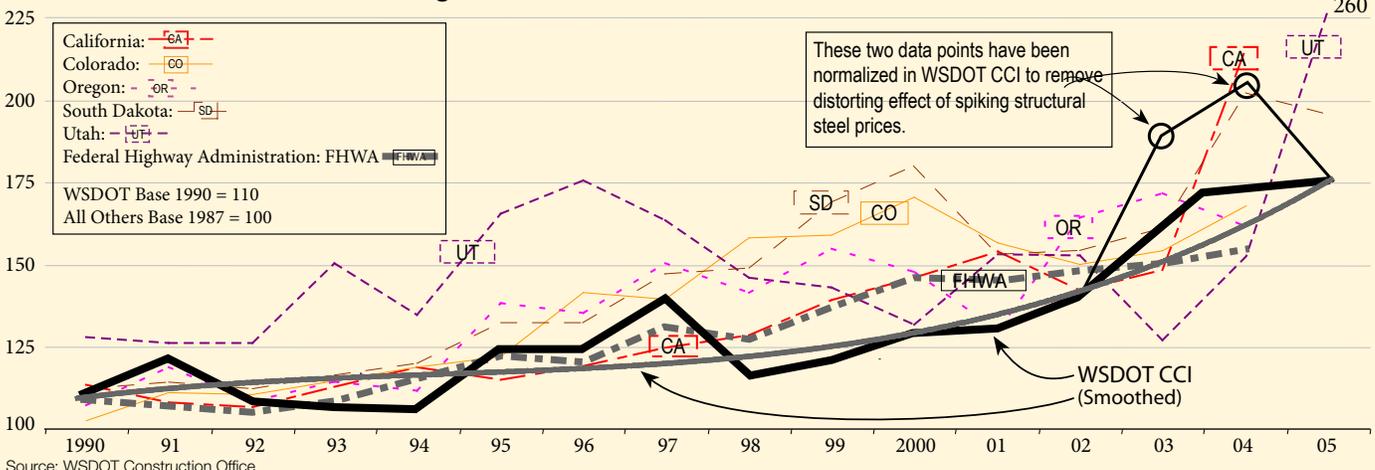
For more information on what these materials are, see page 45 of the September 30, 2005 *Gray Notebook*.

To determine the level of competition for state highway construction contracts, WSDOT follows the trends in the number of bidders on every highway construction project, such as the total number of contractors bidding to be a prime contractor on WSDOT highway construction projects, and the total number of contractors winning the award of WSDOT highway construction projects. See the graphs on the next page.

In 2005, 435 contractors were prequalified to bid on WSDOT construction work. Of these, 137 contractors actually placed a bid to become a prime contractor, and 69 contractors won an award to be the prime contractor on a WSDOT project.

The percent of WSDOT contracts bid by at least three firms has been around 67% for six years, while the percent of WSDOT contracts bid by at least four firms has fallen from about 50% in 2002-03 (when work was scarce) to about 33% today (when work is abundant). The percent of WSDOT contracts bid by one firm has fluctuated from 7.7% (2001) to 13.4% (2004).

Construction Cost Indices Washington State and Others



Cross-Cutting Management Issues

What WSDOT Can Influence...

Generally, WSDOT can influence the highway construction market in Washington State by making the agency a customer with whom contractors want to do business.

Fairness and efficiency. WSDOT strives to provide fair and efficient practices in contract administration and in risk allocation in the contracting relationship. Specifications on which contractors can confidently prepare bids, and a fair process for responding to questions and requests for clarification, are also key elements.

Communication with the contracting industry. The agency promotes current and future contract opportunities to the contracting community, and makes special outreach efforts on unusual or difficult projects.

Bid advertisement scheduling. WSDOT tries to schedule bid advertisements to promote competitive appetite. For example, the agency bids paving contracts early in the summer construction season, when few projects are going on.

...and What WSDOT Cannot Influence

There are many factors outside of WSDOT's control. The overall volume of public and private sector work seeking contractors – the demand for contractors' services – is one element of the market that WSDOT cannot exert any control over. Contractors' access to key subcontractors and sources of construction material is another, although WSDOT has been experimenting with early-buy contracts, which allow contractors to purchase construction materials as soon as possible to lock in current prices. Bonding and other capacity constraints are other uncontrollable factors that might affect a contractor's appetite for work.

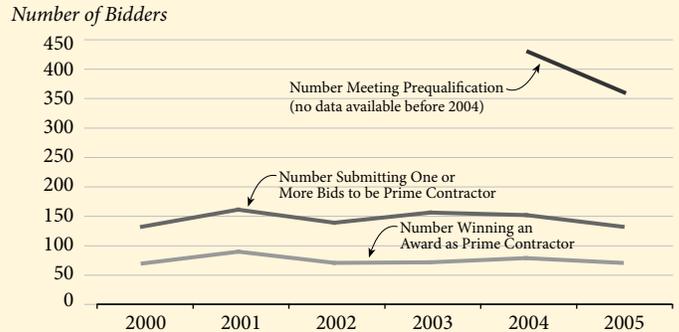
Recent Sticker Shock Stories from Across the Country

Alaska, November 2005. The Ketchikan road job came in at 78% over the \$6 million estimate. This project had only one bidder.

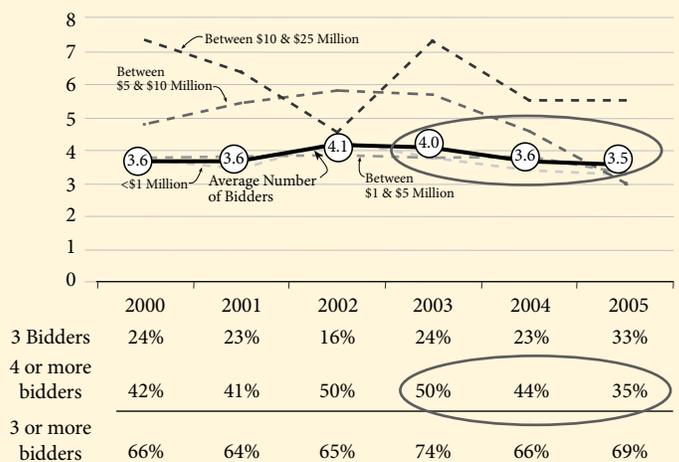
New Jersey, December 2005. The state rejected all three bids on the Rte. 52 Causeway Bridge project. The low bid was \$90 million over (60% over) the \$152 million estimate.

Florida, December 2005. FDOT has rejected more bids (9 out of 32) in the last month than ever before, and so far this financial year have received more single bids than in the past years. FDOT is calling a summit of stakeholders to discuss out of the box strategies.

Number of Construction Firms Prequalifying for Bidding On, and Winning WSDOT Construction Contracts



Average Number of Bidders By Size of Contract



Source: WSDOT Construction Office

Limited Number of Contractors

Market trends in the construction industry towards consolidation and shrinkage of the number of local firms is another factor in construction costs. Acquisitions and mergers as far back as the early 1980's have reduced the number of contractors available to provide the work. Additionally, specialty areas in construction have a limited number of contractors. Such specialties include hot mix asphalt paving, roadway striping, shaft drilling, concrete pre-stressed structural elements, concrete post-tensioned structural elements, and steel fabrication.

Cross-Cutting Management Issues

Construction Safety Information

This section of the *Beige Pages* tracks the job site safety record on the 2003 Transportation Funding Package (“Nickel”) projects. All recordable injuries are recorded for both WSDOT personnel and the contractors engaged by WSDOT to perform construction work. This information is combined into a single number indicating the total number of recordable injuries per project per quarter. A recordable injury is any work-related illness or injury that results in death, loss of consciousness, days away from work, days of restricted work, or medical treatment beyond first aid.



Noble Merrifield [center], foreman of the bridge construction at Snake Lake, reviews project information.

Number of Recordable Injuries

Project and Project Team: Contractor and WSDOT Project Engineer	July - Sept 2005	Sept - Dec. 2005
I-5/Salmon Creek to SR 205 (Hamilton Construction & Casey Liles, P.E.)	0	0
I-90/Argonne Road to Sullivan Rd. (Scarsella Bros. Inc. & Darrel McCallum, P.E.)	0	0
SR 527, 132nd St. SE to 112th St. SE (KLB Construction Inc. & Marlin Lenssen, P.E.)	0	0
SR 7, SR 507 to SR 512 Safety (Scarsella Bros. Inc. & Troy Cowan, P.E.)	No Work	0
SR 161/234th St. to 204th St. E (Scarsella Bros. Inc. & Howard Diep, P.E.)	0	0
SR 203, NE 124th/Novelty Rd. Vic. Roundabout (Wilder Construction Co. & Brian Dobbins, P.E.)	0	0
I-5/Federal Way-S 317th St. HOV (Icon Materials & John Chi, P.E.)	1	0
I-5, 2nd St. Bridge Replacement (Mowat Construction Co. & Dave Crisman, P.E.)	4	0
SR 18, Covington Way to Maple Valley (Terra Dynamics Inc. & Derek Case, P.E.)	0	No Work
SR 18/Maple Valley to Issaquah/Hobart Rd. (Guy F. Atkinson LLC & Derek Case, P.E.)	1	0
SR 31, Metaline Falls to the International Border (M.A. Deatley Construction & Robert Hilmes, P.E.)	0	0
SR 161, Jovita Blvd. to S 360th St. (Tri-State Construction & Messay Shiferaw, P.E.)	0	0
U.S. 12, SR 124 to McNary Pool (Steelman-Duff, Inc. & Will Smith, P.E.)	0	0
I-5, NE 175th St. to NE 205th St. (Pacific Road & Bridge & Amir Ahmadi, P.E.)	0	0
SR 161, 204th St. to 176th St. E (Scarsella Brothers & Howard Diep, P.E.)	0	0
SR 16, 36th St. to Olympic Drive NW (Woodworth & Company & Dave Ziegler, P.E.)	0	0
SR 202, JCT 292nd Ave. SE Sgnal & Channelization (Transtech Electric, Inc. & Marlin Lenssen, P.E.)	No Work	0
I-5, Roanoke Vicinity Noise Wall - Stage 2 (Wilder Construction Co. & Stanley Eng, P.E.)	0	0
SR 16 / Union Avenue to Jackson - HOV (Tri-State Construction & Dave Ziegler, P.E.)	0	0
U.S. 395, NSC - Gerlach to Windermere (KLB Construction & Robert Hilmes, P.E.)	0	0
I-5, Pierce Co. Line to Tukwila HOV - Stage 4 (Icon Materials & Stanley Eng, P.E.)	0	0
SR 240, I-182 to Columbia Center (Icon Materials & Moe Davari, P.E.)	0	0
SR 24, I-82 to Keys Road (Max J. Kuney Company & Paul Gonseth, P.E.)	0	1
SR 106, Skobob Creek Fish Passage (Quigg Bros., Inc. & John McNutt, P.E.)	1	0
SR 99, G. Washington Memorial - Aurora Ave. Bridge (Mowat Construction Co. & John Chi, P.E.)	1	2
U.S. 12, Jantz Road - Construct Frontage Rd. (Inl & Asphalt Co. & Will Smith, P.E.)	0	No Work
I-405 Totem Lake/NE 128th St. HOV Direct Access (Max J. Kuney & Doug Haight, P.E.)	3	1
I-5/48TH to Pacific Avenue - Core HOV (Kiewit Pacific Co. & Howard Diep, P.E.)	0	0
I-5/SR 526 to Marine View Drive (Atkinson-CH2M Hill A Joint Venture & Rol Benito, P.E.)	0	0
SR 207, Wenatchee River Bridge 207/4 Rail Retrofit (Frank Gurney, Inc. & Terry Mattson, P.E.)	No Work	0
SR 9/SR 522 to 212th St SE Widening (Wilder Construction Co. & Dawn McIntosh, P.E.)	2	0
TOTAL¹	13	4

¹The number listed above includes all WSDOT recordable injuries and voluntary reports by construction contractors. Contractors are not required to describe the incident nature, severity, or follow-up actions. WSDOT cannot currently offer a more detailed analysis of construction site injury trends.

Cross-Cutting Management Issues

Construction Employment Information

How Many Construction Workers Work on Active 2003 Transportation Funding Package Projects?

WSDOT has asked construction contractors working on the 2003 Transportation Funding Package projects to provide WSDOT with a “snapshot” estimate of the “average” direct jobsite employment on each Nickel job over the course of the quarter. The following table shows the prime contractors’ responses for their work and their on-site subcontractors on the projects that have gone to construction.



Bradley Hoffman and Robert Arnold of Totem Electric at a work site on SR 161 in Pierce County.

Average Number of Workers Employed by Prime and Subcontractors For Active Nickel Projects: Project/Contractor

	July - Sept 2005	Sept - Dec 2005
I-5/Salmon Creek to SR 205 (Hamilton Construction & its 67 Subcontractors)	48	37
I-90/Argonne Rd. to Sullivan Rd. (Scarsella Bros. & its 31 Subcontractors)	37	13
SR 527, 132nd St. SE to 112th St. SE (KLB Construction & its 42 Subcontractors)	33	34
SR 161/234th St E to 204th St. E (Scarsella Bros. & its 23 Subcontractors)	11	6
SR 203, NE 124th/Novelty Rd. Vic. Roundabout (Wilder Construction & its 29 Subcontractors)	2	2
I-5/Federal Way - S 317th St. HOV (Icon Materials & its 48 Subcontractors)	29	30
I-5, 2nd St. Bridge Replacement (Mowat Construction & its 30 Subcontractors)	26	16
SR 18, Covington Way to Maple Valley (Terra Dynamics & its 4 Subcontractors)	6	No Work
SR 18/Maple Valley to Issaquah/Hobart Rd. (Guy F. Atkinson & its 40 Subcontractors)	39	51
SR 31, Metaline Falls to International Border (M.A. Deatley Construction & its 18 Subcontractors)	34	12
SR 161, Jovita Blvd. to S 360th St. (Tri-State Construction & its 25 Subcontractors)	54	50
U.S. 12, SR 124 to McNary Pool (Steelman-Duff, Inc. & its 15 Subcontractors)	14	4
I-5, NE 175th St. to NE 205th St. (Pacific Road & Bridge & its 18 Subcontractors)	16	11
SR 161, 204th St. E to 176th St. E (Scarsella Brothers & its 16 Subcontractors)	30	12
SR 16, 36th St. to Olympic Drive NW (Woodworth & Company & its 14 Subcontractors)	10	7
SR 7, SR 507 To SR 512 Safety (Scarsell Bros., Inc. & its 9 Contractors)	No work	3
I-5, Roanoke Vicinity Noise Wall - Stage 2 (Wilder Construction Co. & its 11 Subcontractors)	12	4
SR 16 / Union Avenue to Jackson - HOV (Tri-State Construction & its 64 Subcontractors)	111	85
U.S. 395, NSC - Gerlach to Windermere (KLB Construction & its 22 Subcontractors)	27	27
I-5, Pierce Co. Line to Tukwila HOV - Stage 4 (Icon Materials & its 25 Subcontractors)	66	30
SR 240, I-182 to Columbia Center (Icon Materials & its 60 Subcontractors)	70	47
SR 24, I-82 to Keys Road (Max J. Kuney Company & its 37 Subcontractors)	41	47
SR 106, Skobob Creek Fish Passage (Quigg Bros., Inc. & its 13 Subcontractors)	7	7
SR 99, G. Washington Memorial - Aurora Ave. Bridge (Mowat Construction Co. & its 5 Subs)	8	3
U.S. 12, Jantz Road - Construct Frontage Rd. (Inl& Asphalt Co. & its 6 Subcontractors)	2	No Work
I-405 Totem Lake/NE 128th St. HOV Dir. Access/Freeway Station (Max J. Kuney & its 40 Subs)	52	67
I-5/48TH to Pacific Avenue - Core HOV (Kiewit Pacific Co. & its 49 Subcontractors)	8	26
I-5/SR 526 to Marine View Drive (Atkinson-CH2M Hill A Joint Venture & its 23 Subcontractors)	96	174
SR 9/SR 522 to 212th St SE Widening (Wilder Construction Co. & its 19 Subcontractors)	2	3
TOTAL	891	808

Cross-Cutting Management Issues

Environmental Documentation, Review, Permitting, and Compliance

Compliance with the Endangered Species Act

In order to certify projects for advertisement, WSDOT must complete an Endangered Species Act (ESA) review.

Nickel Projects 2005-07 and Post 2005-07 Biennium Construction Season

WSDOT has started the consultation process on one of the 26 Nickel projects which have not gone to bid in the 2005-07 biennium. One project (*SR 900/SE 78th St. Vic. to I-90 Vic.*) is currently under review at the Services¹. A total of 15 of the projects have completed the consultation process.

Work is beginning on the 30 Nickel projects which are scheduled to be constructed after the 2005-07 biennium. Some of these projects have already completed the consultation process while others are just beginning.

Transportation Partnership Program Projects

There are two projects currently under review with the services: *SR 542 Boulder Creek Bridge replacement* and *U.S. 12 Vicinity Montesano to Elma – Median Cross Over Projection*. Three other projects have their biological assessments (BAs) underway: *SR 410 /Rattlesnake Creek – Floodplain work*, *U.S. 12/ McDonald Road to Walla Walla – Add Lanes*, and *SR 99/SR 599 to Holden Street – Median Cross Over Protection*. A total of six projects have completed the consultation process.

ESA Compliance Status for All Projects

	2005-07 TPA Projects	2005-07 Nickel Projects	2007 and Beyond Nickel Projects	2005-07 PEF Projects
Projects under review at the Services ¹	2	1	1	2
Biological Assessment (BA) underway	3	5	1	23
Projects which lack sufficient information to start the Biological Assessment	37	5	22	207
Endangered Species Act review complete	6	15	6	54

Consultation Updates

Consultation timelines on a number of projects have been exceeded due to additional information required from the Services¹ on how projects are treating stormwater. It is currently unclear just what type of information these regulatory agencies require a project to include on stormwater. This topic is being discussed among WSDOT, Federal Highways, National Oceanic and Atmospheric Administration, and the U.S. Fish & Wildlife Services. New guidance for biological assessment writers should be coming out in the next couple of months.

¹ The Services are U.S. Fish and Wildlife and the National Oceanographic and Atmospheric Administration and Fisheries.

² This can mean that either WSDOT has not yet sufficiently studied the area where the project will be taking place, or that there has been a request for further information at the federal level.

Pre-Existing Funds Projects

There are two projects currently under review at NOAA Fisheries: the *U.S. 2 Mill Creek Fish Passage Project* and the *SR 142 Bowman Creek Fish Passage Barrier Removal* project. Both of these projects are having a difficult time getting through the ESA review process due to the National Oceanic and Atmospheric Administration's concerns over construction needs, and both will have difficulty meeting their advertisement date due to these delays. A total of 23 projects have their BA's under preparation and 54 projects have completed the consultation process.

Ferry and Rail Projects

Ferry and rail projects also submit documentation for ESA compliance. WSDOT has four ferry projects in for reinitiation³ on Critical Habitat: *Keystone Wingwall Replacement*, *Bainbridge Island Trestle Preservation*, *Friday Harbor Preservation*, and *Eagle Harbor Slip B* projects. WSDOT completed consultation with U.S. Fish and Wildlife Services on the *Bainbridge Dock Widening* but is still in formal consultation with NOAA Fisheries. The *Lopez Island Dolphin Replacement* project is in consultation with both services. WSF is currently preparing the biological assessments for the *Mukilteo Multimodal Ferry Terminal* and the *Eagle Harbor Building Maintenance* projects. No rail projects have changed since the last *Gray Notebook* update (September 31, 2005, page 31).

In addition, the number of formal consultations that are either scheduled to undergo consultation or are in the middle of the consultation process is increasing. Since formal consultations tend to occur on more complex projects, they tend to take all or more than the 138 days of time to complete. This has the potential to create a backlog of projects at the Services¹. Backlogs in the past have slowed down the consultation timelines for all projects.

³ Reinitiation on projects occurs when a new species or critical habitat is listed under ESA. The purpose of the reinitiation is to consult on the effects of the project on the newly listed species or habitat. This must occur because there is no grandfathering under ESA, and concurrence cannot be granted for species which have not been listed yet. Thus projects must be aware of changes in ESA species and habitat listings until construction of the project is complete.

Worker Safety: Quarterly Update

Recordable Injuries for WSDOT Workers

Highway Maintenance Workers

This quarter, highway maintenance workers had a 7.5 injury rate. Twenty-six recordable injuries were reported. As of the reporting cut-off period, there were a total of 588 lost workdays associated with the 26 injuries. Five of the 26 injuries accounted for five or fewer lost workdays. Sprains/strains accounted for 46.1% of maintenance worker injuries. The most frequently injured part of the body was the back (18%).

Highway Engineering Workers

There were seven recordable injuries reported for engineering personnel. Five of the injuries reported this quarter occurred in previous quarters. Three of the seven injuries accounted for five or fewer lost workdays. Strains/sprains accounted for 57.1% of engineering injuries resulting in 99 lost workdays.

Ferry Vessel Workers

Twenty-three recordable injuries were reported for ferry vessel workers this quarter with an injury rate of 9.8. These injuries accounted for 405 lost workdays. Five of the 23 injuries accounted for five or fewer lost workdays. Back injuries accounted for 34% of those injuries and 25.9% of lost workdays reported. Sprains/strains accounted for 60.8% of recordable injuries reported this quarter.

Number of Injuries by Type

The graph to the lower right entitled “Number of Work Injuries by Type” shows injuries by type for WSDOT maintenance, highway engineer, and ferry workers:

For all WSDOT employees including WSF, there were a total of 62 recordable injuries. Two of these injuries occurred in previous quarters. Strains/sprains accounted for 48.3% of those injuries.

- Maintenance workers incurred 41.9% of all WSDOT injuries in this quarter.
- Highway engineering workers accounted for 11.2% of all injuries.
- Highway engineering workers accounted for 11.2% of all injuries.
- WSDOT ferry vessel workers accounted for 37% of injuries.

Worker Safety Reporting Adjustment Expected: The Bureau of Labor Statistics has adopted the North American Industry Classification System-United States (NAICS), in place of the Standard Industrial Classification (SIC) system for its annual Workplace Injuries and Illnesses Report. This section of the *Gray Notebook* has been using the SIC system for grouping its activities and safety performance benchmarks. To align with the current NAICS industry grouping and safety benchmarking, changes will be made to this report in the next *Gray Notebook*. For additional information please visit www.census.gov/epcd/www/naics.html

Highway Maintenance Workers

Recordable Injuries¹ per 100 Workers per Calendar Year

	2002	2003	2004	2005
Qtr 1	4.5	7.2	10.5	5.6
Qtr 2	7.5	6.5	7.4	9.0
Qtr 3	8.1	8.4	7.1	7.6
Qtr 4	7.0	6.2	9.6	7.5
Annual Total	27.1	28.3	34.6	29.7
Qtrly. Average	6.8	7.1	8.6	7.4

Benchmark = 8.2

Highway Engineering Workers

Recordable Injuries¹ per 100 Workers per Calendar Year

	2002	2003	2004	2005
Qtr 1	1.7	1.4	1.3	2.1
Qtr 2	3.5	1.3	1.4	0.4
Qtr 3	3.4	1.5	0.9	2.5
Qtr 4	2.1	1.6	2.8	1.4
Annual Total	10.7	5.8	6.4	6.4
Qtrly. Average	2.7	1.5	1.6	1.6

Benchmark = 1.7

Ferry Vessel Workers

Recordable Injuries¹ per 100 Workers per Calendar Year

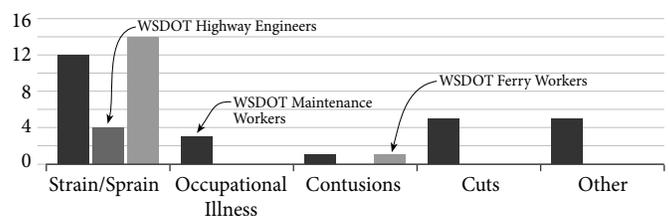
	2002	2003	2004	2005
Qtr 1	12.0	14.2	7.9	11.7
Qtr 2	8.9	11.2	12.1	12.1
Qtr 3	8.9	9.4	16.1	9.3
Qtr 4	6.9	9.8	12.0	9.8
Annual Total	36.7	44.6	48.1	42.9
Qtrly. Average	9.2	11.2	12.0	10.7

Benchmark = 7

¹ “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 2000 national average benchmarks. One worker equals 2,000 hours per year.

Data Adjustment Needed: Due to a change in our data collection process, some “restricted duty” cases were unreported. Safety data reported in the *Gray Notebook for 2003 through 2005* will be re-examined, and the results will be published in future issues.

Number of Work Injuries by Type October Through December 2005



Worker Safety: Quarterly Update

Prevention Activities

WSDOT Safety Culture: Turning It Up A Notch

WSDOT has adopted a safety philosophy that all injuries are preventable. Accordingly, WSDOT is committed to working toward and sustaining a zero injury performance. An Executive Safety Committee and work groups, representing a cross section of the organization (the safety owners), are working hard on program improvements that can help WSDOT get there. Safety accountability, operational alignment with safety goals, and development of a maintenance model safety program are just the beginning of a renewed effort toward the goal of no more injuries. At the same time, this renewed emphasis on a safety culture at WSDOT is pointing out a lack of overall consistency in its approach. This is an issue that is being addressed, and will be reported further in future issues.

Regional Highlights for This Quarter

Accountability is placing greater attention on the need to measure performance. WSDOT's Regions have the ability to create their own safety programs, and are the generators of new ideas and practices. This is evident by the various regional reports that follow. Practices that prove successful are then considered to be deployed agencywide.

The Northwest Region, in establishing an Accident Review Board (ARB), places paramount importance on the health and safety of the people who use and work on the state's transportation facilities. Northwest Region's objective is to develop and manage intervention strategies and remedial action plans based on accident data to improve worksite safety, reduce vehicle collisions and personal injuries. The board will support this objective and review the corrective action plan to insure that it is adequate and appropriate for the circumstances of the accident and/or injury. ARB's plan is to build a data base of findings, recommendations and the status of a corrective action plan. This information will then be discussed monthly with the NWR management team. Forming an ARB is an important step in the overall strategy to reduce NWR's accidents and injuries.

The North Central Region completed mandatory Driver Training classes for 97.6% of their Engineering/Administrative employees and 89.8% of their Maintenance employees. The North Central Region also awarded Safety Jackets to 50 employees for not having a preventable accident within the last 5, 7, or 10 years (based on the risk in their respective positions). There were 38 employees (76%) who went 5 years without a preventable accident, 9 employees (18%) who went seven years without a preventable accident, and 3 employees (6%) who succeeded in going 10 years without a preventable accident. In addition, 161 employees received smaller safety awards for not having a preventable accident within the last two years.

The Olympic Region has completed the EverSafe™ Driver Training Course for 100% of its statutorily mandated maintenance workers and 50 engineering workers. With an eye on reducing back sprain/strain injuries, the Olympic Region will be holding several classes in Proper Lifting Techniques during the coming quarter.

The South Central Region Safety Office is developing a new Construction Safety curriculum to be taught this winter to its construction employees. Its intent is to better educate engineering inspectors on the relevant safety issues encountered in the broad range of work they inspect. It is expected that this curriculum will eventually be taught agency wide. For the third consecutive year, the South Central Region has decreased the number of injuries region-wide by 20-25 percent over its ten year average. Efforts have focused on increasing employees' commitment and involvement in safety efforts for themselves and co-workers, as well as focusing on specific prevention activities.

The Eastern Region has trained 246 employees which equates to 95% compliance for maintenance employees. In addition, the Eastern Region decreased the number of motor vehicle accidents by 20% from 2004 to 2005.

The Southwest Region crews are developing written "Safety Plans" to include identifying potential work place hazards, personal protective equipment need, training needs, and tool and equipment needs. Crew members meet at the start of each shift for a short safety meeting and document their discussion topics relative to their "Safety Plan".

Safe Driving Program

Motor vehicle collisions are the number one cause of work-related fatalities. The loss of a valued employee in a collision is a serious concern whether the collision occurs on or off the job. The Evergreen Safety Council solicited participation from both the National Highway Traffic Safety Administration (NHTSA) and the Washington Traffic Safety omission (WTSC) to develop a safe driving program. The course that was developed is for organizations that depend on good employee drivers. The EverSafe™ Driving stresses the driver's responsibilities and the organization's role in safe driving by reinforcing an understanding and use of safe driving methods.

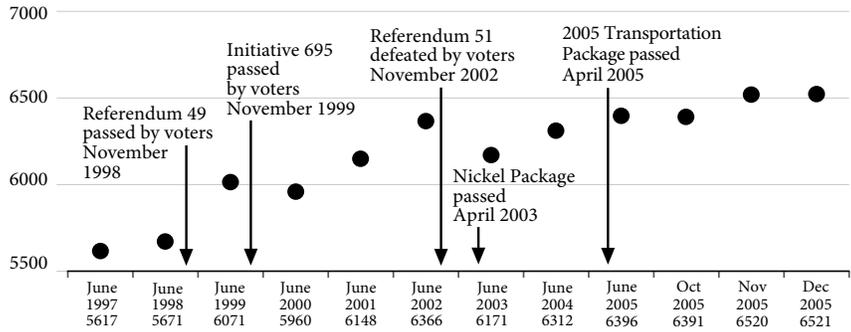
Driver Safety Training is mandated by the Office of Financial Management (OFM) Agency Motor Vehicle Management, Chapter 12.20.20, Driving safety program requirements for specified drivers, when an employee meets certain criteria, i.e., high mileage driving or frequent alleged state driver error accidents.

Workforce Level and Training: Quarterly Update

WSDOT Workforce Level Statistics

One indicator of the agency's workforce size is the current number of permanent full-time employees on staff. The chart to the right shows that number at various points since the end of 1997. (The number of "FTE's" [full-time equivalents] will generally exceed the number of full-time employees, since seasonal and part-time work force must also be funded from "FTE" allotments.) WSDOT's workforce size experienced a slight increase from last quarter. During the fourth quarter of 2005, WSDOT reclassified Marine Relief Staff as permanent employees and they are now included in the workforce totals.

Number of Permanent Full-Time Employees at WSDOT



Source: WSDOT Office of Human Resources

Required Training: All WSDOT Workers

The Office of Equal Opportunities (OEO) training was revised into three courses (Disability Awareness, Sexual Harassment/Discrimination, and Valuing Diversity) in June 2002, and only these revised courses are currently reported. Refresher interval for the revised OEO training is five years. In addition,

Security Awareness training increased 12% due to training requests after terrorist activities in London and other areas. A self-study CD-ROM is now available and will be distributed in January 2006 for the remaining employees who have not taken this training.

Required Training for all WSDOT Workers: October - December 2005

Training Courses	Workers Requiring Training	Basic Training Completed to Date	Workers Needing Basic Training	Workers Needing Refresher Training	Completed Training Reporting Quarter	Total in Compliance	% in Compliance	% Change from Previous Quarter
Disability Awareness	7470	1735	5735	0	0	1735	23%	-1%
Ethical Standards	7470	7239	231	707	200	6532	87%	+1%
Security Awareness	7470	6362	1108	0	916	6362	85%	+12%
Sexual Harassment/Discrimination	7470	4141	3329	0	21	4141	55%	-3%
Valuing Diversity	7470	2421	5049	0	0	2421	32%	-2%
Violence that Affects the Workplace	7470	6048	1422	0	46	6048	81%	+3%

Source: WSDOT, Office of Human Resources, Staff Development

Workforce and Training: Quarterly Update

Required Training: Maintenance Workers

WSDOT's goal is to reach 90% compliance for statutorily required maintenance employee training through delivering training during off-season periods when work crews are available. Driver's Training has been added to the list of Statutorily Required Maintenance and Safety training. Designated high-mileage and/or high-risk drivers are required to

complete a four-hour course in safe operation of vehicles. Over 70 sessions of the course have been conducted state-wide this year. WSDOT is currently looking at percent compliance figures to assess and direct a more comprehensive approach to worker training.

Statutorily Required Training for Maintenance Workers Statewide: October - December 2005

Safety Courses	Workers Requiring Training	Basic Training Completed to Date	Completed Basic Training Reporting Quarter	Workers Needing Basic Training	Completed Refresher Training Reporting Quarter	Workers Needing Refresher Training	Total in Compliance	% in Compliance: State-wide	% Change from Previous Quarter
Blood Bourne Pathogens	597	521	4	76	2	319	202	34%	-6%
First Aid	1486	1401	16	85	51	178	1223	82%	0%
Hearing Conservation	1354	1292	4	62	15	133	1159	86%	9%
Personal Protective Equipment	1383	1136	11	247	0	0	1136	82%	-1%
Fall Protection	733	615	13	118	0	0	615	84%	3%
Flagging & Traffic Control	1128	1106	11	22	141	67	1039	92%	3%
Safe Driving - Eversafe™	1121	888	163	233	0	0	888	79%	-
Maintenance Courses									
Drug Free Workplace	345	286	4	59	0	0	286	83%	-3%
Forklift	1169	1035	6	134	0	0	1035	89%	-1%
Hazardous Materials Awareness	869	773	15	96	23	104	669	77%	13%
Aerial Lift	228	196	0	32	0	0	196	86%	11%
Bucket Truck	402	308	2	94	0	0	308	77%	-2%
Excavation, Trenching & Shoring	363	267	0	96	0	0	267	74%	2%

Source: WSDOT, Office of Human Resources, Staff Development

Statutorily Required Training for Maintenance Workers by Region¹: Compliance Rate (October - December 2005)

Safety Courses	NWR	NCR	OR	SWR	SCR	ER
Blood Bourne Pathogens	17%	85%	9%	93%	87%	85%
First Aid	76%	90%	84%	96%	76%	83%
Hearing Conservation	91%	84%	78%	96%	76%	87%
Personal Protective Equipment	78%	78%	64%	96%	95%	92%
Fall Protection	75%	90%	80%	96%	90%	98%
Flagging	91%	98%	86%	96%	93%	95%
Safe Driving - Eversafe™	75%	91%	100%	46%	82%	95%
Maintenance Courses						
Drug Free Workplace	81%	74%	68%	93%	92%	90%
Forklift	90%	91%	76%	94%	95%	91%
Haz Mat Awareness	81%	70%	2%	93%	87%	73%
Aerial Lift	64%	78%	40%	99%	88%	NA
Bucket Truck	65%	92%	10%	99%	87%	100%
Excavation, Trench & Shoring	80%	36%	67%	97%	73%	83%

1. NWR - Northwest Region; NCR - North Central Region; OR - Olympic Region; SWR - Southwest Region; SCR - South Central Region; ER - Eastern Region

Asset Management: Pavement Assessment Annual Update

Pavement Conditions for 2004

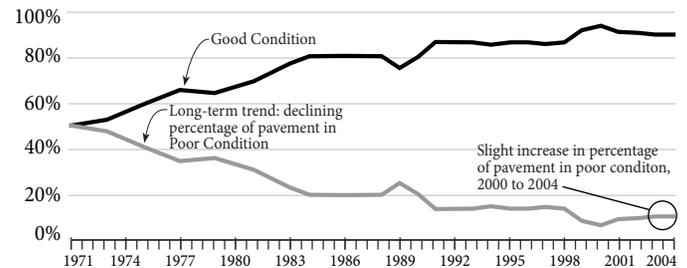
WSDOT maintains approximately 20,003 lane miles of highway, including ramps, collectors, and special use lanes. The three major pavement types are described below and in more detail on page 40. Each pavement type has an associated pavement life, rehabilitation treatment, and rehabilitation cost. This report updates information from the December 31, 2004 *Gray Notebook* (page 50).

2004 Pavement Condition Rating

According to the 2004 pavement condition survey rating, pavements in “poor” condition increased slightly in 2004 to 10.1%, up from 10.0% as reported in the 2003 pavement survey. Over the last five years, WSDOT has seen an increase of 729 lane miles in “poor” condition. In 2000, there were 1,068 lane miles (6.1%) of pavements in “poor” condition, while in 2004 the total was 1,797 lane miles.

The slight increase in “poor” condition pavements between 2003-04 (graph above right) is attributable to an increase of an additional 166 lane-miles of poor Portland Cement Concrete (PCC) conditions, an increase of an additional 21 lane-miles of poor condition chip seal pavements, and a reduction of 162 lane-miles of hot mix asphalt pavements in poor condition. WSDOT recognizes this increase in “poor” PCC pavement ratings and is researching options to develop an appropriate method to better predict PCC pavement life cycles. (Please see “I-5 Seattle Pavement Study” on the following page.)

Pavement Condition Trends Percent of Pavements



Source: WSDOT Materials Lab

Update on Concrete Pavement Research

WSDOT continues to work with the University of Washington to enhance the models used for predicting Portland Cement Concrete (PCC) pavement performance to determine the best timing for rehabilitation. This research will establish a better prediction for PCC pavement deterioration rates. PCC pavement can take several years to deteriorate, so the current equations, developed 30 years ago, need to be reevaluated and refined to better reflect the performance that is now being seen. Work completed in 2005 indicates that the available models studied do not adequately measure deterioration rates. Resolution of the model shortcomings and errors should be addressed by summer of 2006. The results of this analysis are currently being finalized.

Pavement Type	Total Lane Miles ¹	Annual VMT ³ 2004 (Billions) ²	Pavement Rating		2005-07 Dollars Programmed (Millions) ²		2007-09 Dollars Programmed (Millions) ²		
			2003	2004					
Chip Seal Pavements A chip seal is a durable surface that provides six to eight years of performance life at approximately \$12,000 per lane-mile	4,337	1.2	Good	86%	86%				
	21.7%	3.7%	Poor	14%	14%	\$26.5	12.6%	\$21.0	9.0%
Hot Mix Asphalt Pavements Hot mix asphalt pavements surface life, between rehabilitation treatments, ranges from six to 18 years (based on actual pavement performance) at approximately \$123,000 per lane mile for due miles and \$156,000 for past due miles	13,153	21.7	Good	91%	92%				
	65.8%	68.9%	Poor	9%	8%	\$174.2	83.1%	\$179.0	77.2%
Portland Cement Concrete (PCC) Pavements WSDOT has experienced PCC pavement life ranging from 25 to 45 years with an approximate cost of \$330,000 per lane mile for dowel bar retrofit and \$1 million per lane mile for full replacement.	2,497	8.6	Good	93%	85%				
	12.5%	27.4%	Poor	7%	15%	\$8.9	4.3%	\$32.0	13.8%
Total	19,987	31.5	Good	18021	17954				
			Poor	1965	2033	\$209.6		\$232.0	

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

²Source: Transportation Data Office - excludes ramps, collector-distributors or frontage roads

³Vehicle Miles Traveled: A measure of the amount of vehicular travel (per capita). One vehicle traveling one mile = 1 VMT.

Asset Management: Pavement Assessment Annual Update

I-5 Seattle Pavement Study

In addition, WSDOT, the University of Washington, and Parametrix, with its subcontractor Nichols Consulting Engineers Chartered, have established a cooperative study to investigate the performance of the concrete pavements on I-5 in the Seattle area. In the 1960s, WSDOT designed and constructed these concrete pavements to provide 20 years of service, which was the standard required for federal funding at the time. Forty years later, with billions of vehicle trips, these concrete pavements are still in place, handling the highest daily traffic in the state, though the quality of service is steadily declining. These PCC pavements have performed better and have lasted longer than any of the original pavement life estimates from 1960. The PCC pavement constructed on I-5 are among a very small group of pavements nationwide that were built as part of the original Interstate Highway System in service today that have not been rehabilitated or completely reconstructed. The first project specifically identified to reconstruct a section of pavement within this corridor is not scheduled to begin until 2013.

There is an obvious concern since the existing pavement is showing signs of increasing deterioration. WSDOT will be required to take some type of pavement repair or rehabilitation action before 2013. All pavement structures ultimately fail at some point. These particular pavements have provided exceptional service long beyond their intended service life, and beyond that experienced by other states.

This study will attempt to address when these pavements will fail and how much time WSDOT has to plan and develop reconstruction projects before the pavements deteriorate to an unacceptable level.

How Does Washington's Pavement Roughness Compare with Other States?

The Federal Highway Administration's (FHWA) Annual Highway Statistics report includes information on pavement condition reported by each of the 50 states and the District of Columbia (based on roughness only); in comparison, WSDOT uses three pavement ratings (see next page). To the right is a snapshot of the ranking table of 2004 results, showing the number of miles by state in poor condition according to smoothness. The total miles reported includes the interstate system and principal arterials owned by the state, cities, and counties and a sampling of other functional classes. Washington state is ranked 23rd in smooth roads. Washington was ranked 19th in 2003, 16th in 2002, and 17th in 2001. One of

the challenges faced is many of Washington highways are aging quicker than they can be replaced, causing an increase in deterioration in conditions. The FHWA publication can be viewed at www.fhwa.dot.gov/policy/ohim/hs04/

2004 National Pavement Smoothness Ranking

Rank	State	Center-line Miles Reported	Miles Poor Condition	Percent in Poor Condition
1	Georgia	11140	24	0.2%
2	Nevada	2958	21	0.7%
3	Florida	10509	110	1.1%
4	Kansas	8697	110	1.3%
5	Kentucky	5663	77	1.4%
6	Utah	3664	56	1.5%
7	Arizona	4279	78	1.8%
8	Idaho	3915	79	2.0%
9	Wyoming	4371	92	2.1%
10	Tennessee	7839	189	2.4%
11	South Carolina	6799	185	2.7%
12	Montana	6972	212	3.0%
13	West Virginia	3381	123	3.6%
14	Oregon	6638	249	3.8%
15	Minnesota	11645	458	3.9%
22	Indiana	6814	512	7.5%
23	Washington	5811	449	7.7%
24	New Hampshire	1441	119	8.3%
47	California	20710	4275	20.6%
48	New Jersey	2993	729	24.4%
49	Massachusetts	3271	860	26.3%
50	Rhode Island	626	219	35.0%
51	Dist. of Columbia	126	113	89.7%

Source: Highway Statistics 2004, U.S. Department of Transportation

Selecting Pavement Types

Each pavement type has an associated pavement life, rehabilitation treatment, and rehabilitation cost. WSDOT's goal is to make the best use of taxpayer dollars through a three-part selection process. This approach allows WSDOT to select the most cost-effective pavement for each situation. The first step, pavement design, determines the best pavement type for each situation. Second, a life cycle cost analysis is completed. Some pavement types are less expensive to construct, but have shorter lives. WSDOT analyzes various scenarios and associated risk factors, including climatic considerations, using statistical probabilities. If the life cycle analysis shows equivalent values for each pavement type, engineers then complete an analysis. In step three, an engineering analysis may consider noise, safety during construction, or air pollution impact. These factors may be the overriding reason for pavement type selections.

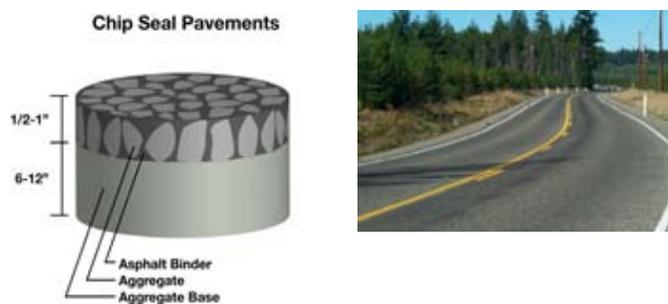
Asset Management: Pavement Assessment Annual Update

Basic Pavement Types and Ratings Summary

Pavement Types

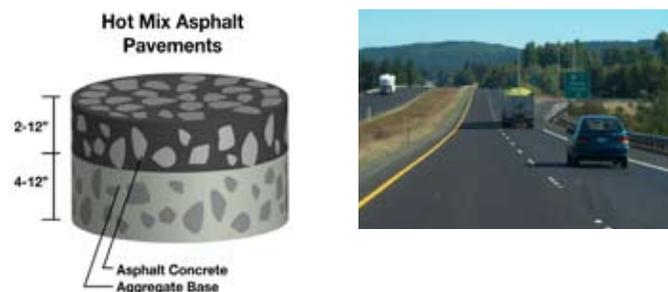
Chip Seals

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



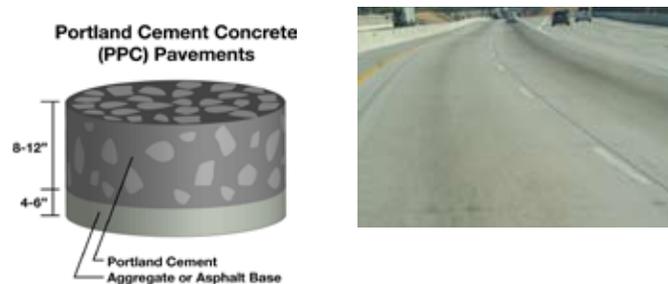
Hot Mix Asphalt (HMA)

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



Portland Concrete Cement (PCC)

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



Pavement Ratings

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

Pavement Structural Condition (PSC)

A pavement will develop structural deficiencies for two reasons: truck traffic and cold weather. The PSC is a measure based on distress, such as cracking and patching, which relates to the pavement's ability to carry loads. PSC ranges from 100 (best condition) to 0 (worst condition). A roadway should be considered for rehabilitation when it falls within the PSC range of 40 to 60.



Pavement Structural Condition example

Rutting

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



Rutting example

Roughness

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



Roughness example

Pavement Management at Lowest Life Cycle Cost (LLCC)

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

Highway Maintenance: Annual Update

Biennial Maintenance Targets

The Maintenance Accountability Process (MAP) targets, measures, and communicates the outcomes of 33 distinct highway maintenance activities. Twice a year, randomly selected sections of highway are measured using field condition surveys. The results compare WSDOT's work to the MAP criteria to determine the Level of Service (LOS) delivered. LOS targets are defined in terms of the condition of various

highway features (for example, the percent of guardrail on a highway system segment that is damaged). LOS targets are also keyed to the level of funding provided by the Legislature. During 2005, 32 of the 33 targets were achieved.

WSDOT Maintenance Targets Achieved for 2005

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

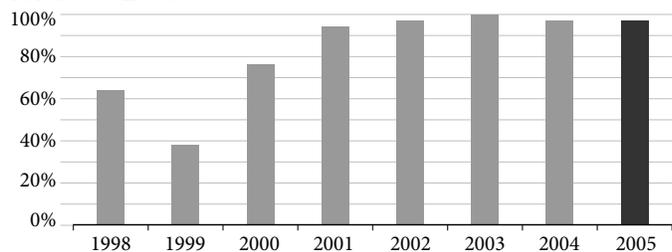
Source: WSDOT Maintenance Office.

Analysis of "Failed" Maintenance Activity Target for 2005

Regulatory Sign Maintenance did not achieve the target of service level C+ in 2005. Regulatory signs are signs that communicate a traffic regulation such as a speed limit. For performance measure purposes, warning signs (e.g. "curve ahead - 35 mph") are included with regulatory signs. The LOS measure for Regulatory Sign Maintenance is determined by surveying signs at nighttime and identifying how many surveyed signs are deficient due to inadequate reflectivity, faded finishes, or physical damage (for example, a knocked down sign). A LOS rating of C+ means that no more than approximately 2.5% of regulatory signs are deficient at a given point in time. At the time of the 2005 night surveys, just over 6% of regulatory signs were deficient resulting in a D LOS rating.

Prior to 2005, a relatively small sample size of signs were surveyed each year to calculate the LOS. In 2005, all WSDOT regions completed an inventory of all signs and surveyed a much larger sample of 35,000 signs. Night reviews of these larger samples of signs will be conducted in the future on a regular basis. The sign condition data will be used to determine the best course of action to improve the Regulatory Sign LOS rating in 2006.

Percentage of Legislatively Funded Targets Achieved for 1998-2005



Source: WSDOT Maintenance Office.

Highway Maintenance: Annual Update

Integrated Vegetation Management

Integrated Vegetation Management (IVM) involves creating and supporting roadside plant communities to minimize long-term maintenance needs. While most of the responsibility for this work lies with maintenance, ongoing requirements depend partly on how well roadsides are initially designed and constructed. If roadsides are not well restored at the time of construction, the expense of roadside maintenance tends to be greater because noxious and nuisance weeds can establish themselves and thrive in poor soils with sparse vegetation.

When soil is conserved and improved, and native vegetation is restored at the time of highway construction, the ongoing roadside maintenance requirements can be relatively low.

2005 Herbicide Use

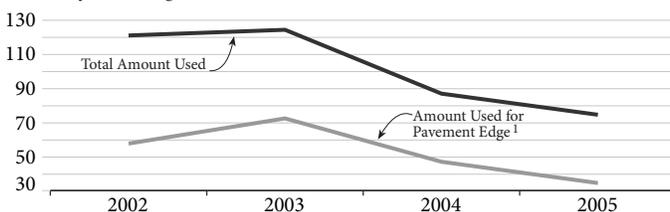
WSDOT tracks herbicide use on roadside vegetation in pounds of active ingredients. After two years of relatively high use in 2002 and 2003, the agency's total use of herbicide has decreased. In 2004 the agency's statewide annual use of herbicide for roadside maintenance decreased by 30% from 2003. The total annual use in 2005 showed a decrease of 14% from 2004.

Most reductions are due to a shift in practice for the maintenance of a vegetation-free strip along the edges of highway pavement (see next section for more information). This practice is currently being re-evaluated in terms of the types of herbicides used by maintenance and in many cases this strip is being reduced in width. In some situations vegetation is being allowed to grow up to the edge of pavement. Other reductions are being realized in areas where IVM plans and practices have been successfully implemented and unwanted plants are being controlled with a combination of non-herbicide and/or more selective herbicide methods.

WSDOT also tracks compliance with the laws that apply to roadside herbicide use. See the Environmental Compliance Assurance article on page 64 for more information.

Statewide Herbicide Use Trends

Pounds of Active Ingredients (In Thousands)



Source: WSDOT Maintenance Office

¹ Included in "Total Amount Used" line



Roadsides with poor soils and sparse vegetation invite noxious and nuisance weeds which drive up maintenance costs

Alternatives for Managing Vegetation at the Pavement Edge

WSDOT has historically maintained a vegetation free band of roadside at the edge of pavement for ease of maintenance, preservation of pavement life, storm water runoff, and reduction of potential fire starts. However, WSDOT has found that many other states and some counties in Washington do not maintain a vegetation free zone along all road sections. Also, there is a significant lack of data to support the long-term cost/benefit of alternative methods for maintaining vegetation along the edge of pavement. Reducing the use of a vegetation free zone can also minimize the use of herbicides.

WSDOT contracted with the University of Washington (UW) to research this aspect of highway design and maintenance. The final report, *Assessment of Alternatives in Roadside Vegetation Management*, contains recommendations for further testing of alternative methods. Recommended alternatives include various methods for establishing grasses up to the edge of pavement, annual cultivation along the edge of pavement, and use of paving as other weed blocking material under guardrails. The complete list of recommended alternatives is included in the final report, which is available at www.wsdot.wa.gov/maintenance/vegetation/research.htm.

WSDOT is now in the process of establishing a series of field trials to evaluate the feasibility and long-term cost/benefit of the most practical alternatives identified through the research process. It is anticipated it will take three years of monitoring for this next phase of research to yield meaningful results.

Highway Maintenance: Annual Update

One of the most promising alternatives for maintaining a vegetation free zone at the edge of pavement without the use of herbicides is annual cultivation (see photo to the right). This method also helps maintain an even transition between the paved and unpaved shoulder, allowing for drainage of storm water runoff and eliminating pavement edge drop off, which can be a traffic hazard.

Area IVM Plan Development and Implementation

The use of IVM by WSDOT maintenance crews is being facilitated through the development and implementation of area Integrated Vegetation Management Plans. These plans contain an inventory of roadside management aspects and detailed guidance on how the areas will effectively manage roadside vegetation along each highway mile.

Calendar Year	Plans Scheduled for Implementation	Plans Implemented	Achievement Rate
2004	1	1	100%
2005	9	9	100%
2006	8	in-progress	-
2007	6	-	-

The development of area IVM plans is an ongoing process and is dependent on continuous input from the crews, the public, and other external stakeholders. The IVM plans, along with records kept by the crews, serve as a reference for learning from successes and failures of past treatments as roadside vegetation patterns grow and change over time. WSDOT welcomes input on its roadside management program and specific issues in area IVM plans at any time. To contact WSDOT and for more information on plan development or copies of completed plans, visit the WSDOT website at: www.wsdot.wa.gov/maintenance/vegetation/mgmt_plans.htm.



A WSDOT employee performing annual cultivation. This helps maintain a vegetation free zone at the edge of the pavement without the use of herbicide.

More Restrictive Herbicide Use in 2006

WSDOT commissioned an independent risk assessment for the herbicide types, rates and application methods used on Washington State highway roadsides. This was initially done as part of an environmental impact statement on the WSDOT roadside vegetation program in 1993. This information has now been updated for herbicide types and application methods being used by the agency today. As a result of information in the updated risk assessment, WSDOT is putting in place additional precautions to avoid potential environmental and human health impacts from herbicides currently used along state highways.

New restrictions include buffers around water bodies, for herbicides with potential to effect aquatic ecosystems, and elimination of certain herbicides from use in Western Washington because of their potential to move through wet soils. Information on the specific uses and limitations of roadside herbicide applications can be found on the WSDOT website at: www.wsdot.wa.gov/maintenance/vegetation/herbicide_use.htm.

Travel Information: Quarterly Update



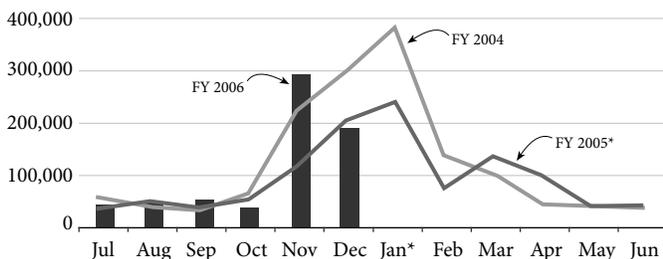
The 5-1-1 Travel Information hotline received a total of 521,833 calls the fourth quarter of 2005, with November call-volumes being the largest (i.e., seen as a sharp spike in the bar chart below). As shown in the charts below, the large increase in November was partly due to a rock slide at Snoqualmie Pass, where a catastrophic rock slide occurred earlier in September. The increase is also credited to calls for mountain pass information at the beginning of the winter season.

System Enhancement to 5-1-1

In late December, technicians made major system enhancements to the 5-1-1 Travel Information System. WSDOT continues to work to improve the 5-1-1 Travel Information phone line. The most recent changes include:

- Replacement of the voice-recognition and text-to-speech software, and added personalization on the voice-activated side of the 5-1-1 system
- Increased peak call capacity to 96 simultaneous phone lines

Total Calls to Travel Information* (5-1-1, 1-800-695-ROAD, 206-DOT-HWY) 3-Year Trend: FY 2004-FY 2006

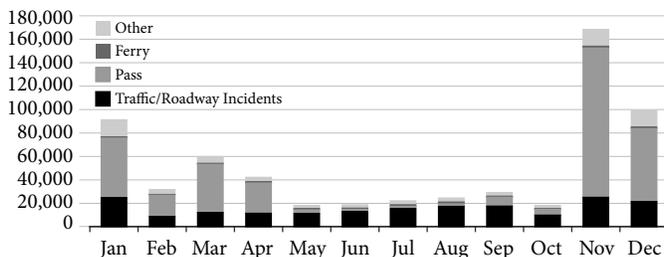


Source: 511 CRR Summary Report.

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

Types of Information Requested to 5-1-1 Travel Information*

January - December 2005



Source: 511 CRR Summary Report.

* Total number of information types will not add up to the total number of calls to 511 because more than one type of information may be requested in one call. Starting January 2005, 1-800-ROAD and 206-DOT-HWY numbers connect directly to 5-1-1, and the call counts are reported in 5-1-1 call total.

On the WEB

WSDOT's travel information website provides real-time road and weather information to the traveling public. On-line information that the public can access includes roadway incidents, construction event updates, mountain pass information, and weather information.

Web Usage Up

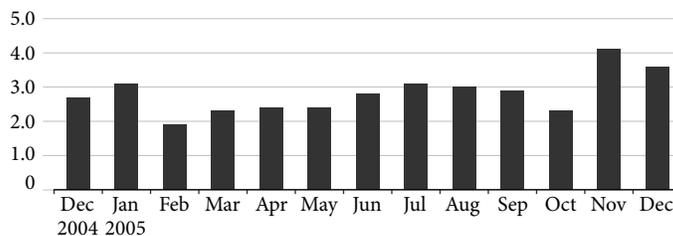
This quarter saw an increase of 47% over the same quarter last year. The main reason for this large increase was the occurrences of two rock slides on I-90, and an early snowfall that saw ski resorts opening before Thanksgiving. Because of the snowfall, November and December were WSDOT's busiest months ever with 4.1 and 3.6 million page views per day, respectively.

Average site usage in 2005 has grown by 47% over the previous year, and 108% over 2003. This magnitude of growth may continue as travel information services expand to new areas of the state.

Users of the transportation system are discovering the wealth of information available, and the timeliness of updates regarding traffic and travel. They are returning to the site, viewing more content, and staying on longer. A recent example of this success is a special site that was created while I-90 was closed due to a rock slide. Because this site was updated several times a day, it proved to be a well received resource for travelers.

Website Usage

Average Daily Page Views: December 2004 to December 2005
In Millions



Incident Response: Quarterly Update

Program Trends

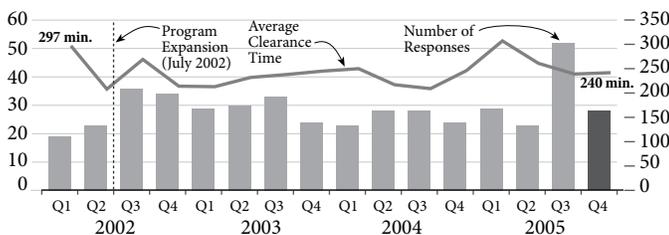
During the fourth quarter of 2005 (October – December), WSDOT Incident Response team members responded to 13,705 incidents. This was down 14% from last quarter’s summertime peak of 15,881 responses. However, when compared with the same period in 2004, the number of incidents continues to increase consistent with a steady upward trend since program expansion in 2002 (as shown in the bar chart below). The average clearance time for all responses to incidents was 18 minutes. An incident also tends to invite rubbernecking /gawking which could suddenly slow traffic down, and may result in a secondary incident occurring. Please read the “Special Feature” article in this report describes a pilot project in Spokane to put up screens around the incident site.

Type of Responses

All response types, except non-injury collisions, decreased in the overall number of responses to an off-peak season level. Responses to non-injury collisions increased moderately by 10%.

The large increase of responses to fatality collisions experienced during the third quarter of 2005, went down to a normally expected level (46% decrease) in the fourth quarter. The reason for the sharp increase in the responses to fatality collisions in the third quarter is being investigated. Incident Response is working to identify causes for this increase. The findings will be made available in a future issue of the *Gray Notebook*.

Responses to Fatality Collisions January 2002 - December 2005



Source: WSDOT Incident Response Tracking System

Incident Response Types

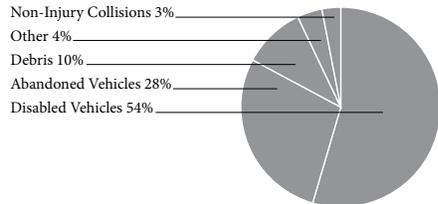
Primary Reason	October	November	December
Fatality Collisions	8	13	7
Injury Collisions	112	137	129
Non-injury Collisions	472	459	444
Disabled Vehicles	2,533	2,298	2,335
Abandoned Vehicles	874	754	816
Debris	399	331	257
Other	186	144	131
Supplemental Reason ¹	October	November	December
Fire	25	19	12
Hazardous Materials	7	8	7
Other Contacts	179	142	131

¹Supplemental Reasons are in addition to or as a result of Primary Incident Types.

Primary Response Reasons by Clearance Time

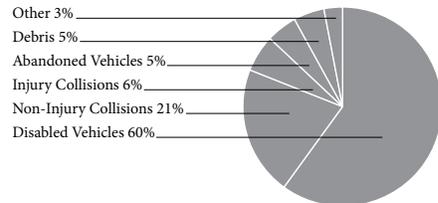
Incidents Lasting Less Than 15 Minutes (7,668)

There were 6 Fires and 2 Hazardous Materials involved incidents in addition to or as a result of above incidents.



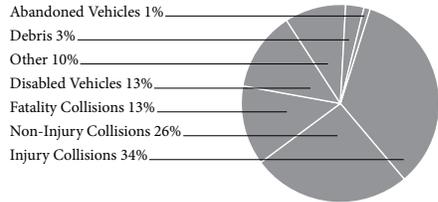
Incidents Lasting 15 to 90 Minutes (4,958)

There were 44 Fires and 8 Hazardous Materials involved incidents in addition to or as a result of above incidents.



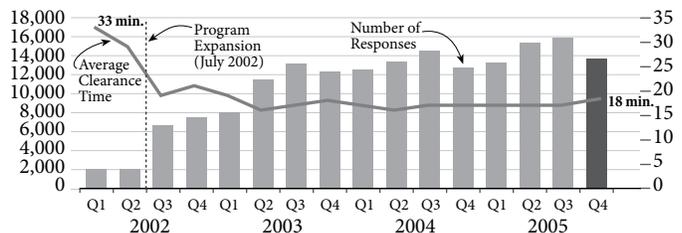
Incidents Lasting 90 Minutes and Longer (213)

There were 8 Fires and 12 Hazardous Materials involved incidents in addition to or as a result of above incidents.



Number of Responses and Overall Average Clearance Time

January 2002 - December 2005



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.

Service Actions Taken for Non-Collision

	October	November	December
Traffic Control	456	472	486
Provided Fuel	404	390	334
Changed Flat Tire	284	255	241
Minor Repair	205	192	207
Pushed Vehicle	193	221	234
Towed Vehicle	55	54	72
Cleared Debris	373	297	229
Other Actions	1,488	1,295	1,328

Source: WSDOT Incident Response Tracking System

Highway Safety Improvement Projects: Annual Update

Safety Enhancements

WSDOT has a range of approaches to improve safety in Washington for drivers, pedestrians, and bicyclist. This report will feature an annual update on the following Highway Safety programs and strategies.

Topic	Page
Safety Enhancements	45
Low Cost Enhancement Program	47
High Accident Locations and Corridors on State Highways	48
Highest Ranking Accident Corridors on State Highways	49
Highest Ranking Accident Locations	50
Local Accident Locations and Corridors in Cities over 22,500	51
Cable Median Barrier Performance	52
Pedestrian and Bicycle Safety	54

2004 Before and After Safety Project Study

Each year, WSDOT completes a variety of safety improvement projects throughout the state highway system, ranging from adding turn lanes and signals to installing median barriers and rumble strips.

As part of a continuing effort to determine the effect of these projects on reducing the number and severity of traffic collisions, a third Before-and-After study has been conducted to confirm the results of the 21 projects originally cited two years ago in the December 31, 2003 *Gray Notebook* (p. 36). At that time, projects were chosen that permitted at least 18 months of collision data to be analyzed in the “Before” period, and at least 12 months in the “After” period. The data was then normalized (12 month average) to make a valid comparison.

The preliminary results indicated that for the original 21 projects, last year’s two-year results show the average number of collisions per year for all projects combined was reduced by 37%. With the additional data now available, compared to last year, the three-year results show the reduction is even greater, 39% for all projects. Similarly, the decrease in the

Combined Average for 21 Original Safety Projects: Three Year After Data

	Collisions per Year		
	Before Period	After Period	% Reduction
All Types	15.2	9.2	39%
Property Damage Only	8.6	5.7	34%
Injury/Fatal	6.6	3.5	47%

Source: WSDOT Transportation Data Office

average number of fatal and injury collisions per year has also improved from 37% to 47%. With the additional time that has passed since the original analysis, the “After” period now can include at least 36 months of data for each of the projects. This extended “After” data helps confirm the results of the preliminary efforts, which was based on statistically limited collision data.

Eleven Additional Safety Projects

In addition to the original 21 projects, 11 projects have been identified for review in this edition of the *Gray Notebook*. Five were added in last year’s December 31, 2004 *Gray Notebook* (p. 44) and six more were added this year. Three of these projects are highlighted on page 46. With more collision data available to WSDOT, the additional projects are required to meet a more stringent time period guideline of at least 24 months for the “Before” period, as well as a minimum of 24 months for the “After” period. Best practices indicate that three years of data collection is sufficient for evaluation. Therefore, once a project in the study contains 36 months of data for the “After” period, it can be considered for replacement by another project for evaluation.

Combined Average for 11 Additional Safety Projects: One and Two Year After Data

	Collisions per Year		
	Before Period	After Period	% Reduction
All Types	18.2	13.0	29%
Property Damage	9.2	7.3	21%
Injury/Fatal	9.0	5.6	38%

Source: WSDOT Transportation Data Office

Combined Average for all 32 Before and After Study Projects

	Collisions per Year		
	Before Period	After Period	% Reduction
All Types	16.2	10.5	35%
Property Damage Only	8.8	6.2	30%
Injury/Fatal	7.4	4.2	43%

Source: WSDOT Transportation Data Office

For a list all 32 projects in the Before and After Study see www.wsdot.wa.gov/accountability/06BeforeandAfterStudy.pdf

Highway Safety Improvement Projects: Annual Update

Three Highlighted Projects from the Before and After Study

SR 28 35th Street NW to 31st Street NW

A two-way left turn lane was constructed from milepost 0.15B to 0.85B on this section of SR 28 which was identified as a High Accident Corridor in the 2005-07 list (this location did not appear on the 2007-09 High Accident Corridor list). From January 1, 1999 through March 31, 2002, an average of 4.9 total collisions per year had occurred before the project was constructed. This number decreased to 2.5 collisions per year in the 24 months after the project was completed, a drop of almost 50%. The additional capacity afforded by the two-way



SR 28 35th Street NW to 31st Street NW

2.0 before and 0.6 pedestrian collisions after the construction. The number of injury and fatal collisions per year was reduced from 25.3 to 14.4, representing a decline of 43%.

SR 162 Bowman Hilton Road East to 149th Street East

From milepost 3.21 to 7.50, the project involved reconstructing roadway alignments, installing new signals and guardrails, as well as flattening roadside slopes. This roadway section was designated as a 2005-07 biennium High Accident Corridor (HAC), but no longer appears on the current 2007-09 biennium listing. The total number of collisions per year was reduced by 19%, from 49.9 to 40.3 collisions per year. Property Damage Only collisions per year remained fairly constant while the higher severity level collisions involving injuries or fatalities were reduced by 31% per year, from 28.4 to 19.7. With the additional intersection control associated with new signals, entering at angle collisions went from 8.8 per year before the project to 5.1 per year after construction, representing a decline of 42%. The entire roadway section experienced a decrease of 71% for opposite direction sideswipe collisions per year.



SR 522 NE 145th Street vicinity to NE 155th Street

left-turn lane is illustrated in the dramatic decline in rear-end and driveway related collisions: 4.6 per year before and 2.0 after, or a 57% reduction.

SR 522 NE 145th Street Vicinity to NE 155th Street

This section of SR 522 from milepost 4.21 to 4.78 was previously identified as a High Accident Location (HAL) and Pedestrian Accident Location on the 2005-07 list, but is not on the same listing for the 2007-09 biennium. It should be noted that the milepost range is still contained within a High Accident Corridor (HAC) for the 2007-09 biennium. This project focused on pedestrian enhancements by extending sidewalks, replacing portions of a two-way left-turn lane with raised median islands, installing luminaries and relocating utility poles. For the period January 1, 1999 through June 30, 2000 prior to the start of this project, there was an average of 63.3 total collisions per year in this section of highway. For the 40-month time period after the project, there was an average of 33.6 total collisions per year, which represents a significant decline of 47%. Pedestrian collisions per year were reduced by 70% with



SR 162 Bowman Hilton Road East to 149th Street East

Highway Safety Improvement Projects: Annual Update

Low Cost Enhancement Program

Before and After Study Analysis

Low cost enhancements are low cost projects targeted at problem areas identified as part of the priority programming process as well as by citizens and elected officials. These are typically small-scale projects including: traffic control signing improvements, striping or other road marking improvements, signal installation or improvements, roadway access control, and other improvements that can be done for relatively low cost as to major projects. During the 2003-05 biennium there were 808 low cost enhancement projects completed statewide, totaling \$4,338,297. (See the table below for a break down of low cost enhancement work by type.)

2003-05 Low Cost Enhancement Work	Total Costs
Development	\$455,007
Customer Response	\$1,490,976
High Accident Location (HAL)	\$430,539
Safety	\$975,054
Congestion Relief	\$348,438
Traffic/Traveler Information Systems	\$638,282
2003-05 Program Total	\$4,338,297

Source: Northwest Region Collision Studies

An in-depth review of selected low cost enhancement projects in one of WSDOT's regions (Northwest Region) shows major reductions in societal costs following implementation. This region used low cost enhancement funding to upgrade some traffic signals to provide a protected left turning phase. Left turn signal phasing displays are installed to create a separate phase for left turning vehicles. This is usually done by installing a left turn arrow at an existing traffic signal. Vehicles traveling straight through an intersection get a stop signal when the left turn arrow is green, thereby reducing conflicts and collisions between straight through and left turning vehicles.

The table at the above right shows effects of low cost enhancement signal improvements with at least one or two years of Before-and-After period collision data.

The ten signal improvement projects called "opposite direction left-turning" collisions, were either eliminated or drastically reduced. Total injury collisions decreased by half. Installation costs for this type of signal improvement are between \$5,000 and \$10,000 per intersection and tend to produce a significant drop in societal cost. "Opposite direction left-turning collisions" occur when a left turning vehicle collides with a vehicle traveling through the intersection from the opposite direction.

WSDOT Northwest Region's Annual Summary of 10 Before and After Studies of Left-Turn Signal Phasing Changes

Number of Accidents

Accident Type	Before Period	After Period	Change (savings)	% Change
Opposite direction while turning left	56	10	-46	-82%
Misc./Other	71	75	4	6%
Total Accidents	127	84	-43	-34%
Total Injury Accidents	61	28	-33	-54%
Total Societal Costs	\$5.9	\$2.1	\$-3.8	-64%

(Millions of Dollars)

Total societal costs from the collisions at the study sites were decreased by \$3.8 million after the signal improvements.

Other Northwest Region low cost enhancement projects significantly reduced societal collision costs. These projects included: installation of warning signs and flashers, signal retiming or installation, rumble strip application, and other improvements. The following table shows the reduction in crashes and societal costs due to these low-cost enhancement projects.

Annual Reduction in Number of Collisions and Total Societal Costs

Accident Type	Before Collisions	After Collisions	% Change
Enter at angle	15	13	-13%
Opposite Direction Left Turn	7	4	-42%
Sideswipe	18	5	-72%
Rear-end	96	56	-42%
Misc	32	20	-12%
Total Accidents	168	98	-42%
% Injury Accidents	41%	41%	0%
Injuries per accident	.66	.52	-22%
Ave. societal cost	\$33,428	\$26,834	-20%
Total Societal Cost	\$5.6	\$2.6	-54%

(Millions of Dollars)

Source: Northwest Region Collision Studies

Highway Safety Improvement Projects: Annual Update

High Accident Locations and Corridors on State Highways

WSDOT reviews the accident history of all state highways every two years to identify High Accident Locations (HALs) and High Accident Corridors (HACs). These are two of several methods that the department employs to identify locations for safety improvements. High Accident Locations use the previous two calendar years of collision data to identify spot locations with an above average history of frequent and severe collisions. The data analysis is done in the Spring of the following year. For instance, in Spring 2005, WSDOT compiled the data for 2003 and 2004. The High Accident Corridors look at above average collision frequency and severity on highway segments of a mile or longer, over a five-year period.

The lists on the following two pages show the highest ranking locations on the HAC and HAL lists based on Annual Estimated Societal Cost per Mile associated with the collisions. The complete HAC and HAL lists identify the specific locations where WSDOT will do further analysis in order to determine which of these sites will provide the greatest reduction in accidents per dollar spent. That is where WSDOT has concentrated, and will continue to concentrate its efforts, consistent with legislative direction.

Highways are Getting Safer

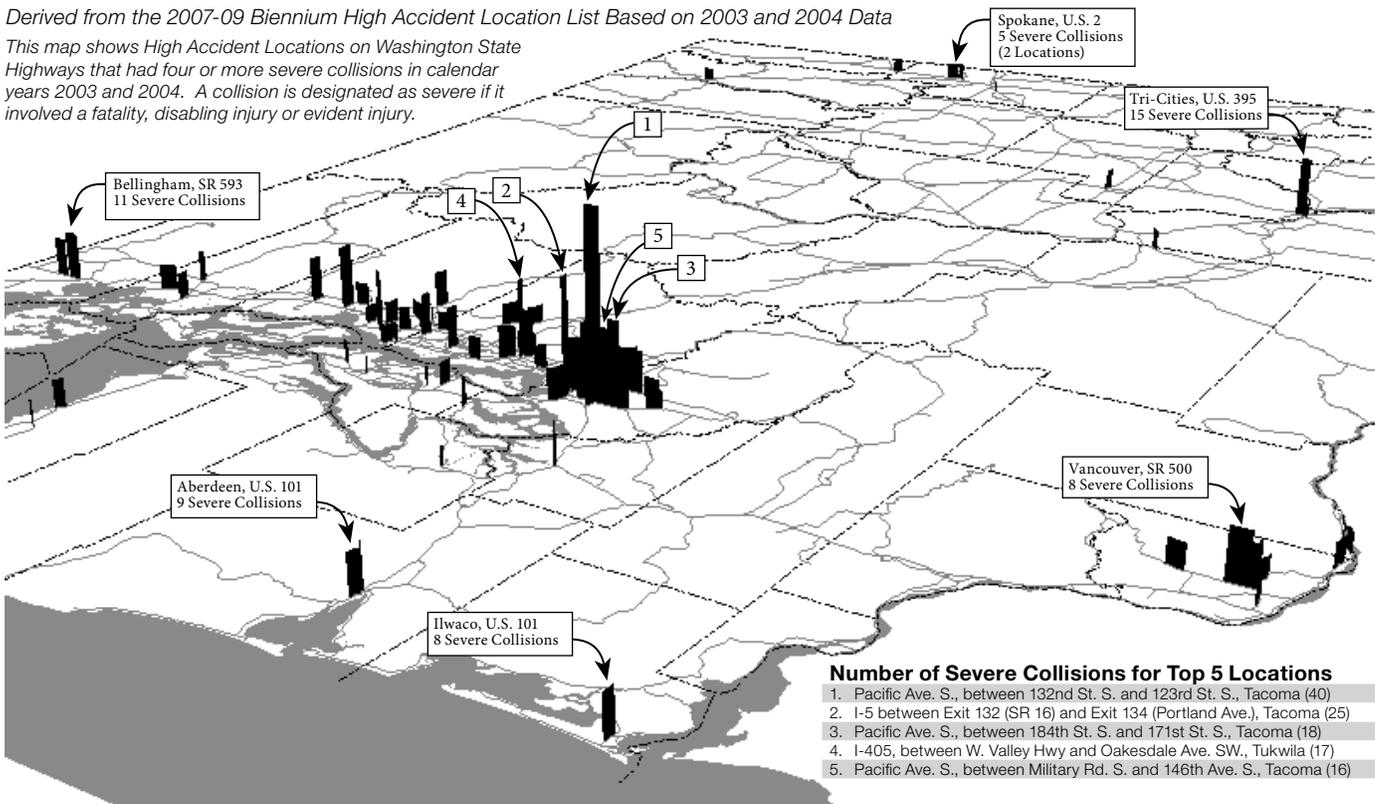
While the number of overall accidents has remained roughly the same over time for both HACs and HALs, there has been a notable reduction in the number of severe accidents and in the overall severity of accidents. (See pages 49 and 50 for specific location and corridor descriptions).

The department is constantly evaluating its methods in order to ensure that the best locations for safety improvements are identified. As an example, WSDOT made changes to its High Accident Corridor methodology during this budget preparation cycle in order to compare accident history between similar types of highways. This is to ensure that rural locations, which might see fewer collisions but are still risky, are given the same consideration as locations with higher traffic volumes and higher numbers of accidents.

State Highway Locations Containing at Least Four Severe (Fatal, Disabling, or Evident Injury) Collisions

Derived from the 2007-09 Biennium High Accident Location List Based on 2003 and 2004 Data

This map shows High Accident Locations on Washington State Highways that had four or more severe collisions in calendar years 2003 and 2004. A collision is designated as severe if it involved a fatality, disabling injury or evident injury.



Highway Safety Improvement Projects: Annual Update

Highest Ranking Accident Corridors on State Highways

Top Ten High Accident Corridors Statewide Ranked by Societal Cost (2000-2004 Data¹)

Rank	Location	2000-2004		Estimated Societal Cost Per Mile Per Year in Millions	Current Approach or Proposed Solution	Status
		Fatal and Disabling Injury ² Collisions	Total			
1	SR 101 Olympia Vic. Tumwater-Vic. Cooper Pt. Rd.	6	268	\$2.4	Install cable median barrier	Design Phase
2	I-5 Vic. Lynwood - Vic. N. of Maple Road to Vic. 164th St. SW	5	273	\$2.2	It is anticipated the northbound and southbound paving project may address some accident types associated with this HAC. Also the recently completed direct access loop ramp at 164th St. SW will address this HAC.	Design Phase
3	I-5 Lynwood - Vic. N. of Poplar Way to Vic. N. of 28th Ave. W.	4	296	\$2.1	It is anticipated the northbound and southbound paving project may address some accident types associated with this HAC.	Design Phase
4	I-5 SeaTac, Kent Pierce Co. Line to Tukwila I/C-Stage 5, NB HOV from S. 272nd to S. 200th	4	277	\$2.1	This HAC falls within this HOV project limits. It is anticipated that this project will address this HAC.	
5	SR 20 Sedro Wooley Sapp Rd. to Reed St.	5	171	\$1.8	Widen SR 20 to provide a two way left turn lane at the Reed Street intersection.	Completed
6	SR 527 Mill Creek 164th St. SE to 132nd St. SE	4	109	\$1.3	Widen to five lanes. This HAC falls within this widening project. It is anticipated that this project will address this HAC.	Under Construction
7	SR 9 SW of Lake Stevens 56th St. SE and 42nd St. NE	2	153	\$1.2	Add a signal and add or improve right turn pockets to facilitate right turn movements at the 56th Street SE intersection. Add illumination and add left and right turn lanes to improve turning movements at the 42nd Street NE intersection.	Under Construction
8	I-5 Kelso North Castle Rock Vicinity to SR 505 Vicinity-Safety	7	56	\$1.2	This is a companion safety project to the I-5 paving project with the same title. Upgrade safety items such as signing, roadway lighting, guardrail, bridge rail, concrete barrier end treatments and lane striping. Evaluate the safety of ramp connections and increase safety by providing protection from roadside hazards.	Design Phase
9	I-90 E of North Bend	4	70	\$1.2	Safety work on interstate ramps and sign structures.	Completed
10	SR 101 Port Angeles Vic. Jones St. to E. 1st St.	3	111	\$1.2	Traffic Operations will address operational fixes and access management.	

The fact that a highway segment is listed in the top high accident locations or corridors does not imply that the segment is unsafe or that accidents are related to the design or maintenance of the highway. Crashes are caused by many factors including driver actions, vehicle condition, and weather. For each of these locations, discretion is exercised in the development and implementation of proposed solutions on the basis of many factors, including levels of authorized and expected funding.

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¹Used to identify projects that will be submitted to the Legislature for 2007-09 programming consideration.

²Disabling injuries include permanent disability only (temporary disabilities are not included).

Highway Safety Improvement Projects: Annual Update

Highest Ranking Accident Locations on State Highways

Top Ten High Accident Locations Statewide Ranked by Societal Cost (2003-2004 Data¹)

Rank	Location	2003-2004		Estimated Societal Cost Per Year in Millions	Current Approach or Proposed Solution	Status
		Fatal and Disabling Injury ² Collisions	Total			
1	SR 7 Parkland Vicinity 131st St. S. to Vic. 108th St. S.	7	316	\$7.4	Construct sidewalks, retaining walls, lighting, upgrade signal systems and consolidates highway approach points.	Under Construction
2	I-5 Vic. Tacoma Vicinity S. of SR 16 to Vic. N. of Pacific Ave.	2	366	\$4.7	This HAL will be addressed as part of the core HOV	Under Construction
3	I-405 Renton W Valley Highway to Maple Valley Highway	3	192	\$3.6	Construct one additional NB general purpose lane from SR 181 to SR 167 and southbound from SR 169 to SR 167. The southbound HOV lane on SR 167 will be extended north to I-405.	Design Phase
4	I-5 Vic. Tacoma Northbound Collector Distributor at 38th St. Interchange	2	170	\$3.2	This HAL will be addressed as part of the core HOV	Under Construction
5	SR 531 Arlington, Smokey Point 33rd Ave Vic. to 40th Ave. NE	4	132	\$3.1	Replace existing two way left turn lane between 33rd Ave. and 43rd Avenue NE with left turn lanes, traffic curbing, and raised traffic islands. Construct a bus pullout/U-turn pocket at the SE corner of the SR 531/Smokey Point Boulevard intersection.	Completed
6	I-5 Vic. Seattle On NE Northgate Way	4	47	\$2.7	Remove the existing rolled gutters and curbing on the southbound off ramp to eastbound Northgate Way. Resurface existing roadway pavement.	Completed
7	SR 161 Puyallup South Hill 128th to 176th	2	159	\$2.7	Construct sidewalks, continuous lighting, consolidate approaches and bus pullouts.	Completed
8	SR 7 Parkland Vic. Pacific Ave. to Vic. 171st St. S	2	143	\$2.7	Construct sidewalks, retaining walls, lighting, upgrade signal systems and consolidates highway approach points.	Under Construction
9	SR 205 Vic. Vancouver SE Mill Plain Road Undercrossing	3	82	\$2.5	Construct northbound off and southbound on ramps and connect roads between NE 18th and NE 28th Streets. Construct a new ramp from the I-205/ Mill Plain northbound off ramp to NE 112th Ave.	Design Phase
10	395 Vic. Kennewick Vic. N. of Columbia Drive to Vic. Lewis St.	1	172	\$2.3	Install variable message sign	Completed

The fact that a highway segment is listed in the top high accident locations or corridors does not imply that the segment is unsafe or that accidents are related to the design or maintenance of the highway. Crashes are caused by many factors including driver actions, vehicle condition, and weather. For each of these locations, discretion is exercised in the development and implementation of proposed solutions on the basis of many factors, including levels of authorized and expected funding.

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² Disabling injuries include permanent disability only (temporary disabilities are not included).

Highway Safety Improvement Projects: Annual Update

Highest Accident Corridors and Locations on State Highways in Cities with Populations over 22,500

The highest ranking accident corridors and locations on non-access controlled state highways within cities over 22,500 populations are shown below. The Attorney General’s interpretation of RCW 47.24.020 restricts WSDOT’s ability to address these locations and assigns responsibility for these roads to the respective cities.

Of the miles and segments identified as a HAL statewide, WSDOT is responsible for 100 (73%) centerline miles. Cities with a population over 22,500 are responsible for 37 (27%) of HAL miles. For these HALs, 59% of total collisions occurred at state locations and 41% are within cities.

Of the miles and segments identified as a HAC statewide, WSDOT is responsible for 631 (94%) centerline miles. Cities with a population over 22,500 are responsible for 40 (6%). For these HACs, 71% of total collisions occurred within state controlled corridors and 29% are within cities.

WSDOT recognizes that these roadways are in need of safety improvements and will make this a focus of future safety discussions with local governments and the Legislature. In addition, these needs are recognized in the current update of Washington’s 20-year Transportation Plan.

Top Ten High Accident Corridors on Non-access Controlled State Highways in Cities with Populations over 22,500 (Data from 2000 to 2004)

Rank	Location	Fatal and Disabling Injury Collisions	Total Collisions	Estimated Societal Cost Per Mile Per Year in Millions
1	SR 99 Seattle - Vic. N. 63rd St. to Vic. N. 145th St.	51	1,868	\$4.6
2	SR 2 Spokane - Vic. Ruby St. to Vic. Lincoln Rd.	24	1,496	\$4.1
3	SR 99 Vic. Edmonds - Vic. S. of 240th St. SW to Vic. N. of 212th St. SW	18	869	\$3.7
4	SR 99 Lynnwood - Vic. N. of 186th Pl. SW to Vic. S. of 168th St. SW	10	370	\$3.7
5	SR 99 Seattle - Vic. S. of Elliot Ave. to Vic. Highland Dr.	16	437	\$3.5
6	SR 167 Tacoma - Vic. S. of Bay St. to Vic. N. of Pioneer Way	13	157	\$3.4
7	SR 99 Shoreline - Vic. S. of N. 170th St. to Vic. N. 205th St.	13	711	\$3.4
8	SR 527 Bothell - Vic. S. of Canyon Park Blvd. to Vic. SR 524/208th St. SE	8	366	\$3.3
9	SR 99 Vic. SeaTac - Vic.S. 216th St. to Vic. S. 160th St.	31	1,097	\$3.2
10	SR 99 Vic. SeaTac - Vic.S. 216th St. to Vic. S. 160th St.	10	209	\$3.0

Top Ten High Accident Locations on Non-access Controlled State Highways in Cities with Populations over 22,500 (Data from 2003 to 2004)

Rank	Location	Fatal and Disabling Injury Collisions	Total Collisions	Estimated Societal Cost Per Mile Per Year in Millions
1	SR 99 Vic. Seattle - Vic. N. of N. 117th St	7	175	\$5.9
2	SR 99 Lynnwood - Vic. N. of 186th Pl. SW to Vic. N. of 174th Pl. SW	6	154	\$4.6
3	SR 99 Edmonds - Vic. 224th St. SW to Vic. S. of 216th St. SW	5	140	\$4.3
4	SR 2 Spokane - Francis Ave. to Wedgewood Ave.	3	87	\$2.7
5	SR 527 Bothell - Vic. N. of 234th St. SE to Vic. S. of Canyon Park Blvd.	2	155	\$2.6
6	SR 99 Seattle - Vic. N. 135th St. to Vic. N. 145th St	2	124	\$2.5
7	SR 99 Seattle - Vic. N. 82nd St. to Vic. N. 91st St.	3	79	\$2.5
8	SR 524 Lynnwood - Vic. W. of 48th Ave. W. to Vic. W. of Alderwood Mall Blvd.	1	226	\$2.4
9	SR 99 Shoreline - Vic. S. of N. 195th St. to Vic. S. of N. 200th St.	3	71	\$2.4
10	SR 99 Edmonds - Vic. 230th St. SW to Vic. N. of 76th Ave. W.	3	65	\$2.4

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Highway Safety Improvement Projects: Annual Update

Cable Median Barrier Performance

Traffic barriers are safety devices installed to reduce the severity of crashes that result when vehicles leave the roadway. To ensure that barriers are crashworthy, they are subjected to crash tests. Currently, criteria for testing barriers have been adopted by the FHWA as a national standard for NHS highways, and are contained in the National Cooperative Highway Research Program (NCHRP) Report 350.

WSDOT uses three main types of barriers: beam guardrail, concrete barrier, and cable barrier. These barriers have been successfully crash tested in accordance with the NCHRP Report 350 criteria.

The Gray Notebook article in the December 31, 2003 edition (p. 37) contained a before and after evaluation of cable median barriers. In this report, a further study of the performance of cable median barriers compared to beam guardrail and concrete barriers is presented. In addition, a specific study of the performance of cable median barriers in the median of I-5 in Marysville is discussed.

Median Barrier Performance Comparison

To assess the relative effectiveness of different types of median barriers, WSDOT engineers analyzed 11,457 median barrier collisions that occurred on Washington State highways between 1999 through 2004 (see table below). These collisions were identified as incidents where a barrier was either the first or second object that was struck. This six-year period represents the most recent highway collision data available.

Barrier Performance by Type

Barrier type	Total Collisions	No Injury/ Injury Unknown	%	All Injuries	%
Concrete barrier	7,585	4,459	58.8%	3,126	41.2%
W-beam guardrail	2,579	1,520	58.9%	1,059	41%
Cable, without I-5 Marysville	152	127	83.5%	25	16.4%
Cable, with I-5 Marysville	171	135	79%	36	21%
All cable barrier	323	262	81.1%	61	18.8%
Bridge rail	970	622	64.1%	348	35.9%

Source: Washington State Highways, 1999-2004

The comparison of the different barriers' performance did not include I-5 in Marysville because this cable barrier section is performing differently than other sections around the state. (See page 53 for a more complete discussion on I-5 in Marysville.)

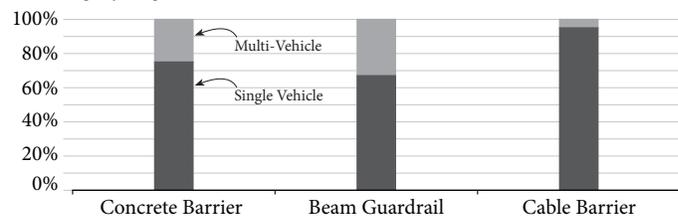
Cable Barriers Minimize Injuries and Death

The percentage of median crashes that result in injury or death is significantly lower for cable barriers (16%, not including I-5 in Marysville) than for concrete barrier (41%) or W-beam guardrail (41%). The percentage of disabling and fatal crashes, the least frequent but most serious type of crash, is lowest for concrete barriers (2.1%) followed by cable barrier (2.6%) and beam guardrails (4.4%).

As the chart below shows, collisions with cable barriers are significantly less likely to involve multiple vehicles than guardrail and concrete barriers.

Single and Multi-Vehicle Collisions*

Percentage of Single vs. Multi-Vehicle



* Does not include I-5 in Marysville.

Head on Collisions

The most damaging and deadly crashes are those that involve vehicles colliding head on. These occasionally occur when a vehicle goes beyond a median barrier. Overall, 1% of errant vehicles that hit a concrete barrier go beyond the barrier, compared to beam guardrails (4%) or cable barriers (5%, not including I-5 in Marysville).

Rollovers

For cable barrier collisions outside of Marysville, where disabling or fatal injuries were reported, the errant vehicle rolled over in three of the four collisions. It is unclear if the barrier contributed to the rollover or if the vehicle was likely to rollover regardless.

For a map and list of cable median barrier installations in Washington, go to www.wsdot.wa.gov/accountability/06CableMedianBarrierProgram.pdf

Highway Safety Improvement Project: Annual Update

I-5 in Marysville

Public concerns were raised about I-5 in Marysville due to the increasing number of crashes and the large number of crossover collisions. As a result, WSDOT conducted a comprehensive review of traffic safety on I-5 through Marysville. To see the full report go to www.wsdot.wa.gov/maintenance/barriers/Marysville/default.htm

The purpose of this study was to examine the collisions that went through the cable median barrier on I-5 in Marysville. From 1999 through 2005 there were 18 collisions that went through the cable barrier.

Vehicle Crossovers in Marysville

Research revealed that in 15 (83%) of the 18 collisions, the vehicle crossed the median on I-5 in Marysville going southbound between 1999 through 2005. The three crossover collisions that resulted in fatalities involved southbound vehicles. Moreover, of the 15 southbound crossover collisions, 11 involved sedans. Research focused on southbound sedans. These crossover collisions occurred where the cable barrier was placed inside a distance of five feet from the bottom of the ditch on the slope nearest to the northbound lanes. When the southbound sedan hits the ditch it compresses the cars' front tires, which leaves the front bumpers low enough to nudge beneath the lowest cable on the barrier. The momentum would

then carry the car up the slope, where the car would lift the cable barrier and pass under the cable. In 2003 this concern was identified in another state which prompted the Federal Highway Administration (FHWA) to conduct crash tests in 2004. (See photos below from the 2004 FHWA Crash Tests.)

Within a month of the crash tests WSDOT responded to this concern by issuing guidance that directed our engineers to avoid placing cable barrier within one to six feet from the bottom of a ditch on all new projects, pending final recommendations on how to address this phenomenon.

Addressing Cross Median Collisions in Marysville

In 2006, WSDOT will install a second run of cable barriers in the I-5 median in Marysville. WSDOT believes that placing barrier on both sides of the median ditch will address vehicles bottoming out in the ditch and lifting the cable barrier. Design is underway and installation of the new barrier is expected in 2006.

WSDOT engineers considered installing concrete barrier or guardrail, but they determined that these more rigid barriers would likely increase the number and severity of crashes in this location.

Cable Median Barrier Performance FHWA Ditch Crash Tests



How the front tires of a sedan compress after hitting the bottom of a ditch. This allows the bumper of the car to nudge under the lowest barrier cable.



As the vehicle continues forward, it lifts the cable median barrier and continues up the slope while the cables pass over the top of the sedan.

Highway Safety Improvement Projects: Annual Update

Pedestrian and Bicycle Safety

Washington's Progress

Since the last *Gray Notebook* report on pedestrian and bicycle safety, Washington's ranking among other states has improved as measured annually by National Highway Traffic Safety Administration (fatalities normalized by population). The table on the right shows pedestrian safety; for Washington has improved significantly moving to the twelfth lowest nationally in 2004 from eighteenth lowest in 2001. Washington has also improved its ranking among other states for bicycle safety. In 2004, Washington moved to tenth nationally improving from sixteenth in 2001.

Examining the Safety Trends

The combination of driver action, pedestrian risk taking behavior, and the infrastructure continue to influence pedestrian fatality rates.

Roughly a third of the pedestrian fatalities that occurred between 1999 and 2004 involved alcohol or drugs. In 21% of the cases, the pedestrian was under the influence of alcohol or drugs; in 7% of the cases, the driver was under the influence of alcohol or drugs. In 2% of the cases, both driver and pedestrian were under the influence.

Lack of crossing opportunities continues to be concern for pedestrians as shown in the table below. On state highways, 10% of legal crossings are marked (may include signage, signals, striping or other treatments).

Location of Pedestrian Fatalities 1999-2004

Location	% of Fatalities
Crossing - in crosswalk	10%
Crossing - not in crosswalk	6%
Crossing - marked crosswalk not available	52%
Shoulder	14%
Other - Off Roadway	7%
Unknown	11%

Source: WSDOT Transportation Data Office

For cyclists, 52% of fatal collisions occurred while riding with traffic (e.g., driver following too closely or exceeding safe speeds, bicyclist being hit by an opening car door while riding next to parked cars).

2004 Pedestrian Fatality Rates by State¹

Fatalities per 100,000 Population

Rank	State	Pedestrian Fatalities	Fatality Rate
1	Nebraska	9	0.52
2	Wyoming	3	0.59
3	Rhode Island	7	0.65
4	Minnesota	37	0.73
5	Maine	10	0.76
10	Iowa	24	0.81
11	Ohio	94	0.82
12	Washington	58	0.93
13	Wisconsin	54	0.98
14	Utah	25	1.05
49	Hawaii	30	2.38
50	Nevada	60	2.57
51	Florida	493	2.83
52	New Mexico	56	2.94

Source: National Highway Traffic Safety Administration
¹Includes District of Columbia and US Average

2004 Bicycle Fatality Rates by State¹

Fatalities per 1,000,000 Population

Rank	State	Pedestrian Fatalities	Fatality Rate
1	Rhode Island	0	0.00
2	Wyoming	0	0.00
3	Missouri	3	0.52
4	Nebraska	1	0.57
5	Maine	1	0.76
9	Pennsylvania	14	1.13
10	Washington	7	1.13
11	Tennessee	7	1.19
49	District of Columbia	3	5.42
50	Hawaii	7	5.54
51	Nevada	14	6.00
52	Florida	122	7.01

Source: National Highway Traffic Safety Administration
¹Includes District of Columbia and US Average

Highway Safety Improvement Projects: Annual Update

Safety in Numbers

Recent studies show motorists are less likely to collide with pedestrians or bicyclists when there are more people bicycling and walking along a corridor. A community that doubles the amount of bicycling and walking along a corridor can expect to reduce an individual's risk of being struck by a motorist more than 60% on that corridor. Motorists drive much more slowly and cautiously when they see more pedestrians and bicyclists and faster when they see fewer.

Location of Bicycle Fatalities 1999-2004

Location	% of Fatalities
Turning in Vehicle Path	12%
Riding with Traffic	52%
Riding Against Traffic	5%
Fell into Traffic	3%
Crossing	14%
Unknown	14%

Source: WSDOT Transportation Data Office

The Demographics of Pedestrian Risk

Washington has one of the most rapidly aging populations in the country. By 2020, over 1 million people in Washington will be 65 or older - almost twice the number of people in that age group today. The National Institute on Aging reports that more than 1 in 5 adults age 65 and older do not drive. Currently, the aging population in Washington represents 12% of the population, yet they make up 17% of the pedestrian casualties.

In past reports, the young, particularly school age children, have been identified as an at risk population for pedestrian involved collisions. The school age population represents 25% of the population and make up 17% of pedestrian casualties. They too remain a high risk population. (See the following table for school age pedestrian fatalities.)

School Age Pedestrian Fatalities by Age and Year

1999-2003

Year	1-4 yrs	5-9 yrs	10-14 yrs	15-17 yrs	Total
1999	6	0	2	3	11
2000	6	5	4	2	17
2001	4	2	3	3	12
2002	6	4	2	3	15
2003	5	3	4	0	12
1999-2003	27	14	15	11	67

Data source: Washington State Department of Health - April 2005 release

Safe Routes to Schools

In Washington, pedestrian injuries remain the third leading cause of injury death for children 1-17 years old. Bicycle injuries were the second leading cause of hospitalization due to injury for children 5 to 14 years old (Washington State Department of Health).

In response to the growing demand for safe routes to schools and improved conditions for bicycling and walking, the Washington State Legislature continued the state's commitment to pedestrian and bicycle safety by adopting the 2005 Transportation Partnerships Package. This includes \$75 million of funding for pedestrian and bicycle projects in the Transportation Budget over the next 16 years. The purpose of the Safe Routes to Schools program is to provide children a safe, healthy alternative to riding the bus or being driven to school.

Focusing on Urban Areas

Collisions involving pedestrians and bicyclists are more frequent and severe in urban areas. Between 1999 and 2004, over 70% of pedestrian fatalities occurred in urban areas and 66% of collisions involving pedestrians occurred on city streets. This is consistent with national data. Additionally, pedestrians and bicyclists make up a larger proportion of all traffic related fatalities within urban areas (24% of all fatalities occurring in urban areas vs. 5% of all fatalities occurring in rural areas).

Twenty-six percent of pedestrian collisions and 21% of bicycle collisions occur on state highways. These collisions are much more frequent inside larger cities. Seventy four of pedestrian collisions and 63% of bicycle collisions occur on state routes within larger cities.

1999-2004 Washington Traffic Fatalities

By Person Type and Urban-Rural Classification

Person Type	Rural	Urban	Total	Rural / Urban%
Driver	1,547	760	2,307	67.1 / 32.9
Passenger	656	301	957	68.5 / 31.5
MV Occupant - parked	2	3	5	40.0 / 60.0
MV Occupant - unknown type	2	2	4	50.0 / 50.0
Pedestrian	105	295	400	26.3 / 73.7
Other Pedestrian	0	8	8	0.0 / 100.0
Bicyclist	22	35	57	38.6 / 61.4
TOTAL	2,334	1,404	3,738	62.4 / 37.6

Source: Washington Traffic Safety Commission - FARS 2005

Environmental Programs: Annual Update

Environmental Management Systems (EMS) Update

WSDOT continues to develop its Environmental Management System (EMS) to help support the department's environmental efforts and integrate those efforts into everyday operations (see core elements at right for details). Reporting, which is the culmination of all EMS activities, facilitates self-evaluation of performance and allows future improvements. The reports on the following pages provide updates on established programs within the framework of WSDOT's EMS: Erosion Control (p. 57), Water Quality (p. 58), Stormwater (p. 59), Wetland Monitoring (pp. 60-62), and Compliance (p. 63). The updates below reveal three specific areas of activity and progress made in 2005.

Commitment Tracking System

Release 1 of the Commitment Tracking System (CTS) is now on-line. CTS is intended to track environmental commitments from their inception, through project development and construction to the commitment's completion or pass off to Maintenance. The system will report on commitments by project or region. All projects with project-specific environmental commitments and scheduled advertisement dates after January 1, 2006 will be entered into CTS.

Construction Compliance Program

WSDOT is celebrating its first year of statewide implementation of the Construction Compliance Program, which is built around core EMS elements and includes written procedures, training, constructability reviews, tracking, ensuring fulfillment of commitments, and measuring performance. Regional offices have developed compliance plans around these elements and have dedicated in-field staff to support construction offices.

Materials Laboratory

The Environmental Management Program for the Materials Laboratory includes an environmental health and safety manual, employee training, and a method to track hazardous materials and training records. The WSDOT Environmental Health and Safety Manual was completed in Fall 2005. It combines the requirements of the fire code, dangerous waste regulations, health/safety requirements for laboratories, and shipping regulations into an integrated, one step source of information. Development and deployment of hazardous materials and shipping training will be completed by early Summer 2006. In addition, WSDOT is documenting procedures to help laboratory employees stay in compliance with all hazardous material, laboratory safety, and fire code laws and rules.

Seven Core Elements to WSDOT's Environmental Management Systems

- Legal and other requirements clearly outline all environmental laws, regulations, and agreements that apply to operations.
- Written procedures instruct staff and contractors how to conduct work activities in compliance with requirements.
- Training ensures those that conduct certain activities know how to do the work in a compliant manner.
- Roles and duties ensure WSDOT staff and contractors know what they are to do under the EMS.
- Inspection, monitoring, and corrective action ensure a process is in place to check WSDOT's work for compliance and correct any problems.
- Documentation allows WSDOT to evaluate the operation of the EMS, and communicate results to the public and within the department.
- Performance measurement compares WSDOT's performance against pre-determined targets, with results reviewed by management and reported to the public.

Maintenance Facilities

The WSDOT Maintenance Office is developing an EMS for its maintenance facilities, using the Oregon Department of Transportation EMS as a model. WSDOT's maintenance facility EMS will cover fueling and vehicle maintenance operations, hazardous material storage/disposal, and stormwater pollution prevention planning. WSDOT has 128 maintenance facilities, which are designated as such by the presence of staff and/or equipment. In addition to activity specific documentation, the EMS will include facility level and regional assessments. It is WSDOT's goal to implement the maintenance facility EMS by the end of June 2006 through orientation with maintenance staff.

Environmental Programs: Annual Update

Erosion Control Preparedness

Without erosion control, many highway construction sites would turn into muddy messes that send soil into our lakes and streams every time it rains. To protect Washington's waters, WSDOT prepares Temporary Erosion and Sediment Control (TESC) plans and takes steps to prevent erosion and pollution of water such as planting grass and building ponds, on all projects that disturb soil. To evaluate the effectiveness of these plans, WSDOT inspected 21 active projects (15 in western Washington and six in eastern Washington) with potential for erosion problems. These inspections took place in Fall 2005, prior to the rainy season.

Overall, the annual inspection results have demonstrated a steady improvement since 2003. In 2005, improvements were partially the result of better implementation of TESC plans. Also, many of this year's projects had a lower erosion risk as they were nearly completed by October.

Two assessment measures decreased in 2005. Access route stabilization, which prevents the tracking of mud from

construction sites onto nearby streets, decreased due to eastern Washington projects that hadn't yet installed rock stabilized entrances. The other measure, protecting cut and fill slopes, possibly decreased due to dry October weather allowing construction of cut and fill slopes to extend later in the season.

Strategy for Improving Performance

In 2005, efforts to improve performance focused on the five assessment measures (shaded in grey in the table below) that fell into the "Poor" and "Fair" categories (see the *Gray Notebook*, December 31, 2004, p. 65). WSDOT used increased technical assistance, improved contract enforcement, and targeted training. These efforts have led to improvements in four of the five assessment measures. Based on the success of this approach, WSDOT will continue to focus technical assistance and training in 2006 on the assessment measures that fell into the "Poor" and "Fair" categories in 2005. Training will also focus on proactive erosion control to improve performance in the coming year.

Erosion and Sediment Control Assessment Results

	Assessment Measure	2003	2004	2005	Status
Excellent	Control other pollutants from impacting water quality	N/A ²	100%	100%	stable ¹
	Dewatering	71%	100%	100%	stable ¹
Good	Delineate clearing limits	100%	100%	95% ¹	stable ¹
	Control flow rates	84%	100%	95% ¹	stable ¹
	Sediment control BMPs ⁴ installed on time	90%	100%	95% ¹	stable ¹
	Manage project erosion/sediment control BMPs ⁴ proactively ³	75%	80%	90%	improved
	Channels for temporary stormwater conveyance are stabilized ³	64%	73%	87%	improved
	Storm drain inlet protection	82%	83%	86% ¹	stable ¹
	Erosion control BMPs ⁴ installed on time (stabilize soils) ³	N/A ²	67%	86%	improved
	Access routes prevent tracking of mud onto streets	69%	91%	82%	decreased
Fair	Protect cut & fill slopes	50%	89%	79%	decreased
	Amount of disturbed soil covered with erosion control BMPs ³	45%	65%	70% ¹	stable ¹
Poor	Maintain BMPs ^{3,4}	70%	50%	67%	improved

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

² Two new categories have been added since the 2003 report.

³ Highlighted rows indicate assessment categories targeted for improvement in 2005.

⁴ BMPs = Best Management Practices

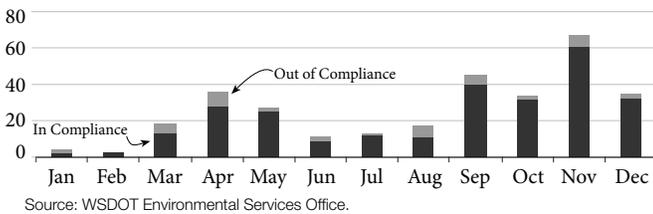
Source: WSDOT Environmental Services Office

Environmental Programs: Annual Update

Monitoring Water Quality Impacts for Construction Sites

WSDOT policy requires that at least 20% of all projects with substantial potential for water quality impacts be monitored for water quality. Inspectors collect samples of water flowing from the construction site during rainstorms and during in-water work, when compliance with state standards is the most challenging. The following graph, which summarizes month-by-month results comparing water quality upstream and downstream from 14 projects, shows that 86% (268 out of 312) of the samples collected met water quality standards for clarity. Of the 44 non-complying events, eight were associated with permitted in-water activities. The remaining violations were associated with storms (16), inadequate preparation (14), construction team mishaps like leaking hoses (four), and muddy run-on from neighboring properties (two). To date, of the 44 non-complying events, none was severe enough to prompt fines from the Department of Ecology.

2005 Statewide Water Quality Monitoring Results



Water that comes in contact with curing concrete can have a high pH. If this water enters a nearby waterway it could harm aquatic life. Of the 14 projects that submitted water quality monitoring data in 2005, only seven projects completed concrete work during or prior to storm events. Of the 83 pH samples collected, all but one of the samples met standards.

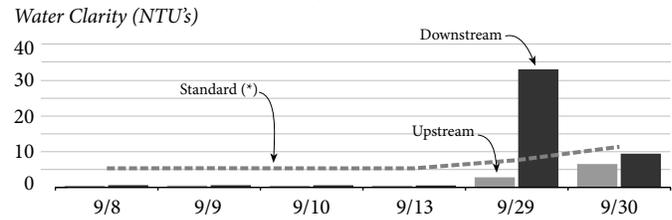
Case Study – Middle Fork Wildcat Creek Scour Repair

This two-month project, which involved replacing a wingwall near milepost 5 on SR 8, experienced one of the 44 non-complying events. During construction, Wildcat Creek was temporarily rerouted in pipes through the work area while earthwork and concrete work were completed. On September 29th, approximately two inches of rain caused the creek to rise. High flows overwhelmed the bypass system during the day and the water got muddy.

By the end of the workday the water was clean again and in-water work was completed. The plan was to carefully put water back into the channel within the week, but later that night a second storm hit and the water re-entered the channel unattended. It is likely that the water got muddy during the night but water was clean when workers returned in the morning. Bigger, more reliable diversion systems could reduce such occurrences in the future.

Water Clarity Monitoring

Middle Fork Wildcat Creek, September 8–30, 2005



A Picture of the Wildcat Creek Scour Repair Worksite:



Placing plastic over curing concrete reduces the risk of a high pH discharge.

Environmental Programs: Annual Update

Stormwater Treatment Facilities

It is the public policy of Washington State to maintain the highest possible water quality standards while ensuring public health and enjoyment, protecting fish and wildlife, and promoting industrial development. In accordance with the Clean Water Act, WSDOT constructs ponds, swales, vaults, and other facilities to remove pollutants from stormwater. To confirm the effectiveness of its pollutant removal efforts, WSDOT collected 109 samples of runoff before treatment, and 129 samples after treatment, along I-5, I-405, SR 525, and SR 167 during the 2003–05 rainy seasons. (See the table to the right for the results.) WSDOT’s studies found that its facilities exceed treatment effectiveness goals set by the Washington State Department of Ecology (DOE) for solids and phosphorus and removed most of the particulate metals present in stormwater. Effectively removing dissolved metals from runoff, however, remains a challenge.

WSDOT Removes Pollutants

Solid Particles. Most stormwater pollutants like phosphorus and particulate metals are attached to solid soil particles that settle in ponds or get filtered out by grasses in ditches, bioswales, and on road shoulders that are designed to capture pollutants. WSDOT’s treatment facilities are very effective in trapping solid stormwater pollutants (see table).

Dissolved Metals. Small fractions of the metals in stormwater are dissolved and not readily settled or filtered out of the water. Washington State’s water quality standards are set at very low concentrations, roughly 0.040 mg/L for dissolved zinc and 0.0047 mg/L for dissolved copper. The effectiveness of available, affordable treatment options are limited and highly variable when it comes to removing trace amounts of dissolved metals. For all treatment types there is a “minimum irreducible concentration” below which the facilities cannot consistently remove pollutants. As the minimum irreducible concentrations for copper and zinc are near the water quality standards for those metals, it is very difficult to ensure compliance with standards. While average concentrations meet standards, some individual samples of zinc (15%) and copper (55%) do not meet standards after treatment due to variability in storms and facility effectiveness. This does not necessarily mean individual discharges cause a violation of standards because the standards apply to receiving waters in which the stormwater is diluted. The data does suggest, however, that

Stormwater Treatment Facility Effectiveness

Pollutant (at monitored sites)	Before Treatment (lbs)	After Treatment (lbs)	Effectiveness vs. Goal set by DOE (% removal)	Average Pounds Captured (per Year per Acre)
Solids	78.9	6.4	92/80	520
Phosphorus	0.136	0.036	74/50	0.72
Total Zinc	0.158	0.040	74/N/A	0.85
Total Copper	0.0275	0.0094	66/N/A	0.13
Dissolved Copper	0.0074	0.0049	34/N/A	0.018
Dissolved Zinc	0.054	0.027	49/N/A	0.194

Source: WSDOT Environmental Services Office

some stormwater discharges could potentially contribute to water quality violations of dissolved copper and zinc in the receiving body if baseline concentrations are already high.

In accordance with the Clean Water Act, DOE identifies impaired water bodies and develops clean up plans based on Total Maximum Daily Loads (TMDLs) to restore them. These plans identify any obvious pollution sources, estimate pollutant contributions from roads and other land use, and then compare this estimate with the loading capacity of the water body. Acceptable levels of pollutant discharge are then determined with the goal of reducing pollutants to levels that will meet water quality standards. So far, the few completed and EPA-accepted TMDLs for metals do not identify highway runoff as a contributor to impairments. The completed TMDLs identify mining and algaecides (containing copper) as the sources of impairment. DOE has listed additional water bodies as impaired (six for copper and six for zinc), but as the TMDLs are not completed, it is not known if highway runoff is contributing to the impairment of these water bodies.

Oil/Grease. Data collected between 2003-2005 shows that highway runoff consistently meets DOE’s narrative treatment standard of no visible sheen.

WSDOT built 42 stormwater treatment facilities in Western Washington between July 2004 and June 2005. In response to municipal stormwater permit requirements, WSDOT has built 741 stormwater treatment facilities in King, Snohomish, Pierce, and Clark counties since 1996.

Environmental Programs: Annual Update

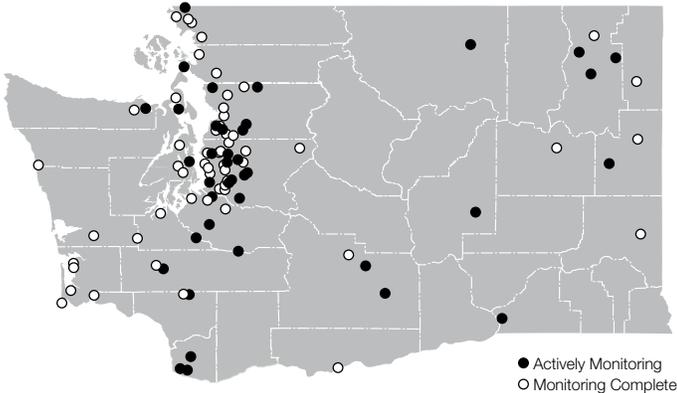
Monitoring Replacement Wetlands

WSDOT replaces wetlands to address the state's Executive Order 89-10, which mandates that the actions of state agencies will result in no net loss of wetlands.

Types of Mitigation

When transportation projects create unavoidable wetland impacts, wetlands are enhanced, restored, created, or preserved to achieve the no net loss policy. WSDOT has a total of 130 replacement wetland sites (721 acres). It can take years for a site to develop, so these sites undergo monitoring to evaluate success. Monitoring was initiated on two new replacement wetlands site in 2005. These two sites combined add 1.17 acres of created wetland, 1.31 acres of enhanced wetland, 0.42 acres of buffer, and 0.25 acres of preservation to WSDOT's inventory of replacement acreage.

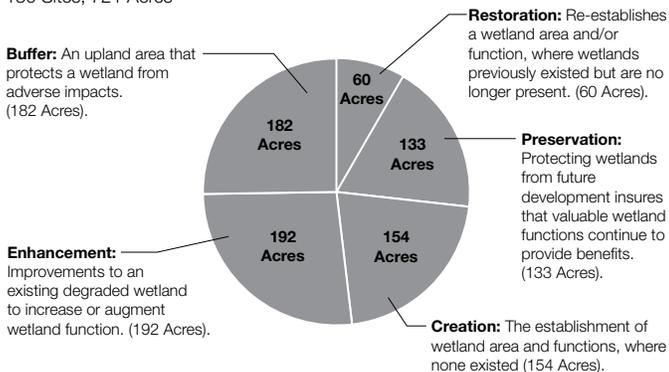
WSDOT Replacement Wetlands 1988 - 2005



WSDOT Replacement Wetlands, 1988-2005¹

Total Acreage of Wetland Projects

130 Sites, 721 Acres



¹ Pie Chart: This also includes seven established sites in the Eastern Region that have not been included in previous *Gray Notebook* reports. These sites add 1.78 acres of wetland creation, 1.3 acres of wetland enhancement, and 6.2 acres of preservation.

Source: WSDOT Environmental Services Office

New Replacement Wetland Sites

- U.S. 2 Winton Road Wetland Mitigation (Enhancement, Creation, Preservation)
- SR 20 Whiskey Creek Wetland Mitigation (Enhancement, Creation)

Completed Replacement Wetlands

Successful sites have achieved reasonable ecological performance, and no longer need monitoring. Unsuccessful sites have not met requirements or achieved reasonable performance. Eleven more sites in 2005 achieved reasonable ecological success, bringing the total number of completed sites since 1988 to 70. The total sites judged successful in this group are 66 (313 acres). The four unsuccessful sites failed due to unpredictable or changed hydrology, the most important parameter of wetland success.

For additional detail on monitoring replacement wetlands and pictures of the different types of projects, see the *Gray Notebook* subject index at www.wsdot.wa.gov/accountability/GrayNotebook.pdf and click on Wetland Mitigation and Monitoring. Annual wetland replacement monitoring reports can be read at www.wsdot.wa.gov/environment/wetmon/MonitorRpts.htm

Replacement Wetlands Completed since 1988 (70 sites)

Years	Percent Successful
1988-2001	88%
1988-2002	91%
1988-2003	92%
1988-2004	93%
1988-2005	94%

Source: WSDOT Environmental Services Office

Development of a Site Completion Process

Historically, federal and state permitting agencies did not have a defined process to close out a successful mitigation site. Recently, the Army Corps of Engineers (USACE) has begun to take steps intended to determine mitigation site permit compliance, and to close out sites as appropriate. Also, the draft guidance Wetland Mitigation in Washington State (available at www.ecy.wa.gov/programs/sea/wet-updatedocs.htm) contains proposed language regarding close outs of mitigation sites. In partnership with USACE, WSDOT has provided 19 site reports that will be used to develop a close out process for mitigation sites. More information on this process will be reported in subsequent editions of the *Gray Notebook*.

Environmental Programs: Annual Update

Meeting Standards in 2005

Biologists evaluated 23 wetland replacement sites with targets (success standards) to measure for 2005. Monitoring was conducted for 101 individual standards ranging from percent cover by woody species to placement of habitat structures on the mitigation site.

Six sites achieved all of their success standards in 2005. Sixteen sites achieved some of their success standards, and one site did not meet any standards in 2005. Strong communication links between site managers and monitoring personnel and a specialized management crew are components of WSDOT's ongoing site management strategy. WSDOT expects improved ecological success on its replacement wetland sites as an outcome of this effort.

Assessing mitigation success has evolved in recent years. Some of the above success standards were written many years ago, and may not be achievable or ecologically relevant in the context of current knowledge. WSDOT continues to work with regulatory agencies to improve the way success standards are written and mitigation success is measured. For more information, see the WSDOT guidance on mitigation success at www.wsdot.wa.gov/environment/biology/wet_policypapers.htm, and read the item to the right.

2005 Success: Targeted Wetland Replacement Sites Meeting Standards (23 total)

Percentage of Standards Met	# of Sites	Acres
100 %	6	12.73
76-99 %	2	2.59
51-75 %	2	3.37
26-50 %	12	56.08
1-25 %	0	0
0	1	5.35

Source: WSDOT Environmental Services Office

New Measures for Wetlands Standards

Success standards are included in every permit and are an important aspect of permit compliance. They help to guide site management activities, but generally provide only a limited measure of ecological function or WSDOT performance. They often are not ecologically meaningful or realistic to attain, and are not closely related to project impacts. For instance, one permit standard requires that 100% of the plants in a wetlands mitigation site should survive. If one plant dies, the standard is not met. Accordingly, WSDOT will begin reporting on the following challenging yet realistic measures for wetland mitigation activities in the *Gray Notebook*.

1. **Site management activities to improve site conditions.** Most available literature on mitigation success agrees that mitigation sites that are managed are more successful. WSDOT has a mechanism in place to identify and track completion of needed site management activities.
2. **Acreage achieved.** This information is presented on the following page, in "Wetland Mitigation Acreage Compliance." It provides a good measure of how WSDOT is meeting acreage commitments for replacement wetlands.
3. **Functional Replacement or Improvement.** An important aspect of successful mitigation is if wetland functions have been improved. The Eastern and Western Washington State Rating Systems is a standard tool for assessing wetland function. By comparing rating scores for impact wetlands to those for mitigation sites, overall function and improvement can be reported.
4. **Document site completion.** A discussion of the site close out issue is presented on the previous page, under "Development of a Site Completion Process." When fully implemented by the regulatory agencies and WSDOT, it will be an important measure of mitigation site success and regulatory compliance.

Environmental Programs: Annual Update

Wetland Mitigation Acreage Compliance

No net loss of wetland acreage and function is the foundation of WSDOT's approach to protecting wetlands as the agency improves the state's transportation system. Evaluating the success of mitigation activities is challenging, with a variety of elements to examine. Success standards, vegetative characteristics, habitat value, wildlife function, and wetland acreage are some of the factors to consider. A mitigation site can be deficient in some ways, such as higher than intended levels of non-native plant species, but still functioning at an acceptable environmental level in terms of overall wetland function. Acreage is an important aspect, but in accordance with Army Corps of Engineers guidance, and national and state "no net loss" policies, acreage is considered on a program scale, not on a site-by-site basis.

In order to ensure that WSDOT is fully replacing impacted wetlands, agency staff delineates wetland mitigation sites twice during the monitoring period. Mid-term delineations are typically completed in the third year of monitoring. This provides an early mechanism to identify significant acreage shortfalls. Final delineations are done at the end of the required monitoring period to determine if the required acreage has been achieved.

Site-by-Site Success is Mixed...

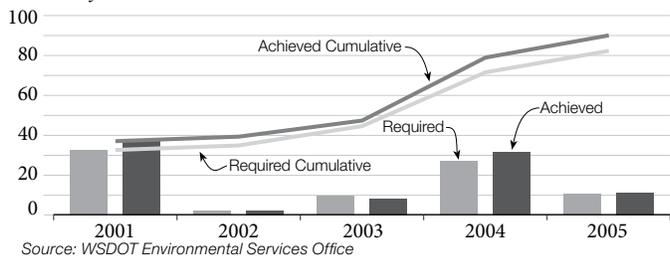
Most replacement wetlands do not develop the exact amount of wetland acreage intended. In most cases, the site is either slightly larger or smaller than designed. To date, final delineations have been done at 45 replacement wetlands. Seven of these sites (17.2 acres) are too wet or too dry to function at an acceptable level. WSDOT staff is planning alternative solutions for these sites. An interdisciplinary team has been formed to identify long-term program scale solutions to acreage shortfalls on mitigation sites.

...But Overall, WSDOT is Exceeding Program Goals

The graph below shows replacement wetland acreage data from the 38 ecologically successful WSDOT mitigation sites where final delineations have been completed. These sites provide 109% of the required mitigation acreage (97.6 actual/89.3 required).

Wetland Mitigation Acres Achieved

Number of Acres

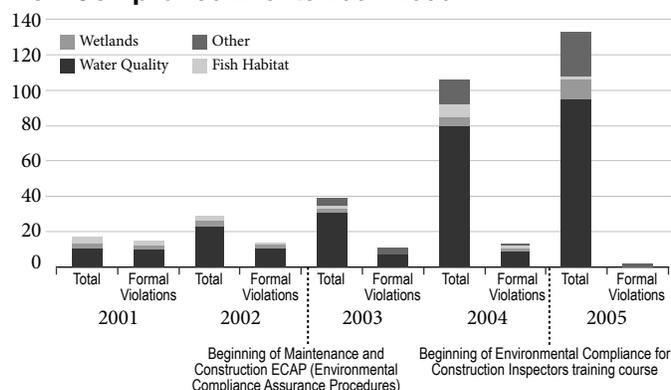


Environmental Programs: Annual Update

Environmental Compliance Assurance

WSDOT self-monitors for “non-compliance events” whether or not such events are considered formal violations by resource agencies. In 2005, WSDOT recorded 134 non-compliance events, with two leading to issuance by a regulatory agency of a formal Notice of Violation (NOV). This number was 29 more non-compliance events than the number recorded in 2004; however, the number of formal NOV’s dropped by 11. WSDOT believes this is an indicator that its program to search out and quickly fix non-compliance events continues to mature and is working (see the Environmental Management System discussion on page 57). The increase in reported non-compliance events may also stem from the implementation of formal environmental compliance training for construction inspectors.

Non-Compliance Events 2001-2005



Source: WSDOT Environmental Services Office.

In 2005, 96 of the 134 non-compliance events involved water quality regulations, as shown in the chart. Eleven involved wetlands, two involved wildlife habitat, and 25 were “other”. The “other” category mainly consisted of spills and hazardous material issues. Many of the non-compliance events were small and were fixed immediately upon discovery. Although WSDOT received only two penalties in 2005, it is possible

Last year in this article (The December 31, 2004 *Gray Notebook*, page 68) WSDOT reported 11,000 open contract days and 134,048 maintenance activities. Both numbers were in error. The contract days were closer to this year’s (6,600) and the Maintenance activities should have been about 274,000. The first error was a miscalculation; the second occurred because only two quarters of the year were reported for, instead of all four.

more formal violations could be issued by regulatory agencies in 2006 for events that occurred in 2005. To put these numbers in context: WSDOT had roughly 6,600 open contract days in the construction program, conducted 275,490 maintenance activities, and had 166,344 ferry sailings.

The chart shows two things. One, WSDOT is identifying more non-compliance events than before. Two, most of the non-compliance events are being fixed when they are relatively minor, *before* they rise to the level of formal violations.

How Does WSDOT Use This Information?

WSDOT uses this data to refine its compliance programs. For instance, WSDOT added the “Environmental Compliance for Construction Inspectors” training course in 2005 to raise awareness of environmental issues and how to respond if a problem occurs. In addition, the results of the annual erosion assessments are thoroughly distributed within the agency, focusing on program executives. Another instance is the Washington State Ferries (WSF) program to control hydraulic leaks at terminals (December 2003 *Gray Notebook*, pg. 46).

Integrated Vegetation Management Compliance

WSDOT also tracks compliance with the laws that apply to herbicide and pesticide application for roadside and wetland mitigation sites. The number of applications in 2005 was up 6% from 2004, but the total pounds of active ingredient applied went down by 14% from the year before. The Washington State Department of Agriculture (WSDA) conducted one investigation of WSDOT spraying in 2005, but no findings of faults have been issued yet. See the IVM article on page 42 for a full discussion of WSDOT’s vegetation management efforts.

Integrated Vegetation Management Non-Compliance Events (Spraying)

	2001	2002	2003	2004	2005
Number of WSDA investigations	8	6	4	1	1
Number of WSDA findings of faults	5	4	2	0	0 ¹
Number of product applications	2,271	3,399	4,091	4,179	4,333
Total pounds of active ingredient applied	67,156	120,105	124,426	87,111	74,768

Source: WSDOT Environmental Services Office

¹ One case is still open and it is not yet known if WSDA will issue a finding of fault.

Commute Options: Annual Update



What Are Commute Options?

Commute options include carpools, vanpools, buses, trains, ferries, bicycling, walking, compressed work hours, or working from home. They are part of a broad set of strategies known as Transportation Demand Management (TDM) for encouraging travelers to use the system more efficiently.

WSDOT works with local governments, public and private employers, transit agencies, and others to provide four programs for commuting. This edition of the Gray Notebook discusses the following programs:

- Vanpool Investment Program
- Commute Trip Reduction Program (CTR)
- Regional Mobility Grant Program

The fourth program, Trip Reduction Performance Program, was discussed in the Sept. 30, 2005 Gray Notebook, page 78.

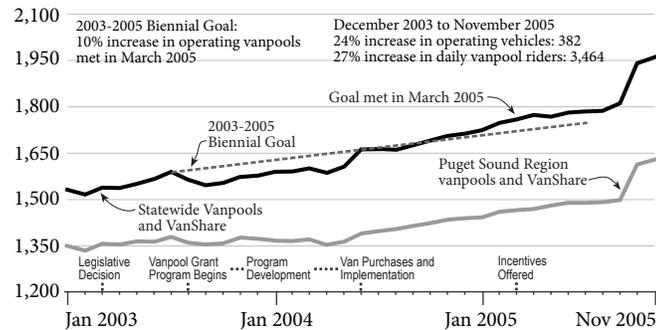
Vanpool Investment Program

Washington leads the nation in vanpooling. Transit agencies within the state operate one of the most successful vanpool programs in North America. Public vanpools in the state carried over six million passenger trips from October 2004 to September 2005.

Vanpool Results

2003-05 Biennium Goal	July 2003 - June 2005
10% Increase in Operating Vanpools	12% increase in operating vehicles (196 vans)
	15% Increase in daily vanpool riders (1,870 riders)

Public Vanpools Operating in Washington January 2003 to November 2005



Source: WSDOT Vanpool Database

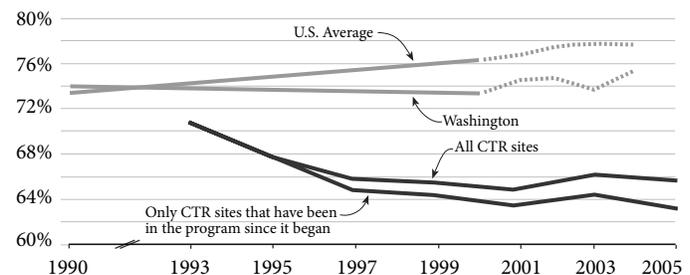
New investment by the 2003 Legislature led to continued growth and statewide expansion in the vanpool program. A 10-year transportation plan includes \$30 million to expand vanpooling statewide. The goal of the Vanpool Investment

Program is to double the number of vans in operation to 3,130 over the next decade. The chart to the left (bottom of page) shows the growth in statewide vanpools since the vanpool grant program began. Commute Trip Reduction Program Washington State's CTR program works with major employers in the state's nine most populous counties to encourage employees not to commute alone. The goals for the program

Drive Alone Comparison

CTR Worksites, Washington state, and the United States, 1990 to 2005

Percentage of Commute Trips Taken by Driving Alone



Source: US Census Bureau for Washington and U.S. averages, WSDOT CTR Survey Database for CTR sites; data for 2001 through 2004 (dotted lines) are from the American Community Survey.

are to reduce traffic delay, air pollution, and energy use. About 560,000 employees at more than 1,100 work sites in the state have access to CTR programs.

As shown in the chart above, the percentage of commuters who drive alone to CTR worksites declined from 66.3% in 2003 to 65.7% in 2005. Overall, the drive-alone rate for employees at all worksites in the program has decreased 7% since 1993, and the drive-alone rate has declined 14% at those worksites that entered the program when it began in 1993. CTR commuters made nearly 20,000 fewer vehicle trips each weekday morning in 2005 than when they entered the program. In Washington, during the decade from 1990 to 2000, the percentage of Washington commuters who drove alone to work decreased slightly from 73.9% to 73.3%. The CTR Task Force reports program results to the legislature for each biennium. For more information about the Task Force's recommendations, visit www.wsdot.wa.gov/tdm/taskforce/tfmaterials.cfm#program

Regional Mobility Grant Program

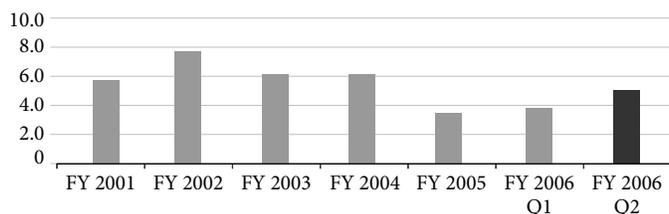
WSDOT's new Office of Transit Mobility, created by the 2005 legislature, is developing a Regional Mobility Grant Program to improve the capacity of the state's congested corridors. For more information about the Office of Transit Mobility, visit www.wsdot.wa.gov/transit/otm/default.cfm.

Washington State Ferries: Quarterly Update

Customer Feedback

The WSDOT Ferry System delivered approximately 41,000 trips, carried 5.5 million riders this quarter and received 350 complaints. The Ferry System reports complaints per 100,000 customers carried. This quarter experienced 6.3 complaints per 100,000 customers. This represents a 28% increase in complaints from the preceding quarter and an 84% increase from the same period last year. Fiscal Year (FY) 2006 Second Quarter covers the period October through December 2005.

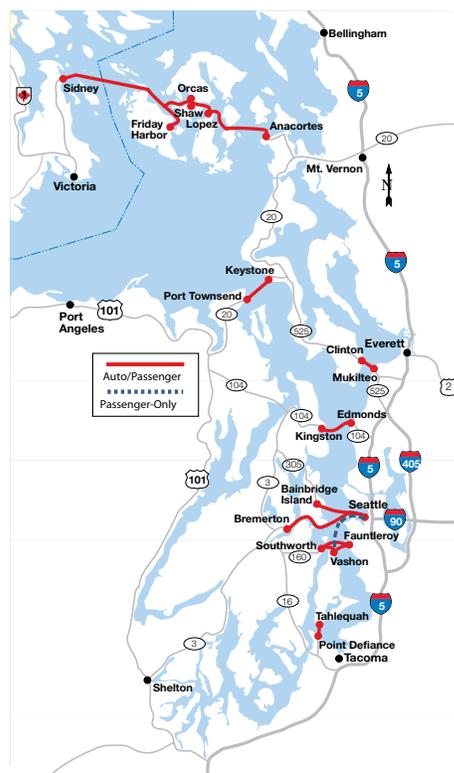
Total Number of Complaints per 100,000 Customers



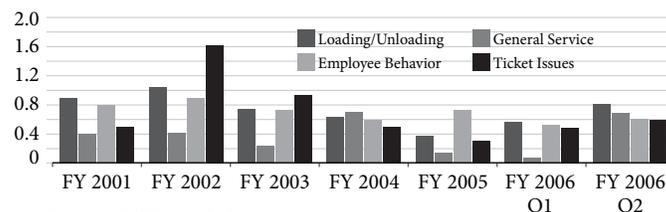
Source: WSDOT Ferry System

A total of 45 complaints about loading/unloading issues were received this quarter compared to 41 total complaints last quarter. This represents 0.8 complaints per 100,000 customers, or less than one complaint per 100,000 customers. Because this measure is tracked as the number of complaints per 100,000 customers, the increase of four complaints appears as a 42% increase due to slightly lower ridership levels this quarter. Similarly, the 45 complaints compared with the 25 complaints last year for this quarter calculates as 126%, again because of lower ridership levels this quarter compared to last year. Nearly one-third of all loading/unloading complaints occurred on the busy Fauntleroy–Vashon–Southworth route which accounts for approximately one-fourth of all trips in the system.

A total of 33 complaints about ticket issues, or 0.6 complaints per 100,000 customers were received this quarter. This represents a 22% increase from the preceding quarter and a 176% (an increase of 23 complaints) from the same period one year ago. Again because of lower ridership levels, the complaints per 100,000 customers shows the increase as dramatic. Although ticket issue complaints have steadily increased over the last four quarters, they are not attributable to one route in particular, and indicate no pattern.



Common Complaints Per 100,000 Customers



Source: WSDOT Ferry System

Washington State Ferries: Quarterly Update

Continued improvements in customer relations have shown positive results. Customer compliments were up 35% over the preceding quarter. This quarter's rating of 0.8 compliments is the highest rating in three years.

Trip Reliability

Scheduled trips numbered 40,910, and are the total number of sailings scheduled during the second quarter of fiscal year 2006 (Oct.-Dec. 2005). Of these scheduled trips, 248 were cancelled but 82 make-up trips were made. The resulting total number of completed trips was 40,744. Completed trips are the actual trips completed after deducting net cancelled trips (40,910 - 248 + 82 = 40,744). The chart at the right shows a system-wide average reliability index. Using this index, 1.6 ferry trips may be cancelled during the course of a year for a commuter making 400 trips to work 200 days per year. This suggests an average of four trips cancelled per thousand. Even though this represented a 107% decline in performance from the preceding quarter of 0.8, it was a 12% improvement from the preceding year's first quarter of 1.6. The outstanding performance in the preceding quarter was the best on record. The performance this quarter represents the best performance on record for the second quarter of the fiscal year. Timely and effective safety, maintenance and operating practices on vessels and terminals are contributing factors to this level of performance.

On-Time Performance

On-time performance trips amounted to 40,126, and are the total number of trips captured by the automated on-time monitoring system. The average delay this quarter was 35% lower (3.1 minutes) when compared to the preceding quarter (4.8 minutes), and was

On-Time Performance

Ferries	Second Quarter FY 2005 Oct - Dec 2004			Second Quarter FY 2006 Oct - Dec 2005		
	Number of Trips	Percent of Trips Within 10 Minutes of Schedule	All Trips Average Delay From Scheduled Sailing Time	Number of Trips	Percent of Trips Within 10 Minutes of Schedule	All Trips Average Delay From Scheduled Sailing Time
San Juan Domestic	6,909	85%	3.3 Minutes	6,645	89%	1.9 Minutes
International Route	166	87%	3.6 Minutes	155	89%	2 Minutes
Edmonds - Kingston	4,503	95%	3.2 Minutes	4,477	92%	3.7 Minutes
Pass-Only Seattle-Vashon	980	89%	1.8 Minutes	366	97%	2.4 Minutes
Fauntleroy-Vashon-Southworth	9,581	89%	3.1 Minutes	10,281	91%	3.7 Minutes
Keystone-Port Townsend	1,868	92%	3.4 Minutes	1,827	89%	4.1 Minutes
Mukilteo-Clinton	5,866	98%	2.1 Minutes	6,595	98%	2.1 Minutes
Pt. Defiance-Tahlequah	3,000	97%	2.6 Minutes	3,099	95%	3.1 Minutes
Seattle-Bainbridge Island	4,045	96%	3.0 Minutes	4,122	92%	4.2 Minutes
Seattle-Bremerton	2,506	98%	2.3 Minutes	2,559	97%	3.0 Minutes
Total	39,124	93%	2.9 Minutes	40,126	93%	3.1 Minutes

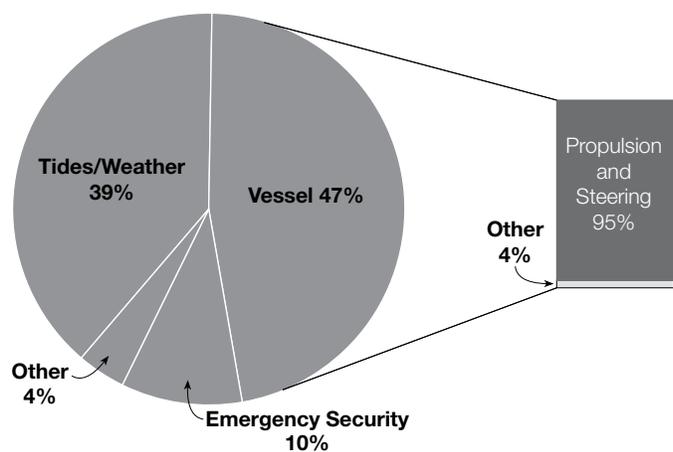
Average Missed Trip per Commuter

FY 2001	1.6
FY 2002	2.3
FY 2003	1.7
FY 2004	2.2
FY 2005	1.5
FY 2006 Qtr 2	1.6
FY 2006 Qtr 2 ¹	0.6

¹ Without Keystone-Pt. Townsend

A total of 66 trips were cancelled on the Port Townsend – Keystone route due to weather/tides. In fact, excluding the trips lost to tidal conditions at Keystone, WSF completed 99.84% of all trips and had a reliability index of 0.6. Per legislative direction, WSF continues to study alternative, in-harbor options at Keystone.

Most Common Trip Cancellations Second Quarter, Fiscal Year 2006



Washington State Ferries: Quarterly Update

also lower in terms of the percentage of trips sailing on time, i.e., within 10 minutes of the published sailing schedule (93% vs 86% in the 1st quarter of this fiscal year). The table below compares on-time performance across the system for the second quarters of fiscal year 2005 and 2006. Comparing this quarter with the previous year's, the average delay time was the same, or 3.1 minutes per departure. The number of trips sailing on-time (within 10 minutes of scheduled departure) was the same as recorded during the same period last year (93%).

Explanation of Key Terms

Systems Preserved - This measure focuses on performance of work planned and work delivered. The work measured is the number of terminal and vessel systems refurbished or replaced.

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

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

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

Category Two systems are all other terminal and vessel systems.

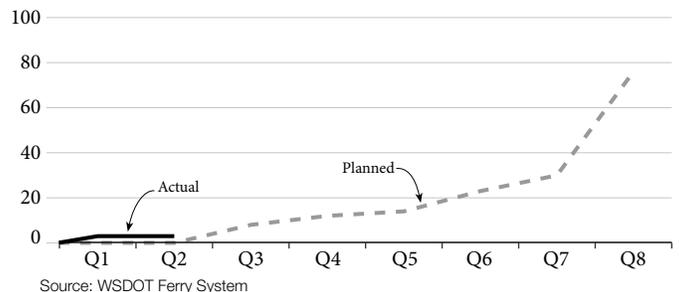
Ferries Life Cycle Preservation Performance

WSDOT Ferry System plans to replace or refurbish 76 Category One systems and 82 Category Two systems during the 2005-2007 Biennium. Through the second quarter of the biennium, three Category One systems and nine Category Two systems have been replaced or refurbished.

The work plan addresses the backlog of systems that are past due and on-going deterioration of remaining systems. It measures the impact of its investments by life cycle ratings. Based on the authorized level of investments approved by the 2005 Legislature, the life cycle rating for Category One terminal and vessel systems is projected to increase from 80% to 81% from the beginning of the biennium to the end of the biennium. The life cycle rating for Category Two systems is projected to increase from 51% to 52%.

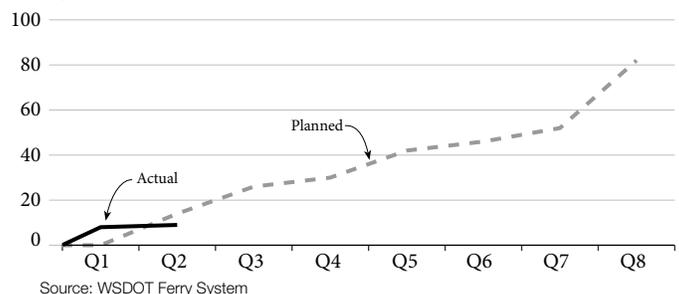
Category One Terminal and Vessel Preservation Performance

*Cumulative Planned Projects vs. Actual Systems/Structures Preserved Change in Life Cycle Cost Rating
2nd Quarter, 2005-2007 Biennium (October - December 2005)*



Category Two Terminal and Vessel Preservation Performance

*Cumulative Planned Projects vs. Actual Systems/Structures Preserved Change in Life Cycle Cost Rating
2nd Quarter, 2005-2007 Biennium, (October - December 2005)*



Washington State Ferries: Quarterly Update

Capital Expenditure Performance

WSDOT makes capital investments in the Ferry System through the WSF Construction Program. The program preserves existing terminals and builds new ferry terminals and vessels. This infrastructure gives WSF the physical capability to deliver responsible and reliable marine transportation services to customers.

Terminal Construction Biennium-to-date activities are under-spending the plan by \$4.0 million. Variances in excess of \$750,000 include the following: Anacortes (\$11.2 million under plan), Friday Harbor (\$3.6 million over plan), Eagle Harbor (\$2.3 million under plan), and Bainbridge (\$1.0 million over plan). The plan has been adjusted and the project list supporting the Governor's budget request reflects these changes.

Vessel Construction Biennium-to-date activities are under-spending the plan by \$4.9 million. Variances from the plan by vessel in excess of \$750,000 include the following: New Auto Ferry Construction (\$4.7 million under plan), Walla Walla (\$3.0 million over plan), Sealth (\$1.3 million under plan), and Klahowya (\$0.8 million under plan). The project list supporting the Governor's budget request reflects these changes and re-ages the new vessel construction to reflect project delays.

Emergency Repair activities are under-spending the biennium plan by \$0.6 million.

Ridership and Revenues

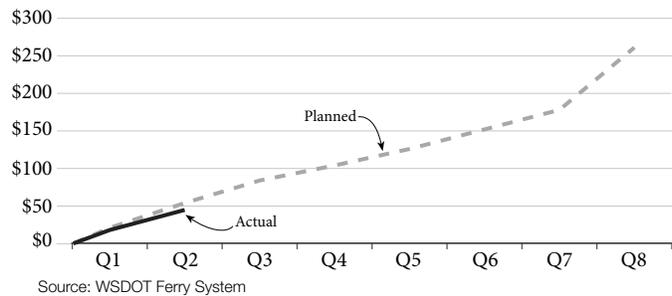
Ridership fiscal year to date was slightly lower (0.3% or 43,000 riders) as compared to the same period last year, and was also lower than the plan (0.4% or 45,000 riders). Passenger only ridership was 26% or 12,000 passengers lower as compared to the same period last year. As directed by the Legislature, WSF reduced service in September, and now offers passenger only service to Vashon Island during morning and afternoon commutes.

Fiscal year to date, system wide passenger ridership is off 0.8% while vehicular traffic is only off 0.2% as compared to the first half of fiscal year 2005.

During this quarter, the Seattle/Bremerton and Fauntleroy/Southworth routes experienced an increase in vehicle traffic, up 6.5% for Bremerton and 2.3% for Southworth. Two factors which could have influenced this trend are the higher price of the drive around option due to gasoline costs, and construction of the Tacoma Narrows bridge.

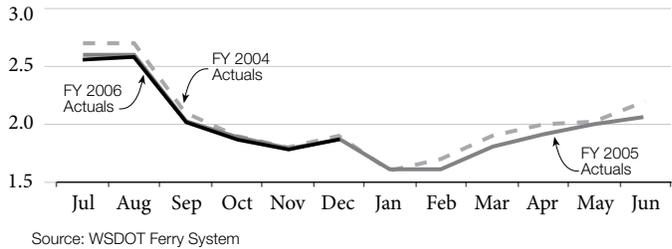
Construction Program Expenditures Washington State Ferry System

2nd Quarter, 2005-2007 Biennium (October - December 2005)
Cumulative Dollars in Millions
Authorized vs. Actual



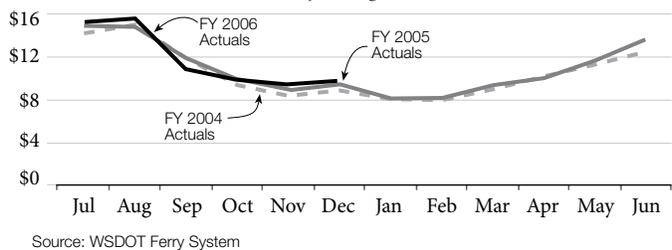
Ridership by Month

In Millions, Fiscal Year is July through June



Farebox Revenues by Month

Dollars in Millions, Fiscal Year is July through June



Rail: Quarterly Update

State-Supported Amtrak Cascades

Ridership Climbs in 2005

Ridership on state-supported Amtrak *Cascades* trains was 104,618 in the fourth quarter of 2005. This represents a 9.5% increase over the same period in 2004 and is the highest fourth quarter ridership total in program history. The morning Seattle-Portland trains (501 and 503) experienced a 13% ridership increase in the quarter, and the Seattle-Bellingham trains (513 and 516) experienced ridership increases of 17.1% and 23.1%, respectively, when compared to the fourth quarter of 2004. Ridership increases in the last three months of 2005 can be attributed to several factors, including high fuel prices for automobile travel, heavy use of the service during the holidays, and continued growth in the regional economy.

In 2005, Amtrak *Cascades* marked its 11th consecutive year of ridership increases. The four daily round trips, sponsored by the state of Washington, carried 420,920 riders. This is a 5.7% increase over 2004. Ridership on all Amtrak *Cascades* trains, including the two daily round trips funded by Amtrak and the state of Oregon, was 636,892. This corresponds to a 5.6% increase over the previous year. WSDOT and Amtrak anticipate that 2006 will also see an increase in total Amtrak *Cascades* ridership. This increase is expected to be driven by the introduction of a new daily round trip between Seattle and Portland in mid-2006.

Rail Plus Grows in Popularity

In October 2004, WSDOT, Amtrak, and Sound Transit launched a pilot program to provide weekday rail travelers with more rail departure options between Seattle, Edmonds, and Everett. The Rail Plus program allows cross ticketing between Amtrak *Cascades* and *Sounder* trains. This quarter, 1,312 Rail Plus commuters used Amtrak *Cascades*. This equates to a 186% increase over the same quarter in 2004.

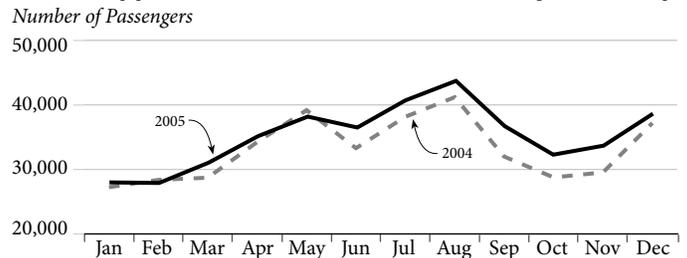
Part of this increase occurred on December 12, when 212 commuters who would have taken the northbound *Sounder* commuter train from Seattle transferred to Amtrak *Cascades* train 516 after equipment failure led to the cancellation of the commuter train.

In 2005, 3,241 Rail Plus passengers traveled on Amtrak *Cascades*. Of that total, 80% (2,979 passengers) traveled on train 516.



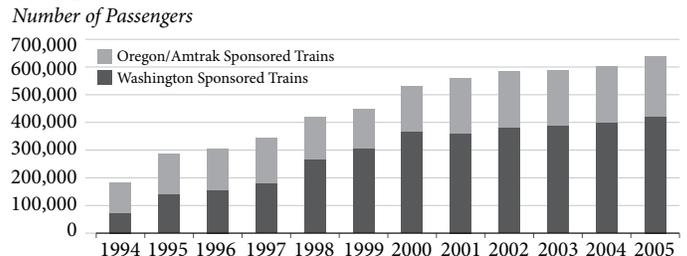
Two customers enjoy a snack from the Amtrak *Cascades* bistro car.

State Supported Amtrak *Cascades* Monthly Ridership



Source: Amtrak and WSDOT Rail Office.

Amtrak *Cascades* Annual Ridership 1994-2005



Source: Amtrak and WSDOT Rail Office.

Rail: Quarterly Update

On-Time Performance Below Expectations

The on-time performance of state-supported Amtrak *Cascades* trains continued to decline in the fourth quarter of 2005. On-time performance of these trains averaged 49.7% in the last three months of the year. This compares to a 71.4% on-time average during the same period in 2004 and is the poorest quarterly on-time performance average since WSDOT began reporting this data in the *Gray Notebook* in 2001. The primary cause of delays was freight train interference due to limited rail line capacity.

Amtrak *Cascades* passenger trains share the rail line with two freight carriers: BNSF Railway Company and Union Pacific Railroad. Both freight railroads experienced significant growth in 2005. Freight rail traffic increases, combined with limited rail line capacity, caused the majority of delays for Amtrak *Cascades* in 2005. For the year, on-time performance averaged 60.1%, which is eight points lower than 2004 and well below the goal of at least 80% on time.

WSDOT is in the process of constructing rail line capacity expansion projects near Olympia, Winlock, Everett, and Mount Vernon, intended to support better Amtrak *Cascades* on-time performance. However, these projects will not be completed until 2007. WSDOT and Amtrak continue to work with BNSF traffic managers in an effort to reverse the poor on-time performance trend.

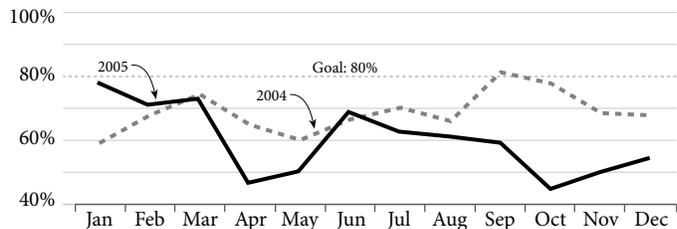
Farebox Recovery Declines Slightly in FFY 2005

Farebox recovery measures the percentage of total operating costs offset by operating revenues. Farebox recovery is an important measurement because it reveals how well the trains are performing financially, the level of public subsidy that is required to keep the trains in operation, and highlights areas where WSDOT and Amtrak should take action to improve ridership, revenues, and reduce costs when possible.

The farebox recovery for state-supported trains in FFY 2005 was 47.3% of total operating costs. This compares to 49% in FFY 2004. This slight decline occurred despite a nearly 3% increase in total revenues. Operating costs, which include fuel, labor, insurance, and equipment maintenance, rose by 6.7% in FFY 2005 when compared to the previous year. Almost two-thirds of this cost increase went toward maintenance on Amtrak *Cascades* locomotives. Costs also increased for diesel fuel, as well as for train and engine crews that had to work additional hours as a result of trains arriving at their destinations later than expected.

State Supported Amtrak *Cascades* On-Time Performance

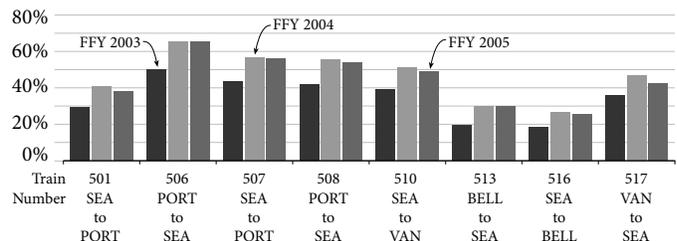
Number of Passengers



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.

State-Supported Amtrak *Cascades* Farebox Recovery FFY 2003-2005



The timeframe used to report farebox recovery is the federal fiscal year (FFY), which runs from October through September. WSDOT uses this timeframe so it corresponds with the same twelve-month period used in the annual Amtrak *Cascades* operating contract between WSDOT and Amtrak.

Source: Amtrak and WSDOT Rail Office

Trains with the best farebox performance in FFY 2005 were the mid-day Seattle-Portland trains 506 and 507, with a farebox recovery of 65.3% and 55.9%, respectively. Trains with the lowest farebox recovery continued to be the Seattle-Bellingham trains 513 and 516, recovering 29.6% and 25.4% of total operating costs.

WSDOT is working with Amtrak to identify ways to reduce maintenance costs on the locomotives. WSDOT also continues to work with Canadian officials to secure funding for rail line improvements in British Columbia that will allow for the extension of Amtrak *Cascades* trains 513 and 516 to Vancouver, BC. This service extension to Vancouver, BC and its 1.9 million residents is expected to result in increased ridership, revenues, and improved farebox recovery for these two trains.

Rail: Quarterly Update

Passenger Volumes Grow at Washington's Amtrak Stations in 2005

Amtrak trains serve 17 Washington communities each day. When Amtrak sells a ticket, the starting point and ending point of the ticket is recorded in a national database. At the

end of each year, Amtrak calculates the total volume of passengers starting and ending their trips at each station. The table below is a summary of these passenger volumes for each of the 17 Amtrak stations in Washington.

Amtrak and Station Activity in Washington - 2005

Station	Service	Passenger Trips Beginning	Passenger Trips Ending	% Change 2004-2005	% Change 1994-2005
Bellingham	Amtrak Cascades	28,481	27,606	1.9%	N/A ¹
Bingen/White Salmon	Empire Builder	918	1,020	32.7%	125.1%
Centralia	Amtrak Cascades Coast Starlight	9,538	9,551	-3.4%	8.4%
Edmonds	Amtrak Cascades Empire Builder	14,825	13,579	11.8%	298.8%
Ephrata	Empire Builder	1,325	1,660	7.6%	63.0%
Everett	Amtrak Cascades Empire Builder	20,735	18,797	5.9%	143.7%
Kelso/Longview	Amtrak Cascades Coast Starlight	10,323	10,633	1.9%	30.5%
Mount Vernon	Amtrak Cascades	9,707	11,465	23.2%	N/A ¹
Olympia/Lacey	Amtrak Cascades Coast Starlight	20,810	21,594	1.9%	72.3%
Pasco	Empire Builder	10,703	11,353	17.9%	63.8%
Seattle	Amtrak Cascades Empire Builder Coast Starlight	330,038	320,023	3.4%	91.4%
Spokane	Empire Builder	21,082	21,409	5.9%	16.2%
Tacoma	Amtrak Cascades Coast Starlight	51,956	50,299	-3.7%	30.4%
Tukwila	Amtrak Cascades	6,604	7,610	23.9%	N/A ²
Vancouver	Amtrak Cascades Coast Starlight	36,256	36,010	1.1%	73.7%
Wenatchee	Empire Builder	8,245	9,912	20.3%	96.7%
Wishram	Empire Builder	1,160	1,286	112.0%	279.8%
Totals:		582,706	573,807	3.80%	91.50%

¹ Service started May 1995

² Service started June 2001

Fifteen of the 17 Amtrak stations in Washington experienced an increase in passenger volumes in 2005. Only Tacoma (-3.7%) and Centralia (-3.4%) experienced slight declines in total passenger volumes. Overall, passenger volumes at Washington's Amtrak stations increased 3.8% in 2005.

In 1994, the state of Washington began providing funds to operate additional Amtrak trains between Seattle and Portland. Since that time passenger volumes have increased significantly, particularly at stations in Western Washington.

Rail: Quarterly Update

State-Supported Washington Grain Train

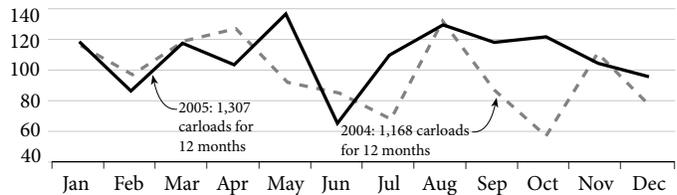
Demand for Grain Train Cars Remains High

WSDOT and the Port of Walla Walla own 89 grain cars to help Washington farmers move grain to market. Peak demand periods for rail grain cars are export-driven and seasonal. The state's grain cars are in high demand as their price is set at constant tariff rates, and during the 2005 harvest season private grain cars traded at up to \$700 above tariff rates on the secondary market.

Carloads for the fourth quarter increased 31.8% over the fourth quarter 2004. In 2005, 1,307 carloads were shipped compared to 1,168 in 2004 for an 11% increase. Demand for Grain Train cars should remain high for the foreseeable future.

Washington Grain Train Carloads

Carloads per month 2005 vs. 2004



Source: WSDOT Rail Office.

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

Special Feature

WSDOT Tests Portable Incident Screens to Reduce Traffic Slowdowns and Enhance Safety

WSDOT is rolling out a “Portable Incident Screen” pilot project in the Spokane Region. These are custom-built screens that are put up at traffic incident sites to shield the view of the accident scene from motorists driving by. The intent is to stop rubberneckers from slowing down traffic, and to prevent possible secondary accidents: Nothing to see but a screen? Then there’s nothing to gawk at.

The portable screens are the product of an innovative partnership between WSDOT and WSP that encourages “outside the box” thinking to find new ways to help keep traffic moving. The purpose of the pilot project is to determine if portable, low cost screens are effective in preventing motorists from slowing down as they pass by accident sites. WSDOT has built two sets of screens made of different screening material for testing purposes, but, due to weather conditions, has not had the chance to try them out yet. Reports from other states and countries using the “gawk screens” indicate issues with the screens blowing down, and weights are being used to reduce that possibility. Developing screens that will not blow over is a definite challenge in eastern Washington.

Other concerns include the screens distracting drivers who are not familiar with them, as well as the safety of emergency responders behind the scenes, since the screens will prevent them from seeing traffic. This second issue may be overcome by developing specific safety protocols and procedures for deployment of the screens. These are examples of the many questions the pilot project should help WSDOT answer so it can evaluate the effectiveness of the screens.

The screens are available to be used at an accident scene if determined to be needed by the responding Incident Response crew and the Washington State Patrol officer on site.



The top of a WSDOT Incident Response Truck peeks over one of the new Portable Incident Screens. Materials to build this unit cost about \$500. The units are about 30 feet in length.

Test Project

The Spokane Region is planning to set up a mock collision scene to test the units, most likely during an afternoon rush-hour period. The crew will record the scene and observe traffic activity from video cameras. They will also take traffic counts during the test. This test will provide training for the crew and some limited data to evaluate the effectiveness of the screen.

Other Countries and States

Many European countries currently use portable “gawk screens” to manage traffic during incidents. For example, see the picture below of a vehicle used in the Netherlands. In the United States, California and Massachusetts have portable screens programs. In Massachusetts, there have been a few dozen deployments to date, with good feedback from highway crews. California used their screens twice last year: once to shield a suicide prevention on a bridge, and another time to shield highway demonstrators who had chained themselves together. WSDOT is using the feedback from these programs to develop its pilot program in Spokane.



Portable screen on a trailer from the Netherlands. It can be up to 600 feet long and requires a 20-minute set-up by a trained crew.



California uses portable screens for Highway Patrol SWAT team use.

Highlights of Program Activities

Project Starts, Completions, or Updates

I-405 Kirkland

WSDOT opened a new northbound I-405 ramp from westbound NE 124th Street in Kirkland on September 30. Crews moved the ramp more than 150 feet east of the old ramp, allowing freeway-bound drivers to bypass a signal and get on the freeway faster. Work is part of the \$89 million Sound Transit – I-405 Totem Lake Freeway Station project that will build direct access ramps in the center of the freeway for transit, carpools, and vanpools.

SR 7 Parkland

In November, crews began a project to improve SR 7 (Pacific Avenue) between SR 507 (Roy Wye) to SR 512. The project adds curbs and gutters, sidewalks, retaining walls, and streetlights, in addition to consolidating business access-points. Work is scheduled for completion by October 2006.

U.S. 101 South Bend

Crews raised the U.S. 101 highway alignment near Potter Slough in Pacific County to prevent it from being flooded. The U.S. 101 reconstruction project broke ground on July 11 and is part of the \$5.9 million Willapa River estuary restoration that will convert 300 acres of pastureland back into a tidal estuary.

SR 18 Federal Way

WSDOT and Tri-State Construction opened a new truck lane up the steep hill at Peasley Canyon on October 12. The new lane runs from SR 167 to I-5. With this \$18 million project completed, drivers have three lanes in the westbound direction, and WSDOT engineers expect a drop in accidents. Of the 250 collisions that occurred here between 1999 and 2004, nearly 75% were caused by cars trying to get around slow-moving trucks.



WSDOT expects the new truck lane on SR 18 to reduce accidents on the steep hill at Peasley Canyon.

SR 20 Burlington

A one-year, \$4 million highway improvement and safety project north of Oak Harbor began in October. Utility crews began removing trees and relocating utilities for adding a passing lane, widening the existing lanes and shoulders, realigning intersections, and adding turn lanes. Crews will widen SR 20 between Monkey Hill Road and Troxell Road. This project is one of 10 projects WSDOT has lined up for SR 20 between Coupeville and Burlington.

I-5 Mount Vernon

Roughly 200 people celebrated on October 18 as WSDOT opened the new 2nd Street Bridge over I-5 in Mount Vernon. The old 2nd Street Bridge had the lowest clearance on I-5 between Canada and Mexico, at 14 feet 4 inches. The new, taller 2nd Street Bridge meets clearance standards and has three 12-foot wide vehicle lanes (two northbound and one southbound), bicycle lanes and sidewalks on both sides of the bridge.

U.S. 2 Newport

A new traffic signal at the U.S. 2 intersection with Nevada Street in Newport (Pend Oreille County) went into full operation on October 25.

SR 99 Seattle

WSDOT and its contractor Mowat Construction completed a \$2.1 million pedestrian safety project on the Aurora Bridge (SR 99). Crews installed pedestrian railing on top of a new traffic barrier across the 2,955 foot-long bridge. This safety project is a part of WSDOT's statewide Bridge Rail Retrofit Project to address bridge railings that do not meet current safety standards.

SR 307, Poulsbo

A new traffic signal was turned on at the SR 307 (Bond Road) intersection with Gunderson/Stottlemeyer Road. The signal was installed more than a half-year ahead of the original schedule.

SR 20 Sedro-Woolley

WSDOT and its contractor Signal Electric finished widening, repaving, and installing the utilities needed for a new signal at SR 20 and Fruitdale Road in Sedro-Woolley. The new traffic light and turn lanes will improve safety and relieve congestion for the 9,300 cars that use the intersection daily. WSDOT awarded this \$607,000 construction contract to Signal Electric, of Kent, WA. The city of Sedro-Woolley contributed \$250,000 towards the new signal.

Highlights of Program Activities

I-90 Snoqualmie Pass

On November 6, 2005 a rock slide of 40-50 cubic yards dumped refrigerator-size boulders on the westbound lanes of I-90 at Snoqualmie Pass. WSDOT closed the pass in both directions from North Bend to Easton for public safety. Geotechnical investigation revealed several hundred cubic yards of unstable material on the rock face showing signs of stress and threatening to fall. After only 42 hours of closure, WSDOT and its contractor, Wilder Construction, partially reopened the pass through the slide area, just east of the snow shed along Keechelus Lake, restoring limited, two-way traffic on November 7.

As part of a \$750,000 emergency contract, Wilder Construction installed a 17,000-square-foot containment fence along westbound I-90. Crews also installed 46 stabilization bolts into the rock face, and 14 drainage holes to prevent the buildup of water. Centerline barrier sections (damaged either during the rockslide or during the establishment of the detour) were replaced and the highway was reopened to full traffic use on December 16. This was the second major rock fall that has occurred through Snoqualmie Pass since September 11, when rocks fell crushing a car and killing its three occupants.

SR 11 Bellingham

During a routine drive-through, a member of the WSDOT maintenance crew in Bellingham noticed a large amount of small rocks lying along the side of Chuckanut Drive (SR 11). Only 50 feet up from the road the worker spotted a large rock slab about the size of a dump truck that appeared to have moved. A WSDOT geologist inspected the hillside and determined that the rock was highly likely to fall. Crews closed Chuckanut on Tuesday afternoon, November 15, 2005, and hired Wilder Construction under an emergency contract. Contractor crews removed the large boulder by breaking it away from the hillside and fastened surrounding boulders to the hillside with rock bolts to help further stabilize the steep slope.

U.S. 101 Lake Crescent

A December 10 rockslide closed the eastbound lane of U.S. 101 at Lake Crescent in Clallam County. The slide dumped rock onto both lanes of U.S. 101 approximately 16 miles west of the city of Port Angeles (within the boundary of Olympic National Park). WSDOT engineering geologists determined that additional unstable rock should be removed or reinforced with rock bolts and dowels near the eastbound lane. Quick work by WSDOT and its contractor, Pacific Blasting, led to

an earlier-than-anticipated reopening of U.S. 101 to two-way traffic on December 16, 2005 after original estimates called for the project to take as long as another week. WSDOT maintenance supervisor Bill Riley estimates that crews removed approximately 160 tons of rock.

I-90 George

Crews finished installing median cable barrier along four miles of I-90 in the George area, and along a 12-mile section from Moses Lake to the Adams County Line. The I-90 Median Cable Barrier project is the first of the 2005 Transportation Partnership Account projects to go forward. Work in Eastern Washington was completed in mid-December.

I-90 Spokane

WSDOT held a completion ceremony on November 14, 2005 for the I-90, Argonne Road to Sullivan Road freeway widening project. This work got underway in August 2003. The \$37 million project continues the widening of I-90 in the Spokane Valley. This five-mile project added one lane in each direction of I-90 and improved safety features. This concrete roadway will be more resilient to wear caused by studded tires and the high traffic volumes in this area. Noise walls were also added along the freeway in residential areas.

U.S. 12 Waitsburg

A “celebration of completion” was held on November 30 for the Coppei Creek Bridge Replacement project on U.S. 12. The newly completed bridge replicates many of the historic features that gave the old structure its charm, including a vintage look for the bridge railing and new light posts with the flavor of yesteryear. More details are available on the project web page at: www.wsdot.wa.gov/projects/US12/CoppeiCreekBridge/

SR 106 Skobob Creek

WSDOT and contractor Quigg Brothers, Inc., finished work on a 120-foot single-span bridge over Skobob Creek on SR 106. The project is funded by the 2003 Nickel tax package. The new bridge, located on the Skokomish Indian Reservation, replaced an existing 6-foot by 6-foot culvert that was considered a barrier to migrating salmon. The project restored the creek channel to a more natural state, which will benefit more than 500 acres of wetlands and help reduce area flooding. Skobob Creek flooded SR 106 six times since 1997, most recently in October 2003.

Highlights of Program Activities

I-5 Maytown

The project installed median cable barrier on I-5 from Prairie Creek to the Maytown Median Crossover in late November and was completed in December. The \$396,000 project will install a high-tension cable guardrail system on I-5 from the U.S. 12 interchange to a point just north of the SR 121 interchange.

SR 531 Smokey Point

The new six-lane Smokey Point (172nd Street) Bridge officially opened to traffic on December 9. WSDOT and its contractor Graham Construction were able to beat their own grueling schedule by almost two months. Traffic on SR 531 has increased on pace with the population boom in Snohomish County. The old two-lane overpass did not have the capacity to handle the high traffic volumes. Crews continue making interchange improvements throughout the winter months by installing sidewalks, landscaping, and placing permanent roadway striping. In addition, crews will return in 2009 to construct a new loop ramp to southbound I-5 with funds from the 2005 Transportation Funding Package.

I-5 Blaine

Crews began installing new cable guardrail to help prevent crossover and head-on accidents on I-5 in Blaine on December 12. Workers will install more than two miles of new cable guardrail in the median of I-5 between Dakota Creek and SR 548. This work is being done to help prevent head on collisions caused by drivers crossing the median and entering oncoming traffic. This project, paid for with gas tax money from the 2005 Legislative Transportation Funding Package, is part of a larger \$8.8 million project to install approximately 70 miles of cable guardrail in eight counties and on nine separate highways across Washington. For more details visit www.wsdot.wa.gov/projects/cablebarrier.

SR 530 Arlington

On December 20, crews activated a new traffic signal on SR 530 at Arlington Heights Road that improves traffic flow and allows drivers to make left turns more safely. The traffic signal is part of a \$2.6 million project that widens the intersection and adds left and right-turn lanes to help relieve heavy traffic congestion on Arlington Heights Road. More than 15,000 vehicles travel through this intersection every day. Next Spring, we'll return to finish resurfacing the pavement to provide drivers with a smooth and safe driving surface.

Ferries

Refurbished Walla Walla Back in Service

On October 31, 2005 following a major retrofit, the M/V Walla Walla went into service on the Edmonds-Kingston route, replacing the M/V Puyallup. Built in 1972, the Jumbo Class vessel needed significant preservation and maintenance work. The M/V Walla Walla went into the Everett Shipyard at the end of March. After just over six months in the shipyard, the M/V Walla Walla has it all - engine room and pilot house control upgrades, passenger and crew areas that are aesthetically pleasing and functional, and engine and propulsion motors that are ready to render another 40 years of service.

Ferries and Terminals go Smoke Free

On December 8, 2005 Washington State Ferries and terminals went smoke free. The policy is in compliance with a new law brought about by passage of Initiative 901. Smoking is banned within 25 feet of any terminal doorway, vent, window or walkway. Washington State Ferries is still grappling with customers smoking in vehicles in the holding areas.

Aviation

Anderson Field, Brewster

Paving of the airport runway and taxiway at Anderson Field in Brewster was completed in October. Federal Aviation Administration (FAA), WSDOT, and the City of Brewster provided funding for the work. As part of the project, Anderson Field's 4,000' x 60' runway was shifted 80' to the west to meet FAA safety area design standards. Anderson Field is on the FAA's National Plan of Integrated Airport Systems. The entire project cost totaled over \$1 million; however, WSDOT was able to leverage 95% of that amount from the FAA. WSDOT and the City of Brewster each contributed 2.5% towards the project.

Improved Motorist/Project Information

WSDOT Expands Traffic Camera System in Puget Sound

WSDOT traffic engineers turned on four new traffic cameras in the Puget Sound area. They include cameras in Everett on the southbound shoulder of I-5 at Lowell Road and at 41st Street SE. These new cameras fill in the information gap between U.S. 2 and SR 526 (the Boeing Freeway). New cameras in South King County are located on SR 18 in Federal Way at Weyerhaeuser Way and in Auburn at West Valley Highway. In addition to the two new cameras, WSDOT traffic engineers also activated three miles of congestion map information on SR 18 between I-5 and SR 167. With the addition of the new

Highlights of Program Activities

cameras, the public will have access to more than 130 freeway cameras between Olympia and the Canadian Border. Drivers can see all WSDOT online cameras and congestion map information at www.wsdot.wa.gov/traffic

Three New Cameras Added in North Central Washington

WSDOT expanded its motorist information systems for drivers in North Central Washington with three new cameras and Road Weather Information Station (RWIS) installations that provide views of U.S. 2 at Winton, between Tumwater Canyon and Lake Wenatchee; U.S. 97 at the junction with U.S. 97A, north of Chelan Falls; and I-90 at the Dodson Road interchange, between George and Moses Lake. The traffic cameras are available from the WSDOT statewide traffic and roads web page, www.wsdot.wa.gov/traffic.

WSDOT's Web Continues to Grow in Popularity

WSDOT's website reached a new "daily average" record during the month of November, with 4.4 million page views per day. Previous daily averages for November were 3.2 million page views in 2003, and 2.5 million page views in 2004. For the week of November 27 through December 3, three days saw over 6 million page views, with the highest being December 1 at 6.9 million page views. The single highest day on record stands at 12 million page views, set on January 6, 2004.

Events

Tribal/State Transportation Conference

The 2005 Tribal/State Transportation Conference was held October 17-19, 2005, in Shelton. The Tribes of Washington State and WSDOT sponsored this annual event. This year's conference titled, "Charting Our Journey," was attended by over 150 participants and provided an opportunity for the agencies to identify, discuss, and resolve mutual concerns.

Megler Rest Area Gets New Name

In observance of the Lewis and Clark Bicentennial Commemoration, the Washington State Transportation Commission approved on October 19 a resolution renaming the Megler

Safety Rest Area to Dismal Nitch Safety Rest Area. The facility is located on SR 401, near the Megler-Astoria Bridge in Pacific County.

Mountain Passes Closed for the Season

Heavy snow and high avalanche danger prompted WSDOT to close Chinook Pass for the winter season. The pass had been closed temporarily on October 25 when a slide occurred at a construction site to repair an earlier washout near the summit. In addition, seasonal closures of SR 20 North Cascades Highway and SR 123 Cayuse Pass occurred on November 3 and November 4, respectively.

SR 504 Coldwater Lake

Crews closed SR 504 (Spirit Lake Highway) for the winter season on December 2 at the Hummocks Trail east of Coldwater Lake on Mount St. Helens due to heavy snowfall. This portion of SR 504 closes every winter due to hazardous snow and ice conditions and the possibility of avalanches in some spots. The section of SR 504 west Hummocks Trail remains open and Coldwater Lake will be accessible as weather conditions permit.

Gray Notebook

Subject Index

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003
13 = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005
19 = Quarter 3, 2005, **20** = Quarter 4, 2005

All editions can be accessed at www.wsdot.wa.gov/accountability

Topic	Edition
Aviation	
Air Search and Rescue	6, 13, 17
Airport Aid Grant Program: Amount Awarded.....	6, 13, 17
Airport Pavement Conditions	17
Airports in Washington	6, 13, 17
Aviation System Planning.....	17
Fuel: Taxable Gallons	6
Registrations of Pilots, Mechanics and Aircraft	6, 10, 13, 17
Registration Revenue	10, 13, 17
Training of Pilots and Mechanics.....	6
Benchmarks (RCW 47.01.012)	
Administrative Efficiency	9, 14, 18
Bridge Condition Goal.....	14, 18
Non-Auto Share Commute Trips Goal.....	14, 18
Pavement Goal.....	14, 18
Transit Efficiency	9, 14, 18
Safety Goal.....	14, 18
Vehicle Miles Traveled (VMT) per Capita	9, 14, 18
Bridge Conditions on State Highways	
Age of WSDOT Bridges.....	4
Bridge Ratings (FHWA): Structurally Deficient and Functionally Obsolete.....	4
Bridge Condition Ratings: State Comparison	8
Bridge Replacements	19
Bridge Structural Condition Ratings	11, 15, 19
Deck Protection Program: Overview.....	4, 8, 11, 15
Deck Protection Projects: Planned vs. Actual Projects	4, 5, 8, 11, 15
Hood Canal Bridge Update.....	11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Inspection Program.....	4, 11, 15, 19
Inventory of WSDOT Bridges	4, 5, 8, 11, 15, 19
Movable Bridge Repair	19
Preservation Program Results.....	11, 15, 19
Rehabilitation and Replacement Project Schedule	4, 11, 15, 19
Repairs	19
Risk Reduction.....	19
Scour Mitigation	4, 11, 15, 19
Seismic Retrofit Program: 1990-2020 Status.....	4, 8
Seismic Retrofit Program: Planned vs. Actual Projects.....	4, 5, 8, 11, 15
Seismic Retrofit Program: Risk Reduction.....	19
Seismic Retrofit Program: Top 10 Priority Bridges.....	4, 8
Steel Bridge Painting: Planned vs. Actual Projects.....	4, 5, 8, 11, 15
Tacoma Narrows Bridge Update.....	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Commute Options	
Award for the Commute Trip Reduction Program.....	6, 11
City of Redmond Case Study.....	19
Commute Mode Share Trends	4, 6, 7, 13
Commuting Trends at CTR Work Sites and Work Sites in General.....	4, 19
CTR Task Force Report: Biennial Results	4, 13
Cost Effective Strategies.....	19
Drive Alone	6, 7, 20
Eastgate Park and Ride Expansion	9
Effectiveness of CTR Program (Biennial Results).....	4
Employer Participation, Investment, and Benefits.....	2
Gasoline Consumption Per Capita (Northwest Environment Watch).....	7
Grant Programs	20
Opportunities for Commuters.....	15
Park and Ride Lot Occupancy Rates: Central Puget Sound	4, 14
Park and Ride Lot Occupancy Rates: King County.....	3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
Park and Ride Lot Security.....	5
Park and Ride Lot Puget Sound System	8
Vanpool Investments	15
Vanpool Operation in the Puget Sound Region.....	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
Vanpooling Share of Daily Puget Sound Area VMT	2, 15

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003, **13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005 **19** = Quarter 3, 2005, **20** = Quarter 4, 2005

All editions can be accessed at www.wsdot.wa.gov/accountability

Topic

Edition

VanShare Trends.....8, 9, 11, 12, 15

Congestion on State Highways

Accidents on Interstate 405: 2001 and 2002.....9
 Benchmark Policy Goals for Congestion: Analysis.....5
 Case Studies: Before and After Results15, 19
 Comparisons of Conditions 2002-2003.....15
 Congestion Measurement Principles.....5, 6, 19
 Congestion Monitoring19
 Cost of Delay15
 Daily Vehicle Hours of Delay per Mile, Sample Commutes Measured
 by Delay, Time of Day Distribution of Delay, and Travel Rate Index2, 5
 Distribution of Traffic Between Freeways and Arterials: 1999 to 2003.....9
 Earlier Congestion Measurement Efforts:.....9
 Employment in the Puget Sound Region.....9
 Highway Improvements Have Reduced Congestion9
 HOV Lane Performance.....19
 Induction Loop Detectors5
 Intelligent Transportation Systems in Washington State5
 Lost Throughput Efficiency.....19
 Measuring Delay.....19
 More Work on Recurrent and Non-Recurrent.....15
 Peak Travel Times for 20 Routes15
 Peak Travel Times: Key Commute Routes19
 Recurrent and Non-Recurrent Congestion.....19
 Sources of Congestion.....15
 Traffic Speeds and Volumes on SR 520: 2000 and 20039
 Traffic Volumes at Seven Locations in March, 2000 to 2003 Average9
 Traffic Volumes on Nine Puget Sound Region Corridors.....5
 Travel Time Performance.....19
 Travel Time Reliability.....6, 9, 15
 Travel Time to Work Comparison: State and County Rankings.....5
 Travel Times on 11 Puget Sound Region Corridors5, 9
 Travel Times With and Without Incidents.....6
 Typical Freeway Traffic Volume Trend: 1993 to 2002.....9

Construction Program for State Highways

Advertisements Process13
 Advertisements by Subprogram: Planned, Actual & Deferred.....4, 5
 CIPP Value of Advertised & Deferred Projects by Subprogram4, 5
 Construction Program Cash Flow: Planned vs. Actual Expenditures4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
 Construction Program Delivery: Planned vs. Actual Advertisements.....1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
 Contracts Awarded: Award Amount to Engineer's Estimate.....6, 10, 14, 18
 Contracts Completed: Final Cost to Award Amount6, 10, 14, 18
 Contracts Completed: Final Cost to Engineer's Estimate6, 10, 14, 18
 End-of-Season Highway Construction Project Evaluations.....12, 16, 20
 FHWA Federal Performance Report Card12
 Hood Canal Bridge Update.....11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 Hot Mix Asphalt Pavement Delivery3, 5, 7, 9, 11, 13, 15, 17, 19
 Lane Miles Added to State Highway System.....2, 13
 Rising Cost of Construction Materials15, 19
 Safety Construction Program: Planned vs. Actual Advertisements3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19
 Tacoma Narrows Bridge Update.....8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

Design

Age Related Safety Issues.....10
 Cable Median Barrier Installation: Before and After Collision Data12, 20
 Driving Speeds on State Highways.....4
 Guardrail Retrofit Program.....11
 Roundabout Installation: Before and After Collision and Injury Data12
 Value Engineering6, 10

Environmental Stewardship

Agencies Approve Projects.....18
 Compost Use.....7
 Construction Site Erosion and Runoff Protection4, 6, 9, 12, 16
 Chronic Riverbank Erosion - Hoh River.....15
 Diesel, Particulate Matter, ₅17
 "Ecology Embankment" Pollutant Removal.....8
 Environmental Assessments18
 Environmental Compliance Assurance: Tracking9, 12, 16, 18, 20
 Environmental Impact Statement Processing Time9, 13
 Environmental Impact Statement Concurrence Request Approval Rate.....13

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003
13 = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16** = Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005
19 = Quarter 3, 2005, **20** = Quarter 4, 2005

All editions can be accessed at www.wsdot.wa.gov/accountability

Topic

Edition

Environmental Management Systems Update.....20
Erosion Control Preparedness.....20
Fish Passage Barriers.....4, 13, 17
GIS Workbench.....14
Hazardous Materials Removal.....15
Herbicide Usage Trends.....5, 8, 12, 16
Organic Recycling Award for WSDOT.....12
Programmatic Permits.....13, 17
Recycling Aluminum Signs.....7
Stormwater Treatment Facilities.....12, 16, 20
Violations.....9, 12, 16
Water Quality Impacts.....16, 20
Wetland Internship.....14
Wetland Mitigation and Monitoring.....5, 9, 12, 16, 20
Wetland.....14, 16
Wildlife Crossings.....18

Ferries (WSF)

Capital Expenditure Performance: Actual vs. Authorized.....19, 20
Capital Expenditure Performance: Planned vs. Actual.....4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
Customer Comments.....3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Electronic Fare System and Smart Card.....17
Fare Comparison: WSF to Other Auto Ferries.....4
Farebox Recovery Comparison: WSF to Other Auto Ferries and Transit.....5
Farebox Recovery Rate.....5, 12, 16
Farebox Revenues by Month.....3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20
Fleet Condition: Ferry Ages by Class of Vessels.....13
Life Cycle Preservation Performance: Planned vs. Actual.....12, 13, 14, 15, 16, 17, 18, 19, 20
On-Time Performance.....3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Operating Costs Comparison: WSF to Other Ferry Systems.....3
Ridership by Month.....3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Trip Planner.....17, 18
Trip Reliability Index and Trip Cancellation Causes.....3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

GPS at WSDOT

Tour the State Highway system- SR view Development of the "Smart Map".....13

Maintenance of State Highways

Achievement of Biennial Maintenance Targets (MAP).....3, 4, 8, 12, 16
Anti-Icer Evaluation.....17, 18
Anti-Litter Campaign Update.....5, 11
Automated Anti-Icing Systems.....7
Avalanche Control.....15
Capital Facilities Construction Projects.....18
Costs of State Highway Maintenance.....4, 16
Customer Satisfaction with WSDOT Highway Maintenance Activities.....3
Debris Pusher Maintenance Attachment.....6
Facilities.....19
Facilities Condition Rating.....18
Global Positioning for Snow and Ice Control.....13
Guidepost Driver.....11
Herbicide Usage Trends.....5, 8, 12, 16
Highway Sign Bridges: Planned vs. Actual Repairs.....3, 4, 6, 8
Highway Signs: Number of Maintenance Actions.....6, 8
Integrated Vegetation Management.....5, 12, 16, 20
Landscape.....19
Litter Removal from State Highways.....5, 6, 8, 11, 15
Living Snow Fence on SR 25.....9
Maintenance Accountability Process.....20
Mountain Pass Highway Closures.....7, 9, 17
Pavement Striping: How Do They Paint the Stripes So Straight?.....6
Pavement Striping: Planned vs. Actual Miles Painted.....3, 4, 6, 8
Pavement Striping: Winter Field Test.....18
Road Kill on State Highways.....5
Safety Rest Area Locations and Amenities.....9, 13, 17, 19
Safety Rest Areas Level of Service.....17
Safety Rest Areas Preservation.....17
Safety Rest Areas Survey.....9, 17
Safety Rest Areas Truck Parking and Security.....17
Safety Rest Areas Wireless Internet Access.....19
Salt Pilot Project.....7, 10, 17, 18
Snow and Ice Control Operations.....4, 7
Snow and Ice Expenditures.....17
Survey on Pass Travel Conditions and Anti-Icer Use.....2, 13, 17

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003 **13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005 **19** = Quarter 3, 2005, **20** = Quarter 4, 2005

All editions can be accessed at www.wsdot.wa.gov/accountability

Topic

Edition

Tools for Winter Driving.....17
 Traffic Signals: Annual Energy Costs and Incandescent Bulb Conversion.....3
 Trucks to Get Through the Winter17
 Vortex Generators5
 Water Conservation 19
 West Nile Virus 16
 Winter Overtime Hours and Snowfall Amount7, 9
 Winter Roadway Condition Level of Service and Anti-Icer Chemicals9, 13, 17
 Winter Severity and Snow and Ice Expenditures4, 9, 13, 17

Pavement Conditions on State Highways

Concrete Pavement16
 Concrete Pavement Lane Miles by Age and Dowel Bar Retrofit Status12
 "Due" Pavement Rehabilitation Needs4, 8
 Pavement Condition of Various Pavement Types2,
 Pavement Condition Trends4, 8, 12, 16, 20
 Pavement Lane Miles, Annual Vehicle Miles Traveled, and Programmed Dollars12, 16
 Pavement Ratings20
 Pavement Smoothness Rankings by State4, 8, 12, 16, 20
 Portland Cement Concrete Pavement16
 Selecting Pavement Types16

Program Activities Highlights

Project Starts, Completions, Updates20
 Highlights20

Project Reporting (Beige Pages)

Construction Cost20
 Construction Employment Information20
 Construction Safety Information20
 Current Project Highlights and Accomplishments10, 11, 12, 13, 14, 15, 16, 17, 18, 19
 Environmental Documentation, Review, Permitting and Compliance20
 Financial Information10, 11, 12, 13, 14, 15, 16, 17, 18, 19
 Transportation 2003 (Nickel) Account.....20
 Multimodal Account.....20
 Transportation Partnership Account.....20
 Pre-Existing Funds20
 Nickel Program: 2003 Transportation Funding Package20
 Overview of WSDOT's Three Capital Project Delivery Mandates20
 Partnership Program: 2005 Transportation Funding Package20
 Planned vs Actual Number of Projects.....20
 Pre-Existing Funds Project.....20
 Program Management Information10, 11, 12, 13, 14, 15, 16, 17, 18, 19
 Project Delivery11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 Right of Way Risks.....20
 Roll-Up of Performance Information20
 Special Project: Hood Canal Bridge20
 Special Project: Tacoma Narrows Bridge.....20
 Utilities.....20

Rail: Freight

2005 Results Flatline.....18
 Grain Train - Long Term.....18
 Grain Train Carloads5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 Grain Train Route Map.....5, 9
 Washington Fruit Express: Car Loadings Per Week5, 8

Rail: State-Supported Amtrak Cascades Service

Amtrak Funding Update17, 18
 Amtrak's Future5, 6, 7, 9, 10, 17, 18
 Budget Update.....10
 Capital Improvement Program and WSDOT Service Goals2
 Customer Satisfaction2, 3, 4, 7, 9, 12, 14, 16
 Farebox Recovery Percentage by Train.....4, 8, 12, 16, 20
 Internet Reservations and Automated Ticketing6
 Investment in Intercity Rail Comparison.....5
 New Crossovers and additional service.....18
 On-Time Performance2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 Operating Costs.....4
 Passenger Trips by Station.....6, 20
 Rail Plus Program15, 16, 19, 20
 Ridership by Month2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
 Ridership by Year20

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003, **13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005 **19** = Quarter 3, 2005, **20** = Quarter 4, 2005

All editions can be accessed at www.wsdot.wa.gov/accountability

Topic

Edition

Ridership by Year: Long-Term Trends.....2, 4, 8, 12, 16
 Ridership Patterns by Segment (Seats Sold)3
 Route Map: Amtrak in Washington.....6
 Schools on Trains.....18
 Station Update.....11, 13, 14, 15, 16, 17
 Vehicles Diverted Annually from I-5 by *Cascades*2

Safety on State Highways

Age-Related Safety Issues10
 Alcohol-Related Fatalities: State Comparison7
 Alcohol-Related Fatality Rate12
 Before and After Collision Data for Highway Safety Improvement Projects12, 16, 20
 Bicycle and Pedestrian Safety: Federal Benchmark9
 Bicyclist Fatality Rates: State Comparison9, 20
 Cable Median Barrier Installation: Before and After Collision Data12, 20
 Corridor Safety Program Results8, 19
 Demographics of Pedestrian Risk20
 Driving Speeds on State Highways.....4
 Fatal and Disabling Collisions: Circumstances and Type8
 Fatal and Disabling Collisions: at Intersections9
 Fatal and Disabling Crashes and VMT, Percent Change.....3, 7, 11, 16
 Fatalities and Fatality Rates in Washington13, 16
 Fatalities by Gender and Age Group10
 Fatalities per Capita by State13
 Fatality Rates: State Highways, All State Public Roads & U.S.....3, 7, 11, 16
 Guardrail Retrofit Program.....11
 High Accident Corridors and Locations by Region.....4
 High Accident Corridors and Locations Statewide3, 15, 20
 Intermediate Driver's License Program13
 Low Accident Locations and Corridors in Cities Over 22,500.....20
 Low Cost Safety Enhancement Program: Planned vs. Actual Projects3, 4, 5
 Low Cost Safety Enhancement Program: Sample Projects.....4, 6
 Low Cost Enhancement Safety Program: Before and After Analysis20
 Pedestrian Factors in Vehicle/Pedestrian Collisions.....8
 Pedestrian Fatality Rates by State8, 16, 20
 Pedestrian Safety in Washington16
 Photo Enforcement16
 Roundabout Installation: Before and After Collision and Injury Data12, 18
 Rumble Strips.....14, 18
 Safe Routes to Schools Grant Program Status9, 12
 Safety Construction Program: Planned vs. Actual Project Advertisements3, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17
 Washington State Safety Data13
 Safety Laws: Booster Seats and Mandatory Seat Belts.....5
 Seatbelt Use: State Comparison7, 11
 Safety Enhancements20
 Safety Rest Area Level of Service Trends.....13, 17
 Safety Rest Area Locations and Amenities.....9, 13, 17
 Safety Rest Area Preservation: Capital Investment Program 2003-0513, 17
 Safety Rest Area Program13, 17
 Safety Rest Area Survey9, 17
 Safety Rest Area Truck Parking and Security17
 Safety Rest Area Usage.....13, 17
 Top Ten High Accident Corridor: 2007-09 Biennium20
 Top Ten High Accident Locations: 2007-09 Biennium20
 Wildlife crossings18

Special Features

Eruption Watch.....15
 Guardrail Sign Mount15
 Overweight and Oversize Permit16
 Performance Audits and Reviews.....16
 Photo Enforcement16
 Portable Incident Screens20
 "Smart Map" Development13
 Tour the State Highway System with WSDOT's SRview13
 Traffic Signal Operations17
 Using Plain English at WSDOT.....17
 Water Conservation Activities.....17
 West Nile Virus.....15

Traffic Operations on State Highways

Blocking Disabled Vehicles and Debris - Trends.....15
 FHWA Self-Assessment9
 History of Incidence Response16

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003, **13** = Quarter 1, 2004 **14** = Quarter 2, 2004 **15** = Quarter 3, 2004 **16**= Quarter 4, 2004 **17** = Quarter 1, 2005 **18** = Quarter 2, 2005 **19** = Quarter 3, 2005, **20** = Quarter 4, 2005

All editions can be accessed at www.wsdot.wa.gov/accountability

Topic

Edition

Incidents On I-5- Everett to Seatac15
 Incident Response: A Day in the Life Of.....19
 Incident Response: Anatomy of a 90-minute incident.....18
 Incident Response Calls Responded to by Region.....2
 Incident Response Clearance Times.....2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19
 Incident Response Customer Comments.....8
 Incident Response Economic Analysis.....10
 Incident Response Non-Collision Response Types8, 9, 10, 11, 12, 13, 14, 19
 Incident Response Program Activities on Urban Commute Routes.....15
 Incident Response Program: Construction Zone Traffic Management19
 Incident Response Program: Types of Responses9, 10, 11, 12, 13, 14, 17, 18, 19
 Incident Response: Roving Units Compared to Response by Called-Out Units13, 14, 18
 Incident Response Service Actions Taken.....7, 10, 11, 12, 13, 14, 18
 Incident Response Teams Go to the Olympics.....5
 Incident Response Teams: Location and Type.....7
 Incident Response Then and Now16
 Incident Response Timeline.....6
 Incident Response Times2, 3, 4, 5
 Incident Response: Total Number of Responses by Month.....7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18
 Incident Response: Total Number of Responses by Quarter19
 Incidents with Clearance Times Over 90 Minutes.....6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20
 Induction Loop Detectors5
 Intelligent Transportation Systems in Washington State5
 Joint Operations Policy Statement between WSDOT and Washington State Patrol.....5, 17
 Number of Responses to Incidents18, 20
 Operational Efficiency Program Strategies2
 Overall Average Clearance Time.....20
 Response Modes16
 Responses to Fatality Collisions20
 Roving Coverage.....16, 18
 Service Actions Taken for Non-Collision.....20
 Service Patrols Contacts3, 4
 Spokane Interstate 90 Peak Hour Roving Service Patrol Pilot5
 Traffic Incident Management Self Assessment17
 Training Incident Responders16

Travel Information

Award for Traveler Information Web Site11
 Calls to 1-800-695-ROAD and 5117, 8, 9, 10, 11, 12, 13, 14, 18, 19, 20
 Camera Views7, 8
 Evaluation Survey10
 Traveler Information Services Overview.....7
 Types of Information Requested to 511.....18, 20
 Website Feedback8, 9
 Website Daily Usage7, 8, 9, 10, 11, 12, 13, 14, 18, 19, 20

Truck Freight

Automatic De-icers Help Keep Truckers Safe.....16
 CVISN - Commercial Vehicle Information Systems and Networks.....15
 Cross Border Truck Volumes.....6, 10, 16
 Freight Industry Survey16
 Freight Routes and Border Crossings in Washington.....6, 10, 16
 Freight Shipments To, From, and Within Washington10
 Impediments to Truck Shipping: Bridges with Posted Weight Restrictions.....6
 Improvement Projects with Freight Benefits10
 Intelligent Transportation Systems Use for Trucks.....6, 10
 Managing Over-Sized Truck Loads.....6
 Marine Cargo Forecast.....16
 Osoyoos/Oroville Border Facts10
 Overdimensional Trucking Permits.....6, 16
 Projects with Freight Benefits16
 Revenue Prorated to Washington for Trucks in Interstate Use6, 10, 16
 Road Segment Ranking16
 Severe Weather Closures16
 Truck Registrations in Washington.....6
 Truck Share of Total Daily Vehicle Volumes.....6

Worker Safety

Ferry Vessel Workers Recordable Injuries.....2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 Highway Engineer Workers Recordable Injuries2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 Highway Maintenance Workers Recordable Injuries1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 North American Association of Transportation Safety and Health Officials Meeting3
 Accident Prevention Activities14, 15, 16, 17, 18, 19, 20

Edition Key: **1** = Quarter 1 2001, **2** = Quarter 2 2001, **3** = Quarter 3 2001, **4** = Quarter 4 2001, **5** = Quarter 1 2002, **6** = Quarter 2 2002, **7** = Quarter 3 2002, **8** = Quarter 4 2002, **9** = Quarter 1 2003, **10** = Quarter 2, 2003, **11** = Quarter 3, 2003, **12** = Quarter 4, 2003, **13** = Quarter 1, 2004, **14** = Quarter 2, 2004, **15** = Quarter 3, 2004, **16** = Quarter 4, 2004, **17** = Quarter 1, 2005, **18** = Quarter 2, 2005, **19** = Quarter 3, 2005, **20** = Quarter 4, 2005

All editions can be accessed at www.wsdot.wa.gov/accountability

Topic

Edition

Workforce Levels and Training

Highway Maintenance Workers Safety Training.....	5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20
Required Training for all WSDOT Employees.....	7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
Required Training for Maintenance Workers by Region	20
Workforce Levels	5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

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 (including Puget Sound area traffic, mountain pass reports, highway closures, ferry schedules, and more). Call the WSDOT statewide toll-free number: 1-800-695-ROAD. In the Seattle area: (206) DOT-HIWAY [368-4499].

For additional information about highway traffic flow and cameras, ferry routes and schedules, Amtrak Cascades rail, and other transportation operations, as well as WSDOT programs and projects, visit www.wsdot.wa.gov

For this or a previous edition of the Gray Notebook, visit www.wsdot.wa.gov/accountability